INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

To:	Interested Parties
Date:	April 16, 2014
From:	Matthew Stuckey, Chief Permits Branch Office of Air Quality
Source Name:	Munster Steel Company, Inc.
Permit Level:	New Source Construction and Federally Enforceable State Operating Permit (FESOP)
Permit Number:	089-33970-00579
Source Location:	1501 Huehn Street, Hammond, Indiana
Type of Action Taken:	Initital Permit

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 matter referenced above.

The final decision is available on the IDEM website at: http://www.in.gov/apps/idem/caats/
To view the document, select Search option 3, then enter permit 33970.

If you would like to request a paper copy of the permit document, please contact IDEM's central file room:

Indiana Government Center North, Room 1201
100 North Senate Avenue, MC 50-07
Indianapolis, IN 46204
Phone: 1-800-451-6027 (ext. 4-0965)
Fax (317) 232-8659

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.

(continues on next page)

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.

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New Source Construction and Federally Enforceable State Operating Permit OFFICE OF AIR QUALITY

Munster Steel Company, Inc.
1501 Huehn Street
Hammond, Indiana 46327

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

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.: F089-33970-00579	
Issued by: Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: April 16, 2014 Expiration Date: April 16, 2019

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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:	1501 Huehn Street, Hammond, Indiana 46327
General Source Phone Number:	(219) 924-5198
SIC Code:	3441 (Fabricated Structural Metal)
County Location:	Lake
Source Location Status:	Nonattainment for 8-hour ozone 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, approved in 2014 for construction, with a maximum capacity of 2.0 gallon of coating per unit, 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 (with one unit equaling 1,000 square feet of structural steel). The paint booth exhausts through vent SCV1.

(b) One (1) welding/flame-cutting operation, approved in 2014 for construction, consisting of two (2) submerged arc welding stations with a maximum capacity of 18 inches of wire per minute, per station; one (1) submerged arc welding station with a maximum capacity of 25.2 inches of wire per minute; six (6) 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, one (1) propane flame cutting station with a maximum cutting rate of 12 inches per minute, and one (1) oxygen-fired ABC Cutting machine.

This unit is considered an affected facility under National Emission Standards for Hazardous Air Pollutants (NESHAP) for Nine Metal Fabrication and Finishing Source Categories (40 CFR 63, Subpart XXXXXX (6X)).

(c) One (1) Pangborn blast machine, identified as Blast-01, approved in 2014 for construction, 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).

This unit is considered an affected facility under National Emission Standards for Hazardous Air Pollutants (NESHAP) for Nine Metal Fabrication and Finishing Source

Categories (40 CFR 63, Subpart XXXXXX (6X)).

(d) One (1) blasting operation, identified as Blast-02, approved in 2014 for construction, using 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, operated inside an enclosed room, no control, 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).

This unit is considered an affected facility under National Emission Standards for Hazardous Air Pollutants (NESHAP) for Nine Metal Fabrication and Finishing Source Categories (40 CFR 63, Subpart XXXXXX (6X)).

(e) One (1) plasma/oxy-fuel drill machine, identified as #3 OFD, approved in 2014 for construction, 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 6.032 MMBtu/hr.

(1) One (1) natural gas-fired furnace, identified as Furn-1, approved in 2014 for construction, with a maximum heat input capacity of 0.105 MMBtu/hr, utilizing no control, and exhausting inside the building [326 IAC 6.8-1-2];

(2) One (1) natural gas-fired furnace, identified as Furn-2, approved in 2014 for construction, with a maximum heat input capacity of 0.105 MMBtu/hr, utilizing no control, and exhausting inside the building [326 IAC 6.8-1-2];

(3) One (1) natural gas-fired furnace, identified as Furn-3, approved in 2014 for construction, with a maximum heat input capacity of 0.105 MMBtu/hr, utilizing no control, and exhausting inside the building [326 IAC 6.8-1-2];

(4) One (1) natural gas-fired furnace, identified as Furn-4, approved in 2014 for construction, with a maximum heat input capacity of 0.105 MMBtu/hr, utilizing no control, and exhausting inside the building [326 IAC 6.8-1-2];

(5) One (1) natural gas-fired furnace, identified as RTF-1, approved in 2014 for construction, with a maximum heat input capacity of 0.075 MMBtu/hr, utilizing no control, and exhausting inside the building [326 IAC 6.8-1-2];

(6) One (1) natural gas-fired make-up air heating unit, identified as MAU-1, approved in 2014 for construction, with a maximum heat input capacity of 2.368 MMBtu/hr, utilizing no control, and exhausting inside the building [326 IAC 6.8-1-2];

(7) One (1) natural gas-fired make-up air heating unit, identified as MAU-2, approved in 2014 for construction, with a maximum heat input capacity of 2.368 MMBtu/hr, utilizing no control, and exhausting inside the building [326 IAC 6.8-1-2];

(8) One (1) natural gas-fired make-up air heating unit, identified as MAU-1, approved in 2014 for construction, with a maximum heat input capacity of 0.801 MMBtu/hr, utilizing no control, and exhausting inside the building [326 IAC 6.8-1-2];

(b) Two (2) manual parts washers, approved in 2014 for construction, with a maximum capacity of 15 gallons, each, using non-hazardous air pollutant (HAP) containing compounds, and using no control devices [326 IAC 8-3-2];

(c) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to three one-hundredths (0.03) grains per actual cubic foot and a gas flow rate less than or equal to four thousand (4,000) actual cubic feet per minute, including the following: deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and woodworking operations.

(d) Machining where an aqueous cutting coolant continuously floods the machining interface.

(e) Paved and unpaved roads and parking lots with public access.

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

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.3 Affidavit of Construction [326 IAC 2-5.1-3(h)] [326 IAC 2-5.1-4][326 IAC 2-8]

This document shall also become the approval to operate pursuant to 326 IAC 2-5.1-4 and 326 IAC 2-8 when prior to the start of operation, the following requirements are met:

(a) The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), verifying that the emission units were constructed as proposed in the application or the permit. The emission units covered in this permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM if constructed as proposed.

(b) If actual construction of the emission units differs from the construction proposed in the application, the source may not begin operation until the permit has been revised pursuant to 326 IAC 2 and an Operation Permit Validation Letter is issued.

(c) The Permittee shall attach the Operation Permit Validation Letter received from the Office of Air Quality (OAQ) to this permit.

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

(a) This permit, F089-33970-00579, 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.5 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.6 Enforceability [326 IAC 2-8-6] [IC 13-17-12]

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

B.7 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.8 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.9 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. 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.10 Certification [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]

(a) A certification required by this permit meets the requirements of 326 IAC 2-8-5(a)(1) if:

(1) it contains a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1), and

(2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) The Permittee may use the attached Certification Form, or its equivalent 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.11 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 and Enforcement 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 a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.12 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.13 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, 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 and Enforcement 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 a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

The Permittee shall implement the PMPs.

(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. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) 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.14 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 or 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 and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865
Northwest Regional Office phone: (219) 464-0233; fax: (219) 464-0553**.**

(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 and Enforcement 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 a certification that meets the requirements of 326 IAC 2-8-5(a)(1) 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.

B.15 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of permits established prior to F089-33970-00579 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.16 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.17 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 a certification that meets the requirements of 326 IAC 2-8-5(a)(1) 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.18 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(42). The renewal application does require a

certification that meets the requirements of 326 IAC 2-8-5(a)(1) 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
Permit Administration and Support Section, 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, pursuant to 326 IAC 2-8-3(g), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.19 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
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) 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.20 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) and (c) 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
Permit Administration and Support Section, 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)(1) and (c). 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)(1) and (c).

(b) Emission Trades [326 IAC 2-8-15(b)]
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(b).

(c) Alternative Operating Scenarios [326 IAC 2-8-15(c)]
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.21 Source Modification Requirement [326 IAC 2-8-11.1]

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

B.22 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.23 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
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) 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.24 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 no later than 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.25 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 volatile organic compounds (VOCs) from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period;

(2) The potential to emit any regulated pollutant from the entire source, except particulate matter (PM) and volatile organic compounds (VOCs), shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period;

(3) 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; and

(4) 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.

(b) Pursuant to 326 IAC 2-2 (PSD), 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.

(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 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 5-1-1 (Applicability) and 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 except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

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 Fugitive Particulate Matter Emissions [326 IAC 6.8-10-3]

Pursuant to 326 IAC 6.8-10-3 (formerly 326 IAC 6-1-11.1) (Lake County Fugitive Particulate Matter Control Requirements), the particulate matter emissions from source wide activities shall meet the following requirements:

(a) The average instantaneous opacity of fugitive particulate emissions from a paved road shall not exceed ten percent (10%).

(b) The average instantaneous opacity of fugitive particulate emissions from an unpaved road shall not exceed ten percent (10%).

(c) The opacity of fugitive particulate emissions from exposed areas shall not exceed ten percent (10%) on a six (6) minute average.

(d) The opacity of fugitive particulate emissions from continuous transfer of material onto and out of storage piles shall not exceed ten percent (10%) on a three (3) minute average.

(e) The opacity of fugitive particulate emissions from storage piles shall not exceed ten percent (10%) on a six (6) minute average.

(f) There shall be a zero (0) percent frequency of visible emission observations of a material during the inplant transportation of material by truck or rail at any time.

(g) The opacity of fugitive particulate emissions from the inplant transportation of material by front end loaders and skip hoists shall not exceed ten percent (10%).

(h) Material processing facilities shall include the following:

(1) There shall be a zero (0) percent frequency of visible emission observations from a building enclosing all or part of the material processing equipment, except from a vent in the building.

(2) The PM_{10} emissions from building vents shall not exceed twenty-two thousandths (0.022) grains per dry standard cubic foot and ten percent (10%) opacity.

(3) The PM_{10} stack emissions from a material processing facility shall not exceed twenty-two thousandths (0.022) grains per dry standard cubic foot and ten percent (10%) opacity.

(4) The opacity of fugitive particulate emissions from the material processing facilities, except a crusher at which a capture system is not used, shall not exceed ten percent (10%) opacity.

(5) The opacity of fugitive particulate emissions from a crusher at which a capture system is not used shall not exceed fifteen percent (15%).

(i) The opacity of particulate emissions from dust handling equipment shall not exceed ten percent (10%).

(j) Material transfer limits shall be as follows:

(1) The average instantaneous opacity of fugitive particulate emissions from batch transfer shall not exceed ten percent (10%).

(2) Where adequate wetting of the material for fugitive particulate emissions control is prohibitive to further processing or reuse of the material, the opacity shall not exceed ten percent (10%), three (3) minute average.

(3) Slag and kish handling activities at integrated iron and steel plants shall comply with the following particulate emissions limits:

(A) The opacity of fugitive particulate emissions from transfer from pots and trucks into pits shall not exceed twenty percent (20%) on a six (6) minute average.

(B) The opacity of fugitive particulate emissions from transfer from pits into front end loaders and from transfer from front end loaders into trucks shall comply with the fugitive particulate emission limits in 326 IAC 6.8-10-3(9).

(k) Any facility or operation not specified in 326 IAC 6.8-10-3 shall meet a twenty percent (20%), three (3) minute average opacity standard.

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

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

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.8 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
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 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 that meets the requirements of 326 IAC 2-8-5(a)(1) 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 Licensed 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 Licensed 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.9 Performance Testing [326 IAC 3-6]

(a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, 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 a certification that meets the requirements of 326 IAC 2-8-5(a)(1) 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 a certification that meets the requirements of 326 IAC 2-8-5(a)(1) 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.10 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

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

C.11 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]

(a) For new units:
Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units shall be implemented on and after the date of initial start-up.

(b) For existing units:
Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance to begin such monitoring. If, due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance, 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 and Enforcement 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 a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

C.12 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. The analog instrument shall be capable of measuring values outside of the normal range.

(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.13 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.14 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

(a) The Permittee shall take reasonable response steps to 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 excess emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned or are returning 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 normal or usual manner of operation.

(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 record the reasonable response steps taken.

C.15 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 submit a description of its response actions to IDEM, OAQ no later than seventy-five (75) days after the date of the test.

(b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) 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 a certification that meets the requirements of 326 IAC 2-8-5(a)(1) 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.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. Support information includes the following, where applicable:

(AA) All calibration and maintenance records.
(BB) All original strip chart recordings for continuous monitoring instrumentation.
(CC) Copies of all reports required by the FESOP.

Records of required monitoring information include the following, where applicable:

(AA) The date, place, as defined in this permit, and time of sampling or measurements.
(BB) The dates analyses were performed.
(CC) The company or entity that performed the analyses.
(DD) The analytical techniques or methods used.
(EE) The results of such analyses.
(FF) The operating conditions as existing at the time of sampling or measurement.

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, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

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. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit

requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that 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. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

(b) The address for report submittal is:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, 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) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, 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 applicable standards for recycling and emissions reduction.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) One (1) paint booth, coating structural steel, identified as SCR-01, approved in 2014 for construction, with a maximum capacity of 2.0 gallon of coating per unit, 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 (with one unit equaling 1,000 square feet of structural steel). 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 Hazardous Air Pollutants (HAPs) Limitation [326 IAC 2-8] [326 IAC 2-4.1]

Pursuant to 326 IAC 2-8 (FESOP), the input of individual HAP to paint booth SCR-01 and its associated clean-up activities shall not exceed 9.90 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with this limit, combined with the potential to emit HAPs from all other emission units at this source, shall limit the source-wide total potential to emit of any single HAP to less than ten (10) tons per 12 consecutive month period, and shall limit the source-wide total potential to emit of combination of HAPs to less than twenty-five (25) tons per 12 consecutive month period, and shall render 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP) not applicable.

D.1.2 VOC Limit [326 IAC 2-8] [326 IAC 2-6]

Pursuant to 326 IAC 2-8 (FESOP) and in order to render the requirements of 326 IAC 2-6 (Emission Reporting) not applicable, the total VOC input to paint booth SCR-01 and the associated clean-up activities shall not exceed 24.5 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with this limit in combination with the unlimited PTE of the other emissions units at the source limits the source wide emissions to less than 25 tons per year of VOC.

D.1.3 PM10 and PM2.5 FESOP and PSD Limits [326 IAC 2-2][326 IAC 2-8]

Pursuant to 326 IAC 2-8 (FESOP) and to render 326 IAC 2-2 not applicable, the Permittee shall comply with the following:

(a) The PM10 emissions from the paint booth, identified as SCR-01, shall not exceed 2.28 lbs/hr.

(b) The PM2.5 emissions from the paint booth, identified as SCR-01, shall not exceed 2.28 lbs/hr.

Compliance with these limits, in conjunction with PM10 and PM2.5 limits for other units and the potential to emit of the remaining emission units, limits the PM10 and PM2.5 emissions from the entire source to less than 100 tons per year

D.1.4 Particulate Matter [326 IAC 6.8-1-2]

Pursuant to 326 IAC 6.8-1-2 (Particulate Matter Limitations for Lake County), particulate matter (PM) emissions from the paint booth (SCR-01) shall not exceed 0.03 grain per dry standard cubic foot (dscf).

D.1.5 Volatile Organic Compounds [326 IAC 8-2-9]

(a) 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 and of the cleanup solvents shall be less than 3.5 pounds of VOCs per gallon of coating less water.

(b) Pursuant to 326 IAC 8-2-9(d)(2), one (1) or a combination of the following equipment shall be used for coating application:

(1) Electrostatic equipment.

(2) High volume low-pressure (HVLP) spray equipment.

(3) Flow coating.

(4) Roller coating.

(5) Dip coating, including electrodeposition.

(6) Airless spray.

(7) Air-assisted airless spray.

(8) Other coating application method capable of achieving a transfer efficiency equivalent or better than achieved by HVLP spraying.

(c) Pursuant to 326 IAC 8-2-9(f), work practices shall be used to minimize VOC emissions from mixing operations, storage tanks, and other containers, and handling operations for coatings, thinners, cleaning materials, and waste materials. Work practices shall include, but not be limited to, the following:

(1) Store all VOC containing coatings, thinners, coating related waste, and cleaning materials in closed containers.

(2) Ensure that mixing and storage containers used for VOC containing coatings, thinners, coating related waste, and cleaning materials are kept closed at all times except when depositing or removing these materials.

(3) Minimize spills of VOC containing coatings, thinners, coating related waste, and cleaning materials.

(4) Convey VOC containing coatings, thinners, coating related waste, and cleaning materials from one (1) location to another in closed containers or pipes.

(5) Minimize VOC emissions from the cleaning of application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers.

Compliance Determination Requirements

D.1.6 Particulate Control

In order to comply with Conditions D.1.3 and D.1.4, the dry filters for PM, PM10 and PM2.5 control shall be in operation and control emissions from the paint booth at all times that the paint booth is in operation.

D.1.7 HAP and Volatile Organic Compounds (VOC) [326 IAC 8-1-4] [326 IAC 8-1-2(a)]

(a) Compliance with the HAP limitation contained in Condition D.1.1 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” HAP 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.

(b) Compliance with the VOC content limitation contained in Conditions D.1.2 and D.1.5 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.

(c) When noncompliant coatings for any of the subdivisions of 326 IAC 8-2-9(d) are used for any particular day for paint booth SCR-01, compliance with that particular VOC content limit in condition D.1.6 shall be determined pursuant to 326 IAC 8-1-2(a)(7), using a volume weighted average of coatings on a daily basis. This volume weighted average for each of the subdivisions of 326 IAC 8-2-9(d) shall be determined by the following equation:

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

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).

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

D.1.8 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 paint booth vent (SCV1) while the paint booth is in operation. If a condition exists which should result in a response step, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response 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. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

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

D.1.9 Record Keeping Requirements

(a) To document the compliance status with Conditions D.1.1 and D.1.2, 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 and HAP usage limits established in Conditions D.1.1 and D.1.2. Records necessary to demonstrate compliance shall be available no later than 30 days of the end of each compliance period.

(1) The HAP and 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.

(3) The cleanup solvent usage for each month; and

(4) The total HAP and VOC usage for each month.

(b) When coating materials used in a metal surface coating operation are in compliance with the VOC content limits contained in Condition D.1.5(a), 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.1.5(a). Records necessary to demonstrate compliance shall be available no later than 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.

(c) When coating materials used in a metal surface coating operation are not in compliance with the VOC content limits contained in Condition D.1.5(a), 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.1.5(a). Records necessary to demonstrate compliance shall be available no later than 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.

(d) To document the compliance status with Condition D.1.8, the Permittee shall maintain a log of weekly overspray observations and daily and monthly inspections.

(e) Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

D.1.11 Reporting Requirements

A quarterly summary of the information to document the compliance status with Conditions D.1.1 and D.1.2 shall be submitted using the reporting forms located at the end of this permit, or their equivalent, no later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) 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, approved in 2014 for construction, consisting of two (2) submerged arc welding stations with a maximum capacity of 18 inches of wire per minute, per station; one (1) submerged arc welding station with a maximum capacity of 25.2 inches of wire per minute; six (6) 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, one (1) propane flame cutting station with a maximum cutting rate of 12 inches per minute, and one (1) oxygen-fired ABC Cutting machine.

This unit is considered an affected facility under National Emission Standards for Hazardous Air Pollutants (NESHAP) for Nine Metal Fabrication and Finishing Source Categories (40 CFR 63, Subpart XXXXXX (6X)).

(c) One (1) Pangborn blast machine, identified as Blast-01, approved in 2014 for construction, 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).

This unit is considered an affected facility under National Emission Standards for Hazardous Air Pollutants (NESHAP) for Nine Metal Fabrication and Finishing Source Categories (40 CFR 63, Subpart XXXXXX (6X)).

(d) One (1) blasting operation, identified as Blast-02, approved in 2014 for construction, using 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, operated inside an enclosed room, no control, 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).

This unit is considered an affected facility under National Emission Standards for Hazardous Air Pollutants (NESHAP) for Nine Metal Fabrication and Finishing Source Categories (40 CFR 63, Subpart XXXXXX (6X)).

(e) One (1) plasma/oxy-fuel drill machine, identified as #3 OFD, approved in 2014 for construction, 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 PM PSD Minor Limitation [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, the Permittee shall comply with the following:

(a) The PM emissions from the Pangborn Blast Machine, identified as Blast-01, shall not exceed 0.90 lbs/hr.

(b) The PM emissions from the Blasting Operation, identified as Blast-02, shall not exceed

12.09 lbs/hr.

(c) The PM emissions from the Plasma/oxy-fuel drill machine, identified as #3 OFD, shall not exceed 0.90 lbs/hr.

Compliance with these limits, in conjunction with PM limits for other units and the potential to emit of the remaining emission units, limits the PM emissions from the entire source to less than 250 tons per year.

D.2.2 PM10 and PM2.5 FESOP and PSD Minor Limitations [326 IAC 2-2] [326 IAC 2-8]

Pursuant to 326 IAC 2-8 (FESOP) and to render 326 IAC 2-2 not applicable, the Permittee shall comply with the following:

(a) The PM10 emissions shall not exceed the emission limits listed below:

(1) The PM10 emissions from the Pangborn blast machine, identified as Blast-01, shall not exceed 1.80 lbs/hr.

(2) The PM10 emissions from the Plasma/oxy-fuel drill machine, identified as #3 OFD, shall not exceed 1.80 lbs/hr.

(b) The PM2.5 emissions shall not exceed the emission limits listed below:

(1) The PM2.5 emissions from the Pangborn blast machine, identified as Blast-01, shall not exceed 1.80 lbs/hr.

(2) The PM2.5 emissions from the Plasma/oxy-fuel drill machine, identified as #3 OFD, shall not exceed 1.80 lbs/hr.

Compliance with the above limits and PM10 and PM2.5 limits for other units, combined with the unlimited PM10 and PM2.5 emissions from the other units at the source shall limit source wide PM10 and PM2.5 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.2.3 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 plasma/oxy-fuel drill machine (#3 OFD), Blasting Operation (Blast-02), and the Pangborn blast machine (Blast-01) shall not exceed to 0.03 grain per dry standard cubic foot of exhaust air.

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

A Preventive Maintenance Plan is required for the welding/flame-cutting operation, the plasma/oxy-fuel drill machine (#3 OFD), the Pangborn blast machine (Blast-01), and the Blasting Operation (Blast-02) and corresponding control devices. Section B – Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.2.5 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

Not later than 180 days after startup of the Pangborn blast machine, identified as Blast-01, in order to demonstrate compliance with Conditions D.2.1, D.2.2, and D.2.3, the Permittee shall perform PM, PM10, and PM2.5 testing of the Pangborn blast machine, identified as Blast-01, utilizing methods approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be

conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM10 and PM2.5 includes filterable and condensable particulate matter.

D.2.6 Particulate Control

(a) In order to comply with Conditions D.2.1, D.2.2, and D.2.3 the cyclone/cartridge filter system (#2BDC) shall be in operation and control emissions from the Pangborn blast machine (Blast-01) at all times that the Pangborn blast machine (Blast-01) is in operation.

(b) In order to comply with Conditions D.2.1, D.2.2, and D.2.3 the cyclone/cartridge filter system (#4 TD) for particulate control shall be in operation and control emissions from the plasma/oxy-fuel drill machine (#3 OFD) at all times that the plasma/oxy-fuel drill machine (#3 OFD) is in operation.

(c) 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.2.7 Parametric Monitoring

(a) The Permittee shall record the pressure drop across the cyclone/cartridge filter system (#2 BDC) at least once per day when the Pangborn blast machine (Blast-01) is in operation. When, for any one reading, the pressure drop across the baghouse is outside of the normal range, the Permittee shall take a reasonable response. The normal range for this unit is a pressure drop between 3.0 and 6.0 inches of water unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. Section C- Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

(b) The Permittee shall record the pressure drop across the cyclone/cartridge filter system (#4 TD) at least once per day when the plasma/oxy-fuel drill machine (#3 OFD) is in operation. When, for any one reading, the pressure drop across the baghouse is outside of the normal range, the Permittee shall take a reasonable response. The normal range for this unit is a pressure drop between 3.0 and 6.0 inches of water unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. Section C- Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

(c) The instruments used for determining the pressure shall comply with Section C – Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once every six (6) months.

D.2.8 Broken or Failed Bag Detection

(a) For a single compartment baghouse 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 2-8-4(3)]

D.2.9 Record Keeping Requirement

(a) To document the compliance status with Condition D.2.7(a), the Permittee shall maintain daily records of the pressure drop across the baghouse used in conjunction with the Pangborn blast machine (Blast-01) during normal operation when venting to the atmosphere. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g., the process did not operate that day).

(b) To document the compliance status with Condition D.2.7(b), the Permittee shall maintain daily records of the pressure drop across the baghouse used in conjunction with the plasma/oxy-fuel drill machine (#3 OFD) during normal operation when venting to the atmosphere. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g., the process did not operate that day).

(c) Section C - General Record Keeping Requirements of this permit contains the Permittee’s obligations with regard to the records required by this condition.

SECTION D.3 EMISSIONS UNIT 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 6.032 MMBtu/hr.

(1) One (1) natural gas-fired furnace, identified as Furn-1, approved in 2014 for construction, with a maximum heat input capacity of 0.105 MMBtu/hr, utilizing no control, and exhausting inside the building [326 IAC 6.8-1-2];

(2) One (1) natural gas-fired furnace, identified as Furn-2, approved in 2014 for construction, with a maximum heat input capacity of 0.105 MMBtu/hr, utilizing no control, and exhausting inside the building [326 IAC 6.8-1-2];

(3) One (1) natural gas-fired furnace, identified as Furn-3, approved in 2014 for construction, with a maximum heat input capacity of 0.105 MMBtu/hr, utilizing no control, and exhausting inside the building [326 IAC 6.8-1-2];

(4) One (1) natural gas-fired furnace, identified as Furn-4, approved in 2014 for construction, with a maximum heat input capacity of 0.105 MMBtu/hr, utilizing no control, and exhausting inside the building [326 IAC 6.8-1-2];

(5) One (1) natural gas-fired furnace, identified as RTF-1, approved in 2014 for construction, with a maximum heat input capacity of 0.075 MMBtu/hr, utilizing no control, and exhausting inside the building [326 IAC 6.8-1-2];

(6) One (1) natural gas-fired make-up air heating unit, identified as MAU-1, approved in 2014 for construction, with a maximum heat input capacity of 2.368 MMBtu/hr, utilizing no control, and exhausting inside the building [326 IAC 6.8-1-2];

(7) One (1) natural gas-fired make-up air heating unit, identified as MAU-2, approved in 2014 for construction, with a maximum heat input capacity of 2.368 MMBtu/hr, utilizing no control, and exhausting inside the building [326 IAC 6.8-1-2];

(8) One (1) natural gas-fired make-up air heating unit, identified as MAU-1, approved in 2014 for construction, with a maximum heat input capacity of 0.801 MMBtu/hr, utilizing no control, and exhausting inside the building [326 IAC 6.8-1-2];

(b) Two (2) manual parts washers, approved in 2014 for construction, with a maximum capacity of 15 gallons, each, using non-hazardous air pollutant (HAP) containing compounds, and using no control devices [326 IAC 8-3-2];

(c) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to three one-hundredths (0.03) grains per actual cubic foot and a gas flow rate less than or equal to four thousand (4,000) actual cubic feet per minute, including the following: deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and woodworking operations.

(d) Machining where an aqueous cutting coolant continuously floods the machining interface.

(e) Paved and unpaved roads and parking lots with public access.

(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 emissions from each of the natural gas-fired units shall not exceed twenty-seven hundredths (0.27) gram per million kcal (fifteen-hundredths (0.15) pound per million Btu).

D.3.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2,

(a) The owner or operator of a cold cleaner degreaser shall ensure the following control equipment and operating requirements are met:

(1) Equip the degreaser with a cover.

(2) Equip the degreaser with a device for draining cleaned parts.

(3) Close the degreaser cover whenever parts are not being handled in the degreaser.

(4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases.

(5) Provide a permanent, conspicuous label that lists the operating requirements in subdivisions (3), (4), (6), and (7).

(6) Store waste solvent only in closed containers.

(7) Prohibit the disposal or transfer of waste solvent in such a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.

(b) The owner or operator of a cold cleaner degreaser subject to this subsection shall ensure the following additional control equipment and operating requirements are met:

(1) Equip the degreaser with one (1) of the following control devices if the solvent is heated to a temperature of greater than forty-eight and nine-tenths (48.9) degrees Celsius (one hundred twenty (120) degrees Fahrenheit):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

(B) A water cover when solvent used is insoluble in, and heavier than, water.

(C) A refrigerated chiller.

(D) Carbon adsorption.

(E) An alternative system of demonstrated equivalent or better control as those outlined in clauses (A) through (D) that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.

(2) Ensure the degreaser cover is designed so that it can be easily operated with

one (1) hand if the solvent is agitated or heated.

(3) If used, solvent spray:

(A) must be a solid, fluid stream; and

(B) shall be applied at a pressure that does not cause excessive splashing.

SECTION E.1 EMISSION UNIT OPERATION CONDITIONS

Emissions Unit Description:

(b) One (1) welding/flame-cutting operation, approved in 2014 for construction, consisting of six (6) submerged arc welding stations with a maximum capacity of 18 inches of wire per minute, per station; 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, ten (10) stick welding stations with a maximum of 40 electrodes per hour, one (1) propane flame cutting station with a maximum cutting rate of 12 inches per minute, and one (1) oxygen-fired ABC Cutting machine.

This unit is considered an affected facility under National Emission Standards for Hazardous Air Pollutants (NESHAP) for Nine Metal Fabrication and Finishing Source Categories (40 CFR 63, Subpart XXXXXX (6X)).

(c) One (1) Pangborn blast machine, identified as Blast-01, approved in 2014 for construction, 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).

This unit is considered an affected facility under National Emission Standards for Hazardous Air Pollutants (NESHAP) for Nine Metal Fabrication and Finishing Source Categories (40 CFR 63, Subpart XXXXXX (6X)).

(d) One (1) blasting operation, identified as Blast-02, approved in 2014 for construction, using 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, operated inside an enclosed room, no control, 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).

This unit is considered an affected facility under National Emission Standards for Hazardous Air Pollutants (NESHAP) for Nine Metal Fabrication and Finishing Source Categories (40 CFR 63, Subpart XXXXXX (6X)).

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

National Emission Standards for Hazardous Air Pollutants

E.1.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants (NESHAPs) [326 IAC 20-1-1][40 CFR 63, Subpart XXXXXX]

(a) The Permittee shall comply with the provisions of 40 CFR 63, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1-1 for the emission units described in this section except when otherwise specified in 40 CFR 63, Subpart XXXXXX.

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

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

E.1.2 National Emission Standards for Hazardous Air Pollutants for Nine Metal Fabrication and Finishing Source Categories [40 CFR 63, Subpart XXXXXX]

The source, which is primarily engaged in operations of manufacturing fabricated metal products at an area source of HAP emissions shall comply with the following provisions of 40 CFR Part 63, Subpart XXXXXX (included as Attachment A of this permit), with a compliance date of July 25, 2011:

(1) 40 CFR 63.11514 (a)(4)
(2) 40 CFR 63.11514 (b)(1) and (5)
(3) 40 CFR 63.11514 (c) and (i)
(4) 40 CFR 63.11515 (a)
(5) 40 CFR 63.11516(a)(1) and (2)
(6) 40 CFR 63.11516(f)
(7) 40 CFR 63.11517
(8) 40 CFR 63.11519(a) and (b)
(9) 40 CFR 63.11521
(10) 40 CFR 63.11522
(11) 40 CFR 63.11523
(12) Table 1 to Subpart XXXXXX
(13) Table 2 to Subpart XXXXXX

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: Munster Steel Company, Inc.
Source Address: 1501 Huehn Street, Hammond, Indiana 46327
FESOP Permit No.: F089-33970-00579

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 AND ENFORCEMENT 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, Inc.
Source Address: 1501 Huehn Street, Hammond, Indiana 46327
FESOP Permit No.: F089-33970-00579

This form consists of 2 pages **Page 1 of 2**

☐ This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (**2**) 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: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

FESOP Quarterly Report

Source Name: Munster Steel Company, Inc.
Source Address: 1501 Huehn Street, Hammond, Indiana 46327
FESOP Permit No.: F089-33970-00579
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 not exceed 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: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

FESOP Quarterly Report

Source Name: Munster Steel Company, Inc.
Source Address: 1501 Huehn Street, Hammond, Indiana 46327
FESOP Permit No.: F089-33970-00579
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 not exceed 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: _____

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

Source Name: Munster Steel Company, Inc.
Source Address: 1501 Huehn Street, Hammond, Indiana 46327
FESOP Permit No.: F089-33970-00579

Months: _____ **to** _____ **Year:** _____

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C-General Reporting. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".
☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.
☐ 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: _____

Mail to: Permit Administration and Support Section
Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Munster Steel Company, Inc.
1501 Huehn Street
Hammond, Indiana 46327

Affidavit of Construction

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

1. I live in _____ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.

2. I hold the position of _____ for _____.
(Title) (Company Name)

3. By virtue of my position with _____, I have personal
(Company Name)
knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of _____.
(Company Name)

4. I hereby certify that Munster Steel Company, Inc. 1501 Huehn Street, Hammond, Indiana 46327, completed construction of the structural and miscellaneous steel fabricating plant on _____in conformity with the requirements and intent of the construction permit application received by the Office of Air Quality on December 11, 2013 and as permitted pursuant to New Source Construction Permit and Federally Enforceable State Operating Permit No. F089-33970-00579, Plant ID No. 089-00579 issued on _____.

5. **Permittee, please cross out the following statement if it does not apply:** Additional (operations/facilities) were constructed/substituted as described in the attachment to this document and were not made in accordance with the construction permit.

Further Affiant said not.

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

Signature_____
Date_____

STATE OF INDIANA)
)SS

COUNTY OF _____)

Subscribed and sworn to me, a notary public in and for _____ County and State of Indiana

on this _____ day of _____, 20 _____. My Commission expires: _____.

Signature_____
Name_____ (typed or printed)

Attachment A to
FESOP No. F089-33970-00579

Munster Steel Company
1501 Huehn Street
Hammond, Indiana 46327

40 CFR 63, Subpart XXXXXX (6X)

National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories

Subpart XXXXXX—National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories

Source: 73 FR 43000, July 23, 2008, unless otherwise noted.

Applicability and Compliance Dates

§ 63.11514 Am I subject to this subpart?

(a) You are subject to this subpart if you own or operate an area source that is primarily engaged in the operations in one of the nine source categories listed in paragraphs (a)(1) through (9) of this section. Descriptions of these source categories are shown in Table 1 of this subpart. “Primarily engaged” is defined in §63.11522, “What definitions apply to this subpart?”

(1) Electrical and Electronic Equipment Finishing Operations;

(2) Fabricated Metal Products;

(3) Fabricated Plate Work (Boiler Shops);

(4) Fabricated Structural Metal Manufacturing;

(5) Heating Equipment, except Electric;

(6) Industrial Machinery and Equipment Finishing Operations;

(7) Iron and Steel Forging;

(8) Primary Metal Products Manufacturing; and

(9) Valves and Pipe Fittings.

(b) The provisions of this subpart apply to each new and existing affected source listed and defined in paragraphs (b)(1) through (5) of this section if you use materials that contain or have the potential to emit metal fabrication or finishing metal HAP (MFHAP), defined to be the compounds of cadmium, chromium, lead, manganese, and nickel, or any of these metals in the elemental form with the exception of lead. Materials that contain MFHAP are defined to be materials that contain greater than 0.1 percent for carcinogens, as defined by OSHA at 29 CFR 1910.1200(d)(4), and greater than 1.0 percent for noncarcinogens. For the MFHAP, this corresponds to materials that contain cadmium, chromium, lead, or nickel in amounts greater than or equal to 0.1 percent by weight (of the metal), and materials that contain manganese in amounts greater than or equal to 1.0 percent by weight (of the metal), as shown in formulation data provided by the manufacturer or supplier, such as the Material Safety Data Sheet for the material.

(1) A dry abrasive blasting affected source is the collection of all equipment and activities necessary to perform dry abrasive blasting operations which use materials that contain MFHAP or that have the potential to emit MFHAP.

(2) A machining affected source is the collection of all equipment and activities necessary to perform machining operations which use materials that contain MFHAP, as defined in §63.11522, “What definitions apply to this subpart?”, or that have the potential to emit MFHAP.

(3) A dry grinding and dry polishing with machines affected source is the collection of all equipment and activities necessary to perform dry grinding and dry polishing with machines operations which use materials that contain MFHAP, as defined in §63.11522, “What definitions apply to this subpart?”, or have the potential to emit MFHAP.

(4) A spray painting affected source is the collection of all equipment and activities necessary to perform spray-applied painting operations using paints which contain MFHAP. A spray painting affected source includes all equipment used to apply cleaning materials to a substrate to prepare it for paint application (surface preparation) or to remove dried paint; to apply a paint to a substrate (paint application) and to dry or cure the paint after application; or to clean paint operation equipment (equipment cleaning). Affected source(s) subject to the requirements of this paragraph are not subject to the miscellaneous surface coating provisions of subpart HHHHHH of this part, “National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources.”

(5) A welding affected source is the collection of all equipment and activities necessary to perform welding operations which use materials that contain MFHAP, as defined in §63.11522, “What definitions apply to this subpart?”, or have the potential to emit MFHAP.

(c) An affected source is existing if you commenced construction or reconstruction of the affected source, as defined in §63.2, “General Provisions” to part 63, before April 3, 2008.

(d) An affected source is new if you commenced construction or reconstruction of the affected source, as defined in §63.2, “General Provisions” to part 63, on or after April 3, 2008.

(e) This subpart does not apply to research or laboratory facilities, as defined in section 112(c)(7) of the Clean Air Act (CAA).

(f) This subpart does not apply to tool or equipment repair operations, facility maintenance, or quality control activities as defined in §63.11522, “What definitions apply to this subpart?”

(g) This subpart does not apply to operations performed on site at installations owned or operated by the Armed Forces of the United States (including the Coast Guard and the National Guard of any such state), the National Aeronautics and Space Administration, or the National Nuclear Security Administration.

(h) This subpart does not apply to operations that produce military munitions, as defined in §63.11522, “What definitions apply to this subpart?”, manufactured by or for the Armed Forces of the United States (including the Coast Guard and the National Guard of any such state), or equipment directly and exclusively used for the purposes of transporting military munitions.

(i) You are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not otherwise required by law to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a). Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart.

§ 63.11515 What are my compliance dates?

(a) If you own or operate an existing affected source, you must achieve compliance with the applicable provisions in this subpart by July 25, 2011.

(b) If you own or operate a new affected source, you must achieve compliance with the applicable provisions in this subpart by July 23, 2008, or upon startup of your affected source, whichever is later.

Standards and Compliance Requirements

§ 63.11516 What are my standards and management practices?

(a) *Dry abrasive blasting standards.* If you own or operate a new or existing dry abrasive blasting affected source, you must comply with the requirements in paragraphs (a)(1) through (3) of this section, as applicable, for each dry abrasive blasting operation that uses materials that contain MFHAP, as defined in §63.11522, “What definitions apply to this subpart?”, or has the potential to emit MFHAP. These requirements do not apply when abrasive blasting operations are being performed that do not use any materials containing MFHAP or do not have the potential to emit MFHAP.

(1) *Standards for dry abrasive blasting of objects performed in totally enclosed and unvented blast chambers.* If you own or operate a new or existing dry abrasive blasting affected source which consists of an abrasive blasting chamber that is totally enclosed and unvented, as defined in §63.11522, “What definitions apply to this subpart?”, you must implement management practices to minimize emissions of MFHAP. These management practices are the practices specified in paragraph (a)(1)(i) and (ii) of this section.

(i) You must minimize dust generation during emptying of abrasive blasting enclosures; and

(ii) You must operate all equipment associated with dry abrasive blasting operations according to the manufacturer's instructions.

(2) *Standards for dry abrasive blasting of objects performed in vented enclosures.* If you own or operate a new or existing dry abrasive blasting affected source which consists of a dry abrasive blasting operation which has a vent allowing any air or blast material to escape, you must comply with the requirements in paragraphs (a)(2)(i) and (ii) of this section. Dry abrasive blasting operations for which the items to be blasted exceed 8 feet (2.4 meters) in any dimension, may be performed subject to the requirements in paragraph (a)(3) of this section.

(i) You must capture emissions and vent them to a filtration control device. You must operate the filtration control device according to manufacturer's instructions, and you must demonstrate compliance with this requirement by maintaining a record of the manufacturer's specifications for the filtration control devices, as specified by the requirements in §63.11519(c)(4), “What are my notification, recordkeeping, and reporting requirements?”

(ii) You must implement the management practices to minimize emissions of MFHAP as specified in paragraphs (a)(2)(ii)(A) through (C) of this section.

(A) You must take measures necessary to minimize excess dust in the surrounding area to reduce MFHAP emissions, as practicable; and

(B) You must enclose dusty abrasive material storage areas and holding bins, seal chutes and conveyors that transport abrasive materials; and

(C) You must operate all equipment associated with dry abrasive blasting operations according to manufacturer's instructions.

(3) *Standards for dry abrasive blasting of objects greater than 8 feet (2.4 meters) in any one dimension.* If you own or operate a new or existing dry abrasive blasting affected source which consists of a dry abrasive blasting operation which is performed on objects greater than 8 feet (2.4 meters) in any one dimension, you may implement management practices to minimize emissions of MFHAP as specified in paragraph (a)(3)(i) of this section instead of the practices required by paragraph (a)(2) of this section. You must demonstrate that management practices are being implemented by complying with the requirements in paragraphs (a)(3)(ii) through (iv) of this section.

(i) Management practices for dry abrasive blasting of objects greater than 8 feet (2.4 meters) in any one dimension are specified in paragraphs (a)(3)(i)(A) through (E) of this section.

(A) You must take measures necessary to minimize excess dust in the surrounding area to reduce MFHAP emissions, as practicable; and

(B) You must enclose abrasive material storage areas and holding bins, seal chutes and conveyors that transport abrasive material; and

(C) You must operate all equipment associated with dry abrasive blasting operations according to manufacturer's instructions; and

(D) You must not re-use dry abrasive blasting media unless contaminants (i.e., any material other than the base metal, such as paint residue) have been removed by filtration or screening, and the abrasive material conforms to its original size; and

(E) Whenever practicable, you must switch from high particulate matter (PM)-emitting blast media (e.g., sand) to low PM-emitting blast media (e.g., crushed glass, specular hematite, steel shot, aluminum oxide), where PM is a surrogate for MFHAP.

(ii) You must perform visual determinations of fugitive emissions, as specified in §63.11517(b), “What are my monitoring requirements?”, according to paragraphs (a)(3)(ii)(A) or (B) of this section, as applicable.

(A) For abrasive blasting of objects greater than 8 feet (2.4 meters) in any one dimension that is performed outdoors, you must perform visual determinations of fugitive emissions at the fenceline or property border nearest to the outdoor dry abrasive blasting operation.

(B) For abrasive blasting of objects greater than 8 feet (2.4 meters) in any one dimension that is performed indoors, you must perform visual determinations of fugitive emissions at the primary vent, stack, exit, or opening from the building containing the abrasive blasting operations.

(iii) You must keep a record of all visual determinations of fugitive emissions along with any corrective action taken in accordance with the requirements in §63.11519(c)(2), "What are my notification, recordkeeping, and reporting requirements?"

(iv) If visible fugitive emissions are detected, you must perform corrective actions until the visible fugitive emissions are eliminated, at which time you must comply with the requirements in paragraphs (a)(3)(iv)(A) and (B) of this section.

(A) You must perform a follow-up inspection for visible fugitive emissions in accordance with §63.11517(a), "Monitoring Requirements."

(B) You must report all instances where visible emissions are detected, along with any corrective action taken and the results of subsequent follow-up inspections for visible emissions, with your annual certification and compliance report as required by §63.11519(b)(5), "Notification, recordkeeping, and reporting requirements."

(b) *Standards for machining.* If you own or operate a new or existing machining affected source, you must implement management practices to minimize emissions of MFHAP as specified in paragraph (b)(1) and (2) of this section for each machining operation that uses materials that contain MFHAP, as defined in §63.11522, "What definitions apply to this subpart?", or has the potential to emit MFHAP. These requirements do not apply when machining operations are being performed that do not use any materials containing MFHAP and do not have the potential to emit MFHAP.

(1) You must take measures necessary to minimize excess dust in the surrounding area to reduce MFHAP emissions, as practicable; and

(2) You must operate all equipment associated with machining according to manufacturer's instructions.

(c) *Standards for dry grinding and dry polishing with machines.* If you own or operate a new or existing dry grinding and dry polishing with machines affected source, you must comply with the requirements of paragraphs (c)(1) and (2) of this section for each dry grinding and dry polishing with machines operation that uses materials that contain MFHAP, as defined in §63.11522, "What definitions apply to this subpart?", or has the potential to emit MFHAP. These requirements do not apply when dry grinding and dry polishing operations are being performed that do not use any materials containing MFHAP and do not have the potential to emit MFHAP.

(1) You must capture emissions and vent them to a filtration control device. You must demonstrate compliance with this requirement by maintaining a record of the manufacturer's specifications for the filtration control devices, as specified by the requirements in §63.11519(c)(4), "Notification, recordkeeping, and reporting Requirements."

(2) You must implement management practices to minimize emissions of MFHAP as specified in paragraphs (c)(2)(i) and (ii) of this section.

(i) You must take measures necessary to minimize excess dust in the surrounding area to reduce MFHAP emissions, as practicable;

(ii) You must operate all equipment associated with the operation of dry grinding and dry polishing with machines, including the filtration control device, according to manufacturer's instructions.

(d) *Standards for control of MFHAP in spray painting.* If you own or operate a new or existing spray painting affected source, as defined in §63.11514 (b)(4), “Am I subject to this subpart?,” you must implement the management practices in paragraphs (d)(1) through (9) of this section when a spray-applied paint that contains MFHAP is being applied. These requirements do not apply when spray-applied paints that do not contain MFHAP are being applied.

(1) *Standards for spray painting for MFHAP control.* All spray-applied painting of objects must meet the requirements of paragraphs (d)(1)(i) through (iii) of this section. These requirements do not apply to affected sources located at Fabricated Structural Metal Manufacturing facilities, as described in Table 1, “Description of Source Categories Affected by this Subpart,” or affected sources that spray paint objects greater than 15 feet (4.57 meters), that are not spray painted in spray booths or spray rooms.

(i) Spray booths or spray rooms must have a full roof, at least two complete walls, and one or two complete side curtains or other barrier material so that all four sides are covered. The spray booths or spray rooms must be ventilated so that air is drawn into the booth and leaves only though the filter. The roof may contain narrow slots for connecting fabricated products to overhead cranes, and/or for cords or cables.

(ii) All spray booths or spray rooms must be fitted with a type of filter technology that is demonstrated to achieve at least 98 percent capture of MFHAP. The procedure used to demonstrate filter efficiency must be consistent with the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) Method 52.1, “Gravimetric and Dust-Spot Procedures for Testing Air-Cleaning Devices Used in General Ventilation for Removing Particulate Matter, June 4, 1992” (incorporated by reference, see §63.14). The test coating for measuring filter efficiency shall be a high-solids bake enamel delivered at a rate of at least 135 grams per minute from a conventional (non-High Volume Low Pressure) air-atomized spray gun operating at 40 psi air pressure; the air flow rate across the filter shall be 150 feet per minute. Owners and operators may use published filter efficiency data provided by filter vendors to demonstrate compliance with this requirement and are not required to perform this measurement.

(iii) You must perform regular inspection and replacement of the filters in all spray booths or spray rooms according to manufacturer's instructions, and maintain documentation of these activities, as detailed in §63.11519(c)(5), “Notification, recordkeeping, and reporting requirements.”

(iv) As an alternative compliance requirement, spray booths or spray rooms equipped with a water curtain, called “waterwash” or “waterspray” booths or spray rooms that are operated and maintained according to the manufacturer's specifications and that achieve at least 98 percent control of MFHAP, may be used in lieu of the spray booths or spray rooms requirements of paragraphs (d)(1)(i) through (iii) of this section.

(2) *Standards for spray painting application equipment of all objects painted for MFHAP control.* All paints applied via spray-applied painting must be applied with a high-volume, low-pressure (HVLP) spray gun, electrostatic application, airless spray gun, air-assisted airless spray gun, or

an equivalent technology that is demonstrated to achieve transfer efficiency comparable to one of these spray gun technologies for a comparable operation, and for which written approval has been obtained from the Administrator. The procedure used to demonstrate that spray gun transfer efficiency is equivalent to that of an HVLP spray gun must be equivalent to the California South Coast Air Quality Management District's “Spray Equipment Transfer Efficiency Test Procedure for Equipment User, May 24, 1989” and “Guidelines for Demonstrating Equivalency with District Approved Transfer Efficient Spray Guns, September 26, 2002”, Revision 0 (incorporated by reference, see §63.14).

(3) *Spray system recordkeeping.* You must maintain documentation of the HVLP or other high transfer efficiency spray paint delivery methods, as detailed in §63.11519(c)(7), “Notification, recordkeeping, and reporting requirements.”

(4) *Spray gun cleaning.* All cleaning of paint spray guns must be done with either non-HAP gun cleaning solvents, or in such a manner that an atomized mist of spray of gun cleaning solvent and paint residue is not created outside of a container that collects the used gun cleaning solvent. Spray gun cleaning may be done with, for example, by hand cleaning of parts of the disassembled gun in a container of solvent, by flushing solvent through the gun without atomizing the solvent and paint residue, or by using a fully enclosed spray gun washer. A combination of these non-atomizing methods may also be used.

(5) *Spray painting worker certification.* All workers performing painting must be certified that they have completed training in the proper spray application of paints and the proper setup and maintenance of spray equipment. The minimum requirements for training and certification are described in paragraph (d)(6) of this section. The spray application of paint is prohibited by persons who are not certified as having completed the training described in paragraph (d)(6) of this section. The requirements of this paragraph do not apply to the students of an accredited painting training program who are under the direct supervision of an instructor who meets the requirements of this paragraph. The requirements of this paragraph do not apply to operators of robotic or automated painting operations.

(6) *Spray painting training program content.* Each owner or operator of an affected spray painting affected source must ensure and certify that all new and existing personnel, including contract personnel, who spray apply paints are trained in the proper application of paints as required by paragraph (d)(5) of this section. The training program must include, at a minimum, the items listed in paragraphs (d)(6)(i) through (iii) of this section.

(i) A list of all current personnel by name and job description who are required to be trained;

(ii) Hands-on, or in-house or external classroom instruction that addresses, at a minimum, initial and refresher training in the topics listed in paragraphs (d)(6)(ii)(A) through (D) of this section.

(A) Spray gun equipment selection, set up, and operation, including measuring paint viscosity, selecting the proper fluid tip or nozzle, and achieving the proper spray pattern, air pressure and volume, and fluid delivery rate.

(B) Spray technique for different types of paints to improve transfer efficiency and minimize paint usage and overspray, including maintaining the correct spray gun distance and angle to the part, using proper banding and overlap, and reducing lead and lag spraying at the beginning and end of each stroke.

(C) Routine spray booth and filter maintenance, including filter selection and installation.

(D) Environmental compliance with the requirements of this subpart.

(iii) A description of the methods to be used at the completion of initial or refresher training to demonstrate, document, and provide certification of successful completion of the required training. Alternatively, owners and operators who can show by documentation or certification that a painter's work experience and/or training has resulted in training equivalent to the training required in paragraph (d)(6)(ii) of this section are not required to provide the initial training required by that paragraph to these painters.

(7) *Records of spray painting training.* You must maintain records of employee training certification for use of HVLP or other high transfer efficiency spray paint delivery methods as detailed in §63.11519(c)(8), “Notification, recordkeeping, and reporting requirements.”

(8) *Spray painting training dates.* As required by paragraph (d)(5) of this section, all new and existing personnel at an affected spray painting affected source, including contract personnel, who spray apply paints must be trained by the dates specified in paragraphs (d)(8)(i) and (ii) of this section.

(i) If your source is a new source, all personnel must be trained and certified no later than January 20, 2009, 180 days after startup, or 180 days after hiring, whichever is later. Training that was completed within 5 years prior to the date training is required, and that meets the requirements specified in paragraph (d)(6)(ii) of this section satisfies this requirement and is valid for a period not to exceed 5 years after the date the training is completed.

(ii) If your source is an existing source, all personnel must be trained and certified no later than July 25, 2011, or 180 days after hiring, whichever is later. Worker training that was completed within 5 years prior to the date training is required, and that meets the requirements specified in paragraph (d)(6)(ii) of this section, satisfies this requirement and is valid for a period not to exceed 5 years after the date the training is completed.

(9) *Duration of training validity.* Training and certification will be valid for a period not to exceed 5 years after the date the training is completed. All personnel must receive refresher training that meets the requirements of this section and be re-certified every 5 years.

(e) [Reserved]

(f) *Standards for welding.* If you own or operate a new or existing welding affected source, you must comply with the requirements in paragraphs (f)(1) and (2) of this section for each welding operation that uses materials that contain MFHAP, as defined in §63.11522, “What definitions apply to this subpart?”, or has the potential to emit MFHAP. If your welding affected source uses 2,000 pounds or more per year of welding rod containing one or more MFHAP (calculated on a rolling 12-month basis), you must demonstrate that management practices or fume control measures are being implemented by complying with the requirements in paragraphs (f)(3) through (8) of this section. The requirements in paragraphs (f)(1) through (8) of this section do not apply when welding operations are being performed that do not use any materials containing MFHAP or do not have the potential to emit MFHAP.

(1) You must operate all equipment, capture, and control devices associated with welding operations according to manufacturer's instructions. You must demonstrate compliance with this requirement by maintaining a record of the manufacturer's specifications for the capture and control devices, as specified by the requirements in §63.11519(c)(4), “Notification, recordkeeping, and reporting requirements.”

(2) You must implement one or more of the management practices specified in paragraphs (f)(2)(i) through (v) of this section to minimize emissions of MFHAP, as practicable, while maintaining the required welding quality through the application of sound engineering judgment.

(i) Use welding processes with reduced fume generation capabilities (e.g., gas metal arc welding (GMAW)—also called metal inert gas welding (MIG));

(ii) Use welding process variations (e.g., pulsed current GMAW), which can reduce fume generation rates;

(iii) Use welding filler metals, shielding gases, carrier gases, or other process materials which are capable of reduced welding fume generation;

(iv) Optimize welding process variables (e.g., electrode diameter, voltage, amperage, welding angle, shield gas flow rate, travel speed) to reduce the amount of welding fume generated; and

(v) Use a welding fume capture and control system, operated according to the manufacturer's specifications.

(3) *Tier 1 compliance requirements for welding.* You must perform visual determinations of welding fugitive emissions as specified in §63.11517(b), “Monitoring requirements,” at the primary vent, stack, exit, or opening from the building containing the welding operations. You must keep a record of all visual determinations of fugitive emissions along with any corrective action taken in accordance with the requirements in §63.11519(c)(2), “Notification, recordkeeping, and reporting requirements.”

(4) *Requirements upon initial detection of visible emissions from welding.* If visible fugitive emissions are detected during any visual determination required in paragraph (f)(3) of this section, you must comply with the requirements in paragraphs (f)(4)(i) and (ii) of this section.

(i) Perform corrective actions that include, but are not limited to, inspection of welding fume sources, and evaluation of the proper operation and effectiveness of the management practices or fume control measures implemented in accordance with paragraph (f)(2) of this section. After completing such corrective actions, you must perform a follow-up inspection for visible fugitive emissions in accordance with §63.11517(a), “Monitoring Requirements,” at the primary vent, stack, exit, or opening from the building containing the welding operations.

(ii) Report all instances where visible emissions are detected, along with any corrective action taken and the results of subsequent follow-up inspections for visible emissions, and submit with your annual certification and compliance report as required by §63.11519(b)(5), “Notification, recordkeeping, and reporting requirements.”

(5) *Tier 2 requirements upon subsequent detection of visible emissions.* If visible fugitive emissions are detected more than once during any consecutive 12 month period

(notwithstanding the results of any follow-up inspections), you must comply with paragraphs (f)(5)(i) through (iv) of this section.

(i) Within 24 hours of the end of the visual determination of fugitive emissions in which visible fugitive emissions were detected, you must conduct a visual determination of emissions opacity, as specified in §63.11517(c), "Monitoring requirements," at the primary vent, stack, exit, or opening from the building containing the welding operations.

(ii) In lieu of the requirement of paragraph (f)(3) of this section to perform visual determinations of fugitive emissions with EPA Method 22, you must perform visual determinations of emissions opacity in accordance with §63.11517(d), "Monitoring Requirements," using EPA Method 9, at the primary vent, stack, exit, or opening from the building containing the welding operations.

(iii) You must keep a record of each visual determination of emissions opacity performed in accordance with paragraphs (f)(5)(i) or (ii) of this section, along with any subsequent corrective action taken, in accordance with the requirements in §63.11519(c)(3), "Notification, recordkeeping, and reporting requirements."

(iv) You must report the results of all visual determinations of emissions opacity performed in accordance with paragraphs (f)(5)(i) or (ii) of this section, along with any subsequent corrective action taken, and submit with your annual certification and compliance report as required by §63.11519(b)(6), "Notification, recordkeeping, and reporting requirements."

(6) *Requirements for opacities less than or equal to 20 percent but greater than zero.* For each visual determination of emissions opacity performed in accordance with paragraph (f)(5) of this section for which the average of the six-minute average opacities recorded is 20 percent or less but greater than zero, you must perform corrective actions, including inspection of all welding fume sources, and evaluation of the proper operation and effectiveness of the management practices or fume control measures implemented in accordance with paragraph (f)(2) of this section.

(7) *Tier 3 requirements for opacities exceeding 20 percent.* For each visual determination of emissions opacity performed in accordance with paragraph (f)(5) of this section for which the average of the six-minute average opacities recorded exceeds 20 percent, you must comply with the requirements in paragraphs (f)(7)(i) through (v) of this section.

(i) You must submit a report of exceedence of 20 percent opacity, along with your annual certification and compliance report, as specified in §63.11519(b)(8), "Notification, recordkeeping, and reporting requirements," and according to the requirements of §63.11519(b)(1), "Notification, recordkeeping, and reporting requirements."

(ii) Within 30 days of the opacity exceedence, you must prepare and implement a Site-Specific Welding Emissions Management Plan, as specified in paragraph (f)(8) of this section. If you have already prepared a Site-Specific Welding Emissions Management Plan in accordance with this paragraph, you must prepare and implement a revised Site-Specific Welding Emissions Management Plan within 30 days.

(iii) During the preparation (or revision) of the Site-Specific Welding Emissions Management Plan, you must continue to perform visual determinations of emissions opacity, beginning on a

daily schedule as specified in §63.11517(d), "Monitoring Requirements," using EPA Method 9, at the primary vent, stack, exit, or opening from the building containing the welding operations.

(iv) You must maintain records of daily visual determinations of emissions opacity performed in accordance with paragraph (f)(7)(iii) of this section, during preparation of the Site-Specific Welding Emissions Management Plan, in accordance with the requirements in §63.11519(b)(9), "Notification, recordkeeping, and reporting requirements."

(v) You must include these records in your annual certification and compliance report, according to the requirements of §63.11519(b)(1), "Notification, recordkeeping, and reporting requirements."

(8) *Site-Specific Welding Emissions Management Plan.* The Site-Specific Welding Emissions Management Plan must comply with the requirements in paragraphs (f)(8)(i) through (iii) of this section.

(i) Site-Specific Welding Emissions Management Plan must contain the information in paragraphs (f)(8)(i)(A) through (F) of this section.

(A) Company name and address;

(B) A list and description of all welding operations which currently comprise the welding affected source;

(C) A description of all management practices and/or fume control methods in place at the time of the opacity exceedence;

(D) A list and description of all management practices and/or fume control methods currently employed for the welding affected source;

(E) A description of additional management practices and/or fume control methods to be implemented pursuant to paragraph (f)(7)(ii) of this section, and the projected date of implementation; and

(F) Any revisions to a Site-Specific Welding Emissions Management Plan must contain copies of all previous plan entries, pursuant to paragraphs (f)(8)(i)(D) and (E) of this section.

(ii) The Site-Specific Welding Emissions Management Plan must be updated annually to contain current information, as required by paragraphs (f)(8)(i)(A) through (C) of this section, and submitted with your annual certification and compliance report, according to the requirements of §63.11519(b)(1), "Notification, recordkeeping, and reporting requirements."

(iii) You must maintain a copy of the current Site-Specific Welding Emissions Management Plan in your records in a readily-accessible location for inspector review, in accordance with the requirements in §63.11519(c)(12), "Notification, recordkeeping, and reporting requirements."

§ 63.11517 What are my monitoring requirements?

(a) *Visual determination of fugitive emissions, general.* Visual determination of fugitive emissions must be performed according to the procedures of EPA Method 22, of 40 CFR part 60, Appendix A–7. You must conduct the EPA Method 22 test while the affected source is operating under normal conditions. The duration of each EPA Method 22 test must be at least 15 minutes, and visible emissions will be considered to be present if they are detected for more than six minutes of the fifteen minute period.

(b) *Visual determination of fugitive emissions, graduated schedule.* Visual determinations of fugitive emissions must be performed in accordance with paragraph (a) of this section and according to the schedule in paragraphs (b)(1) through (4) of this section.

(1) *Daily Method 22 Testing.* Perform visual determination of fugitive emissions once per day, on each day the process is in operation, during operation of the process.

(2) *Weekly Method 22 Testing.* If no visible fugitive emissions are detected in consecutive daily EPA Method 22 tests, performed in accordance with paragraph (b)(1) of this section for 10 days of work day operation of the process, you may decrease the frequency of EPA Method 22 testing to once every five days of operation of the process (one calendar week). If visible fugitive emissions are detected during these tests, you must resume EPA Method 22 testing of that operation once per day during each day that the process is in operation, in accordance with paragraph (b)(1) of this section.

(3) *Monthly Method 22 Testing.* If no visible fugitive emissions are detected in four consecutive weekly EPA Method 22 tests performed in accordance with paragraph (b)(2) of this section, you may decrease the frequency of EPA Method 22 testing to once per 21 days of operation of the process (one calendar month). If visible fugitive emissions are detected during these tests, you must resume weekly EPA Method 22 in accordance with paragraph (b)(2) of this section.

(4) *Quarterly Method 22 Testing.* If no visible fugitive emissions are detected in three consecutive monthly EPA Method 22 tests performed in accordance with paragraph (b)(3) of this section, you may decrease the frequency of EPA Method 22 testing to once per 60 days of operation of the process (3 calendar months). If visible fugitive emissions are detected during these tests, you must resume monthly EPA Method 22 in accordance with paragraph (b)(3) of this section.

(c) *Visual determination of emissions opacity for welding Tier 2 or 3, general.* Visual determination of emissions opacity must be performed in accordance with the procedures of EPA Method 9, of 40 CFR part 60, Appendix A–4, and while the affected source is operating under normal conditions. The duration of the EPA Method 9 test shall be thirty minutes.

(d) *Visual determination of emissions opacity for welding Tier 2 or 3, graduated schedule.* You must perform visual determination of emissions opacity in accordance with paragraph (c) of this section and according to the schedule in paragraphs (d)(1) through (5) of this section.

(1) *Daily Method 9 testing for welding, Tier 2 or 3.* Perform visual determination of emissions opacity once per day during each day that the process is in operation.

(2) *Weekly Method 9 testing for welding, Tier 2 or 3.* If the average of the six minute opacities recorded during any of the daily consecutive EPA Method 9 tests performed in accordance with paragraph (d)(1) of this section does not exceed 20 percent for 10 days of operation of the

process, you may decrease the frequency of EPA Method 9 testing to once per five days of consecutive work day operation. If opacity greater than 20 percent is detected during any of these tests, you must resume testing every day of operation of the process according to the requirements of paragraph (d)(1) of this section.

(3) *Monthly Method 9 testing for welding Tier 2 or 3.* If the average of the six minute opacities recorded during any of the consecutive weekly EPA Method 9 tests performed in accordance with paragraph (d)(2) of this section does not exceed 20 percent for four consecutive weekly tests, you may decrease the frequency of EPA Method 9 testing to once per every 21 days of operation of the process. If visible emissions opacity greater than 20 percent is detected during any monthly test, you must resume testing every five days of operation of the process according to the requirements of paragraph (d)(2) of this section.

(4) *Quarterly Method 9 testing for welding Tier 2 or 3.* If the average of the six minute opacities recorded during any of the consecutive weekly EPA Method 9 tests performed in accordance with paragraph (d)(3) of this section does not exceed 20 percent for three consecutive monthly tests, you may decrease the frequency of EPA Method 9 testing to once per every 120 days of operation of the process. If visible emissions opacity greater than 20 percent is detected during any quarterly test, you must resume testing every 21 days (month) of operation of the process according to the requirements of paragraph (d)(3) of this section.

(5) *Return to Method 22 testing for welding, Tier 2 or 3.* If, after two consecutive months of testing, the average of the six minute opacities recorded during any of the monthly EPA Method 9 tests performed in accordance with paragraph (d)(3) of this section does not exceed 20 percent, you may resume EPA Method 22 testing as in paragraphs (b)(3) and (4) of this section. In lieu of this, you may elect to continue performing EPA Method 9 tests in accordance with paragraphs (d)(3)and (4) of this section.

§ 63.11518 [Reserved]

§ 63.11519 What are my notification, recordkeeping, and reporting requirements?

(a) *What notifications must I submit?* —(1) *Initial notification.* If you are the owner or operator of an area source in one of the nine metal fabrication and finishing source categories, as defined in §63.11514 “Am I subject to this subpart?,” you must submit the Initial Notification required by §63.9(b) “General Provisions,” for a new affected source no later than 120 days after initial startup or November 20, 2008, whichever is later. For an existing affected source, you must submit the Initial Notification no later than July 25, 2011. Your Initial Notification must provide the information specified in paragraphs (a)(1)(i) through (iv) of this section.

(i) The name, address, phone number and e-mail address of the owner and operator;

(ii) The address (physical location) of the affected source;

(iii) An identification of the relevant standard (i.e., this subpart); and

(iv) A brief description of the type of operation. For example, a brief characterization of the types of products (e.g., aerospace components, sports equipment, etc.), the number and type of processes, and the number of workers usually employed.

(2) *Notification of compliance status.* If you are the owner or operator of an existing affected source, you must submit a notification of compliance status on or before November 22, 2011. If you are the owner or operator of a new affected source, you must submit a notification of compliance status within 120 days after initial startup, or by November 20, 2008, whichever is later. You are required to submit the information specified in paragraphs (a)(2)(i) through (iv) of this section with your notification of compliance status:

(i) Your company's name and address;

(ii) A statement by a responsible official with that official's name, title, phone number, e-mail address and signature, certifying the truth, accuracy, and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of this subpart;

(iii) If you operate any spray painting affected sources, the information required by §63.11516(e)(3)(vi)(C), "Compliance demonstration," or §63.11516(e)(4)(ix)(C), "Compliance demonstration," as applicable; and

(iv) The date of the notification of compliance status.

(b) *What reports must I prepare or submit?* –(1) *Annual certification and compliance reports.* You must prepare and submit annual certification and compliance reports for each affected source according to the requirements of paragraphs (b)(2) through (7) of this section. The annual certification and compliance reporting requirements may be satisfied by reports required under other parts of the CAA, as specified in paragraph (b)(3) of this section.

(2) *Dates.* Unless the Administrator has approved or agreed to a different schedule for submission of reports under §63.10(a), "General Provisions," you must prepare and submit each annual certification and compliance report according to the dates specified in paragraphs (b)(2)(i) through (iii) of this section. Note that the information reported for each of the months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.

(i) The first annual certification and compliance report must cover the first annual reporting period which begins the day after the compliance date and ends on December 31.

(ii) Each subsequent annual certification and compliance report must cover the subsequent semiannual reporting period from January 1 through December 31.

(iii) Each annual certification and compliance report must be prepared and submitted no later than January 31 and kept in a readily-accessible location for inspector review. If an exceedence has occurred during the year, each annual certification and compliance report must be submitted along with the exceedence reports, and postmarked or delivered no later than January 31.

(3) *Alternate dates.* For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, "Title V."

(i) If the permitting authority has established dates for submitting annual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), "Title V," you may prepare or submit, if

required, the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the date specified in paragraph (b)(2)(iii) of this section.

(ii) If an affected source prepares or submits an annual certification and compliance report pursuant to this section along with, or as part of, the monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), “Title V,” and the compliance report includes all required information concerning exceedences of any limitation in this subpart, its submission will be deemed to satisfy any obligation to report the same exceedences in the annual monitoring report. However, submission of an annual certification and compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permitting authority.

(4) *General requirements.* The annual certification and compliance report must contain the information specified in paragraphs (b)(4)(i) through (iii) of this section, and the information specified in paragraphs (b)(5) through (7) of this section that is applicable to each affected source.

(i) Company name and address;

(ii) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report; and

(iii) Date of report and beginning and ending dates of the reporting period. The reporting period is the 12-month period ending on December 31. Note that the information reported for the 12 months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.

(5) *Visual determination of fugitive emissions requirements.* The annual certification and compliance report must contain the information specified in paragraphs (b)(5)(i) through (iii) of this section for each affected source which performs visual determination of fugitive emissions in accordance with §63.11517(a), “Monitoring requirements.”

(i) The date of every visual determination of fugitive emissions which resulted in detection of visible emissions;

(ii) A description of the corrective actions taken subsequent to the test; and

(iii) The date and results of the follow-up visual determination of fugitive emissions performed after the corrective actions.

(6) *Visual determination of emissions opacity requirements.* The annual certification and compliance report must contain the information specified in paragraphs (b)(6)(i) through (iii) of this section for each affected source which performs visual determination of emissions opacity in accordance with §63.11517(c), “Monitoring requirements.”

(i) The date of every visual determination of emissions opacity;

(ii) The average of the six-minute opacities measured by the test; and

(iii) A description of any corrective action taken subsequent to the test.

(7) [Reserved]

(8) *Exceedences of 20 percent opacity for welding affected sources.* As required by §63.11516(f)(7)(i), "Requirements for opacities exceeding 20 percent," you must prepare an exceedence report whenever the average of the six-minute average opacities recorded during a visual determination of emissions opacity exceeds 20 percent. This report must be submitted along with your annual certification and compliance report according to the requirements in paragraph (b)(1) of this section, and must contain the information in paragraphs (b)(8)(iii)(A) and (B) of this section.

(A) The date on which the exceedence occurred; and

(B) The average of the six-minute average opacities recorded during the visual determination of emissions opacity.

(9) *Site-specific Welding Emissions Management Plan reporting.* You must submit a copy of the records of daily visual determinations of emissions recorded in accordance with §63.11516(f)(7)(iv), "Tier 3 requirements for opacities exceeding 20 percent," and a copy of your Site-Specific Welding Emissions Management Plan and any subsequent revisions to the plan pursuant to §63.11516(f)(8), "Site-specific Welding Emission Management Plan," along with your annual certification and compliance report, according to the requirements in paragraph (b)(1) of this section.

(c) *What records must I keep?* You must collect and keep records of the data and information specified in paragraphs (c)(1) through (13) of this section, according to the requirements in paragraph (c)(14) of this section.

(1) *General compliance and applicability records.* Maintain information specified in paragraphs (c)(1)(i) through (ii) of this section for each affected source.

(i) Each notification and report that you submitted to comply with this subpart, and the documentation supporting each notification and report.

(ii) Records of the applicability determinations as in §63.11514(b)(1) through (5), "Am I subject to this subpart," listing equipment included in its affected source, as well as any changes to that and on what date they occurred, must be maintained for 5 years and be made available for inspector review at any time.

(2) *Visual determination of fugitive emissions records.* Maintain a record of the information specified in paragraphs (c)(2)(i) through (iii) of this section for each affected source which performs visual determination of fugitive emissions in accordance with §63.11517(a), "Monitoring requirements."

(i) The date and results of every visual determination of fugitive emissions;

(ii) A description of any corrective action taken subsequent to the test; and

(iii) The date and results of any follow-up visual determination of fugitive emissions performed after the corrective actions.

(3) *Visual determination of emissions opacity records.* Maintain a record of the information specified in paragraphs (c)(3)(i) through (iii) of this section for each affected source which performs visual determination of emissions opacity in accordance with §63.11517(c), "Monitoring requirements."

(i) The date of every visual determination of emissions opacity; and

(ii) The average of the six-minute opacities measured by the test; and

(iii) A description of any corrective action taken subsequent to the test.

(4) Maintain a record of the manufacturer's specifications for the control devices used to comply with §63.11516, "What are my standards and management practices?"

(5) *Spray paint booth filter records.* Maintain a record of the filter efficiency demonstrations and spray paint booth filter maintenance activities, performed in accordance with §63.11516(d)(1)(ii) and (iii), "Requirements for spray painting objects in spray booths or spray rooms."

(6) Waterspray booth or water curtain efficiency tests. Maintain a record of the water curtain efficiency demonstrations performed in accordance with §63.11516(d)(1)(ii), "Requirements for spray painting objects in spray booths or spray rooms."

(7) *HVLP or other high transfer efficiency spray delivery system documentation records.* Maintain documentation of HVLP or other high transfer efficiency spray paint delivery systems, in compliance with §63.11516(d)(3), "Requirements for spray painting of all objects." This documentation must include the manufacturer's specifications for the equipment and any manufacturer's operation instructions. If you have obtained written approval for an alternative spray application system in accordance with §63.11516(d)(2), "Spray painting of all objects," you must maintain a record of that approval along with documentation of the demonstration of equivalency.

(8) *HVLP or other high transfer efficiency spray delivery system employee training documentation records.* Maintain certification that each worker performing spray painting operations has completed the training specified in §63.11516(d)(6), "Requirements for spray painting of all objects," with the date the initial training and the most recent refresher training was completed.

(9)–(10) [Reserved]

(11) *Visual determination of emissions opacity performed during the preparation (or revision) of the Site-Specific Welding Emissions Management Plan.* You must maintain a record of each visual determination of emissions opacity performed during the preparation (or revision) of a Site-Specific Welding Emissions Management Plan, in accordance with §63.11516(f)(7)(iii), "Requirements for opacities exceeding 20 percent."

(12) *Site-Specific Welding Emissions Management Plan.* If you have been required to prepare a plan in accordance with §63.11516(f)(7)(iii), "Site-Specific Welding Emissions Management Plan," you must maintain a copy of your current Site-Specific Welding Emissions Management Plan in your records and it must be readily available for inspector review.

(13) *Manufacturer's instructions.* If you comply with this subpart by operating any equipment according to manufacturer's instruction, you must keep these instructions readily available for inspector review.

(14) Welding Rod usage. If you operate a new or existing welding affected source which is not required to comply with the requirements of §63.11516(f)(3) through (8) because it uses less than 2,000 pounds per year of welding rod (on a rolling 12-month basis), you must maintain records demonstrating your welding rod usage on a rolling 12-month basis.

(15) Your records must be maintained according to the requirements in paragraphs (c)(14)(i) through (iii) of this section.

(i) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1), "General Provisions." Where appropriate, the records may be maintained as electronic spreadsheets or as a database.

(ii) As specified in §63.10(b)(1), "General Provisions," you must keep each record for 5 years following the date of each occurrence, measurement, corrective action, report, or record.

(iii) You must keep each record on-site for at least 2 years after the date of each occurrence, measurement, corrective action, report, or record according to §63.10(b)(1), "General Provisions." You may keep the records off-site for the remaining 3 years.

§ 63.11520 [Reserved]

Other Requirements and Information

§ 63.11521 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by EPA or a delegated authority such as your state, local, or tribal agency. If the EPA Administrator has delegated authority to your state, local, or tribal agency, then that agency, in addition to EPA, has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your state, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a state, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the EPA Administrator and are not transferred to the state, local, or tribal agency.

(c) The authorities that cannot be delegated to state, local, or tribal agencies are specified in paragraphs (c)(1) through (5) of this section.

(1) Approval of an alternative non-opacity emissions standard under §63.6(g), of the General Provisions of this part.

(2) Approval of an alternative opacity emissions standard under §63.6(h)(9), of the General Provisions of this part.

(3) Approval of a major change to test methods under §63.7(e)(2)(ii) and (f), of the General Provisions of this part. A “major change to test method” is defined in §63.90.

(4) Approval of a major change to monitoring under §63.8(f), of the General Provisions of this part. A “major change to monitoring” under is defined in §63.90.

(5) Approval of a major change to recordkeeping and reporting under §63.10(f), of the General Provisions of this part. A “major change to recordkeeping/reporting” is defined in §63.90.

§ 63.11522 What definitions apply to this subpart?

The terms used in this subpart are defined in the CAA; and in this section as follows:

Adequate emission capture methods are hoods, enclosures, or any other duct intake devices with ductwork, dampers, manifolds, plenums, or fans designed to draw greater than 85 percent of the airborne dust generated from the process into the control device.

Capture system means the collection of components used to capture gases and fumes released from one or more emissions points and then convey the captured gas stream to a control device or to the atmosphere. A capture system may include, but is not limited to, the following components as applicable to a given capture system design: duct intake devices, hoods, enclosures, ductwork, dampers, manifolds, plenums, and fans.

Cartridge collector means a type of control device that uses perforated metal cartridges containing a pleated paper or non-woven fibrous filter media to remove PM from a gas stream by sieving and other mechanisms. Cartridge collectors can be designed with single use cartridges, which are removed and disposed after reaching capacity, or continuous use cartridges, which typically are cleaned by means of a pulse-jet mechanism.

Confined abrasive blasting enclosure means an enclosure that includes a roof and at least two complete walls, with side curtains and ventilation as needed to insure that no air or PM exits the enclosure while dry abrasive blasting is performed. Apertures or slots may be present in the roof or walls to allow for mechanized transport of the blasted objects with overhead cranes, or cable and cord entry into the dry abrasive blasting chamber.

Control device means equipment installed on a process vent or exhaust system that reduces the quantity of a pollutant that is emitted to the air.

Dry abrasive blasting means cleaning, polishing, conditioning, removing or preparing a surface by propelling a stream of abrasive material with compressed air against the surface. Hydroblasting, wet abrasive blasting, or other abrasive blasting operations which employ liquids to reduce emissions are not dry abrasive blasting.

Dry grinding and dry polishing with machines means grinding or polishing without the use of lubricating oils or fluids in fixed or stationary machines. Hand grinding, hand polishing, and bench top dry grinding and dry polishing are not included under this definition.

Fabric filter means a type of control device used for collecting PM by filtering a process exhaust stream through a filter or filter media; a fabric filter is also known as a baghouse.

Facility maintenance means operations performed as part of the routine repair or renovation of process equipment, machinery, control equipment, and structures that comprise the infrastructure of the affected facility and that are necessary for the facility to function in its intended capacity. Facility maintenance also includes operations associated with the installation of new equipment or structures, and any processes as part of janitorial activities. Facility maintenance includes operations on stationary structures or their appurtenances at the site of installation, to portable buildings at the site of installation, to pavements, or to curbs. Facility maintenance also includes operations performed on mobile equipment, such as fork trucks, that are used in a manufacturing facility and which are maintained in that same facility. Facility maintenance does not include spray-applied coating of motor vehicles, mobile equipment, or items that routinely leave and return to the facility, such as delivery trucks, rental equipment, or containers used to transport, deliver, distribute, or dispense commercial products to customers, such as compressed gas canisters.

Filtration control device means a control device that utilizes a filter to reduce the emissions of MFHAP and other PM.

Grinding means a process performed on a workpiece to remove undesirable material from the surface or to remove burrs or sharp edges. Grinding is done using belts, disks, or wheels consisting of or covered with various abrasives.

Machining means dry metal turning, milling, drilling, boring, tapping, planing, broaching, sawing, cutting, shaving, shearing, threading, reaming, shaping, slotting, hobbing, and chamfering with machines. Shearing operations cut materials into a desired shape and size, while forming operations bend or conform materials into specific shapes. Cutting and shearing operations include punching, piercing, blanking, cutoff, parting, shearing and trimming. Forming operations include bending, forming, extruding, drawing, rolling, spinning, coining, and forging the metal. Processes specifically excluded are hand-held devices and any process employing fluids for lubrication or cooling.

Material containing MFHAP means a material containing one or more MFHAP. Any material that contains cadmium, chromium, lead, or nickel in amounts greater than or equal to 0.1 percent by weight (as the metal), and contains manganese in amounts greater than or equal to 1.0 percent by weight (as the metal), as shown in formulation data provided by the manufacturer or supplier, such as the Material Safety Data Sheet for the material, is considered to be a material containing MFHAP.

Metal fabrication and finishing HAP (MFHAP) means any compound of the following metals: Cadmium, chromium, lead, manganese, or nickel, or any of these metals in the elemental form, with the exception of lead.

Metal fabrication and finishing source categories are limited to the nine metal fabrication and finishing source categories with the activities described in Table 1, “Description of Source Categories Affected by this Subpart.” Metal fabrication or finishing operations means dry abrasive blasting, machining, spray painting, or welding in any one of the nine metal fabrication and finishing area source categories listed in Table 1, “Description of Source Categories Affected by this Subpart.”

Military munitions means all ammunition products and components produced or used by or for the U.S. Department of Defense (DoD) or for the U.S. Armed Services for national defense and security, including military munitions under the control of the DoD, the U.S. Coast Guard, the National Nuclear Security Administration (NNSA), U.S. Department of Energy (DOE), and National Guard personnel. The term military munitions includes: Confined gaseous, liquid, and solid propellants, explosives, pyrotechnics, chemical and riot control agents, smokes, and incendiaries used by DoD components, including bulk explosives and chemical warfare agents, chemical munitions, biological weapons, rockets, guided and ballistic missiles, bombs, warheads, small arms ammunition, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolition charges, nonnuclear components of nuclear weapons, wholly inert ammunition products, and all devices and components of any items listed in this definition.

Paint means a material applied to a substrate for decorative, protective, or functional purposes. Such materials include, but are not limited to, paints, coatings, sealants, liquid plastic coatings, caulks, inks, adhesives, and maskants. Decorative, protective, or functional materials that consist only of protective oils for metal, acids, bases, or any combination of these substances, or paper film or plastic film which may be pre-coated with an adhesive by the film manufacturer, are not considered paints for the purposes of this subpart.

Polishing with machines means an operation which removes fine excess metal from a surface to prepare the surface for more refined finishing procedures prior to plating or other processes. Polishing may also be employed to remove burrs on castings or stampings. Polishing is performed using hard-faced wheels constructed of muslin, canvas, felt or leather, and typically employs natural or artificial abrasives. Polishing performed by hand without machines or in bench top operations are not considered polishing with machines for the purposes of this subpart.

Primarily engaged means the manufacturing, fabricating, or forging of one or more products listed in one of the nine metal fabrication and finishing source category descriptions in Table 1, “Description of Source Categories Affected by this Subpart,” where this production represents at least 50 percent of the production at a facility, and where production quantities are established by the volume, linear foot, square foot, or other value suited to the specific industry. The period used to determine production should be the previous continuous 12 months of operation. Facilities must document and retain their rationale for the determination that their facility is not “primarily engaged” pursuant to §63.10(b)(3) of the General Provisions.

Quality control activities means operations that meet all of the following criteria:

(1) The activities are intended to detect and correct defects in the final product by selecting a limited number of samples from the operation, and comparing the samples against specific performance criteria.

(2) The activities do not include the production of an intermediate or final product for sale or exchange for commercial profit; for example, parts that are not sold and do not leave the facility.

(3) The activities are not a normal part of the operation;

(4) The activities do not involve fabrication of tools, equipment, machinery, and structures that comprise the infrastructure of the facility and that are necessary for the facility to function in its intended capacity; that is, the activities are not facility maintenance.

Responsible official means responsible official as defined in 40 CFR 70.2.

Spray-applied painting means application of paints using a hand-held device that creates an atomized mist of paint and deposits the paint on a substrate. For the purposes of this subpart, spray-applied painting does not include the following materials or activities:

(1) Paints applied from a hand-held device with a paint cup capacity that is less than 3.0 fluid ounces (89 cubic centimeters).

(2) Surface coating application using powder coating, hand-held, non-refillable aerosol containers, or non-atomizing application technology, including, but not limited to, paint brushes, rollers, hand wiping, flow coating, dip coating, electrodeposition coating, web coating, coil coating, touch-up markers, or marking pens.

(3) Painting operations that normally require the use of an airbrush or an extension on the spray gun to properly reach limited access spaces; the application of paints that contain fillers that adversely affect atomization with HVLP spray guns, and the application of paints that normally have a dried film thickness of less than 0.0013 centimeter (0.0005 in.).

(4) Thermal spray operations (also known as metallizing, flame spray, plasma arc spray, and electric arc spray, among other names) in which solid metallic or non-metallic material is heated to a molten or semi-molten state and propelled to the work piece or substrate by compressed air or other gas, where a bond is produced upon impact.

Spray booth or spray room means an enclosure with four sides and a roof where spray paint is prevented from leaving the booth during spraying by the enclosure. The roof of the spray booth or spray room may contain narrow slots for connecting the parts and products to overhead cranes, or for cord or cable entry into the spray booth or spray room.

Tool or equipment repair means equipment and devices used to repair or maintain process equipment or to prepare molds, dies, or other changeable elements of process equipment.

Totally enclosed and unvented means enclosed so that no air enters or leaves during operation.

Totally enclosed and unvented dry abrasive blasting chamber means a dry abrasive blasting enclosure which has no vents to the atmosphere, thus no emissions. A typical example of this sort of abrasive blasting enclosure is a small “glove box” enclosure, where the worker places their hands in openings or gloves that extend into the box and enable the worker to hold the objects as they are being blasted without allowing air and blast material to escape the box.

Vented dry abrasive blasting means dry abrasive blasting where the blast material is moved by air flow from within the chamber to outside the chamber into the atmosphere or into a control device.

Welding means a process which joins two metal parts by melting the parts at the joint and filling the space with molten metal.

Welding rod containing MFHAP means a welding rod that contains cadmium, chromium, lead, or nickel in amounts greater than or equal to 0.1 percent by weight (as the metal), or that contains manganese in amounts greater than or equal to 1.0 percent by weight (as the metal), as shown in formulation data provided by the manufacturer or supplier, such as the Material Safety Data Sheet for the welding rod.

§ 63.11523 What General Provisions apply to this subpart?

The provisions in 40 CFR part 63, subpart A, applicable to sources subject to §63.11514(a) are specified in Table 2 of this subpart.

Table 1 to Subpart XXXXXX of Part 63—Description of Source Categories Affected by This Subpart

Metal fabrication and finishing source category	Description
Electrical and Electronic Equipment Finishing Operations	Establishments primarily engaged in manufacturing motors and generators; and electrical machinery, equipment, and supplies, not elsewhere classified. The electrical machinery equipment and supplies industry sector of this source category includes establishments primarily engaged in high energy particle acceleration systems and equipment, electronic simulators, appliance and extension cords, bells and chimes, insect traps, and other electrical equipment and supplies not elsewhere classified. The motors and generators sector of this source category includes establishments primarily engaged in manufacturing electric motors (except engine starting motors) and power generators; motor generator sets; railway motors and control equipment; and motors, generators and control equipment for gasoline, electric, and oil-electric buses and trucks.
Fabricated Metal Products	Establishments primarily engaged in manufacturing fabricated metal products, such as fire or burglary resistive steel safes and vaults and similar fire or burglary resistive products; and collapsible tubes of thin flexible metal. Also, establishments primarily engaged in manufacturing powder metallurgy products, metal boxes; metal ladders; metal household articles, such as ice cream freezers and ironing boards; and other fabricated metal products not elsewhere classified.
Fabricated Plate Work (Boiler Shops)	Establishments primarily engaged in manufacturing power marine boilers, pressure and nonpressure tanks, processing and storage vessels, heat exchangers, weldments and similar products.
Fabricated Structural	Establishments primarily engaged in fabricating iron and steel or

Metal fabrication and finishing source category	Description
Metal Manufacturing	other metal for structural purposes, such as bridges, buildings, and sections for ships, boats, and barges.
Heating Equipment, except Electric	Establishments primarily engaged in manufacturing heating equipment, except electric and warm air furnaces, including gas, oil, and stoker coal fired equipment for the automatic utilization of gaseous, liquid, and solid fuels. Products produced in this source category include low-pressure heating (steam or hot water) boilers, fireplace inserts, domestic (steam or hot water) furnaces, domestic gas burners, gas room heaters, gas infrared heating units, combination gas-oil burners, oil or gas swimming pool heaters, heating apparatus (except electric or warm air), kerosene space heaters, gas fireplace logs, domestic and industrial oil burners, radiators (except electric), galvanized iron nonferrous metal range boilers, room heaters (except electric), coke and gas burning salamanders, liquid or gas solar energy collectors, solar heaters, space heaters (except electric), mechanical (domestic and industrial) stokers, wood and coal-burning stoves, domestic unit heaters (except electric), and wall heaters (except electric).
Industrial Machinery and Equipment Finishing Operations	Establishments primarily engaged in construction machinery manufacturing; oil and gas field machinery manufacturing; and pumps and pumping equipment manufacturing. The construction machinery manufacturing industry sector of this source category includes establishments primarily engaged in manufacturing heavy machinery and equipment of types used primarily by the construction industries, such as bulldozers; concrete mixers; cranes, except industrial plant overhead and truck-type cranes; dredging machinery; pavers; and power shovels. Also establishments primarily engaged in manufacturing forestry equipment and certain specialized equipment, not elsewhere classified, similar to that used by the construction industries, such as elevating platforms, ship cranes, and capstans, aerial work platforms, and automobile wrecker hoists. The oil and gas field machinery manufacturing industry sector of this source category includes establishments primarily engaged in manufacturing machinery and equipment for use in oil and gas fields or for drilling water wells, including portable drilling rigs. The pumps and pumping equipment manufacturing sector of this source category includes establishments primarily engaged in manufacturing pumps and pumping equipment for general industrial, commercial, or household use, except fluid power pumps and

Metal fabrication and finishing source category	Description
	motors. This category includes establishments primarily engaged in manufacturing domestic water and sump pumps.
Iron and Steel Forging	Establishments primarily engaged in the forging manufacturing process, where purchased iron and steel metal is pressed, pounded or squeezed under great pressure into high strength parts known as forgings. The forging process is different from the casting and foundry processes, as metal used to make forged parts is never melted and poured.
Primary Metals Products Manufacturing	Establishments primarily engaged in manufacturing products such as fabricated wire products (except springs) made from purchased wire. These facilities also manufacture steel balls; nonferrous metal brads and nails; nonferrous metal spikes, staples, and tacks; and other primary metals products not elsewhere classified.
Valves and Pipe Fittings	Establishments primarily engaged in manufacturing metal valves and pipe fittings; flanges; unions, with the exception of purchased pipes; and other valves and pipe fittings not elsewhere classified.

Table 2 to Subpart XXXXXX of Part 63—Applicability of General Provisions to Metal Fabrication or Finishing Area Sources

Instructions for Table 2 —As required in §63.11523, “General Provisions Requirements,” you must meet each requirement in the following table that applies to you.

Citation	Subject
63.1[1]	Applicability.
63.2	Definitions.
63.3	Units and abbreviations.
63.4	Prohibited activities.
63.5	Construction/reconstruction.
63.6(a), (b)(1)–(b)(5), (c)(1), (c)(2), (c)(5), (g), (i), (j)	Compliance with standards and maintenance requirements.
63.9(a)–(d)	Notification requirements.
63.10(a), (b) except for (b)(2), (d)(1), (d)(4)	Recordkeeping and reporting.

Citation	Subject
63.12	State authority and delegations.
63.13	Addresses of State air pollution control agencies and EPA regional offices.
63.14	Incorporation by reference.
63.15	Availability of information and confidentiality.
63.16	Performance track provisions.

[1]§63.11514(g), “Am I subject to this subpart?” exempts affected sources from the obligation to obtain title V operating permits.

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the Technical Support Document (ATSD) for a New Source Construction and Federally Enforceable State Operating Permit

Source Background and Description

Source Name:	**Munster Steel Company, Inc.**
Source Location:	**1501 Huehn Street, Hammond, Indiana 46327**
County:	**Lake**
SIC Code:	**3441 (Fabricated Structural Metal)**
Operation Permit No.:	**F089-33970-00579**
Permit Reviewer:	**Sarah Street**

On March 11, 2014, the Office of Air Quality (OAQ) had a notice published in the Post Tribune in Merrillville, Indiana and The Times in Munster, Indiana, stating that Munster Steel Company, Inc. had applied for a New Source Construction and Federally Enforceable State Operating Permit to construct and operation a new stationary structural and miscellaneous steel fabricating plant. The notice also stated that the OAQ proposed to issue a New Source Construction and Federally Enforceable State Operating 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.

Comments and Responses

On March 11, 2014, D&B Environmental Services, Inc. submitted comments to IDEM, OAQ on the draft New Source Construction and Federally Enforceable State Operating Permit.

The Technical Support Document (TSD) is used by IDEM, OAQ for historical purposes. IDEM, OAQ does not make any changes to the original TSD, but the Permit will have the updated changes. The comments and revised permit language are provided below with deleted language as ~~strikeouts~~ and new language **bolded**.

Comment 1:

> The welding/flame-cutting operation unit description needs to be revised based on the intentions of the source to construct the following: two (2) submerged arc welding stations with a maximum capacity of 18 inches of wire per minute, per station, six (6) metal inert gas welding stations with a maximum hourly capacity of 22 inches of wire per minute, and seventeen (17) stick welding stations with a maximum of 40 electrodes per hour.

Response to Comment 1:

> IDEM agrees with the recommended changes, since the emission unit description and calculations need to reflect what the source plans to construct. The potential emissions calculations for this process have been updated. Please see Appendix A to this ATSD for updated emission calculations. No emission limits or compliance determination & monitoring conditions in the permit have been changed as a result of this comment.
>
> The table below summarizes the potential to emit of the entire source after issuance of this FESOP, reflecting all limits, of the emission units, with updated emissions shown as **bold** values

and previous emissions shown as ~~strikethrough~~ values. Any control equipment is considered federally 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.

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of FESOP (tons/year)									
	PM	PM_{10}*	$PM_{2.5}$**	SO_2	NO_x	VOC	CO	GHGs	Total HAPs	Worst Single HAP
Paint Booth SCR-01	99.94	9.99	9.99	-	-	<24.5	-	-	19.42	9.90 Xylene
Pangborn Blast Machine (Blast-01)	3.94	7.88	7.88	-	-	-	-	-	-	-
Blasting Operation (Blast-02)	60.55	37.42	37.42	-	-	-	-	-	-	-
Plasma/oxy-fuel drill machine (#3 OFD)	3.94	7.88	7.88	-	-	-	-	-	0.28	-
Welding - Flame Cutting	~~8.28~~ **12.56**	~~8.28~~ **12.56**	~~8.28~~ **12.56**	-	-	-	-	-	~~2.97~~ **1.53**	-
Combustion	0.05	0.20	0.20	0.02	2.59	0.14	2.18	3,127.17	0.05	-
Parts Washers	-	-	-	-	-	0.29	-	-	-	-
Fugitive: Paved & Unpaved Roads	0.76	0.17	0.03	-	-	-	-	-	-	-
Total PTE of Entire Source	~~177.46~~ **181.74**	~~71.81~~ **76.10**	~~71.67~~ **75.95**	0.02	2.59	<25	2.18	3,127.17	~~22.72~~ **21.29**	9.90 Xylene
Title V Major Source Thresholds	NA	100	100	100	100	100	100	100,000 CO_2e	25	10
PSD Major Source Thresholds	250	250	250	250	NA	NA	250	100,000 CO_2e	NA	NA
Emission Offset/ Nonattainment NSR Major Source Thresholds	NA	NA	NA	NA	100	100	NA	NA	NA	NA

- = negligible
*Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
**$PM_{2.5}$ listed is direct $PM_{2.5}$.

The table below summarizes the potential to emit of the entire source after issuance of this FESOP, reflecting all limits, of the emission units. Any control equipment is considered federally 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.

Note: the table below was generated from the above table, with bold text un-bolded and strikethrough text deleted

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of FESOP (tons/year)									
	PM	PM_{10}*	$PM_{2.5}$**	SO_2	NO_x	VOC	CO	GHGs	Total HAPs	Worst Single HAP
Paint Booth SCR-01	99.94	9.99	9.99	-	-	<24.5	-	-	19.42	9.90 Xylene
Pangborn Blast Machine (Blast-01)	3.94	7.88	7.88	-	-	-	-	-	-	-
Blasting Operation (Blast-02)	60.55	37.42	37.42	-	-	-	-	-	-	-
Plasma/oxy-fuel drill machine (#3 OFD)	3.94	7.88	7.88	-	-	-	-	-	0.28	-
Welding - Flame Cutting	12.56	12.56	12.56	-	-	-	-	-	1.53	-
Combustion	0.05	0.20	0.20	0.02	2.59	0.14	2.18	3,127.17	0.05	-
Parts Washers	-	-	-	-	-	0.29	-	-	-	-
Fugitive: Paved & Unpaved Roads	0.76	0.17	0.03	-	-	-	-	-	-	-
Total PTE of Entire Source	**181.74**	**76.10**	**75.95**	**0.02**	**2.59**	**<25**	**2.18**	**3,127.17**	**21.29**	**9.90 Xylene**
Title V Major Source Thresholds	NA	100	100	100	100	100	100	100,000 CO_2e	25	10
PSD Major Source Thresholds	250	250	250	250	NA	NA	250	100,000 CO_2e	NA	NA
Emission Offset/ Nonattainment NSR Major Source Thresholds	NA	NA	NA	NA	100	100	NA	NA	NA	NA

- = negligible
*Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
**$PM_{2.5}$ listed is direct $PM_{2.5}$.

The permit has been revised as follows:

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:

...

(b) One (1) welding/flame-cutting operation, approved in 2014 for construction, consisting of ~~six (6)~~ **two (2)** submerged arc welding stations with a maximum capacity of 18 inches of wire per minute, per station; one (1) submerged arc welding station with a maximum capacity of 25.2 inches of wire per minute; ~~four (4)~~ **six (6)** metal inert gas welding stations with a maximum hourly capacity of 22 inches of wire per minute, ~~ten (10)~~ **seventeen (17)** stick welding stations with a maximum of 40 electrodes per hour, one (1) propane flame cutting station with a maximum cutting rate of 12 inches per minute, and one (1) oxygen-fired ABC Cutting machine.

This unit is considered an affected facility under National Emission Standards for Hazardous Air Pollutants (NESHAP) for Nine Metal Fabrication and Finishing Source Categories (40 CFR 63, Subpart XXXXXX (6X)).

...

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(b) One (1) welding/flame-cutting operation, approved in 2014 for construction, consisting of ~~six (6)~~ **two (2)** submerged arc welding stations with a maximum capacity of 18 inches of wire per minute, per station; one (1) submerged arc welding station with a maximum capacity of 25.2 inches of wire per minute; ~~four (4)~~ **six (6)** metal inert gas welding stations with a maximum hourly capacity of 22 inches of wire per minute, ~~ten (10)~~ **seventeen (17)** stick welding stations with a maximum of 40 electrodes per hour, one (1) propane flame cutting station with a maximum cutting rate of 12 inches per minute, and one (1) oxygen-fired ABC Cutting machine.

This unit is considered an affected facility under National Emission Standards for Hazardous Air Pollutants (NESHAP) for Nine Metal Fabrication and Finishing Source Categories (40 CFR 63, Subpart XXXXXX (6X)).

...

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

...

IDEM Contact

(a) Questions regarding this proposed New Source Construction and Federally Enforceable State Operating Permit can be directed to Sarah Street at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 232-8427 or toll free at 1-800-451-6027 extension 2-8427.

(b) A copy of the permit is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

Appendix A to ATSD: Emission Calculations
Emissions Summary

Company Name: Munster Steel Company
Address: 1501 Huehn Street, Hammond, Indiana 46327
FESOP No.: F089-33970-00579
Permit Reviewer: Sarah Street

	Unlimited Potential to Emit (tons/yr)									
Emission Unit	**PM**	**PM10**	**PM2.5**	**SO_2**	**NOx**	**VOC**	**CO**	**GHGs as CO2e**	**Single HAP (Xylene)**	**Total HAPs**
Paint Booth SCR-01	99.94	99.94	99.94	-	-	50.03	-	-	19.92	22.04
Pangborn Blast Machine (Blast-01)	1,122.48	112.25	112.25	-	-	-	-	-	-	-
Blasting Operation (Blast-02)	374.16	37.42	37.42	-	-	-	-	-	-	-
Plasma/Oxy-fuel Drill Machine (#3 OFD)	51.15	51.15	51.15	-	-	-	-	-	-	0.28
Welding - Flame Cutting	12.56	12.56	12.56	-	-	-	-	-	-	1.53
Combustion	0.05	0.20	0.20	0.02	2.59	0.14	2.18	3,127.17	negligible	0.05
Parts Washers	-	-	-	-	-	0.29	-	-	-	-
Fugitive: Paved & Unpaved Roads	0.76	0.17	0.03	-	-	-	-	-	-	-
Total	**1,661.11**	**313.69**	**313.54**	**0.02**	**2.59**	**50.47**	**2.18**	**3,127.17**	**19.92**	**23.91**

	Limited Potential to Emit (tons/yr)									
Emission Unit	**PM**	**PM10**	**PM2.5**	**SO_2**	**NOx**	**VOC**	**CO**	**GHGs as CO2e**	**Single HAP (Xylene)**	**Total HAPs**
Paint Booth SCR-01	99.94	9.99	9.99	-	-	<24.5	-	-	9.90	19.42
Pangborn Blast Machine (Blast-01)	3.94	7.88	7.88	-	-	-	-	-	-	-
Blasting Operation (Blast-02)	60.55	37.42	37.42	-	-	-	-	-	-	-
Plasma/Oxy-fuel Drill Machine (#3 OFD)	3.94	7.88	7.88	-	-	-	-	-	-	0.28
Welding - Flame Cutting	12.56	12.56	12.56	-	-	-	-	-	-	1.53
Combustion	0.05	0.20	0.20	0.02	2.59	0.14	2.18	3,127.17	negligible	0.05
Parts Washers	-	-	-	-	-	0.29	-	-	-	-
Fugitive: Paved & Unpaved Roads	0.76	0.17	0.03	-	-	-	-	-	-	-
Total	**181.74**	**76.10**	**75.95**	**0.02**	**2.59**	**<25**	**2.18**	**3,127.17**	**9.90**	**21.29**

Notes:
SCR-01: Limited PM10 and PM2.5 PTE equal to PTE after control; controls are required to operate while coating booths are in operation
VOC Limit to render the requirements of 326 IAC 2-6 (Emission Reporting) not applicable.
Blast-01: PM limit equal to 326 IAC 6.8 limit.
Blast-02: PM limit equal to 326 IAC 6.8 limit; no limits on PM10 and PM2.5
#3OFD: PM limit equal to 326 IAC 6.8 limit.

Emisison Unit	**PM Limit (PSD Minor)**		**PM10 Limit (FESOP and PSD Minor)**		**PM2.5 Limit (FESOP and PSD Minor)**	
	(lb/hr)	**(ton/yr)**	**(lb/hr)**	**(ton/yr)**	**(lb/hr)**	**(ton/yr)**
Paint Booth SCR-01	N/A		2.28	9.99	2.28	9.99
Pangborn Blast Machine (Blast-01)	0.9	3.94	1.8	7.88	1.8	7.88
Blasting Operation (Blast-02)	13.82	60.55	N/A		N/A	
Plasma/oxy-fuel drill machine (#3 OFD)	0.9	3.94	1.8	7.88	1.8	7.88

Appendix A to ATSD: Emission Calculations
VOC Emissions
Surface Coating Activities

Company Name: Munster Steel Company
Address: 1501 Huehn Street, Hammond, Indiana 46327
FESOP No.: F089-33970-00579
Permit Reviewer: Sarah Street

Material	Density (lbs/gal)	Weight % Volatile (H20 & 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	24.87	10.9%	10.9%	66.0%	2.00	1.83	2.71	3.67	91.2	9.94	238.51	43.53	88.95	8.90	4.11	75%
Potential Emission Rates - Epoxy Gray Primer As Applied										**9.94**	**238.51**	**43.53**	**88.95**	**8.90**		
OR																
Carbozinc 11 HS Primer	27.15	8.30%	8.30%	75.0%	2.00	1.83	2.25	3.67	99.5	8.26	198.27	36.18	99.94	9.99	3.00	75%
Potential Emission Rates - Carboz Primer As Applied										**8.26**	**198.27**	**36.18**	**99.94**	**9.99**		
OR																
HS Red Oxide HS Primer	13.26	20.0%	20.0%	61.0%	2.00	1.83	2.65	3.67	48.6	9.71	233.10	42.54	42.59	4.26	4.34	75%
Potential Emission Rates - B50NZ3 Red Oxide Primer As Applied										**9.71**	**233.10**	**42.54**	**42.59**	**4.26**		
AND																
Thinner 26 ***	7.59	100%	100%	0%	0.0416	1.83	7.59	0.08	0.58	0.58	13.89	2.53	0.00	0.00	NA	100%
Xylene ***	7.18	100%	100%	0%	0.05	1.83	7.18	0.09	0.66	0.66	15.79	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										**1.48**	**35.63**	**6.50**	**0.00**	**0.00**		
Worst Case Total										9.94	238.51	43.53	99.94	9.99		
Cleanup Solvents										1.48	35.63	6.50	0.00	0.00		
Worst Case Coating + Cleanup Solvent = Potential to Emit										**11.42**	**274.14**	**50.03**	**99.94**	**9.99**		

*One Unit = 1000 sq feet of Structural Metal
**The particulate control efficiency of dry filters is 90%.
*** Isopropyl Alcohol is the only cleanup solvent used when coating with B50NZ3 Red Oxide Primer. 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 hr/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														
Thinner 26 ***	7.59	0.04	1.83	0%	0%	0%	0%	0%	0.00	0.00	0.00	0.00	0.00	0.00
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**
Worst Case HAP Emission Rates ***									**2.13**	**0.04**	**0.00**	**7.35**	**19.92**	**22.04**

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

Company Name: Munster Steel Company
Address: 1501 Huehn Street, Hammond, Indiana 46327
FESOP No.: F089-33970-00579
Permit Reviewer: Sarah Street

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)	Limited PM (lb/hr)	Limited PM (ton/yr)	Control Efficiency Required	Limited PM10 (lb/hr)	Limited PM10 (ton/yr)	Control Efficiency Required
Blast-01 *	15.075	17.0	1.70	1,122.48	112.25	Cyclone/ cartridge filter	99.9%	1.12	0.11	0.9	3.94	99.6%	1.8	7.88	93.0%
Blast-02 **	5.03	17.0	1.70	374.16	37.42	No control	N/A	N/A	N/A	13.82	60.53	N/A	N/A		
Total				**1,496.65**	**149.66**										

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* 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. The 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. The maximum airflow rate from this enclosed room is 53,670 acfm. 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 to ATSD: Emission Calculations
From the Plasma/Oxy-fuel Drill Machine (#3 OFD)

Company Name: Munster Steel Company
Address: 1501 Huehn Street, Hammond, Indiana 46327
FESOP No.: F089-33970-00579
Permit Reviewer: Sarah Street

PROCESS	Number of Stations	Max. Metal Thickness	Max. Metal Cutting Rate	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick) *				UNCONTROLLED POTENTIAL TO EMIT (lbs/hr)				HAPS (lbs/hr)
FLAME CUTTING		Cut (in.)	(in./minute)	PM = PM10	Mn	Ni	Cr	PM / PM10	Mn	Ni	Cr	Total HAPs
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

* 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 exaust 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 to ATSD: Emission Calculations
Welding - Flame Cutting

Company Name: Munster Steel Company
Address: 1501 Huehn Street, Hammond, Indiana 46327
FESOP No.: F089-33970-00579
Permit Reviewer: Sarah Street

PROCESS	Number of Stations	Max. electrode consumption per		EMISSION FACTORS* (lb pollutant/lb electrode)				POTENTIAL TO EMIT (lbs/hr)				HAPS (lbs/hr)
WELDING		station (lbs/hr)		PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Submerged Arc	3	8.19		5.00E-05	0.01			1.23E-03	0.27			0.27
Metal Inert Gas (MIG)(carbon steel)	6	5.00		0.02	3.40E-05			0.72	1.02E-03			1.02E-03
Stick (E7018 electrode)	17	5.00		0.02	9.00E-04			1.79	0.08			0.08
	Number of Stations	Max. Metal Thickness	Max. Metal Cutting Rate	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick)**				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
FLAME CUTTING		Cut (in.)	(in./minute)	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
Oxygen-fired ABC Cutting	1	3.00	12.0	0.1622	0.0005	0.0001	0.0003	0.350	0.001	0.000	0.001	0.002

POTENTIAL TO EMIT, UNCONTROLLED

Potential to Emit Uncontrolled (lbs/hr)			2.87	0.349	2.16E-04	6.48E-04	0.35
Potential to Emit Uncontrolled (tons/year)			12.6	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 to ATSD: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Company Name: Munster Steel Company
Address: 1501 Huehn Street, Hammond, Indiana 46327
FESOP No.: F089-33970-00579
Permit Reviewer: Sarah Street

Unit ID	Heat Input Capacity
Furn-1	0.105
Furn-2	0.105
Furn-3	0.105
Furn-4	0.105
RTF-1	0.075
MAU-1	2.368
MAU-2	2.368
MAU-3	0.801

Heat Input Capacity MMBtu/hr	HHV mmBtu/mmscf	Potential Throughput MMCF/yr
6.032	1020	51.8

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.05	0.20	0.20	0.02	2.59	0.14	2.18

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
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
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

HAPS Calculations

	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	**Total - Organics**
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	5.439E-05	3.108E-05	1.943E-03	4.662E-02	8.807E-05	**4.874E-02**

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	**Total - Metals**
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	1.295E-05	2.849E-05	3.626E-05	9.843E-06	5.439E-05	**1.419E-04**

Total HAPs	**4.888E-02**
Worst HAP	**4.662E-02**

Methodology is the same as above.

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

Greenhouse Gas Calculations

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	3,108	0.1	0.1
Summed Potential Emissions in tons/yr	3,108		
CO2e Total in tons/yr based on 11/29/2013 federal GWPs	3,127		
CO2e Total in tons/yr based on 10/30/2009 federal GWPs	3,127		

Methodology
The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) based on 11/29/2013 federal GWPs= CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential Emission ton/yr x N2O GWP (298).
CO2e (tons/yr) based on 10/30/2009 federal GWPs = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

Appendix A to ATSD: Emission Calculations
VOC Emissions
Cold Cleaning Activities

Company Name: Munster Steel Company
Address: 1501 Huehn Street, Hammond, Indiana 46327
FESOP No.: F089-33970-00579
Permit Reviewer: Sarah Street

VOC Emissions from Four Parts Washers

Parts Washer Identification	Solvent Name	Solvent Density (lb/gal)	Annual Solvent Throughput (gal)	Weight Percent VOC	Annual Emission Rate TPY
MPW-1	Calumet 142 Flash	6.51	45.00	100.00%	0.15
CPW-1	Calumet 142 Flash	6.51	45.00	100.00%	0.15
	Total Annual Emission Rate				0.29

Note: The solvents used in the parts washers contain no HAPs

METHODOLOGY

Annual Emission Rate = ∑ All Parts Washers [(Solvent Density (lb/gal) x Annual Throughput (gal) x Weight % VOC)] / 2,000 (lb/ton)

TPY - Tons per Year
MPW-1 & MPW-2 = Maintenance Parts Washers
EPW-1 - Extruder Parts Washer
TPW-1 - Latex Coating Tower Parts Washer

Appendix A to ATSD: Emission Calculations
Fugitive Dust Emissions - Unpaved Roads

Company Name: Munster Steel Company
Address: 1501 Huehn Street, Hammond, Indiana 46327
FESOP No.: F089-33970-00579
Permit Reviewer: Sarah Street

Unpaved Roads at Industrial Site
The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2 (11/2006).

Vehicle Information (provided by source)

Type	Maximum number of vehicles	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Vehicle (entering plant) (one-way trip)	8.0	1.0	8.0	25.0	200.0	100	0.019	0.2	55.3
Vehicle (leaving plant) (one-way trip)	8.0	1.0	8.0	25.0	200.0	100	0.019	0.2	55.3
		Totals	**16.0**		**400.0**			**0.3**	**110.6**

Average Vehicle Weight Per Trip = 25.0 tons/trip
Average Miles Per Trip = 0.02 miles/trip

Unmitigated Emission Factor, Ef = k*[(s/12)^a]*[(W/3)^b] (Equation 1a from AP-42 13.2.2)

	PM	PM10	PM2.5	
where k =	4.9	1.5	0.15	lb/mi = particle size multiplier (AP-42 Table 13.2.2-2 for Industrial Roads)
s =	4.8	4.8	4.8	% = mean % silt content of unpaved roads (AP-42 Table 13.2.2-1 Sand/Gravel Processing Plant)
a =	0.7	0.9	0.9	= constant (AP-42 Table 13.2.2-2 for Industrial Roads)
W =	25.0	25.0	25.0	tons = average vehicle weight (provided by source)
b =	0.45	0.45	0.45	= constant (AP-42 Table 13.2.2-2 for Industrial Roads)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = E * [(365 - P)/365] (Equation 2 from AP-42 13.2.2)
Mitigated Emission Factor, Eext = E * [(365 - P)/365]
where P = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	6.70	1.71	0.17	lb/mile
Mitigated Emission Factor, Eext =	4.40	1.12	0.11	lb/mile
Dust Control Efficiency =	0%	0%	0%	(pursuant to control measures outlined in fugitive dust control plan)

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10 (tons/yr)	Controlled PTE of PM2.5 (tons/yr)
Vehicle (entering plant) (one-way trip)	0.19	0.05	0.00	0.12	0.03	0.00	0.12	0.03	0.00
Vehicle (leaving plant) (one-way trip)	0.19	0.05	0.00	0.12	0.03	0.00	0.12	0.03	0.00
Totals	**0.37**	**0.09**	**0.01**	**0.24**	**0.06**	**0.01**	**0.24**	**0.06**	**0.01**

Methodology
Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] * [Maximum trips per day (trip/day)]
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip) / [5280 ft/mile]
Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] * [Maximum one-way distance (mi/trip)]
Average Vehicle Weight Per Trip (ton/ = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]
Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]
Unmitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) * (Unmitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
Mitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) * (Mitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
Controlled PTE (tons/yr) = (Mitigated PTE (tons/yr)) * (1 - Dust Control Efficiency)

Abbreviations
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particulate Matter (<2.5 um)
PTE = Potential to Emit

Appendix A to ATSD: Emission Calculations
Fugitive Dust Emissions - Paved Roads

Company Name: Munster Steel Company
Address: 1501 Huehn Street, Hammond, Indiana 46327
FESOP No.: F089-33970-00579
Permit Reviewer: Sarah Street

Paved Roads at Industrial Site
The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (1/2011).

Vehicle Informtation (provided by source)

Type	Maximum number of vehicles per day	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Vehicle (entering plant) (one-way trip)	8.0	1.0	8.0	25.0	200.0	300	0.057	0.5	165.9
Vehicle (leaving plant) (one-way trip)	8.0	1.0	8.0	25.0	200.0	300	0.057	0.5	165.9
		Totals	**16.0**		**400.0**			**0.9**	**331.8**

Average Vehicle Weight Per Trip = 25.0 tons/trip
Average Miles Per Trip = 0.06 miles/trip

Unmitigated Emission Factor, Ef = [k * (sL)^0.91 * (W)^1.02] (Equation 1 from AP-42 13.2.1)

	PM	PM10	PM2.5	
where k =	0.011	0.0022	0.00054	lb/VMT = particle size multiplier (AP-42 Table 13.2.1-1)
W =	25.0	25.0	25.0	tons = average vehicle weight (provided by source)
sL =	9.7	9.7	9.7	g/m^2 = silt loading value for paved roads at iron and steel production facilities - Table 13.2.1-3)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = E * [1 - (p/4N)] (Equation 2 from AP-42 13.2.1)
Mitigated Emission Factor, Eext = Ef * [1 - (p/4N)]
where p = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)
N = 365 days per year

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	2.319	0.464	0.1138	lb/mile
Mitigated Emission Factor, Eext =	2.120	0.424	0.1041	lb/mile
Dust Control Efficiency =	0%	0%	0%	(pursuant to control measures outlined in fugitive dust control plan)

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10 (tons/yr)	Controlled PTE of PM2.5 (tons/yr)
Vehicle (entering plant) (one-way trip)	0.19	0.04	0.01	0.18	0.04	0.01	0.18	0.04	0.01
Vehicle (leaving plant) (one-way trip)	0.19	0.04	0.01	0.18	0.04	0.01	0.18	0.04	0.01
Totals	**0.38**	**0.08**	**0.02**	**0.35**	**0.07**	**0.02**	**0.35**	**0.07**	**0.02**

Methodology
Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] * [Maximum trips per day (trip/day)]
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip) / [5280 ft/mile]
Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] * [Maximum one-way distance (mi/trip)]
Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]
Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]
Unmitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] * [Unmitigated Emission Factor (lb/mile)] * (ton/2000 lbs)
Mitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] * [Mitigated Emission Factor (lb/mile)] * (ton/2000 lbs)
Controlled PTE (tons/yr) = [Mitigated PTE (tons/yr)] * [1 - Dust Control Efficiency]

Abbreviations
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particle Matter (<2.5 um)
PTE = Potential to Emit

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a New Source Construction and Federally Enforceable State Operating Permit

Source Description and Location

Source Name:	**Munster Steel Company, Inc.**
Source Location:	**1501 Huehn Street, Hammond, Indiana 46327**
County:	**Lake**
SIC Code:	**3441 (Fabricated Structural Metal)**
Operation Permit No.:	**F089-33970-00579**
Permit Reviewer:	**Sarah Street**

On December 11, 2013, the Office of Air Quality (OAQ) received an application from Munster Steel Company, Inc. related to the construction and operation of a new stationary structural and miscellaneous steel fabricating plant.

Munster Steel Company, Inc. currently operates under FESOP Renewal No. F089-31598-00090, issued on June 26, 2012, for a stationary structural and miscellaneous steel fabricating plant located at 9505 Calumet Ave., Munster, Indiana 46321. Munster Steel Company, Inc. is relocating the entire plant operations from the 9505 Calumet Ave., Munster, Indiana location to the 1501 Huehn Street, Hammond, Indiana location. A New Source Construction and FESOP will be issued.

Existing Approvals

There have been no previous approvals issued to this source.

County Attainment Status

The source is located in Lake County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Attainment effective February 18, 2000, for the part of the city of East Chicago bounded by Columbus Drive on the north; the Indiana Harbor Canal on the west; 148th Street, if extended, on the south; and Euclid Avenue on the east. Unclassifiable or attainment effective November 15, 1990, for the remainder of East Chicago and Lake County.
O_3	On June 11, 2012, the U.S. EPA designated Lake County nonattainment, for the 8-hour ozone standard. [1][2]
$PM_{2.5}$	Unclassifiable or attainment effective February 6, 2012, for the annual $PM_{2.5}$ standard.
$PM_{2.5}$	Unclassifiable or attainment effective December 13, 2009, for the 24-hour $PM_{2.5}$ standard.
PM_{10}	Attainment effective March 11, 2003, for the cities of East Chicago, Hammond, Whiting, and Gary. Unclassifiable effective November 15, 1990, for the remainder of Lake County.
NO_2	Cannot be classified or better than national standards.
Pb	Unclassifiable or attainment effective December 31, 2011.

[1]The U. S. EPA has acknowledged in both the proposed and final rulemaking for this redesignation that the anti-backsliding provisions for the 1-hour ozone standard no longer apply as a result of the redesignation under the 8-hour ozone standard. Therefore, permits in Lake County are no longer subject to review pursuant to Emission Offset, 326 IAC 2-3 for the 1-hour standard.
[2]The department has filed a legal challenge to U.S. EPA's designation in 77 FR 34228.

(a) Ozone Standards
U.S. EPA, in the Federal Register Notice 77 FR 112 dated June 11, 2012, has designated Lake County as nonattainment for ozone. On August 1, 2012 the air pollution control board issued an emergency rule adopting the U.S. EPA's designation. This rule became effective, August 9, 2012. IDEM does not agree with U.S. EPA's designation of nonattainment. IDEM filed a suit against US EPA in the US Court of Appeals for the DC Circuit on July 19, 2012. However, in order to ensure that sources are not potentially liable for a violation of the Clean Air Act, the OAQ is following the U.S. EPA's designation. 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. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Therefore, VOC and NO_x emissions were evaluated pursuant to the requirements of Emission Offset, 326 IAC 2-3.

(b) $PM_{2.5}$
Lake County has been classified as attainment for $PM_{2.5}$. On May 8, 2008, U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for $PM_{2.5}$ emissions. These rules became effective on July 15, 2008. On May 4, 2011 the air pollution control board issued an emergency rule establishing the direct $PM_{2.5}$ significant level at ten (10) tons per year. This rule became effective, June 28, 2011.. Therefore, direct $PM_{2.5,}$ $SO_{2,}$ and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(c) Other Criteria Pollutants
Lake County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants other than ozone. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Background and Description of New Source Construction

The Office of Air Quality (OAQ) has reviewed an application, submitted by Munster Steel Company, Inc. on December 11, 2013, relating to the construction and operation of a new stationary structural and miscellaneous steel fabricating plant.

Munster Steel Company, Inc. currently operates under FESOP Renewal No. F089-31598-00090, issued on June 26, 2012, for a stationary structural and miscellaneous steel fabricating plant located at 9505 Calumet Ave., Munster, Indiana 46321. Munster Steel Company, Inc. is relocating the entire plant operations from the 9505 Calumet Ave., Munster, Indiana location to the 1501 Huehn Street, Hammond, Indiana location. Upon construction at the new site, the source will apply for a revocation of its existing FESOP Renewal No. F089-31598-00090.

The following is a list of the new emission units and pollution control devices:

(a) One (1) paint booth, coating structural steel, identified as SCR-01, approved in 2014 for construction, with a maximum capacity of 2.0 gallon of coating per unit, 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 (with one unit equaling 1,000 square feet of structural steel). The paint booth exhausts through vent SCV1.

(b) One (1) welding/flame-cutting operation, approved in 2014 for construction, consisting of six (6) submerged arc welding stations with a maximum capacity of 18 inches of wire per minute, per station; 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, ten (10) stick welding stations with a maximum of 40 electrodes per hour, one (1) propane flame cutting station with a maximum cutting rate of 12 inches per minute, and one (1) oxygen-fired ABC Cutting machine.

This unit is considered an affected facility under National Emission Standards for Hazardous Air Pollutants (NESHAP) for Nine Metal Fabrication and Finishing Source Categories (40 CFR 63, Subpart XXXXXX (6X)).

(c) One (1) Pangborn blast machine, identified as Blast-01, approved in 2014 for construction, 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).

This unit is considered an affected facility under National Emission Standards for Hazardous Air Pollutants (NESHAP) for Nine Metal Fabrication and Finishing Source Categories (40 CFR 63, Subpart XXXXXX (6X)).

(d) One (1) blasting operation, identified as Blast-02, approved in 2014 for construction, using 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, operated inside an enclosed room, no control, 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).

This unit is considered an affected facility under National Emission Standards for Hazardous Air Pollutants (NESHAP) for Nine Metal Fabrication and Finishing Source Categories (40 CFR 63, Subpart XXXXXX (6X)).

(e) One (1) plasma/oxy-fuel drill machine, identified as #3 OFD, approved in 2014 for construction, 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.

Insignificant activities consisting of the following:

(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 6.032 MMBtu/hr.

(1) One (1) natural gas-fired furnace, identified as Furn-1, approved in 2014 for construction, with a maximum heat input capacity of 0.105 MMBtu/hr, utilizing no control, and exhausting inside the building [326 IAC 6.8-1-2];

(2) One (1) natural gas-fired furnace, identified as Furn-2, approved in 2014 for construction, with a maximum heat input capacity of 0.105 MMBtu/hr, utilizing no control, and exhausting inside the building [326 IAC 6.8-1-2];

(3) One (1) natural gas-fired furnace, identified as Furn-3, approved in 2014 for construction, with a maximum heat input capacity of 0.105 MMBtu/hr, utilizing no control, and exhausting inside the building [326 IAC 6.8-1-2];

(4) One (1) natural gas-fired furnace, identified as Furn-4, approved in 2014 for construction, with a maximum heat input capacity of 0.105 MMBtu/hr, utilizing no control, and exhausting

inside the building [326 IAC 6.8-1-2];

(5) One (1) natural gas-fired furnace, identified as RTF-1, approved in 2014 for construction, with a maximum heat input capacity of 0.075 MMBtu/hr, utilizing no control, and exhausting inside the building [326 IAC 6.8-1-2];

(6) One (1) natural gas-fired make-up air heating unit, identified as MAU-1, approved in 2014 for construction, with a maximum heat input capacity of 2.368 MMBtu/hr, utilizing no control, and exhausting inside the building [326 IAC 6.8-1-2];

(7) One (1) natural gas-fired make-up air heating unit, identified as MAU-2, approved in 2014 for construction, with a maximum heat input capacity of 2.368 MMBtu/hr, utilizing no control, and exhausting inside the building [326 IAC 6.8-1-2];

(8) One (1) natural gas-fired make-up air heating unit, identified as MAU-1, approved in 2014 for construction, with a maximum heat input capacity of 0.801 MMBtu/hr, utilizing no control, and exhausting inside the building [326 IAC 6.8-1-2];

(b) Two (2) manual parts washers, approved in 2014 for construction, with a maximum capacity of 15 gallons, each, using non-hazardous air pollutant (HAP) containing compounds, and using no control devices [326 IAC 8-3-2];

(c) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to three one-hundredths (0.03) grains per actual cubic foot and a gas flow rate less than or equal to four thousand (4,000) actual cubic feet per minute, including the following: deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and woodworking operations.

(d) Machining where an aqueous cutting coolant continuously floods the machining interface.

(e) Paved and unpaved roads and parking lots with public access.

“Integral Part of the Process” Determination

The applicant has submitted the following information to justify why the cyclone/cartridge filter should be considered an integral part of the Pangborn blast machine (Blast-01) steel shot blasting process.

(a) The blast media and scale must be removed from the work zone on a continuous basis to allow the unit to function as designed.

(b) The blast media is recovered for reuse and therefore has a significant economic value.

(c) The blast unit was designed by the manufacturer to operate with the in-line collection and control system to remove impurities

(d) Blast units of this type with in-line filtration systems were in use prior to promulgation of the Clean Air Act and its subsequent amendments.

IDEM, OAQ has evaluated the information submitted and has determined that the cyclone/cartridge filter should not be considered an integral part of the blasting in Pangborn blast machine (Blast-01). This determination is also based on the fact that this unit was initially constructed in 2002, and the control device has historically not been determined to be an integral part of the process. Therefore, the permitting level will be determined using the potential to emit before the cyclone/cartridge filter for the Pangborn blast machine (Blast-01).

The same determination was also made for this unit under FESOP Renewal No. F089-31598-00090, issued on June 26, 2012, when it was permitted for the 9505 Calumet Ave., Munster, Indiana location.

Enforcement Issues

There are no pending enforcement actions related to this source.

Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

Permit Level Determination – FESOP

The following table reflects the unlimited potential to emit (PTE) of the entire source before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	Greater than 250
PM10(1)	Greater than 250
PM2.5(1)	Greater than 250
SO_2	Less than 100
NO_x	Less than 100
VOC	Less than 100
CO	Less than 100
GHGs as CO_2e	Less than 100,000

(1) Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10) and particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers (PM2.5), not particulate matter (PM), are each considered as a "regulated air pollutant".

HAPs	Potential To Emit (tons/year)
Worst Single HAP	Greater than 10
TOTAL HAPs	Greater than 25

(a) The potential to emit (PTE) (as defined in 326 IAC 2-7-1(29)) of PM, PM10, and PM2.5 are each greater than one hundred (100) tons per year. The PTE of all other regulated criteria pollutants are each less than one hundred (100) tons per year. The source would have been subject to the provisions of 326 IAC 2-7. However, the source will be issued a New Source Construction Permit (326 IAC 2-5.1-3) and a Federally Enforceable State Operating Permit (FESOP) (326 IAC 2-8), because the source will limit emissions to less than the Title V major source threshold levels.

(b) The potential to emit (PTE) (as defined in 326 IAC 2-7-1(29)) of any single HAP is greater than ten (10) tons per year and the PTE of a combination of HAPs is greater than twenty-five (25) tons per year. Therefore, the source would have been subject to the provisions of 326 IAC 2-7. However, the source will be issued a New Source Construction Permit (326 IAC 2-5.1-3) and a FESOP (326 IAC 2-8), because the source will limit emissions of HAPs to less than the Title V major source threshold levels.

(c) The potential to emit (PTE) (as defined in 326 IAC 2-7-1(29)) greenhouse gases (GHGs) is less than the Title V subject to regulation threshold of one hundred thousand (100,000) tons of CO_2 equivalent emissions (CO_2e) per year.

PTE of the Entire Source After Issuance of the FESOP

The table below summarizes the potential to emit of the entire source after issuance of this FESOP, reflecting all limits, of the emission units. Any control equipment is considered federally 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.

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of FESOP (tons/year)									
	PM	PM_{10}*	$PM_{2.5}$**	SO_2	NO_x	VOC	CO	GHGs	Total HAPs	Worst Single HAP
Paint Booth SCR-01	99.94	9.99	9.99	-	-	<24.5	-	-	19.42	9.90 Xylene
Pangborn Blast Machine (Blast-01)	3.94	7.88	7.88	-	-	-	-	-	-	-
Blasting Operation (Blast-02)	60.55	37.42	37.42	-	-	-	-	-	-	-
Plasma/oxy-fuel drill machine (#3 OFD)	3.94	7.88	7.88	-	-	-	-	-	0.28	-
Welding - Flame Cutting	8.28	8.28	8.28	-	-	-	-	-	2.97	-
Combustion	0.05	0.20	0.20	0.02	2.59	0.14	2.18	3,127.17	0.05	-
Parts Washers	-	-	-	-	-	0.29	-	-	-	-
Fugitive: Paved & Unpaved Roads	0.76	0.17	0.03	-	-	-	-	-	-	-
Total PTE of Entire Source	**177.46**	**71.81**	**71.67**	**0.02**	**2.59**	**<25**	**2.18**	**3,127.17**	**22.72**	**9.90 Xylene**
Title V Major Source Thresholds	NA	100	100	100	100	100	100	100,000 CO_2e	25	10
PSD Major Source Thresholds	250	250	250	250	NA	NA	250	100,000 CO_2e	NA	NA
Emission Offset/ Nonattainment NSR Major Source Thresholds	NA	NA	NA	NA	100	100	NA	NA	NA	NA

- = negligible
*Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
**$PM_{2.5}$ listed is direct $PM_{2.5}$.

(a) FESOP Status

This existing source is not a Title V major stationary source, because the potential to emit criteria pollutants from the entire source will be limited to less than the Title V major source threshold levels. In addition, this existing source is not a major source of HAPs, as defined in 40 CFR 63.41, because the potential to emit HAPs is limited to less than ten (10) tons per year for a single HAP and twenty-five (25) tons per year of total HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act and is subject to the provisions of 326 IAC 2-8 (FESOP).

In order to comply with the requirements of 326 IAC 2-8-4 (FESOP), the source shall comply with the following:

HAPs

(1) 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.

Compliance with this limit, combined with the potential to emit HAPs from all other emission units at this source, shall limit the source-wide total potential to emit of any single HAP to less than ten (10) tons per 12 consecutive month period, and shall limit the source-wide total potential to emit of combination of HAPs to less than twenty-five (25) tons per 12 consecutive month period, and shall render 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP) not applicable.

Note: The limited PTE of Xylene (worst case single HAP) for paint booth SCR-01 also limits the source-wide total HAPs.

Limited total HAPs paint booth SCR-01 = limited Xylene PTE + unlimited Ethyl Benzene PTE + unlimited Methanol PTE + unlimited MIBK PTE + unlimited Toulene PTE

Limited total HAPs paint booth SCR-01 = 9.9 tons/yr + 2.13 tons/yr + 0.04 tons/yr + 0.00 tons/yr + 7.35 tons/yr

Limited total HAPs paint booth SCR-01 = 19.42 tons/yr

PM10

(2) The PM10 emissions from the paint booth, identified as SCR-01, shall not exceed 2.28 lbs/hr, which is equivalent to 9.99 tons/year.

Note: The dry filters for particulate control need to operate at a minimum of 90% control efficiency to comply with this limit.

(3) The PM10 emissions from the Pangborn Blast Machine, identified as Blast-01, shall not exceed 1.80 lbs/hr, which is equivalent to 7.88 tons/year.

Note: The cyclone/cartridge filter for particulate control needs to operate a minimum of 93.0% control efficiency to comply with this limit.

(4) The PM10 emissions from the Plasma/oxy-fuel drill machine, identified as #3 OFD, shall not exceed 1.80 lbs/hr, which is equivalent to 7.88 tons/year.

Note: The cyclone/cartridge filter for particulate control needs to operate a minimum of 84.6% control efficiency to comply with this limit.

Compliance with these limits, in conjunction with the potential to emit of the remaining emission units, limits the PM10 emissions from the entire source to less than 100 tons per year. Therefore, the requirements of 326 IAC 2-7 and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) are not applicable.

PM2.5

(5) The PM2.5 emissions from the paint booth, identified as SCR-01, shall not exceed 2.28 lbs/hr, which is equivalent to 9.99 tons/year.

Note: The dry filters for particulate control need to operate at a minimum of 90% control efficiency to comply with this limit.

(6) The PM2.5 emissions from the Pangborn Blast Machine, identified as Blast-01, shall not exceed 1.80 lbs/hr, which is equivalent to 7.88 tons/year.

Note: The cyclone/cartridge filter for particulate control needs to operate a minimum of 93.0% control efficiency to comply with this limit.

(7) The PM2.5 emissions from the Plasma/oxy-fuel drill machine, identified as #3 OFD, shall not exceed 1.80 lbs/hr, which is equivalent to 7.88 tons/year.

Note: The cyclone/cartridge filter for particulate control needs to operate a minimum of 84.6% control efficiency to comply with this limit.

Compliance with these limits, in conjunction with the potential to emit of the remaining emission units, limits the PM2.5 emissions from the entire source to less than 100 tons per year. Therefore, the requirements of 326 IAC 2-7 and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) are not applicable.

(b) PSD Minor Source
This existing stationary source is not in one of the twenty-eight (28) listed source categories. In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable for PM10 and PM2.5, the source shall comply with the FESOP PM10 and PM2.5 limits above.

In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, the source shall comply with the following PM emission limitations.

PM

(1) The PM emissions from the Pangborn Blast Machine, identified as Blast-01, shall not exceed 0.90 lbs/hr, which is equivalent to 3.94 tons/year.

Note: The cyclone/cartridge filter for particulate control needs to operate a minimum of 99.6% control efficiency to comply with this limit.

(2) The PM emissions from the Blasting Operation, identified as Blast-02, shall not exceed 13.82 lbs/hr, which is equivalent to 60.55 tons/year.

Note: This limit assumes a maximum airflow rate of 53,760 acfm for the enclosed room the Blast-02 unit operates in. The size of the room is 80 feet long, 28 feet wide, and 24 feet tall. This determination was made with the source's prior approval, Technical Support Document (TSD) to Permit No. F089-35115-00090, issued December 21, 2007.

(3) The PM emissions from the Plasma/oxy-fuel drill machine, identified as #3 OFD, shall not exceed 0.90 lbs/hr, which is equivalent to 3.94 tons/year.

Note: The cyclone/cartridge filter for particulate control needs to operate a minimum of 92.3% control efficiency to comply with this limit.

Compliance with these limits, in conjunction with the potential to emit of the remaining emission units, limits the PM emissions from the entire source to less than 250 tons per year. Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) are not applicable.

(c) Emission Offset Minor Source
This existing source is not a major stationary source, under Emission Offset (326 IAC 2-3), because the potential to emit of the entire source for VOC and NOx are less than 100 tons per

year. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

Below is a summary table of the FESOP and PSD Minor Limits outlined above for particulate matter only:

Emisison Unit	**PM Limit (PSD Minor)**		**PM10 Limit (FESOP and PSD Minor)**		**PM2.5 Limit (FESOP and PSD Minor)**	
	(lb/hr)	**(ton/yr)**	**(lb/hr)**	**(ton/yr)**	**(lb/hr)**	**(ton/yr)**
Paint Booth SCR-01	N/A		2.28	9.99	2.28	9.99
Pangborn Blast Machine (Blast-01)	0.90	3.94	1.80	7.88	1.80	7.88
Blasting Operation (Blast-02)	13.82	60.55	N/A		N/A	
Plasma/oxy-fuel drill machine (#3 OFD)	0.90	3.94	1.80	7.88	1.80	7.88

Notes: N/A means that the emissions are equal to the unlimited PTE.
SCR-01: Limited PTE equal to PTE after control; controls are required to operate while coating booths are in operation
Blast-01: PM limit equal to 326 IAC 6.8 limit
Blast-02: PM limits equal to applicable 326 IAC 6.8 limit; no limits on PM10 and PM2.5
#3OFD: PM limit equal to 326 IAC 6.8 limit;

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

(a) The requirements of the New Source Performance Standard for Small Industrial-Commercial-Institutional Steam Generating Units (40 CFR 60, Subpart Dc) are not included in this permit for the natural gas-fired combustion furnaces and heaters, because these units do not meet the definition of a steam generating unit defined under 40 CFR 60.40c.

(b) The requirements of 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 (40 CFR 60, Subpart Kb) are not included in this permit because even though the gasoline storage tank was constructed in 1985 (after the applicability date), the 500 gallon gasoline storage tank is less than the 75 cubic meter capacity applicability.

(c) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

(d) The requirements of the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products (40 CFR 63, Subpart MMMM) 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.

(e) The requirements of the National Emission Standards for Hazardous Air Pollutants for Miscellaneous Coating Manufacturing (40 CFR 63, Subpart HHHHH (5H)) are not included in this permit because this source is not a major source of HAPs nor does the source own or operate miscellaneous coating manufacturing operations, as defined by 40 CFR 63.8105.

(f) This source is subject to the National Emission Standards for Hazardous Air Pollutants for Nine Metal Fabrication and Finishing Source Categories (40 CFR 63, Subpart XXXXXX (6X)), because, pursuant to 40 CFR 63.11514(a)(4), this subpart applies to an owner/operator of an area source

that is primarily engaged in Fabricated Structural Metal Manufacturing (i.e. establishments primarily engaged in fabricating iron and steel or other metal for structural purposes).

The units subject to this rule include the following, which use materials that contain or have the potential to emit metal fabrication or finishing metal HAP (MFHAP):

(b) One (1) welding/flame-cutting operation, approved in 2014 for construction, consisting of six (6) submerged arc welding stations with a maximum capacity of 18 inches of wire per minute, per station; 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, ten (10) stick welding stations with a maximum of 40 electrodes per hour, one (1) propane flame cutting station with a maximum cutting rate of 12 inches per minute, and one (1) oxygen-fired ABC Cutting machine.

(c) One (1) Pangborn blast machine, identified as Blast-01, approved in 2014 for construction, 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).

(d) One (1) blasting operation, identified as Blast-02, approved in 2014 for construction, using 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, operated inside an enclosed room, 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).

Note: Each of these three units contains the following HAP (emitted or used): Manganese (Mn). The surface coating booth (SCR-1) does not contain any of the MFHAPs regulated by this NESHAP (Cd, Cr, Pb, Mn, or Ni).

Applicable portions of the NESHAP are the following:

(1) 40 CFR 63.11514 (a)(4)
(2) 40 CFR 63.11514 (b)(1) and (5)
(3) 40 CFR 63.11514 (c) and (i)
(4) 40 CFR 63.11515 (a)
(5) 40 CFR 63.11516(a)(1) and (2)
(6) 40 CFR 63.11516(f)
(7) 40 CFR 63.11517
(8) 40 CFR 63.11519(a) and (b)
(9) 40 CFR 63.11521
(10) 40 CFR 63.11522
(11) 40 CFR 63.11523
(12) Table 1 to Subpart XXXXXX
(13) Table 2 to Subpart XXXXXX

The requirements of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the source except as otherwise specified in 40 CFR 63, Subpart XXXXXX.

There are no testing requirements related to this NESHAP.

Pursuant to 40 CFR 63.11516(a)(1), the compliance requirements for the Blast-02 unit, which is a

totally enclosed and unvented blast chamber, are to implement management practices outlined in this NESHAP to minimize emissions of MFHAP.

Pursuant to 40 CFR 63.11516(a)(2), the compliance requirements for the Blast-01 unit, which is a vented blasting unit, are to capture emissions and vent them to a filtration control device.

Pursuant to 40 CFR 63.11516(f), the compliance requirements for the welding/flame-cutting operations are to implement management practices.

(g) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit.

Compliance Assurance Monitoring (CAM)

(h) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the potential to emit of the source is limited to less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

State Rule Applicability - Entire Source

(a) 326 IAC 2-8-4 (FESOP)
FESOP applicability is discussed under the PTE of the Entire Source After Issuance of the FESOP section above.

(b) 326 IAC 2-2 (Prevention of Significant Deterioration(PSD))
PSD applicability is discussed under the PTE of the Entire Source After Issuance of the FESOP section above.

(c) 326 IAC 2-3 (Emission Offset)
Emission Offset applicability is discussed under the PTE of the Entire Source After Issuance of the FESOP section above.

(d) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The unlimited potential to emit of HAPs is greater than ten (10) tons per year for any single HAP but less than twenty-five (25) tons per year of a combination of HAPs. However, the source shall continue to limit the potential to emit to less than ten (10) tons per year for any single HAP. Therefore, the source is not subject to the requirements of 326 IAC 2-4.1. See PTE of the Entire Source After Issuance of the FESOP Section above.

(e) 326 IAC 1-7 (Stack Height)
Pursuant to 326 IAC 1-7-1(1), this rule shall apply to all sources having exhaust gas stacks through which a potential of twenty-five (25) tons per year or more of particulate matter are emitted. The paint booth stack exhaust (SCV1) has a potential to emit of greater than 25 tons per year of particulate matter (see Appendix A - Emissions Calculations). Pursuant to 316 IAC 1-7-3(a), all exhaust gas stacks subject to this rule (326 IAC 1-7) for which construction commenced after June 19, 1979, shall be constructed using good engineering practice (GEP).

(f) 326 IAC 2-6 (Emission Reporting)
Pursuant to 326 IAC 2-8 (FESOP) and in order to render the requirements of 326 IAC 6 not applicable, the total VOC input to paint booth SCR-01 and the associated clean-up activities shall not exceed 24.5 tons per twelve (12) consecutive month period, with compliance determined at the end of each month. Compliance with this limit in combination with the unlimited PTE of the other emissions units at the source limits the source wide emissions to less than 25 tons per year of VOC.

(g) 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 this permit:

(1) 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.

(2) 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.

(h) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)
Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source 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.

(i) 326 IAC 6.8 (Particulate Matter Limitations for Lake County)
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 and actual emissions greater than ten (10) tons per year of particulate matter.

(1) Paint Booth (SCR-01)
Pursuant 326 IAC 6.8-1-2(a), particulate matter emissions from the paint booth (SCR-01) shall not exceed of 0.07 gram per dry standard cubic meter (g/dscm) (0.03 grain per dry standard cubic foot (dscf).

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%.

(2) Blasting (Blast-01 and Blast-02)
Pursuant 326 IAC 6.8-1-2(a), particulate matter emissions from the blasting units Blast-01 and Blast-02 shall not exceed of 0.07 gram per dry standard cubic meter (g/dscm) (0.03 grain per dry standard cubic foot (dscf), each.

The blasting operation (Blast-02) is operated inside an enclosed room, and the maximum airflow rate is 53,760 acfm. 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. This determination was made in TSD to Permit No. 089-25115-00090 issued December 21, 2007 and this requirement will remain in this permit.

(3) Plasma/oxy-fuel drill machine
Pursuant 326 IAC 6.8-1-2(a), particulate matter emission from the plasma/oxy-fuel drill machine (#3 OFD) shall not exceed of 0.07 gram per dry standard cubic meter (g/dscm) (0.03 grain per dry standard cubic foot (dscf).

(4) Welding - Flame-Cutting
Pursuant 326 IAC 6.8-1-2(a), particulate matter emission from the welding/flame-cutting operation shall not exceed of 0.07 gram per dry standard cubic meter (g/dscm) (0.03 grain per dry standard cubic foot (dscf).

(5) Combustion Units
Pursuant to 326 IAC 6.8-1-2(b)(2), the PM emissions from each of the natural gas-fired units shall not exceed twenty-seven hundredths (0.27) gram per million kcal (fifteen-hundredths (0.15) pound per million Btu).

The PM emission limitations under 326 IAC 6.8 are summarized in the table below:

Emission Unit	**326 IAC 6.8 Allowable PM Emission Rate**
Paint Booth (SCR-01)	0.03 gr/dscf
Pangborn Blast Machine (Blast-01)	0.03 gr/dscf
Blasting Operation (Blast-02)	0.03 gr/dscf
Plasma/oxy-fuel drill machine (#3 OFD)	0.03 gr/dscf
Welding - Flame-Cutting	0.03 gr/dscf
Each Individual Combustion Unit	0.15 lb/MMBtu

(j) 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.

(k) 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. See Appendix A - Emissions Calculations.

(l) 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 this source because the source is subject to 326 IAC 6.8-1-2.

(m) 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.

(n) 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 and is limited by the VOC rules in 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations). Therefore, the requirements of 326 IAC 8-6 (Organic Solvent Emission Limitations) do not apply.

(o) 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 SCR-01; and, while the potential to emit of booth SCR-01 is greater than 25 tons per year of VOC, the booth SCR-01 is subject to the requirements of 326 IAC 8-2-9 (See "State Rule Applicability - Individual Facilities below). Pursuant to 326 IAC 8-7-2(a)(3)(A), 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 – Individual Facilities

Surface Coating Booth (SCR-01)

(a) 326 IAC 6.8 (Particulate Matter Limitations for Lake County)
See State Rule Applicability - Entire Source section above for the particulate limitations for the surface coating booth.

(b) 326 IAC 8-1-6 (New Facilities: General Reduction Requirements)
The surface coating booth (SCR-01) is subject to another Article 8 rule (See 326 IAC 8-2-9 discussion below). Therefore, the requirements of 326 IAC 8-1-6 (New Facilities: General Reduction Requirements) do not apply to the surface coating booth SCR-01.

(c) 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, pursuant to 326 IAC 8-2-1(a)(2), construction of this facility commences after November 1, 1980 and it has potential emissions of 25 tons or greater per year of VOC.

(1) Pursuant to 326 IAC 8-2-9(d)(1)(A), on and after April 1, 2011, the owner or operator engaged in the surface coating of miscellaneous metal or plastic parts and products in which the total actual VOC emissions from all miscellaneous metal or plastic parts or products coating operations, including related cleaning activities, are equal to or exceed fifteen (15) pounds per day, before add-on controls, located in Lake County or Porter County, shall comply with the following, for prefabricated architectural metal, using air dried coatings: the volatile organic compound (VOC) content of the coating delivered to the applicator at the surface coating operation and of the cleanup solvents shall be less than 3.5 pounds of VOCs per gallon of coating less water.

Based on the MSDS submitted by the source certain cleanup solvents used at the source are noncompliant (greater than 3.5 pounds of VOCs per gallon of coating less water). 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).

(2) Pursuant to 326 IAC 8-2-9(d)(2), one (1) or a combination of the following equipment shall be used for coating application:

(A) Electrostatic equipment.
(B) High volume low-pressure (HVLP) spray equipment.
(C) Flow coating.
(D) Roller coating.
(E) Dip coating, including electrodeposition.
(F) Airless spray.
(G) Air-assisted airless spray.
(H) Other coating application method capable of achieving a transfer efficiency equivalent or better than achieved by HVLP spraying.

(3) Pursuant to 326 IAC 8-2-9(f), work practices shall be used to minimize VOC emissions from mixing operations, storage tanks, and other containers, and handling operations for coatings, thinners, cleaning materials, and waste materials. Work practices shall include, but not be limited to, the following:

(1) Store all VOC containing coatings, thinners, coating related waste, and cleaning materials in closed containers.

(2) Ensure that mixing and storage containers used for VOC containing coatings, thinners, coating related waste, and cleaning materials are kept closed at all times except when depositing or removing these materials.

(3) Minimize spills of VOC containing coatings, thinners, coating related waste, and cleaning materials.

(4) Convey VOC containing coatings, thinners, coating related waste, and cleaning materials from one (1) location to another in closed containers or pipes.

(5) Minimize VOC emissions from the cleaning of application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers.

Welding/flame-cutting operation

(d) 326 IAC 6.8 (Particulate Matter Limitations for Lake County)
See State Rule Applicability - Entire Source section above for the particulate limitations for the welding/flame-cutting operation.

Blasting Units (Blast-01 and Blast-02)

(e) 326 IAC 6.8 (Particulate Matter Limitations for Lake County)
See State Rule Applicability - Entire Source section above for the particulate limitations for the blasting units.

Plasma/oxy-fuel drill machine

(f) 326 IAC 6.8 (Particulate Matter Limitations for Lake County)
See State Rule Applicability - Entire Source section above for the particulate limitations for the plasma/oxy-fuel drill machine.

Combustion units

(g) 326 IAC 6.8 (Particulate Matter Limitations for Lake County)
See State Rule Applicability - Entire Source section above for the particulate limitations for the combustion units.

Parts Washers

(h) 326 IAC 8-3-2 (Cold Cleaner Operation)
Pursuant to 326 IAC 8-3-2,

(a) The owner or operator of a cold cleaner degreaser shall ensure the following control equipment and operating requirements are met:

(1) Equip the degreaser with a cover.

(2) Equip the degreaser with a device for draining cleaned parts.

(3) Close the degreaser cover whenever parts are not being handled in the degreaser.

(4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases.

(5) Provide a permanent, conspicuous label that lists the operating requirements in subdivisions (3), (4), (6), and (7).

(6) Store waste solvent only in closed containers.

(7) Prohibit the disposal or transfer of waste solvent in such a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.

(b) The owner or operator of a cold cleaner degreaser subject to this subsection shall ensure the following additional control equipment and operating requirements are met:

(1) Equip the degreaser with one (1) of the following control devices if the solvent is heated to a temperature of greater than forty-eight and nine-tenths (48.9) degrees Celsius (one hundred twenty (120) degrees Fahrenheit):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

(B) A water cover when solvent used is insoluble in, and heavier than, water.

(C) A refrigerated chiller.

(D) Carbon adsorption.

(E) An alternative system of demonstrated equivalent or better control as those outlined in clauses (A) through (D) that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.

(2) Ensure the degreaser cover is designed so that it can be easily operated with one (1) hand if the solvent is agitated or heated.

(3) If used, solvent spray:

(A) must be a solid, fluid stream; and

(B) shall be applied at a pressure that does not cause excessive splashing.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

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

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

Emission Unit	Control	Parameter	Frequency	Range	Excursions and Exceedances
Pangborn blast machine (Blast-01) (1)	#2BDC cyclone/cartridge filter system	Water Pressure Drop	Daily	3.0 and 6.0 inches*	Response Steps
Paint booth (SCR-1) (2)	dry filters (Vent SCV1)	Filter inspection	Daily	Normal-Abnormal	Response Steps
		Stack exhaust inspection	Monthly		
		Presence of overspray	Monthly		
Plasma/oxy-fuel drill machine (3)	#4 TD cyclone/cartridge filter system	Water Pressure Drop	Daily	3.0 and 6.0 inches*	Response Steps

Notes:
* When, for any one reading, the pressure drop across the baghouse is outside of the normal range, the Permittee shall take a reasonable response. The normal range for this unit is a pressure drop between 3.0 and 6.0 inches of water unless a different upper-bound or lower-bound value for this range is determined during the latest stack test.
(1) These monitoring conditions are necessary because the dust collector #2BDC for the Pangborn blast machine (Blast-01) must operate properly to ensure compliance with the particulate limits. This unit vents inside the building; therefore, no visible emissions notations are required.
(2) These monitoring conditions are necessary because particulate from the surface coating operation SCR-1 must be controlled by dry filters and operate in accordance with manufacturer's specifications in order to comply with the particulate limits.
(3) These monitoring conditions are necessary because the dust collector #4 TD for the plasma/oxy-fuel drill machine must operate properly to ensure compliance with the particulate limits. This unit vents inside the building; therefore, no visible emissions notations are required.

The blasting operation (Blast-02) will be 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. There are no PM10 and PM2.5 limits for Blast-02.

The welding/flame-cutting operation has no control device.

(b) The testing requirements applicable to this source are as follows:

Testing Requirements				
Emission Unit	**Control Device**	**Pollutants**	**Timeframe for Testing**	**Frequency of Testing**
Pangborn blast machine (Blast-01)	cyclone/cartridge filter system (#2 BDC)	PM, PM10, and PM2.5	Not later than 180 days after startup	Every five (5) years

Based upon discussions with IDEM's Compliance and Enforcement Branch, this testing is required because the unlimited PTE of PM, PM10, PM2.5 for Blast-01 is high and the cyclone/cartridge filter for particulate control needs to operate a minimum of 99.6% control efficiency to comply with the FESOP and PSD minor limits

Conclusion and Recommendation

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on December 11, 2013. Additional information was submitted on February 4, 2014 and March 4, 2014.

The construction and operation of this source shall be subject to the conditions of the attached proposed New Source Construction FESOP No. 089-33970-00579. The staff recommends to the Commissioner that this New Source Construction FESOP be approved.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Sarah Street at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 232-8427 or toll free at 1-800-451-6027 extension 2-8427.

(b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.in.gov/idem

Appendix A: Emission Calculations
Emissions Summary

Company Name: Munster Steel Company
Address: 1501 Huehn Street, Hammond, Indiana 46327
FESOP No.: F089-33970-00579
Permit Reviewer: Sarah Street

	Unlimited Potential to Emit (tons/yr)									
Emission Unit	**PM**	**PM10**	**PM2.5**	**SO_2**	**NOx**	**VOC**	**CO**	**GHGs as CO2e**	**Single HAP (Xylene)**	**Total HAPs**
Paint Booth SCR-01	99.94	99.94	99.94	-	-	50.03	-	-	19.92	22.04
Pangborn Blast Machine (Blast-01)	1,122.48	112.25	112.25	-	-	-	-	-	-	-
Blasting Operation (Blast-02)	374.16	37.42	37.42	-	-	-	-	-	-	-
Plasma/Oxy-fuel Drill Machine (#3 OFD)	51.15	51.15	51.15	-	-	-	-	-	-	0.28
Welding - Flame Cutting	8.28	8.28	8.28	-	-	-	-	-	-	2.97
Combustion	0.05	0.20	0.20	0.02	2.59	0.14	2.18	3,127.17	negligible	0.05
Parts Washers	-	-	-	-	-	0.29	-	-	-	-
Fugitive: Paved & Unpaved Roads	0.76	0.17	0.03	-	-	-	-	-	-	-
Total	**1,656.82**	**309.40**	**309.26**	**0.02**	**2.59**	**50.47**	**2.18**	**3,127.17**	**19.92**	**25.35**

	Limited Potential to Emit (tons/yr)									
Emission Unit	**PM**	**PM10**	**PM2.5**	**SO_2**	**NOx**	**VOC**	**CO**	**GHGs as CO2e**	**Single HAP (Xylene)**	**Total HAPs**
Paint Booth SCR-01	99.94	9.99	9.99	-	-	<24.5	-	-	9.90	19.42
Pangborn Blast Machine (Blast-01)	3.94	7.88	7.88	-	-	-	-	-	-	-
Blasting Operation (Blast-02)	60.55	37.42	37.42	-	-	-	-	-	-	-
Plasma/Oxy-fuel Drill Machine (#3 OFD)	3.94	7.88	7.88	-	-	-	-	-	-	0.28
Welding - Flame Cutting	8.28	8.28	8.28	-	-	-	-	-	-	2.97
Combustion	0.05	0.20	0.20	0.02	2.59	0.14	2.18	3,127.17	negligible	0.05
Parts Washers	-	-	-	-	-	0.29	-	-	-	-
Fugitive: Paved & Unpaved Roads	0.76	0.17	0.03	-	-	-	-	-	-	-
Total	**177.46**	**71.81**	**71.67**	**0.02**	**2.59**	**<25**	**2.18**	**3,127.17**	**9.90**	**22.72**

Notes:
SCR-01: Limited PM10 and PM2.5 PTE equal to PTE after control; controls are required to operate while coating booths are in operation
VOC Limit to render the requirements of 326 IAC 2-6 (Emission Reporting) not applicable.
Blast-01: PM limit equal to 326 IAC 6.8 limit.
Blast-02: PM limit equal to 326 IAC 6.8 limit; no limits on PM10 and PM2.5
#3OFD: PM limit equal to 326 IAC 6.8 limit.

Emisison Unit	**PM Limit (PSD Minor)**		**PM10 Limit (FESOP and PSD Minor)**		**PM2.5 Limit (FESOP and PSD Minor)**	
	(lb/hr)	**(ton/yr)**	**(lb/hr)**	**(ton/yr)**	**(lb/hr)**	**(ton/yr)**
Paint Booth SCR-01	N/A		2.28	9.99	2.28	9.99
Pangborn Blast Machine (Blast-01)	0.9	3.94	1.8	7.88	1.8	7.88
Blasting Operation (Blast-02)	13.82	60.55	N/A		N/A	
Plasma/oxy-fuel drill machine (#3 OFD)	0.9	3.94	1.8	7.88	1.8	7.88

Appendix A: Emission Calculations
VOC Emissions
Surface Coating Activities

Company Name: Munster Steel Company
Address: 1501 Huehn Street, Hammond, Indiana 46327
FESOP No.: F089-33970-00579
Permit Reviewer: Sarah Street

Material	Density (lbs/gal)	Weight % Volatile (H20 & 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	24.87	10.9%	10.9%	66.0%	2.00	1.83	2.71	3.67	91.2	9.94	238.51	43.53	88.95	8.90	4.11	75%
Potential Emission Rates - Epoxy Gray Primer As Applied										**9.94**	**238.51**	**43.53**	**88.95**	**8.90**		
OR																
Carbozinc 11 HS Primer	27.15	8.30%	8.30%	75.0%	2.00	1.83	2.25	3.67	99.5	8.26	198.27	36.18	99.94	9.99	3.00	75%
Potential Emission Rates - Carboz Primer As Applied										**8.26**	**198.27**	**36.18**	**99.94**	**9.99**		
OR																
HS Red Oxide HS Primer	13.26	20.0%	20.0%	61.0%	2.00	1.83	2.65	3.67	48.6	9.71	233.10	42.54	42.59	4.26	4.34	75%
Potential Emission Rates - B50NZ3 Red Oxide Primer As Applied										**9.71**	**233.10**	**42.54**	**42.59**	**4.26**		
AND																
Thinner 26 ***	7.59	100%	100%	0%	0.0416	1.83	7.59	0.08	0.58	0.58	13.89	2.53	0.00	0.00	NA	100%
Xylene ***	7.18	100%	100%	0%	0.05	1.83	7.18	0.09	0.66	0.66	15.79	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										**1.48**	**35.63**	**6.50**	**0.00**	**0.00**		
Worst Case Total										9.94	238.51	43.53	99.94	9.99		
Cleanup Solvents										1.48	35.63	6.50	0.00	0.00		
Worst Case Coating + Cleanup Solvent = Potential to Emit										**11.42**	**274.14**	**50.03**	**99.94**	**9.99**		

*One Unit = 1000 sq feet of Structural Metal
**The particulate control efficiency of dry filters is 90%.
*** Isopropyl Alcohol is the only cleanup solvent used when coating with B50NZ3 Red Oxide Primer. 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 hr/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														
Thinner 26 ***	7.59	0.04	1.83	0%	0%	0%	0%	0%	0.00	0.00	0.00	0.00	0.00	0.00
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**
Worst Case HAP Emission Rates ***									**2.13**	**0.04**	**0.00**	**7.35**	**19.92**	**22.04**

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 Company
Address: 1501 Huehn Street, Hammond, Indiana 46327
FESOP No.: F089-33970-00579
Permit Reviewer: Sarah Street

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)	Limited PM (lb/hr)	Limited PM (ton/yr)	Control Efficiency Required	Limited PM10 (lb/hr)	Limited PM10 (ton/yr)	Control Efficiency Required
Blast-01 *	15.075	17.0	1.70	1,122.48	112.25	Cyclone/ cartridge filter	99.9%	1.12	0.11	0.9	3.94	99.6%	1.8	7.88	93.0%
Blast-02 **	5.03	17.0	1.70	374.16	37.42	No control	N/A	N/A	N/A	13.82	60.53	N/A	N/A		
Total				**1,496.65**	**149.66**										

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* 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. The 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. The maximum airflow rate from this enclosed room is 53,670 acfm. 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 Company
Address: 1501 Huehn Street, Hammond, Indiana 46327
FESOP No.: F089-33970-00579
Permit Reviewer: Sarah Street

PROCESS	Number of Stations	Max. Metal Thickness	Max. Metal Cutting Rate	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick) *				UNCONTROLLED POTENTIAL TO EMIT (lbs/hr)				HAPS (lbs/hr)
FLAME CUTTING		Cut (in.)	(in./minute)	PM = PM10	Mn	Ni	Cr	PM / PM10	Mn	Ni	Cr	Total HAPs
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

* 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 exaust 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 Company
Address: 1501 Huehn Street, Hammond, Indiana 46327
FESOP No.: F089-33970-00579
Permit Reviewer: Sarah Street

PROCESS	Number of Stations	Max. electrode consumption per		EMISSION FACTORS* (lb pollutant/lb electrode)				POTENTIAL TO EMIT (lbs/hr)				HAPS (lbs/hr)
WELDING		station (lbs/hr)		PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Submerged Arc	7	8.19		5.00E-05	0.01			2.87E-03	0.63			0.63
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)	10	5.00		0.02	9.00E-04			1.06	0.05			0.05
	Number of Stations	Max. Metal Thickness	Max. Metal Cutting Rate	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick)**				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
FLAME CUTTING		Cut (in.)	(in./minute)	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
Oxygen-fired ABC Cutting	1	3.00	12.0	0.1622	0.0005	0.0001	0.0003	0.350	0.001	0.000	0.001	0.002

POTENTIAL TO EMIT, UNCONTROLLED

Potential to Emit Uncontrolled (lbs/hr)			1.89	0.677	2.16E-04	6.48E-04	0.68
Potential to Emit Uncontrolled (tons/year)			8.3	2.97	9.46E-04	2.84E-03	2.97

*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: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Company Name: Munster Steel Company
Address: 1501 Huehn Street, Hammond, Indiana 46327
FESOP No.: F089-33970-00579
Permit Reviewer: Sarah Street

Unit ID	Heat Input Capacity
Furn-1	0.105
Furn-2	0.105
Furn-3	0.105
Furn-4	0.105
RTF-1	0.075
MAU-1	2.368
MAU-2	2.368
MAU-3	0.801

Heat Input Capacity MMBtu/hr	HHV mmBtu/mmscf	Potential Throughput MMCF/yr
6.032	1020	51.8

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.05	0.20	0.20	0.02	2.59	0.14	2.18

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
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
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

HAPS Calculations

	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	**Total - Organics**
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	5.439E-05	3.108E-05	1.943E-03	4.662E-02	8.807E-05	**4.874E-02**

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	**Total - Metals**
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	1.295E-05	2.849E-05	3.626E-05	9.843E-06	5.439E-05	**1.419E-04**
					Total HAPs	**4.888E-02**
					Worst HAP	**4.662E-02**

Methodology is the same as above.

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

Greenhouse Gas Calculations

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	3,108	0.1	0.1
Summed Potential Emissions in tons/yr	3,108		
CO2e Total in tons/yr based on 11/29/2013 federal GWPs	3,127		
CO2e Total in tons/yr based on 10/30/2009 federal GWPs	3,127		

Methodology
The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) based on 11/29/2013 federal GWPs= CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential Emission ton/yr x N2O GWP (298).
CO2e (tons/yr) based on 10/30/2009 federal GWPs = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

Appendix A: Emission Calculations
VOC Emissions
Cold Cleaning Activities

Company Name: Munster Steel Company
Address: 1501 Huehn Street, Hammond, Indiana 46327
FESOP No.: F089-33970-00579
Permit Reviewer: Sarah Street

VOC Emissions from Four Parts Washers

Parts Washer Identification	Solvent Name	Solvent Density (lb/gal)	Annual Solvent Throughput (gal)	Weight Percent VOC	Annual Emission Rate TPY
MPW-1	Calumet 142 Flash	6.51	45.00	100.00%	0.15
CPW-1	Calumet 142 Flash	6.51	45.00	100.00%	0.15
	Total Annual Emission Rate				0.29

Note: The solvents used in the parts washers contain no HAPs

METHODOLOGY

Annual Emission Rate = ∑ All Parts Washers [(Solvent Density (lb/gal) x Annual Throughput (gal) x Weight % VOC)] / 2,000 (lb/ton)

TPY - Tons per Year
MPW-1 & MPW-2 = Maintenance Parts Washers
EPW-1 - Extruder Parts Washer
TPW-1 - Latex Coating Tower Parts Washer

Appendix A: Emission Calculations
Fugitive Dust Emissions - Unpaved Roads

Company Name: Munster Steel Company
Address: 1501 Huehn Street, Hammond, Indiana 46327
FESOP No.: F089-33970-00579
Permit Reviewer: Sarah Street

Unpaved Roads at Industrial Site
The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2 (11/2006).

Vehicle Information (provided by source)

Type	Maximum number of vehicles	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Vehicle (entering plant) (one-way trip)	8.0	1.0	8.0	25.0	200.0	100	0.019	0.2	55.3
Vehicle (leaving plant) (one-way trip)	8.0	1.0	8.0	25.0	200.0	100	0.019	0.2	55.3
		Totals	**16.0**		**400.0**			**0.3**	**110.6**

Average Vehicle Weight Per Trip = 25.0 tons/trip
Average Miles Per Trip = 0.02 miles/trip

Unmitigated Emission Factor, Ef = k*[(s/12)^a]*[(W/3)^b] (Equation 1a from AP-42 13.2.2)

	PM	PM10	PM2.5	
where k =	4.9	1.5	0.15	lb/mi = particle size multiplier (AP-42 Table 13.2.2-2 for Industrial Roads)
s =	4.8	4.8	4.8	% = mean % silt content of unpaved roads (AP-42 Table 13.2.2-1 Sand/Gravel Processing Plant)
a =	0.7	0.9	0.9	= constant (AP-42 Table 13.2.2-2 for Industrial Roads)
W =	25.0	25.0	25.0	tons = average vehicle weight (provided by source)
b =	0.45	0.45	0.45	= constant (AP-42 Table 13.2.2-2 for Industrial Roads)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = E * [(365 - P)/365] (Equation 2 from AP-42 13.2.2)
Mitigated Emission Factor, Eext = E * [(365 - P)/365]
where P = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	6.70	1.71	0.17	lb/mile
Mitigated Emission Factor, Eext =	4.40	1.12	0.11	lb/mile
Dust Control Efficiency =	0%	0%	0%	(pursuant to control measures outlined in fugitive dust control plan)

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10 (tons/yr)	Controlled PTE of PM2.5 (tons/yr)
Vehicle (entering plant) (one-way trip)	0.19	0.05	0.00	0.12	0.03	0.00	0.12	0.03	0.00
Vehicle (leaving plant) (one-way trip)	0.19	0.05	0.00	0.12	0.03	0.00	0.12	0.03	0.00
Totals	**0.37**	**0.09**	**0.01**	**0.24**	**0.06**	**0.01**	**0.24**	**0.06**	**0.01**

Methodology
Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] * [Maximum trips per day (trip/day)]
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip) / [5280 ft/mile]
Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] * [Maximum one-way distance (mi/trip)]
Average Vehicle Weight Per Trip (ton/ = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]
Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]
Unmitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) * (Unmitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
Mitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) * (Mitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
Controlled PTE (tons/yr) = (Mitigated PTE (tons/yr)) * (1 - Dust Control Efficiency)

Abbreviations
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particulate Matter (<2.5 um)
PTE = Potential to Emit

Appendix A: Emission Calculations
Fugitive Dust Emissions - Paved Roads

Company Name: Munster Steel Company
Address: 1501 Huehn Street, Hammond, Indiana 46327
FESOP No.: F089-33970-00579
Permit Reviewer: Sarah Street

Paved Roads at Industrial Site
The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (1/2011).

Vehicle Informtation (provided by source)

Type	Maximum number of vehicles per day	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Vehicle (entering plant) (one-way trip)	8.0	1.0	8.0	25.0	200.0	300	0.057	0.5	165.9
Vehicle (leaving plant) (one-way trip)	8.0	1.0	8.0	25.0	200.0	300	0.057	0.5	165.9
		Totals	**16.0**		**400.0**			**0.9**	**331.8**

Average Vehicle Weight Per Trip = 25.0 tons/trip
Average Miles Per Trip = 0.06 miles/trip

Unmitigated Emission Factor, Ef = [k * (sL)^0.91 * (W)^1.02] (Equation 1 from AP-42 13.2.1)

	PM	PM10	PM2.5	
where k =	0.011	0.0022	0.00054	lb/VMT = particle size multiplier (AP-42 Table 13.2.1-1)
W =	25.0	25.0	25.0	tons = average vehicle weight (provided by source)
sL =	9.7	9.7	9.7	g/m^2 = silt loading value for paved roads at iron and steel production facilities - Table 13.2.1-3)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = E * [1 - (p/4N)] (Equation 2 from AP-42 13.2.1)
Mitigated Emission Factor, Eext = Ef * [1 - (p/4N)]
where p = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)
N = 365 days per year

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	2.319	0.464	0.1138	lb/mile
Mitigated Emission Factor, Eext =	2.120	0.424	0.1041	lb/mile
Dust Control Efficiency =	0%	0%	0%	(pursuant to control measures outlined in fugitive dust control plan)

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10 (tons/yr)	Controlled PTE of PM2.5 (tons/yr)
Vehicle (entering plant) (one-way trip)	0.19	0.04	0.01	0.18	0.04	0.01	0.18	0.04	0.01
Vehicle (leaving plant) (one-way trip)	0.19	0.04	0.01	0.18	0.04	0.01	0.18	0.04	0.01
Totals	**0.38**	**0.08**	**0.02**	**0.35**	**0.07**	**0.02**	**0.35**	**0.07**	**0.02**

Methodology
Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] * [Maximum trips per day (trip/day)]
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip) / [5280 ft/mile]
Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] * [Maximum one-way distance (mi/trip)]
Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]
Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]
Unmitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] * [Unmitigated Emission Factor (lb/mile)] * (ton/2000 lbs)
Mitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] * [Mitigated Emission Factor (lb/mile)] * (ton/2000 lbs)
Controlled PTE (tons/yr) = [Mitigated PTE (tons/yr)] * [1 - Dust Control Efficiency]

Abbreviations
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particle Matter (<2.5 um)
PTE = Potential to Emit

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Deborha Dorsey
Munster Steel Company, Inc.
9505 Calumet Avenue
Munster, IN 46321

DATE: April 16, 2014

FROM: Matt Stuckey, Branch Chief
Permits Branch
Office of Air Quality

SUBJECT: Final Decision
New Source Construction and Federally Enforceable State Operating Permit (FESOP)
089-33970-00579

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

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

A copy of the final decision and supporting materials has also been sent via standard mail to:
Jeanne Robbins, President
Doug Elliott, D & B Environmental Services, Inc.
OAQ Permits Branch Interested Parties List

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

Final Applicant Cover letter.dot 6/13/2013

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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

April 16, 2014

TO: Hammond Public Library

From: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: Munster Steel Company, Inc.
Permit Number: 089-33970-00579

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures
Final Library.dot 6/13/2013

Mail Code 61-53

IDEM Staff	VHAUN 4/16/2014 Munster Steel Company Incorporated 089-33970-00579 FINAL			AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender	▶	Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: **CERTIFICATE OF MAILING ONLY**	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee Remarks
1		Deborha Dorsey Munster Steel Company Incorporated 9505 Calumet Ave Munster IN 46321 (Source CAATS) CONFIRMED DELIVERY									
2		Jeanne Robbins President Munster Steel Company Incorporated 9505 Calumet Ave Munster IN 46321 *(RO CAATS)*									
3		East Chicago City Council 4525 Indianapolis Blvd East Chicago IN 46312 *(Local Official)*									
4		Lake County Health Department-Gary 1145 W. 5th Ave Gary IN 46402-1795 *(Health Department)*									
5		WJOB / WZVN Radio 6405 Olcott Ave Hammond IN 46320 *(Affected Party)*									
6		Hammond City Council and Mayors Office 5925 Calumet Avenue Hammond IN 46320 *(Local Official)*									
7		Hammond Public Library 564 State St Hammond IN 46320-1532 *(Library)*									
8		Shawn Sobocinski 3229 E. Atlanta Court Portage IN 46368 *(Affected Party)*									
9		Mark Coleman 107 Diana Road Portage IN 46368 *(Affected Party)*									
10		Mr. Chris Hernandez Pipefitters Association, Local Union 597 8762 Louisiana St., Suite G Merrillville IN 46410 *(Affected Party)*									
11		Craig Hogarth 7901 West Morris Street Indianapolis IN 46231 *(Affected Party)*									
12		Lake County Commissioners 2293 N. Main St, Building A 3rd Floor Crown Point IN 46307 *(Local Official)*									
13		Mr. Doug Elliott D & B Environmental Services, Inc. 401 Lincoln Way West Osceola IN 46561 (Consultant)									
14		Anthony Copeland 2006 E. 140th Street East Chicago IN 46312 *(Affected Party)*									
15		Barbara G. Perez 506 Lilac Street East Chicago IN 46312 *(Affected Party)*									

Total number of pieces Listed by Sender 14	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is $50,000 per piece subject to a limit of $50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is $500. The maximum indemnity payable is $25,000 for registered mail, sent with optional postal insurance. See ***Domestic Mail Manual*** **R900, S913**, and **S921** for limitations of coverage on inured and COD mail. See ***International Mail Manual*** for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.

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Mail Code 61-53

IDEM Staff	VHAUN 4/16/2014 Munster Steel Company Incorporated 089-33970-00579 FINAL			AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender	▶	Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: **CERTIFICATE OF MAILING ONLY**	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee Remarks
1		Robert Garcia 3733 Parrish Avenue East Chicago IN 46312 (Affected Party)									
2		Ms. Karen Kroczek 8212 Madison Ave Munster IN 46321-1627 *(Affected Party)*									
3		Joseph Hero 11723 S Oakridge Drive St. John IN 46373 *(Affected Party)*									
4		Gary City Council 401 Broadway # 209 Gary IN 46402 *(Local Official)*									
5		Ron Novak Hammond Dept. of Environmental Management 5925 Calumnet Ave. Hammond IN 46320 *(Local Official)*									
6		Mr. Larry Davis 268 South, 600 West Hebron IN 46341 *(Affected Party)*									
7		Ryan Dave 939 Cornwallis Munster IN 46321 *(Affected Party)*									
8		Matt Mikus 1710 Vale Park Rd Apt 302 Valparaiso IN 46383 *(Affected Party)*									
9											
10											
11											
12											
13											
14											
15											

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	
8			The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is $50,000 per piece subject to a limit of $50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is $500. The maximum indemnity payable is $25,000 for registered mail, sent with optional postal insurance. See ***Domestic Mail Manual*** **R900, S913**, and **S921** for limitations of coverage on inured and COD mail. See ***International Mail Manual*** for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.

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