



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: January 7, 2013

RE: Metal Source, LLC / 169-32358-00067

FROM: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER.dot12/03/07



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Marcus Olson
Metal Source, LLC
PO Box 238
Wabash, IN 46992

January 7, 2012

Re: F169-32358-00067
First Significant Revision to
F169-30343-00067

Dear Mr. Olson:

Metal Source, LLC was issued a Federally Enforceable State Operating Permit (FESOP) No. F169 30343 00067 on September 13, 2011 for a stationary aluminum ingots and sows manufacturing source located at 1743 South Wabash Street, Wabash, Indiana 46992. On September 28, 2012, the Office of Air Quality (OAQ) received an application from the source requesting (1) the addition of three unpermitted shredders for aluminum scrap to the permit, (2) the modification of furnace #1 which is currently permitted but the source has decommissioned and would like to modify and keep in the permit, and (3) the revision of descriptive information for the baghouse for furnace #2 as well as the incorporation of compliance monitoring and determination requirements into the permit necessary to ensure compliance with FESOP limits.

The attached Technical Support Document (TSD) provides additional explanation of the changes to the source/permit. Pursuant to the provisions of 326 IAC 2-8-11.1, these changes to the permit are required to be reviewed in accordance with the Significant Permit Revision (SPR) procedures of 326 IAC 2-8-11.1(f). Pursuant to the provisions of 326 IAC 2-8-11.1, a significant permit revision to this permit is hereby approved as described in the attached Technical Support Document (TSD).

The following construction conditions are applicable to the proposed project:

1. General Construction Conditions
The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless

modified in a manner consistent with procedures established pursuant to 326 IAC 2.

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the significant permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Attached please find the entire revised permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Sarah Street, of my staff, at 317-232-8427 or 1-800-451-6027, and ask for extension 2-8427.

Sincerely,



Iryn Calilung, Section Chief
Permits Branch
Office of Air Quality

Attachments: Technical Support Document and revised permit

IC/ss

cc: File - Wabash County
Wabash County Health Department
U.S. EPA, Region V
Compliance and Enforcement Branch
Billing, Licensing and Training Section



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

**Metal Source, LLC
1743 South Wabash Street
Wabash, Indiana 46992**

(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.: F 169-30343-00067	
Original Signed by: Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: September 13, 2011 Expiration Date: September 13, 2016

Significant Permit Revision No.: F169-32358-00067	
Issued by:  Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: January 7, 2013 Expiration Date: September 13, 2016

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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 aluminum ingots and sows manufacturing source.

Source Address:	1743 South Wabash Street, Wabash, Indiana 46992
General Source Phone Number:	(260) 563-8833
SIC Code:	3341 (Secondary Smelting and Refining of Nonferrous Metals)
County Location:	Wabash
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD Rules Minor Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

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

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

- (a) One (1) dry hearth reverberatory furnace, identified as EU-1, constructed in 2007, modified in 2009, approved for modification in 2012, equipped with two (2) primary natural gas low-NO_x burners, each rated at 1 million British thermal units per hour, and two (2) holding chamber natural gas low-NO_x burners, each rated at 2.0 million British thermal units per hour, equipped with a baghouse, identified as CE1, for particulate control and coated with lime to neutralize HAPs, exhausting to stack SV-1, with metal poured directly into cast iron molds, capacity: 2,500 pounds of scrap aluminum per hour.

Note: There is no fluxing or dross handling and cooling for the above unit. This furnace is a dry hearth reverberatory furnace. The aluminum melts on a slanted refractory and drips through a hole and into a holding well. Once the charge is melted, the door is opened and iron is removed. The iron is a marketable material and is not considered dross. Baghouse CE1 is also used to control emissions from Furnace EU-2.

- (b) Three (3) cast iron molds, approved for construction in 2011, each with a maximum capacity of 1,400 pounds.

These units are considered affected facilities under 40 CFR 63, Subpart RRR.

- (c) One (1) dry hearth reverberatory furnace, identified as EU-2, constructed in 2011, equipped with two (2) primary natural gas low-NO_x burners, each rated at 8.2 million British thermal units per hour, and two (2) holding chamber natural gas low-NO_x burners, each rated at 8.2 million British thermal units per hour, equipped with two (2) baghouses, identified as CE2 and CE1, for particulate control and coated with lime to neutralize HAPs, exhausting to stack SV-2, with metal poured directly into cast iron molds, capacity: 10,000 pounds of scrap aluminum per hour, with a maximum flux throughput of 231 pounds per hour.

Note: This EU-2 has similar operation as the EU-1, except there is salt fluxing in this unit.

This unit is considered an affected facility under 40 CFR 63, Subpart RRR.

- (d) Ten (10) cast iron molds, approved for construction in 2011, each with a maximum capacity of 1,400 pounds.

These units are considered affected facilities under 40 CFR 63, Subpart RRR.

- (e) Insignificant activities consisting of the following:
 - (1) Two (2) forklifts and 2 skid steers.
 - (2) Paved road and parking lot.
- (f) One (1) aluminum metal shredder, identified as Metal Reclaimer MP1, constructed in 2011, with a maximum capacity of 8,000 pounds per hour of furnace discharge material, using a dust collector, identified as CE3, to control particulate emissions, and exhausting inside the building;
- (g) One (1) aluminum metal shredder, identified as Hammer Mill MP2, constructed in 2011, with a maximum capacity of 10,000 pounds per hour of aluminum turnings, cast, and sheet, using a dust collector, identified as CE3, to control particulate emissions, and exhausting inside the building;
- (h) One (1) aluminum metal shredder, identified as Ring Mill MP3, constructed in 2011, with a maximum capacity of 4,000 pounds per hour of aluminum turnings, using a dust collector, identified as CE4, to control particulate emissions, and exhausting inside the building;

A.3 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, F 169-30343-00067, 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 July 1 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)][326 IAC 2-8-5(a)(1)]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) 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
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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, 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

- (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 F 169-30343-00067 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(40). 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) through (d) without a prior permit revision, if each of the following conditions is met:
- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;

- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

- (4) The Permittee notifies the:

Indiana Department of Environmental Management
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) through (d). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-8-15(b)(2), (c)(1), and (d).

- (b) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (c) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (d) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.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 Advanced Source Modification Approval [326 IAC 2-8-4(11)] [326 IAC 2-1.1-9]

- (a) The requirements to obtain a permit modification under 326 IAC 2-8-11.1 are satisfied by this permit for the proposed emission units, control equipment or insignificant activities in Sections A.2 and A.3.
- (b) Pursuant to 326 IAC 2-1.1-9 any permit authorizing construction may be revoked if construction of the emission unit has not commenced within eighteen (18) months from the date of issuance of the permit, or if during the construction, work is suspended for a continuous period of one (1) year or more.

B.26 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 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

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

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

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-2 (PSD), potential to emit particulate matter (PM) from the entire source shall be limited to less than one hundred (100) 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 that the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.3 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 forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A,

Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 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.5 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.6 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.7 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the attached plan as in Attachment A.

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

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

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

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

- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
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.10 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.11 Compliance Requirements [326 IAC 2-1.1-11]

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

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

C.12 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]

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 or of initial start-up, whichever is later, 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 or the date of initial startup, whichever is later, 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).

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

C.13 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]

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

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

C.14 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

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

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

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

no later than 180 days from the date on which this source commences operation.

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

C.15 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.16 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.17 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.18 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, 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.19 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported 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.20 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.

Ambient Monitoring Requirements [326 IAC 7-3]

C.21 Ambient Monitoring [326 IAC 7-3]

- (a) The Permittee shall operate continuous ambient sulfur dioxide air quality monitors and a meteorological data acquisition system according to a monitoring plan submitted to the commissioner for approval. The monitoring plan shall include requirements listed in 326 IAC 7-3-2(a)(1), 326 IAC 7-3-2(a)(2) and 326 IAC 7-3-2(a)(3).
- (b) The Permittee and other operators subject to the requirements of this rule, located in the same county, may submit a joint monitoring plan to satisfy the requirements of this rule. [326 IAC 7-3-2(c)]

- (c) The Permittee may petition the commissioner for an administrative waiver of all or some of the requirements of 326 IAC 7-3 if such owner or operator can demonstrate that ambient monitoring is unnecessary to determine continued maintenance of the sulfur dioxide ambient air quality standards in the vicinity of the source. [326 IAC 7-3-2(d)]

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) dry hearth reverberatory furnace, identified as EU-1, constructed in 2007, modified in 2009, approved for modification in 2012, equipped with two (2) primary natural gas low-NO_x burners, each rated at 1 million British thermal units per hour, and two (2) holding chamber natural gas low-NO_x burners, each rated at 2.0 million British thermal units per hour, equipped with a baghouse, identified as CE1, for particulate control and coated with lime to neutralize HAPs, exhausting to stack SV-1, with metal poured directly into cast iron molds, capacity: 2,500 pounds of scrap aluminum per hour.

Note: There is no fluxing or dross handling and cooling for the above unit. This furnace is a dry hearth reverberatory furnace. The aluminum melts on a slanted refractory and drips through a hole and into a holding well. Once the charge is melted, the door is opened and iron is removed. The iron is a marketable material and is not considered dross. Baghouse CE1 is also used to control emissions from Furnace EU-2.

This unit is considered an affected facility under 40 CFR 63, Subpart RRR.

- (b) Three (3) cast iron molds, approved for construction in 2011, each with a maximum capacity of 1,400 pounds.

These units are considered affected facilities under 40 CFR 63, Subpart RRR.

- (c) One (1) dry hearth reverberatory furnace, identified as EU-2, constructed in 2011, equipped with two (2) primary natural gas low-NO_x burners, each rated at 8.2 million British thermal units per hour, and two (2) holding chamber natural gas low-NO_x burners, each rated at 8.2 million British thermal units per hour, equipped with two (2) baghouses, identified as CE2 and CE1, for particulate control and coated with lime to neutralize HAPs, exhausting to stack SV-2, with metal poured directly into cast iron molds, capacity: 10,000 pounds of scrap aluminum per hour, with a maximum flux throughput of 231 pounds per hour.

Note: This EU-2 has similar operation as the EU-1, except there is salt fluxing in this unit.

This unit is considered affected facilities under 40 CFR 63, Subpart RRR.

- (d) Ten (10) cast iron molds, approved for construction in 2011, each with a maximum capacity of 1,400 pounds.

These units are considered affected facilities under 40 CFR 63, Subpart RRR.

(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 Particulate Matter Less Than 10 Microns (PM₁₀ and PM_{2.5}) [326 IAC 2-8-4] [326 IAC 2-2]

Pursuant to 326 IAC 2-8, the PM₁₀ and PM_{2.5} emissions from the baghouses controlling the dry hearth reverberatory furnaces shall not exceed the emission limits listed in the table below:

Control Device	PM10 Emission Limit (lbs/hr)	PM2.5 Emission Limit (lbs/hr)
Baghouse CE1 (controlling Furnace EU-1 and Furnace EU-2)	4.76	4.76
Baghouse CE2 (controlling Furnace EU-2)	12.05	12.05

Compliance with these limits, combined with the potential to emit PM10 and PM2.5 from all other emission units at this source, shall limit the source-wide total potential to emit of PM10 and PM2.5 to less than 100 tons per 12 consecutive month period, each, and shall render 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

D.1.2 Particulate Matter (PM) [326 IAC 2-2]

In order to render 326 IAC 2-2 not applicable, the PM emissions from the baghouses controlling the dry hearth reverberatory furnaces shall not exceed the emission limits listed in the table below:

Control Device	PM Emission Limit (lbs/hr)
Baghouse CE1 (controlling Furnace EU-1 and Furnace EU-2)	4.76
Baghouse CE2 (controlling Furnace EU-2)	12.05

Compliance with these limits, combined with the potential to emit PM from all other emission units at this source, shall limit the source-wide total potential to emit of PM to less than 100 tons per 12 consecutive month period, and shall render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

D.1.3 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the dry hearth reverberatory furnaces shall not exceed the following limits:

Emission Unit	Aluminum Process Weight Rate (tons/hr)	Flux Process Weight Rate (tons/hr)	Total Process Weight Rate (tons/hr)	Allowable Particulate Emissions (lb/hr)
Reverberatory Furnace (EU-1)	1.25	0	1.25	4.76
Reverberatory Furnace (EU-2)	5.00	0.12	5.12	12.24

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

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

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

D.1.4 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

The VOC emissions rate from the dry hearth reverberatory furnace (EU-2) shall not exceed 0.95 pound per ton scrap aluminum at a maximum rate of 10,000 pounds per hour. This will limit VOC

emissions from the EU-2 to less than 25 tons per year. Compliance with this limit will render the requirements of 326 IAC 8-1-6 not applicable to this facility.

D.1.5 HAP Limitations [326 IAC 2-8-4] [326 IAC 2-4.1]

Pursuant to 326 IAC 2-8-4, the Permittee shall comply with the following:

- (a) The addition of solid HAP-containing flux to the dry hearth reverberatory furnace EU-2 shall be limited such that HF emissions after control shall not exceed 0.0095 lb/lb after control of Sodium Aluminum Tetrafluoride (SAF) when melting aluminum at the maximum rate of 10,000 lb of scrap aluminum with a maximum rate of 231 lb of SAF per hour.
- (b) The Permittee shall use solid flux in the dry hearth reverberatory furnace, EU-2, only.

Compliance with this limit, combined with the potential to emit HAP from all other emission units at this source shall limit source wide single HAP to less than ten (10) tons per year and less than twenty-five (25) tons of any combination of HAP per year and renders the requirements of 326 IAC 2-7 and 326 IAC 2-4.1 not applicable.

D.1.6 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan is required for this facility and its control device. 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.1.7 Particulate Control, HAPs Control

In order to comply with conditions D.1.1, D.1.2, D.1.3 and D.1.5,

- (a) The baghouses CE01 and CE02 for particulate control shall be in operation and control emissions from the aluminum dry hearth reverberatory furnaces at all times that the dry hearth reverberatory furnaces EU-1 and EU-2 are in operation.
- (b) The lime injection system for Baghouse CE01 shall be in operation and shall control HAPs emissions from the reverberatory furnace EU-2 at all times that the furnace is in operation.
- (c) The lime injection system for Baghouse CE02 shall be in operation and shall control HAPs emissions from the reverberatory furnace EU-2 at all times that the furnace is in operation.
- (d) 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.

D.1.8 Testing Requirements

- (a) Not later than 180 days after startup of the dry hearth reverberatory furnace EU-1, in order to demonstrate compliance with Conditions D.1.1, D.1.2 and D.1.3, the Permittee shall perform PM, PM10 and PM2.5 testing for Baghouse CE1 (controlling Furnace EU-1 and Furnace EU-2), within five (5) years from the last valid compliance demonstration, utilizing methods as 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 PM.

Note: Both Furnace EU-1 and EU-2 must be operating during the stack test for Baghouse CE1.

- (b) In order to determine compliance with Conditions D.1.1, D.1.2 and D.1.3, the Permittee shall perform PM, PM10 and PM2.5 testing of Baghouse CE2 (controlling Furnace EU-2) not later than 180 days after the issuance of this Significant Permit Revision No. 169-32358-00067. This testing shall be conducted utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the most recent 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 PM.
- (c) In order to determine compliance with Condition D.1.4, the Permittee shall perform one time VOC testing of the dry hearth reverberatory furnace, EU-2, not later than 180 days after the issuance of this Significant Permit Revision No. 169-32358-00067. This testing shall be conducted utilizing methods as approved by the Commissioner. 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.
- (d) In order to determine compliance with Condition D.1.5, the Permitted shall perform HF testing of the dry hearth reverberatory furnace, EU2, not later than 180 days after the issuance of this Significant Permit Revision N. 169-32358-00067. This testing shall be conducted utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the most recent 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.

Note: A stack test to determine compliance with the HF limit in Condition D.1.5 for Furnace EU-2 should include both Baghouse CE1 and Baghouse CE2.

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

D.1.9 Visible Emissions Notations

- (a) Visible emission notations of the exhaust dry hearth reverberatory furnace stacks (SV-1) and (SV-2) shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response. 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.

D.1.10 Parametric Monitoring

- (a) The Permittee shall record the pressure drop across the baghouses used in conjunction with the stack dry hearth furnaces EU-1 and EU-2, at least once per day when the furnaces are in operation. When for any one reading, the pressure drop across the dust collector is outside the normal range of 1 to 8 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response. 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.

The instrument 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.

- (b) The Permittee shall monitor lime injection rate for baghouse CE1 and baghouse CE2 controlling the dry hearth reverberatory furncae EU-2 when the reverberatory furnace EU-2 is in operation. The hours of operation of each reverberatory furnace shall be recorded for the same time period. The hourly lime usage rate shall be the daily lime usage divided by the daily hours of operation. The Preventive Maintenance Plan for the lime injection system shall contain troubleshooting contingency and corrective actions for when the lime usage rate is below the minimum rate for any one reading.
- (c) The minimum lime injection rate to baghouse CE1 and baghouse CE2 controlling dry hearth reverberatory furnace EU-2 shall be at least 20 pounds per hour, each, when the dry heart reverberatory furnace EU-2 is in operation.
- (d) The Permittee shall record the observations that the lime injection systems are working properly and that material is flowing freely through each system. When for any one observation indicating a reduced flow of material, or no flow of material, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the response steps required by this condition. An observation that is outside the above mentioned parameter is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

D.1.11 Broken or Failed Bag Detection

- (a) For a single compartment dust collector controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has 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 dust collector controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has 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 dust collectors' 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.1.12 Record Keeping Requirements

- (a) To document the compliance status with Condition D.1.9, the Permittee shall maintain daily records of visible emission notations of the stack dry hearth reverberatory furnaces exhaust (SV-1 and SV-2). The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation, (i.e. the process did not operate that day).
- (b) To document the compliance status with Condition D.1.10(a), the Permittee shall maintain daily records of the pressure drop across the baghouse controlling the stack dry hearth reverberatory furnaces (EU-1 and EU-2), during normal operation. 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, (i.e. the process did not operate that day).
- (c) To document the compliance status with Condition D.1.10(b) and D.1.10(c), the Permittee shall maintain daily records of the hourly lime injection rate for CE1 and baghouse CE2 controlling dry hearth reverberatory furnace EU-2.
- (d) To document the compliance status with Condition D.1.10(d), the Permittee shall maintain records of daily visual flow checks of the lime injection systems at least once per day when dry hearth reverberatory furnace EU-2 is operating. The Permittee shall include in its daily record when a visual flow check is not taken and the reason for the lack of visible flow check (e.g., the reverberatory furnace did not operate that day).
- (e) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (f) One (1) aluminum metal shredder, identified as Metal Reclaimer MP1, constructed in 2011, with a maximum capacity of 8,000 pounds per hour of furnace discharge material, using a dust collector, identified as CE3, to control particulate emissions, and exhausting inside the building;
- (g) One (1) aluminum metal shredder, identified as Hammer Mill MP2, constructed in 2011, with a maximum capacity of 10,000 pounds per hour of aluminum turnings, cast, and sheet, using a dust collector, identified as CE3, to control particulate emissions, and exhausting inside the building;
- (h) One (1) aluminum metal shredder, identified as Ring Mill MP3, constructed in 2011, with a maximum capacity of 4,000 pounds per hour of aluminum turnings, using a dust collector, identified as CE4, to control particulate emissions, and exhausting inside the building;

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

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

D.2.1 Particulate Matter (PM) [326 IAC 2-2]

In order to render 326 IAC 2-2 not applicable, the PM emissions from dust collectors controlling the aluminum metal shredders shall not exceed the emission limits listed in the table below:

Control Device / Emission Unit	PM Emission Limit (lbs/hr)
Dust collector CE3 (controlling Metal Reclaimer (MP1) and Hammer Mill (MP2))	2.78
Dust collector CE4 (controlling Ring Mill (MP3))	0.84

Compliance with these limits, combined with the potential to emit PM from all other emission units at this source, shall limit the source-wide total potential to emit of PM to less than 100 tons per 12 consecutive month period, and shall render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

D.2.2 Particulate Matter Less Than 10 Microns (PM10 and PM2.5) [326 IAC 2-8-4] [326 IAC 2-2]

Pursuant to 326 IAC 2-8 and in order to render 326 IAC 2-2 not applicable, the PM10 and PM2.5 emissions from the dust collectors controlling the aluminum metal shredders shall not exceed the emission limits listed in the table below:

Control Device / Emission Unit	PM10 Emission Limit (lbs/hr)	PM2.5 Emission Limit (lbs/hr)
Dust collector CE3 (controlling Metal Reclaimer (MP1) and Hammer Mill (MP2))	2.78	2.78
Dust collector CE4 (controlling Ring Mill (MP3))	0.84	0.84

Compliance with these limits, combined with the potential to emit PM10 and PM2.5 from all other emission units at this source, shall limit the source-wide total potential to emit of PM10 and PM2.5

to less than 100 tons per 12 consecutive month period, each, and shall render 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

D.2.3 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the aluminum metal shredders shall not exceed the following limits:

Emission Unit	Process Weight Rate (ton/hr)	PM Emission Limit (lb/hr)
Metal Reclaimer (MP1)	4.00	10.38
Hammer Mill (MP2)	5.00	12.05
Ring Mill (MP3)	2.00	6.52

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

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

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

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

A Preventive Maintenance Plan is required for these facilities and 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 Particulate Control

- (a) In order to comply with conditions D.2.1, D.2.2, and D.2.3, the baghouses for particulate control shall be in operation and control emissions from the aluminum metal shredders at all times that the aluminum metal shredders are in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.2.6 Testing Requirements

- (a) In order to determine 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 dust collector CE3 (controlling Metal Reclaimer (MP1) and Hammer Mill (MP2)) not later than 60 days after achieving maximum capacity but not later than 180 days after initial start up. This testing shall be conducted utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the most recent 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 PM.
- (b) In order to determine 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 dust collector CE4 (controlling Ring Mill

(MP3) not later than 60 days after achieving maximum capacity but not later than 180 days after initial start up. This testing shall be conducted utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the most recent 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 PM.

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

D.2.7 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouses (CE3 and CE4) used in conjunction with the aluminum metal shredders, at least once per day when the furnaces are in operation. When for any one reading, the pressure drop across the dust collector is outside the normal range of 3.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response. 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.

The instrument 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 dust collector controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has 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 dust collector controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has 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 dust collectors' 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 Requirements

- (a) To document the compliance status with Condition D.2.8, the Permittee shall maintain daily records of the pressure drop across the baghouses (CE3 and CE4) controlling the metal shredders (MP1, MP2, and MP3), during normal operation. 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, (i.e. the process did not operate that day).
- (b) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

SECTION E.1

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) dry hearth reverberatory furnace, identified as EU-1, constructed in 2007, modified in 2009, approved for modification in 2012, equipped with two (2) primary natural gas low-NO_x burners, each rated at 1 million British thermal units per hour, and two (2) holding chamber natural gas low-NO_x burners, each rated at 2.0 million British thermal units per hour, equipped with a baghouse, identified as CE1, for particulate control and coated with lime to neutralize HAPs, exhausting to stack SV-1, with metal poured directly into cast iron molds, capacity: 2,500 pounds of scrap aluminum per hour.

Note: There is no fluxing or dross handling and cooling for the above unit. This furnace is a dry hearth reverberatory furnace. The aluminum melts on a slanted refractory and drips through a hole and into a holding well. Once the charge is melted, the door is opened and iron is removed. The iron is a marketable material and is not considered dross. Baghouse CE1 is also used to control emissions from Furnace EU-2.

This unit is considered affected facilities under 40 CFR 63, Subpart RRR.

- (b) Three (3) cast iron molds, approved for construction in 2011, each with a maximum capacity of 1,400 pounds.

These units are considered affected facilities under 40 CFR 63, Subpart RRR.

- (c) One (1) dry hearth reverberatory furnace, identified as EU-2, constructed in 2011, equipped with two (2) primary natural gas low-NO_x burners, each rated at 8.2 million British thermal units per hour, and two (2) holding chamber natural gas low-NO_x burners, each rated at 8.2 million British thermal units per hour, equipped with two (2) baghouses, identified as CE2 and CE1, for particulate control and coated with lime to neutralize HAPs, exhausting to stack SV-2, with metal poured directly into cast iron molds, capacity: 10,000 pounds of scrap aluminum per hour, with a maximum flux throughput of 231 pounds per hour.

Note: This EU-2 has similar operation as the EU-1, except there is salt fluxing in this unit.

This unit is considered an affected facility under 40 CFR 63, Subpart RRR.

- (d) Ten (10) cast iron molds, approved for construction in 2011, each with a maximum capacity of 1,400 pounds.

These units are considered affected facilities under 40 CFR 63, Subpart RRR.

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

National Emission Standards for Hazardous Air Pollutants Requirements [326 IAC 2-8]

E.1.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants (NESHAP) for Secondary Aluminum Production [40 CFR Part 63, Subpart A] [326 IAC 20-1]

Pursuant to 40 CFR 63.1518, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1, as specified in Appendix A of 40 CFR Part 63, Subpart RRR in accordance with schedule in 40 CFR 63, Subpart RRR.

E.1.2 National Emission Standards for Hazardous Air Pollutants (NESHAP) for Secondary Aluminum Production [40 CFR Part 63, Subpart RRR] [326 IAC 20-70]

The Permittee, which engages in secondary aluminum production, shall comply with the following provisions of 40 CFR Part 63, Subpart RRR (included as Attachment A of this permit) for the dry hearth furnaces:

(a) Dry hearth furnace, EU-1:

- (1) 63.1500 (a)
- (2) 63.1500 (c)(3)
- (3) 63.1500 (e)
- (4) 63.1500 (f)
- (5) 63.1501 (b)
- (6) 63.1502
- (7) 63.1503
- (8) 63.1505 (a)
- (9) 63.1505 (f)
- (10) 63.1506 (a)(4)
- (11) 63.1506 (c)
- (12) 63.1506 (p)
- (13) 63.1510 (a)
- (14) 63.1510 (b)
- (15) 63.1510 (c)
- (16) 63.1510 (d)
- (17) 63.1510 (f)
- (18) 63.1510 (i)
- (19) 63.1511
- (20) 63.1512 (e)
- (21) 63.1512 (j)
- (22) 63.1512 (q)
- (23) 63.1512 (r)
- (24) 63.1512 (s)
- (25) 63.1513
- (26) 63.1515 (a)
- (27) 63.1515 (b)
- (28) 63.1516
- (29) 63.1517 (a)
- (30) 63.1517 (b)
- (31) 63.1518
- (32) 63.1519
- (33) Table 1
- (34) Table 2
- (35) Table 3
- (36) Appendix A

(b) Dry hearth furnace, EU-2:

- (1) 63.1500 (a)
- (2) 63.1500 (c)(3)
- (3) 63.1500 (c)(4)
- (4) 63.1500 (d)
- (5) 63.1500 (e)
- (6) 63.1501 (b)
- (7) 63.1502
- (8) 63.1503

- (9) 63.1505 (a)
- (10) 63.1505 (f)(2)
- (11) 63.1505 (i)(3)
- (12) 63.1505 (k)(3)
- (13) 63.1505 (k)(5)
- (14) 63.1506 (a)(1)
- (15) 63.1506 (a)(4)
- (16) 63.1506 (b)(1)
- (17) 63.1506(b)(2)
- (18) 63.1506 (c)
- (19) 63.1506 (d)
- (20) 63.1506 (p)
- (21) 63.1510 (a)
- (22) 63.1510 (c)
- (23) 63.1510 (e)
- (24) 63.1510 (d)
- (25) 63.1510 (f)
- (26) 63.1510 (n)
- (27) 63.1510 (u)
- (28) 63.1511
- (29) 63.1512 (e)
- (30) 63.1512 (k)
- (31) 63.1512 (r)
- (32) 63.1512 (s)
- (33) 63.1513
- (34) 63.1515 (a)
- (35) 63.1516 (a)
- (36) 63.1517 (a)
- (37) 63.1517 (b)(1)
- (38) 63.1517 (b)(10)
- (39) 63.1517 (b)(16)
- (40) 63.1518
- (41) 63.1519
- (42) Table 1
- (43) Table 2
- (44) Table 3
- (45) Appendix A

E.1.3 Testing Requirements [326 IAC 2-6.1-5(b)(2)] [326 IAC 2-1.1-11]

The Permittee shall perform the stack testing required under NESHAP 40 CFR 63, Subpart RRR, utilizing methods as approved by the Commissioner to document compliance with Condition E.1.2. These tests shall be repeated at least once every five (5) years from the date of the last 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.

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

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

Source Name: Metal Source, LLC
Source Address: 1743 South Wabash Street, Wabash, Indiana 46992
FESOP Permit No.: F 169-30343-00067

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: Metal Source, LLC
Source Address: 1743 South Wabash Street, Wabash, Indiana 46992
FESOP Permit No.: F 169-30343-00067

This form consists of 2 pages

Page 1 of 2

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

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

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

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

Page 2 of 2

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

**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: Metal Source, LLC
Source Address: 1743 South Wabash Street, Wabash, Indiana 46992
FESOP Permit No.: F 169-30343-00067

Months: _____ to _____ Year: _____

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. 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

Metal Source, LLC
1743 South Wabash Street
Wabash, Indiana 46992

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 Metal Source, LLC 1743 South Wabash Street, Wabash, Indiana 46992, completed construction of the _____ on _____ in conformity with the requirements and intent of the construction permit application received by the Office of Air Quality on March 14, 2011 and as permitted pursuant to New Source Construction Permit and Federally Enforceable State Operating Permit No. F 169-30343-00067, Plant ID No. 16-00067 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)

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

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

Source Description and Location

Source Name:	Metal Source, LLC
Source Location:	1743 South Wabash Street, Wabash, Indiana 46992
County:	Wabash
SIC Code:	3341 (Secondary Smelting and Refining of Nonferrous Metals)
Operation Permit No.:	F169-30343-00067
Operation Permit Issuance Date:	September 13, 2011
Significant Permit Revision No.:	F169-32358-00067
Permit Reviewer:	Sarah Street

On September 28, 2012 the Office of Air Quality (OAQ) received an application from Metal Source, LLC related to a modification to an existing stationary aluminum ingots and sows manufacturing source.

Existing Approvals

The source was issued FESOP No. F169-30343-00067 on September 13, 2011.

County Attainment Status

The source is located in Wabash County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard. ¹
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.
¹ Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005. Unclassifiable or attainment effective April 5, 2005, for PM _{2.5} .	

- (a) **Ozone Standards**
Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Wabash County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) **PM_{2.5}**
Wabash 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} and SO₂ emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.

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

Fugitive Emissions

Since this source is classified as a secondary metal production plant, it is considered one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7. Therefore, fugitive emissions are counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Status of the Existing Source

The table below summarizes the potential to emit of the entire source, prior to the proposed revision, after consideration of all enforceable limits established in the effective permits:

This PTE table is from the TSD for FESOP No. F169-30343-00067, issued on September 13, 2011.

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of FESOP (tons/year)								
	PM	PM10 ⁽¹⁾	PM2.5 ⁽¹⁾	SO ₂	NOx	VOC	CO	GHGs as CO ₂ e ⁽³⁾	Worst Single HAP
dry hearth reverberatory furnace, EU-1	20.9	20.9	20.9	19.3	3.3	13.14	--	--	--
Casting from EU-1	--	--	--	0.11	0.05	0.8	--	--	--
Combustion for EU-1	0.05	0.2	0.2	0.02	1.13	0.14	2.2	3,173	--
dry hearth reverberatory furnace, EU-2	52.8	52.8	52.8	77.1	13.4	20.8	--	--	9.61 ⁽²⁾ (HF)
Casting from EU-2	--	--	--	0.44	0.2	3.1	--	--	--
Combustion for EU-2	0.3	1.1	1.1	0.1	7.2	0.8	12.1	17,345	--
Paved Road	2.4	0.5	0.1	--	--	--	--	--	--
Total PTE of Entire Source	76.4	75.4	75.1	96.5	25.2	38.7	14.3	20,518	<10
Title V Major Source Thresholds	NA	100	100	100	100	100	100	100,000	10
PSD Major Source Thresholds	100	100	100	100	100	100	100	100,000	NA
-- = negligible ⁽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), not particulate matter (PM), is considered as a "regulated air pollutant". ⁽²⁾ The worst single HAP, HF, results from fluxing using Sodium Aluminum Tetrafluoride from EU-2. ⁽³⁾ The 100,000 CO ₂ e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.									

- (a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no attainment regulated pollutant is emitted at a rate of 100 tons per year or more, and it is one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).
- (b) This existing source is not a major source of HAPs, as defined in 40 CFR 63.41, because the Permittee has accepted limits on HAPs emissions to less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

Description of Proposed Revision

The Office of Air Quality (OAQ) has reviewed an application, submitted by Metal Source, LLC on September 28, 2012, relating to the following:

- (1) the addition of three unpermitted shredders for aluminum scrap to the permit,
- (2) the modification of furnace EU-1 which is currently permitted but the source has decommissioned and would like to modify and keep in the permit, and
- (3) the revision of the descriptive information for the baghouse for furnace EU-2 as well as the incorporation of compliance monitoring and determination requirements into the permit necessary to ensure compliance with FESOP limits.

In addition, IDEM OAQ will revise the flux usage and emission limitations for furnace EU-2 in the permit with this permit revision.

- (1) The following is a list of the unpermitted emission units:

- (a) One (1) aluminum metal shredder, identified as Metal Reclaimer MP1, constructed in 2011, with a maximum capacity of 8,000 pounds per hour of furnace discharge material, using a dust collector, identified as CE3, to control particulate emissions, and exhausting inside the building;

Note: The Metal Reclaimer breaks down discharge from the furnace in order to screen the material. The screened material then travels on a conveyor belt to a screen. There is a magnet on the end of the conveyor belt that helps to separate the iron from the aluminum. The material is screened in to different sizes, creating the final product of aluminum concentrates.

- (b) One (1) aluminum metal shredder, identified as Hammer Mill MP2, constructed in 2011, with a maximum capacity of 10,000 pounds per hour of aluminum turnings, cast, and sheet, using a dust collector, identified as CE3, to control particulate emissions, and exhausting inside the building;

Note: Materials (aluminum turnings, aluminum cast, and aluminum sheet) travel up a conveyor into the Hammer Mill where the material is shredded. The shredded materials then travel on another conveyor with a magnet to separate the iron. The finished product (shredded aluminum) is then processed in the furnace.

- (c) One (1) aluminum metal shredder, identified as Ring Mill MP3, constructed in 2011, with a maximum capacity of 4,000 pounds per hour of aluminum turnings, using a dust collector, identified as CE4, to control particulate emissions, and exhausting inside the building;

Note: Aluminum turnings travel up a conveyor into the Ring Mill where the material is shredded. The shredded aluminum turnings then travel on another conveyor with

a magnet to separate the iron. The finished product (shredded aluminum turning) is then processed in the furnace.

See Appendix A for the PTE calculations for these shredders.

- (2) The source has requested to modify furnace EU-1 and keep this unit permitted. This unit has been decommissioned since the issuance of the last permit approval; however, the source did not inform IDEM OAQ of this change in order to remove this emission unit from the permit. With this permit revision, the source has requested modification approval for furnace EU-1 in order to bring this unit back in to operation. The maximum operating capacity (and potential emissions) of this furnace EU-1 will remain as previously permitted. See Appendix A for emissions calculations.

Note: EU-1 is still listed in the most recent FESOP Renewal, issued on September 13, 2011.

- (3) In addition to the inclusion of the new aluminum shredders and the modification of furnace EU-1, the source has requested a change in descriptive information for the baghouses for furnace EU-1 and furnace EU-2. In prior permit approvals it was noted that the baghouses equipped on furnace EU-1 and furnace EU-2 are coated with lime for particulate control; however, this is incorrect because, while the baghouses are used for particulate control, the lime coating is to control HF and HCl (Hazardous Air Pollutants). Upon further evaluation, IDEM OAQ has been determined that the permit terms and conditions related to these baghouses need to be revised due to the need to monitor the lime injection system for these control devices and ensure proper control of HAPs emissions. This Significant Permit Revision will incorporate permit terms and conditions that:

- (a) State the bags must be coated with lime at all times the baghouse is running,
- (b) Specify the minimum flow rate of lime injection into the air stream (lb/hr),
- (c) Incorporate compliance monitoring conditions to observe continuous flow of lime to the control devices, and
- (d) Incorporate relevant record keeping requirements.

Note: Baghouse CE1 is used to control emissions from both Furnace EU-1 and Furnace EU-2. Baghouse CE2 is used to control emissions from Furnace EU-2 only. Both baghouses need to be equipped with lime injection systems since Furnace EU-2 is using HF fluxing.

- (4) Upon further review, emission limits related to flux usage will be revised with this Significant Permit Revision. The maximum flux addition rate will be added to the unit description for Furnace EU-2 and the emission limitation will be revised to include a maximum flux usage limit in lb/hour.
- (5) Upon further review, the existing FESOP and PSD Minor limits will be altered to show that the lb/hour limitations for PM, PM10, and PM2.5 from the reverberatory furnaces should be specified for each control device, Baghouse CE1 and Baghouse CE2, instead of for each separate furnace. This is because Baghouse CE1 is used to control emissions from both Furnace EU-1 and Furnace EU-2. Baghouse CE2 is used to control emissions from Furnace EU-2 only.

Enforcement Issues

IDEM is aware that equipment has been constructed and prior to receipt of the proper permit. IDEM is reviewing this matter and will take the appropriate action. This proposed approval is intended to satisfy the requirements of the construction permit rules.

Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

Permit Level Determination – FESOP Revision

The following table is used to determine the appropriate permit level under 326 IAC 2-8.11.1. This table reflects the PTE before controls of the proposed revision. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Process/ Emission Unit	PTE of Proposed Revision (tons/year)									
	PM	PM10	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO ₂ e	Total HAPs	Worst Single HAP
Shredders (MP1, MP2, and MP3)	120.45	120.45	120.45	-	-	-	-	-	0.001	0.001 (Nickel)
Total PTE of Proposed Revision	120.45	120.45	120.45	-	-	-	-	-	0.001	0.001 (Nickel)
negl. = negligible										

Pursuant to 326 IAC 2-8-11.1(f)(1)(E), this FESOP is being revised through a FESOP Significant Permit Revision because the proposed revision is not an Administrative Amendment or Minor Permit revision and the proposed revision involves the construction of new emission units with potential to emit greater than or equal to twenty-five (25) tons per year of PM, PM10, and PM2.5.

Pursuant to 326 IAC 2-8-11.1(g), this FESOP is being revised through a FESOP Significant Permit Revision because the proposed revision requires adjustment of the FESOP emission limitations.

PTE of the Entire Source After Issuance of the FESOP Revision

The table below summarizes the potential to emit of the entire source (reflecting adjustment of existing limits), with updated emissions shown as **bold** values and previous emissions shown as ~~strike through~~ values.

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Revision (tons/year)									
	PM	PM10*	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO ₂ e**	Total HAPs	Worst Single HAP
dry hearth reverberatory furnace, EU-1 Baghouse CE1 (controlling Furnace EU-1 and Furnace EU-2)	20.9 20.85	20.9 20.85	20.9 20.85	19.3 95.81	3.3 16.43	13.14 33.95	-	-	9.62	9.61 (HF)
Baghouse CE2 (controlling Furnace EU-2)	52.78	52.78	52.78							
Casting from EU-1	-	-	-	0.11	0.05	0.8 0.77	-	-	-	-
Casting from EU-2	-	-	-	0.44	0.22	3.07	-	-	-	-
Combustion for EU-1	0.05	0.20	0.20	0.02	1.13 1.31	0.14	2.21	3,173	0.05	0.05 (Hexane)
dry hearth reverberatory furnace, EU-2	52.8	52.8	52.8	77.1	13.4	20.8	-	-		9.61 9.61*** (HF)
Casting from EU-2	-	-	-	0.44	0.2	3.1	-	-	-	-
Combustion for EU-2	0.3 0.27	1.1 1.09	1.1 1.09	0.1 0.09	7.2 7.18	0.8 0.79	12.1 12.07	17,345	0.27	0.26 (Hexane)
Shredders (MP1 and MP2)	12.18	12.18	12.18						0.001	0.001 (Nickel)
Shredder MP3	3.68	3.68	3.68	-	-	-	-	-		
Paved Roads	2.4 4.85	0.5 0.97	0.1 0.24	-	-	-	-	-	-	-
Material Handling	negl.	negl.	negl.	-	-	-	-	-	-	-
Total PTE of Entire Source	76.4 94.66	75.4 91.74	75.1 91.01	96.5 96.46	25.20	38.71	14.3 14.28	20,518 20,517	9.95	<10
Title V Major Source Thresholds**	NA	100	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds**	100	100	100	100	100	100	100	100,000	NA	NA

negl. = 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".
**The 100,000 CO₂e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.
*** The worst single HAP, HF, results from fluxing using Sodium Aluminum Tetrafluoride from EU-2.

The table below summarizes the potential to emit of the entire source after issuance of this revision, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this FESOP permit revision, 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 Revision (tons/year)									
	PM	PM10*	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO ₂ e**	Total HAPs	Worst Single HAP
Baghouse CE1 (controlling Furnace EU-1 and Furnace EU-2)	20.85	20.85	20.85	95.81	16.43	33.95	-	-	9.62	9.61 (HF)
Baghouse CE2 (controlling Furnace EU-2)	52.78	52.78	52.78							
Casting from EU-1	-	-	-	0.11	0.05	0.77	-	-	-	-
Casting from EU-2	-	-	-	0.44	0.22	3.07	-	-	-	-
Combustion for EU-1	0.05	0.20	0.20	0.02	1.31	0.14	2.21	3,173	0.05	0.05 (Hexane)
Combustion for EU-2	0.27	1.09	1.09	0.09	7.18	0.79	12.07	17,345	0.27	0.26 (Hexane)
Shredders (MP1 and MP2)	12.18	12.18	12.18						0.001	0.001 (Nickel)
Shredder MP3	3.68	3.68	3.68	-	-	-	-	-		
Paved Roads	4.85	0.97	0.24	-	-	-	-	-	-	-
Material Handling	negl.	negl.	negl.	-	-	-	-	-	-	-
Total PTE of Entire Source	94.66	91.74	91.01	96.46	25.20	38.71	14.28	20,517	9.95	<10
Title V Major Source Thresholds**	NA	100	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds**	100	100	100	100	100	100	100	100,000	NA	NA

negl. = 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".
**The 100,000 CO₂e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.
*** The worst single HAP, HF, results from fluxing using Sodium Aluminum Tetrafluoride from EU-2.

(a) FESOP Status

This revision to an existing Title V minor stationary source will not change the minor status, because the potential to emit criteria pollutants from the entire source will still be limited to less than the Title V major source threshold levels. Therefore, the source will still be 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:

- (1) The PM10 emissions from Baghouse CE1 (controlling Furnace EU-1 and Furnace EU-2) shall not exceed 4.76 lb/hr.
- (2) The PM2.5 emissions from Baghouse CE1 (controlling Furnace EU-1 and Furnace EU-2) shall not exceed 4.76 lb/hr.
- (3) The PM10 emissions from Baghouse CE2 (controlling Furnace EU-2) shall not exceed 12.05 lb/hr.
- (4) The PM2.5 emissions from Baghouse CE2 (controlling Furnace EU-2) shall not exceed 12.05 lb/hr.

Note: Limits (1) through (4) are being revised with this Significant Permit Revision. These lb/hr limitations are specified now based on the Baghouse instead of the furnace, since Baghouse CE1 is used to control emissions from both Furnace EU-1 and Furnace EU-2. Baghouse CE2 is used to control emissions from Furnace EU-2 only

- (5) The addition of solid HAP-containing flux to the dry hearth reverberatory furnace EU-2 shall be limited such that HF emissions shall not exceed 9.61 tons per year which is equivalent to 0.0095 lb/lb of Sodium Aluminum Tetrafluoride (SAF) when melting aluminum at the rate of 10,000 lb with 231 lb of SAF per hour.

Note: Limit (5) is an existing FESOP limits and will not change with this permit revision. Note that this emission limitation is after control and therefore includes the total HF emissions from Baghouse CE1 and Baghouse CE2

- (6) The PM10 emissions from the Metal Reclaimer (MP1) and Hammer Mill (MP2) (controlled by CE3) shall not exceed 2.78 lb/hr.
- (7) The PM2.5 emissions from the Metal Reclaimer (MP1) and Hammer Mill (MP2) (controlled by CE3) shall not exceed 2.78 lb/hr.
- (8) The PM10 emissions from the Ring Mill (MP3) (controlled by CE4) shall not exceed 0.84 lb/hr.
- (9) The PM2.5 emissions from the Ring Mill (MP3) (controlled by CE4) shall not exceed 0.84 lb/hr.

Note: Limits (6) through (9) have been added with this permit revision. The baghouses for particulate control (CE03 and CE04) for each aluminum shredder shall be in operation and control emissions when each of the aluminum shredders are in operation.

Compliance with these limits, combined with the potential to emit PM, PM10, PM2.5 and HAPs from all other emission units at this source, shall limit the source-wide total potential to emit of PM, PM10, PM2.5 to less than 100 tons per 12 consecutive month period, each, any single HAP to less than ten (10) tons per 12 consecutive month period, total HAPs to less than twenty-five (25)

tons per 12 consecutive month period, and shall render 326 IAC 2-7 (Part 70 Permits), 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP) not applicable.

(b) PSD Minor Source

This modification to an existing PSD minor stationary source will not change the PSD minor status, because the potential to emit of all attainment regulated pollutants from the entire source will continue to be less than the PSD major source threshold levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

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:

- (1) The PM emissions from Baghouse CE1 (controlling Furnace EU-1 and Furnace EU-2) shall not exceed 4.76 lb/hr.
- (2) The PM emissions from Baghouse CE2 (controlling Furnace EU-2) shall not exceed 12.05 lb/hr.

Note: Limits (1) and (2) are being revised with this Significant Permit Revision. These lb/hr limitations are specified now based on the Baghouse instead of the furnace, since Baghouse CE1 is used to control emissions from both Furnace EU-1 and Furnace EU-2. Baghouse CE2 is used to control emissions from Furnace EU-2 only

- (3) The PM emissions from the Metal Reclaimer (MP1) and Hammer Mill (MP2) (controlled by CE3) shall not exceed 2.78 lb/hr.
- (4) The PM emissions from the Ring Mill (MP3) (controlled by CE4) shall not exceed 0.84 lb/hr.

Note: Limits (3) and (4) are new PSD Minor limits with this permit revision. The baghouses for particulate control (CE3 and CE4) for each aluminum shredder shall be in operation and control emissions when the aluminum shredders are in operation.

Compliance with these limits, combined with the potential to emit PM from all other emission units at this source, shall limit the source-wide total potential to emit of PM to less than 250 tons per 12 consecutive month period and shall render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included for this proposed revision.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (b) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Secondary Aluminum Production, 40 CFR 63, Subpart RRR (326 IAC 20), are not included for this proposed revision, since the aluminum metal shredders are located at an area source of HAPs emissions. Pursuant to 40 CFR 63.1500(b), aluminum scrap shredders are affected facilities for aluminum production facilities that are a major source of HAPs; and, further, aluminum scrap shredders are not listed as affected facilities for aluminum production facilities that are an area source of HAPs, pursuant to 40 CFR 63.1500(c).

Note: NESHAP Subpart RRR is still included in the permit for the existing affected facilities.

- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included for this proposed revision.

Compliance Assurance Monitoring (CAM)

- (d) 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 Determination

The following state rules are applicable to the proposed revision:

- (a) 326 IAC 2-8-4 (FESOP)
This revision to an existing Title V minor stationary source will not change the minor status, because the potential to emit criteria pollutants from the entire source will still be limited to less than the Title V major source threshold levels. Therefore, the source will still be subject to the provisions of 326 IAC 2-8 (FESOP). See PTE of the Entire Source After Issuance of the FESOP Revision Section above.
- (b) 326 IAC 2-2 (Prevention of Significant Deterioration(PSD))
This modification to an existing PSD minor stationary source will not change the PSD minor status, because the potential to emit of all attainment regulated pollutants from the entire source will continue to be less than the PSD major source threshold levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply. See PTE of the Entire Source After Issuance of the FESOP Revision Section above.
- (c) 326 IAC 2-3 (Emission Offset)
This modification to an existing Emission Offset minor stationary source will not change the Emission Offset minor status, because Wabash County is an attainment county. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.
- (d) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The proposed revision is not subject to the requirements of 326 IAC 2-4.1, since the unlimited potential to emit of HAPs from the new/modified units is less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs.
- (e) 326 IAC 2-6 (Emission Reporting)
Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.
- (f) 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 forty percent (40%) 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.

- (g) 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.
- (h) 326 IAC 12 (New Source Performance Standards)
See Federal Rule Applicability Section of this TSD.
- (i) 326 IAC 20 (Hazardous Air Pollutants)
See Federal Rule Applicability Section of this TSD.

Aluminum Shredders (MP1, MP2, and MP3)

- (j) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from each of the aluminum shredders shall not exceed the following pounds per hour when operating at the following listed process weight rate:

Emission Unit	Process Weight Rate (ton/hr)	PM Emission Limit (lb/hr)
Metal Reclaimer (MP1)	4.00	10.38
Hammer Mill (MP2)	5.00	12.05
Ring Mill (MP3)	2.00	6.52

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

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

See Appendix A - Emissions Calculations.

- (k) There are no 326 IAC 8 (VOC) Rules that are applicable to the aluminum shredders.

Compliance Determination, Monitoring and Testing Requirements
--

- (a) The compliance determination and monitoring requirements applicable to this proposed revision are as follows:

Emission Unit/Control	Operating Parameters	Frequency
Lime Injection for Baghouse CE1	Free Flowing and minimum injection rate	Once per day
Lime Injection for Baghouse CE2	Free Flowing and minimum injection rate	Once per day

Monitoring is required because proper operation of the lime injection systems are critical to control emissions. Therefore, monitoring requirements shall apply. Note that HF fluxing is only done in Furnace EU-2, and not in Furnace EU-1; however, the Furnace EU-2 is controlled by both Baghouse CE1 and Baghouse CE2, and therefore both control devices need to have a properly operating lime injection system in order to control HAPs emissions.

Existing compliance determination and monitoring requirements for baghouse CE1 and CE2 will

not change with this permit revision.

The new compliance determination and monitoring requirements with the additions of the three (3) new aluminum shredders are as follows:

Emission Unit/Control	Operating Parameters	Frequency
Baghouse CE3	Pressure drop	Once per day
Baghouse CE4	Pressure drop	Once per day

Monitoring is required to ensure compliance with the particulate limitations established for the three (3) aluminum metal shredders.

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

- (1) The testing requirements for Furnace EU-1 have been revised with this revision, because the source has decommissioned the furnace since the issuance of the last permit approval, but has requested to bring Furnace EU-1 back in to operation with this revision. The prior permit approvals required the Furnace EU-1 to be tested within 5 years of the most recent compliance determination. The last stack test for Furnace EU-1 was conducted on August 8, 2007; since this is greater than five (5) years ago and the unit was decommissioned within that period of time, the testing requirement for Furnace EU-1 shall be revised such that this unit shall be tested not later than 180 days of startup. Further, this testing requirement has been revised to indicate that Baghouse CE1 is to be tested, which controls emissions from Furnace EU-1 and Furnace EU-2.

Testing Requirements				
Control Device Being Tested	Emission Units	Pollutant	Timeframe for Testing	Frequency of Testing
Baghouse CE1	Furnace EU-1 and Furnace EU-2	PM, PM10, PM2.5	Within 180 days of startup of Furnace EU-1	Every five (5) years

Note: Both Furnace EU-1 and Furnace EU-2 must be operating during the stack test for Baghouse CE1.

- (2) Testing requirements for Furnace EU-2 have been revised with this permit revision. The existing testing requirements for PM, PM10, and PM2.5 for Furnace EU-2 will be revised to indicate that Baghouse CE2 is to be tested. Further, note that Furnace EU-2 is also controlled by Baghouse CE1, which also has its own testing condition (see above).

Testing Requirements				
Control Device Being Tested	Emission Units	Pollutant	Timeframe for Testing	Frequency of Testing
Baghouse CE2	Furnace EU-2	PM, PM10, PM2.5	Within 180 days of issuance of this permit revision	Every five (5) years

Note: A stack test summary was submitted to IDEM on August 3, 2012 for particulate matter; results are still pending, so the permit condition will still state this test must be completed within 180 days of the issuance of this revision.

- (3) The testing requirement for HAPs for Furnace EU-2 will be revised so that the test shall be repeated every five (5) years instead of a one-time test requirement. This revision is to ensure compliance with the HAPs limits for Furnace EU-2 and to confirm the FESOP status of the source.

Testing Requirements				
Emission Unit	Control Devices	Pollutant	Timeframe for Testing	Frequency of Testing
Furnace EU-2	N/A	VOC	Within 180 days of issuance of this permit revision	One time
Furnace EU-2	Baghouse CE1 and Baghouse CE2	HF	Within 180 days of issuance of this permit revision	Every five (5) years

Note: A stack test to determine compliance with the HF limits for Furnace EU-2 should include both Baghouse CE1 and Baghouse CE2.

(4) The testing requirements for the new emission units with this revision are as follows:

Testing Requirements				
Emission Unit	Control Device	Pollutant	Timeframe for Testing	Frequency of Testing
Metal Reclaimer (MP1)	CE03	PM, PM10, PM2.5	Within 180 days of startup	Every five (5) years
Hammer Mill (MP2)				
Ring Mill (MP3)	CE04	PM, PM10, PM2.5	Within 180 days of startup	Every five (5) years

Changes to existing compliance determination, monitoring, and testing requirements are explained in detail below in the Proposed Changes section.

Proposed Changes

- (a) The following changes listed below are due to the proposed revision. Deleted language appears as ~~strikethrough~~ text and new language appears as **bold** text:
- (1) The three new shredders have been added to Section A.2 - Emission Units and Pollution Control Equipment Summary
 - (2) The emission unit description for Furnace EU-1 has been revised to clarify the baghouse control as well as include the approval for modification.
 - (3) The emission unit description for Furnace EU-2 has been revised to clarify the baghouse control and include the maximum flux usage. The baghouses CE01 and CE02 are both equipped to control emissions from Furnace EU-2.
 - (4) The FESOP and PSD Minor limits have been altered to show that the lb/hour limitations for PM, PM10, and PM2.5 from the reverberatory furnaces should be specified for each control device, Baghouse CE1 and Baghouse CE2, instead of for each separate furnace.
 - (5) The particulate limitations under 326 IAC 6-3-2 have been revised to include the flux in the process weight rate for Reverberatory Furnace EU-2.

The process weight rate for the flux for furnace EU-2 is:

$$0.12 \text{ tons/hr} = 231 \text{ lbs/hr} \times 1/2,000 \text{ lb/ton}$$

See Appendix A for emissions calculations.

- (6) The HAP limitations in Condition D.1.5 have been revised to include a limit on the amount of flux usage in furnace EU-2 (in lb/hr) and to include the minimum lime injection rate.
- (7) The compliance determination and monitoring requirements for the existing lime injection system associated with the baghouse controlling emissions from Furnace EU-2 have been added to Section D.1.
- (8) The testing conditions have been revised for the existing furnaces EU-1 and EU-2.
- (9) The permit terms and conditions for the three (3) new aluminum shredders have been added as Section D.2, including emission limits, compliance monitoring and testing requirements.

...

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) dry hearth reverberatory furnace, identified as EU-1, constructed in 2007, modified in 2009, **approved for modification in 2012**, equipped with two (2) primary natural gas low-NO_x burners, each rated at 1 million British thermal units per hour, and two (2) holding chamber natural gas low-NO_x burners, each rated at 2.0 million British thermal units per hour, equipped with a baghouse, **identified as CE1, for particulate control and** coated with lime **to neutralize HAPs** ~~for particulate control~~, exhausting to stack SV-1, with metal poured directly into cast iron molds, capacity: 2,500 pounds of scrap aluminum per hour.

Note: There is no fluxing or dross handling and cooling for the above unit. This furnace is a dry hearth reverberatory furnace. The aluminum melts on a slanted refractory and drips through a hole and into a holding well. Once the charge is melted, the door is opened and iron is removed. The iron is a marketable material and is not considered dross. **Baghouse CE1 is also used to control emissions from Furnace EU-2.**

This unit is considered affected facilities under 40 CFR 63, Subpart RRR.

...

- (c) One (1) dry hearth reverberatory furnace, identified as EU-2, ~~approved for construction~~ **constructed** in 2011, equipped with two (2) primary natural gas low-NO_x burners, each rated at 8.2 million British thermal units per hour, and two (2) holding chamber natural gas low-NO_x burners, each rated at 8.2 million British thermal units per hour, equipped with a **two (2) baghouses, identified as CE2 and CE1, for particulate control and** coated with lime **to neutralize HAPs** ~~for particulate control~~, exhausting to stack SV-2, with metal poured directly into cast iron molds, capacity: 10,000 pounds of scrap aluminum per hour, **with a maximum flux throughput of 231 pounds per hour.**

Note: This EU-2 has similar operation as the EU-1, except there is salt fluxing in this unit.

This unit is considered an affected facility under 40 CFR 63, Subpart RRR.

...

- (f) **One (1) aluminum metal shredder, identified as Metal Reclaimer MP1, constructed in 2011, with a maximum capacity of 8,000 pounds per hour of furnace discharge material, using a dust collector, identified as CE3, to control particulate emissions, and exhausting inside the building;**

- (g) **One (1) aluminum metal shredder, identified as Hammer Mill MP2, constructed in 2011, with a maximum capacity of 10,000 pounds per hour of aluminum turnings, cast, and sheet, using a dust collector, identified as CE3, to control particulate emissions, and exhausting inside the building;**
- (h) **One (1) aluminum metal shredder, identified as Ring Mill MP3, constructed in 2011, with a maximum capacity of 4,000 pounds per hour of aluminum turnings, using a dust collector, identified as CE4, to control particulate emissions, and exhausting inside the building;**

...

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) dry hearth reverberatory furnace, identified as EU-1, constructed in 2007, modified in 2009, **approved for modification in 2012**, equipped with two (2) primary natural gas low-NO_x burners, each rated at 1 million British thermal units per hour, and two (2) holding chamber natural gas low-NO_x burners, each rated at 2.0 million British thermal units per hour, equipped with a baghouse, **identified as CE1, for particulate control and coated with lime to neutralize HAPs** ~~for particulate control~~, exhausting to stack SV-1, with metal poured directly into cast iron molds, capacity: 2,500 pounds of scrap aluminum per hour.

Note: There is no fluxing or dross handling and cooling for the above unit. This furnace is a dry hearth reverberatory furnace. The aluminum melts on a slanted refractory and drips through a hole and into a holding well. Once the charge is melted, the door is opened and iron is removed. The iron is a marketable material and is not considered dross.

Baghouse CE1 is also used to control emissions from Furnace EU-2.

This unit is considered affected facilities under 40 CFR 63, Subpart RRR.

- (b) Three (3) cast iron molds, approved for construction in 2011, each with a maximum capacity of 1,400 pounds.

These units are considered affected facilities under 40 CFR 63, Subpart RRR.

- (c) One (1) dry hearth reverberatory furnace, identified as EU-2, ~~approved for construction~~ **constructed** in 2011, equipped with two (2) primary natural gas low-NO_x burners, each rated at 8.2 million British thermal units per hour, and two (2) holding chamber natural gas low-NO_x burners, each rated at 8.2 million British thermal units per hour, equipped with **a two (2) baghouses, identified as CE2 and CE1, for particulate control and coated with lime to neutralize HAPs** ~~for particulate control~~, exhausting to stack SV-2, with metal poured directly into cast iron molds, capacity: 10,000 pounds of scrap aluminum per hour, **with a maximum flux throughput of 231 pounds per hour.**

Note: This EU-2 has similar operation as the EU-1, except there is salt fluxing in this unit.

This unit is considered an affected facility under 40 CFR 63, Subpart RRR.

- (d) Ten (10) cast iron molds, approved for construction in 2011, each with a maximum capacity of 1,400 pounds.

These units are considered affected facilities under 40 CFR 63, Subpart RRR.

(The information describing the process contained in this emissions unit description box is descriptive

information and does not constitute enforceable conditions.)

D.1.1 Particulate Matter Less Than 10 Microns (PM10 and PM2.5) [326 IAC 2-8-4] [326 IAC 2-2]

Pursuant to 326 IAC 2-8, ~~T~~the PM10 and PM2.5 emissions from the **baghouses controlling the** dry hearth reverberatory furnaces shall not exceed the emission limits listed in the table below:

Emission Unit Control Device	PM10 Emission Limit (lbs/hr)	PM2.5 Emission Limit (lbs/hr)
Reverberatory Furnace (EU-1) Baghouse CE1 (controlling Furnace EU-1 and Furnace EU-2)	4.76	4.76
Reverberatory Furnace (EU-2) Baghouse CE2 (controlling Furnace EU-2)	12.05	12.05

Compliance with these limits, combined with the potential to emit PM10 and PM2.5 from all other emission units at this source, shall limit the source-wide total potential to emit of PM10 and PM2.5 to less than 100 tons per 12 consecutive month period, each, and shall render 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

D.1.2 Particulate Matter (PM) [326 IAC 2-2]

In order to render 326 IAC 2-2 not applicable, ~~T~~the PM emissions from the **baghouses controlling the** dry hearth reverberatory furnaces shall not exceed the emission limits listed in the table below:

Emission Unit Control Device	PM Emission Limit (lbs/hr)
Reverberatory Furnace (EU-1) Baghouse CE1 (controlling Furnace EU-1 and Furnace EU-2)	4.76
Reverberatory Furnace (EU-2) Baghouse CE2 (controlling Furnace EU-2)	12.05

Compliance with these limits, combined with the potential to emit PM from all other emission units at this source, shall limit the source-wide total potential to emit of PM to less than 100 tons per 12 consecutive month period, and shall render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

D.1.3 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the dry hearth reverberatory furnaces shall not exceed the following limits:

Emission Unit	Aluminum Process Weight Rate (tons/hr)	Flux Process Weight Rate (tons/hr)	Total Process Weight Rate (tons/hr)	Allowable Particulate Emissions (lb/hr)
Reverberatory Furnace (EU-1)	1.25	0	1.25	4.76
Reverberatory Furnace (EU-2)	5.00	0.12	5.12	12.05 12.24

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

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

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

...

D.1.5 HAP Limitations [326 IAC 2-8-4] [326 IAC 2-4.1]

Pursuant to 326 IAC 2-8-4, the Permittee shall comply with the following:

- (a) The addition of solid HAP-containing flux to the dry hearth reverberatory furnace EU-2 shall be limited such that HF emissions **after control** shall not exceed 0.0095 lb/lb **after control** of Sodium Aluminum Tetrafluoride (SAF) when melting aluminum at the maximum rate of 10,000 lb of scrap aluminum with a **maximum rate of 231 lb of SAF per hour**, ~~and using lime-coated bag for particulate control.~~
- (b) The Permittee shall use solid flux in the dry hearth reverberatory furnace, EU-2, only.

Compliance with this limit, combined with the potential to emit HAP from all other emission units at this source shall limit source wide single HAP to less than ten (10) tons per year and less than twenty-five (25) tons of any combination of HAP per year and renders the requirements of 326 IAC 2-7 and 326 IAC 2-4.1 not applicable.

...

D.1.7 Particulate Control, **HAPs Control**

~~(a)~~ In order to comply with conditions D.1.1, D.1.2, D.1.3 and D.1.5,

- (a) ~~†~~The baghouses **CE01 and CE02** for particulate control shall be in operation and control emissions from the aluminum dry hearth reverberatory furnaces at all times that the dry hearth reverberatory furnaces **EU-1 and EU-2** are in operation.
- (b) **The lime injection system for Baghouse CE01 shall be in operation and shall control HAPs emissions from the reverberatory furnace EU-2 at all times that the furnace is in operation.**
- (c) **The lime injection system for Baghouse CE02 shall be in operation and shall control HAPs emissions from the reverberatory furnace EU-2 at all times that the furnace is in operation.**
- ~~(d)~~ 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.

D.1.8 Testing Requirements

- (a) **Not later than 180 days after startup of the dry hearth reverberatory furnace EU-1, †** in order to demonstrate compliance with Conditions D.1.1, D.1.2 and D.1.3, the Permittee shall perform PM, PM10 and PM2.5 testing for **Baghouse CE1 (controlling Furnace EU-1 and Furnace EU-2)** ~~the dry hearth reverberatory furnace, EU-1,~~ within five (5) years from the last valid compliance demonstration, utilizing methods as 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 PM.

Note: Both Furnace EU-1 and EU-2 must be operating during the stack test for Baghouse CE1.

- (b) In order to determine compliance with Conditions D.1.1, D.1.2 and D.1.3, the Permittee shall perform PM, PM10 and PM2.5 testing of **Baghouse CE2 (controlling Furnace EU-2)** ~~the dry hearth reverberatory furnace, EU-2, not later than 60 days after achieving maximum capacity but not later than 180 days after initial start up~~ **not later than 180 days after the issuance of this Significant Permit Revision No. 169-32358-00067.** This testing shall be conducted utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the most recent 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 PM.
- (c) ~~Pursuant to Air 014-NPD and in~~ In order to determine compliance with Condition D.1.4 and D.1.5, the Permittee shall perform one time VOC and HF testing of the dry hearth reverberatory furnace, EU-2, ~~not later than 60 days after achieving maximum capacity but not later than 180 days after initial start up~~ **not later than 180 days after the issuance of this Significant Permit Revision No. 169-32358-00067.** This testing shall be conducted utilizing methods as approved by the Commissioner. 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.
- (d) In order to determine compliance with Condition D.1.5, the Permitted shall perform HF testing of the dry hearth reverberatory furnace, EU2, **not later than 180 days after the issuance of this Significant Permit Revision N. 169-32358-00067.** This testing shall be conducted utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the most recent 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.

Note: A stack test to determine compliance with the HF limit in Condition D.1.5 for Furnace EU-2 should include both Baghouse CE1 and Baghouse CE2.

...

D.1.10 Parametric Monitoring

- (a) The Permittee shall record the pressure drop across the baghouses used in conjunction with the stack dry hearth furnaces EU-1 and EU-2, at least once per day when the furnaces are in operation. When for any one reading, the pressure drop across the dust collector is outside the normal range of 1 to 8 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response. 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.

The instrument 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.

- (b) The Permittee shall monitor lime injection rate for baghouse CE1 and baghouse CE2 controlling the dry hearth reverberatory furncae EU-2 when the reverberatory furnace EU-2 is in operation. The hours of operation of each reverberatory furnace shall be recorded for the same time period. The hourly lime usage rate shall be the daily lime usage divided by the daily hours of operation. The Preventive Maintenance Plan for the lime injection system shall contain troubleshooting contingency and corrective actions for when the lime usage rate is below the minimum rate for any one reading.**
- (c) The minimum lime injection rate to baghouse CE1 and baghouse CE2 controlling dry hearth reverberatory furnace EU-2 shall be at least 20 pounds per hour, each, when the dry heart reverberatory furnace EU-2 is in operation.**
- (d) The Permittee shall record the observations that the lime injection systems are working properly and that material is flowing freely through each system. When for any one observation indicating a reduced flow of material, or no flow of material, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the response steps required by this condition. An observation that is outside the above mentioned parameter is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.**

...

D.1.12 Record Keeping Requirements

- (a) To document the compliance status with Condition D.1.9, the Permittee shall maintain daily records of visible emission notations of the stack dry hearth reverberatory furnaces exhaust (SV-1 and SV-2). The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation, (i.e. the process did not operate that day).**
- ~~(b)~~ **To document the compliance status with Condition D.1.10(a), the Permittee shall maintain daily records of the pressure drop across the baghouse controlling the stack dry hearth reverberatory furnaces (EU-1 and EU-2), during normal operation. 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, (i.e. the process did not operate that day).**
- (c) To document the compliance status with Condition D.1.10(b) and D.1.10(c), the Permittee shall maintain daily records of the hourly lime injection rate for CE1 and baghouse CE2 controlling dry hearth reverberatory furnace EU-2.**
- (d) To document the compliance status with Condition D.1.10(d), the Permittee shall maintain records of daily visual flow checks of the lime injection systems at least once per day when dry hearth reverberatory furnace EU-2 is operating. The Permittee shall include in its daily record when a visual flow check is not taken and the reason for the lack of visible flow check (e.g., the reverberatory furnace did not operate that day).**
- ~~(e)~~ **Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.**

...

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (f) One (1) aluminum metal shredder, identified as Metal Reclaimer MP1, constructed in 2011, with a maximum capacity of 8,000 pounds per hour of furnace discharge material, using a dust collector, identified as CE3, to control particulate emissions, and exhausting inside the building;
- (g) One (1) aluminum metal shredder, identified as Hammer Mill MP2, constructed in 2011, with a maximum capacity of 10,000 pounds per hour of aluminum turnings, cast, and sheet, using a dust collector, identified as CE3, to control particulate emissions, and exhausting inside the building;
- (h) One (1) aluminum metal shredder, identified as Ring Mill MP3, constructed in 2011, with a maximum capacity of 4,000 pounds per hour of aluminum turnings, using a dust collector, identified as CE4, to control particulate emissions, and exhausting inside the building;

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

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

D.2.1 Particulate Matter (PM) [326 IAC 2-2]

In order to render 326 IAC 2-2 not applicable, the PM emissions from dust collectors controlling the aluminum metal shredders shall not exceed the emission limits listed in the table below:

Control Device / Emission Unit	PM Emission Limit (lbs/hr)
Dust collector CE3 (controlling Metal Reclaimer (MP1) and Hammer Mill (MP2))	2.78
Dust collector CE4 (controlling Ring Mill (MP3))	0.84

Compliance with these limits, combined with the potential to emit PM from all other emission units at this source, shall limit the source-wide total potential to emit of PM to less than 100 tons per 12 consecutive month period, and shall render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

D.2.2 Particulate Matter Less Than 10 Microns (PM10 and PM2.5) [326 IAC 2-8-4] [326 IAC 2-2]

Pursuant to 326 IAC 2-8 and in order to render 326 IAC 2-2 not applicable, the PM10 and PM2.5 emissions from the dust collectors controlling the aluminum metal shredders shall not exceed the emission limits listed in the table below:

Control Device / Emission Unit	PM10 Emission Limit (lbs/hr)	PM2.5 Emission Limit (lbs/hr)
Dust collector CE3 (controlling Metal Reclaimer (MP1) and Hammer Mill (MP2))	2.78	2.78
Dust collector CE4 (controlling Ring Mill (MP3))	0.84	0.84

Compliance with these limits, combined with the potential to emit PM10 and PM2.5 from all other emission units at this source, shall limit the source-wide total potential to emit of PM10 and PM2.5 to less than 100 tons per 12 consecutive month period, each, and shall render 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

D.2.3 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the aluminum metal shredders shall not exceed the following limits:

Emission Unit	Process Weight Rate (ton/hr)	PM Emission Limit (lb/hr)
Metal Reclaimer (MP1)	4.00	10.38
Hammer Mill (MP2)	5.00	12.05
Ring Mill (MP3)	2.00	6.52

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

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

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

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

A Preventive Maintenance Plan is required for these facilities and 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 Particulate Control

- (a) In order to comply with conditions D.2.1, D.2.2, and D.2.3, the baghouses for particulate control shall be in operation and control emissions from the aluminum metal shredders at all times that the aluminum metal shredders are in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.2.6 Testing Requirements

- (a) In order to determine 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 dust collector CE3 (controlling Metal Reclaimer (MP1) and Hammer Mill (MP2)) not later than 60 days after achieving maximum capacity but not later than 180 days after initial start up. This testing shall be conducted utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the most recent 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 PM.

- (b) In order to determine 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 dust collector CE4 (controlling Ring Mill (MP3) not later than 60 days after achieving maximum capacity but not later than 180 days after initial start up. This testing shall be conducted utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the most recent 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 PM.

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

D.2.7 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouses (CE3 and CE4) used in conjunction with the aluminum metal shredders, at least once per day when the furnaces are in operation. When for any one reading, the pressure drop across the dust collector is outside the normal range of 3.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response. 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.

The instrument 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 dust collector controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has 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 dust collector controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has 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 dust collectors' 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 Requirements

- (a) To document the compliance status with Condition D.2.8, the Permittee shall maintain daily records of the pressure drop across the baghouses (CE3 and CE4) controlling the metal shredders (MP1, MP2, and MP3), during normal operation. 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, (i.e. the process did not operate that day).
- (b) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

...

SECTION E.1

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) dry hearth reverberatory furnace, identified as EU-1, constructed in 2007, modified in 2009, **approved for modification in 2012**, equipped with two (2) primary natural gas low-NO_x burners, each rated at 1 million British thermal units per hour, and two (2) holding chamber natural gas low-NO_x burners, each rated at 2.0 million British thermal units per hour, equipped with a baghouse, **identified as CE1, for particulate control and coated with lime to neutralize HAPs for particulate control**, exhausting to stack SV-1, with metal poured directly into cast iron molds, capacity: 2,500 pounds of scrap aluminum per hour.

Note: There is no fluxing or dross handling and cooling for the above unit. This furnace is a dry hearth reverberatory furnace. The aluminum melts on a slanted refractory and drips through a hole and into a holding well. Once the charge is melted, the door is opened and iron is removed. The iron is a marketable material and is not considered dross. **Baghouse CE1 is also used to control emissions from Furnace EU-2.**

This unit is considered affected facilities under 40 CFR 63, Subpart RRR.

- (b) Three (3) cast iron molds, approved for construction in 2011, each with a maximum capacity of 1,400 pounds.

These units are considered affected facilities under 40 CFR 63, Subpart RRR.

- (c) One (1) dry hearth reverberatory furnace, identified as EU-2, ~~approved for construction~~ **constructed** in 2011, equipped with two (2) primary natural gas low-NO_x burners, each rated at 8.2 million British thermal units per hour, and two (2) holding chamber natural gas low-NO_x burners, each rated at 8.2 million British thermal units per hour, equipped with **a two (2) baghouses, identified as CE2 and CE1, for particulate control and coated with lime to neutralize HAPs for particulate control**, exhausting to stack SV-2, with metal poured directly into cast iron molds, capacity: 10,000 pounds of scrap aluminum per hour, **with a maximum flux throughput of 231 pounds per hour.**

Note: This EU-2 has similar operation as the EU-1, except there is salt fluxing in this unit.

This unit is considered an affected facility under 40 CFR 63, Subpart RRR.

- (d) Ten (10) cast iron molds, approved for construction in 2011, each with a maximum capacity of 1,400 pounds.

These units are considered affected facilities under 40 CFR 63, Subpart RRR.

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

...

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 September 28, 2012

The construction and operation of this proposed revision shall be subject to the conditions of the attached proposed FESOP Significant Permit Revision No. F169-32358-00067. The staff recommends to the Commissioner that this FESOP Significant Permit Revision 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: Emissions Calculations
Summary**

Company Name: Metal Source, LLC
Address City IN Zip: 1743 South Wabash Ave., Wabash, IN 46992
FESOP Significant Permit Revision No: F169-32358-00067
Reviewer: Sarah Street

Unlimited Potential to Emit (tons/year)											
Emission Units	PM	PM10	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO ₂ e	Total HAPs	Worst Single HAP	
Reverberatory Furnace EU-1	79.39	72.82	72.82	19.16	3.29	13.14	-	-	0.001	0.0003	Nickel
Reverberatory Furnace EU-2	317.55	291.27	291.27	76.65	13.14	52.56	-	-	642.87	642.85	HF
Casting from EU-1	-	-	-	0.11	0.05	0.77	-	-	-	-	-
Casting from EU-2	-	-	-	0.44	0.22	3.07	-	-	-	-	-
Combustion for EU-1	0.05	0.20	0.20	0.02	1.31	0.14	2.21	3,173	0.05	0.05	Hexane
Combustion for EU-2	0.27	1.09	1.09	0.09	7.18	0.79	12.07	17,345	0.27	0.26	Hexane
Shredders (MP1 and MP2)	98.55	98.55	98.55	-	-	-	-	-	0.001	0.001	Nickel
Shredder MP3	21.90	21.90	21.90	-	-	-	-	-			
Paved Roads	4.85	0.97	0.24	-	-	-	-	-	-	-	-
Material Handling	negl.	negl.	negl.	-	-	-	-	-	-	-	-
TOTALS	522.56	486.80	486.07	96.46	25.20	70.47	14.28	20,517	643.19	642.85	HF

Limited Potential to Emit (tons/year)											
Emission Units	PM	PM10	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO ₂ e	Total HAPs	Worst Single HAP	
Baghouse CE1 (controlling Furnace EU-1 and Furnace EU-2) ⁽¹⁾	20.85	20.85	20.85	95.81	16.43	33.95	-	-	9.62	9.61	HF
Baghouse CE2 (controlling Furnace EU-2) ⁽²⁾⁽³⁾⁽⁴⁾	52.78	52.78	52.78								
Casting from EU-1	-	-	-	0.11	0.05	0.77	-	-	-	-	-
Casting from EU-2	-	-	-	0.44	0.22	3.07	-	-	-	-	-
Combustion for EU-1	0.05	0.20	0.20	0.02	1.31	0.14	2.21	3,173	0.05	0.05	Hexane
Combustion for EU-2	0.27	1.09	1.09	0.09	7.18	0.79	12.07	17,345	0.27	0.26	Hexane
Shredders (MP1 and MP2) ⁽⁵⁾	12.18	12.18	12.18	-	-	-	-	-	0.001	0.001	Nickel
Shredder MP3 ⁽⁵⁾	3.68	3.68	3.68	-	-	-	-	-			
Paved Roads	4.85	0.97	0.24	-	-	-	-	-	-	-	-
Material Handling ⁽⁶⁾	negl.	negl.	negl.	-	-	-	-	-	-	-	-
TOTALS	94.66	91.74	91.01	96.46	25.20	38.71	14.28	20,517	9.95	9.61	HF

(1) The PM, PM10, and PM2.5 emissions from Baghouse CE1 shall not exceed 4.76 lb/hr.

(2) The PM, PM10, and PM2.5 emissions from Baghouse CE2 shall not exceed 12.05 lb/hr.

(3) The addition of solid HAP-containing flux to the dry heart reverberatory furnace EU-2 shall be limited such that HF emissions shall not exceed 9.61 tons per year which is equivalent to 0.0095 lb/lb of Sodium Aluminum Tetrafluoride (SAF) when melting aluminum at the rate of 10,000 lb with 231 lb of SAF per hour. This emission limitation is after control and therefore includes the total HF emissions from Baghouse CE1 and Baghouse CE2

(4) VOCs from EU-2 limited to avoid the requirements of 326 IAC 8-1-6. Therefore, the limited emissions from Furnace EU-1 and EU-2 combined are as follows:

$$\text{Limited VOC (tons/yr)} = \text{Unlimited PTE from Furnace EU-1} + \text{Limited PTE from Furnace EU-2}$$

$$\text{Limited VOC (tons/yr)} = 13.14 \text{ tons/yr} + 20.81 \text{ tons/yr} = 33.95 \text{ tons/yr}$$

(5) The PM, PM10, and PM2.5 emissions from the Shredders MP1 and MP2 (controlled by CE03) shall not exceed 2.78 lb/hr. The PM, PM10, and PM2.5 emissions from the Shredder MP3 (controlled by CE04) shall not exceed 0.84 lb/hr.

(6) The material handling for the lime injection systems produces negligible PM, PM10, and PM2.5 emissions

**Appendix A: Secondary Metal Production
Aluminum**

Company Name: Metal Source, LLC
Address City IN Zip: 1743 South Wabash Ave., Wabash, IN 46992
FESOP Significant Permit Revision No: F169-32358-00067
Reviewer: Sarah Street

SCC #3-04-001-01 Reverberatory Furnace EU-1							
MATERIAL		Throughput					
Aluminum		LBS/HR	1 TON/2000 lbs	TON/HR			
		2500	2000	1.25			
	PM	PM ₁₀	PM _{2.5}	SOx	NOx	VOC	CO*
	lbs/ton Produced	lbs/ton Produced	lbs/ton Produced	lbs/ton Produced	lbs/ton Produced	lbs/ton Produced	lbs/tons Produced
Emission Factor	14.50	13.30	13.30	3.50	0.60	2.40	--
Potential Emissions lb/hr	18.13	16.63	16.63	4.38	0.75	3.00	--
Potential Emissions tons/year	79.39	72.82	72.82	19.16	3.29	13.14	--
Compliance Determination for 326 IAC 6-3-2							
Process	Allowable lb PM/hr Rate	PTE lb PM/hr Rate	Control Required?				
Furnace melting and holding	4.76	18.13	YES				

SCC# 3-04-001-14 Pouring/Casting for EU1							
TYPE OF MATERIAL		Throughput					
Aluminum		LBS/HR	1 TON/2000 lbs	TON/HR			
		2500	2000	1.25			
	PM	PM ₁₀	PM _{2.5}	SOx	NOx	VOC	CO*
	lbs/ton metal charged						
Emission Factor	0	0	0	0.02	0.01	0.14	--
Potential Emissions lbs/hr	0	0	0	0.03	0.01	0.18	--
Potential Emissions tons/year	0	0	0	0.11	0.05	0.77	--

Methodology

* CO emission factor provided by the source.

Furnace melting emission factors from Fire Secondary Aluminum Sweat Furnaces (SCC#3-04-001-01), Version 6.25, provided by source.

Furnace pouring and casting (SCC#3-04-001-14) emission factors from AIRS EPA 450/4-90-003, provided by source.

PTE (lbs/hr) = Emission Factor (lbs/ton) x Throughput (tons/hr)

PTE (tons/yr) = PTE (lbs/hr) x 8,760 hrs/yr x 1 ton/2,000 lbs

PM includes filterables and PM₁₀ includes filterables and condensibles

**Appendix A: Secondary Metal Production
Aluminum**

Company Name: Metal Source, LLC
Address City IN Zip: 1743 South Wabash Ave., Wabash, IN 46992
FESOP Significant Permit Revision No: F169-32358-00067
Reviewer: Sarah Street

SCC #3-04-001-01 Reverberatory Furnace EU-2							
MATERIAL		Throughput					
Aluminum		LBS/HR	1 TON/2000 lbs	TON/HR			
		10000	2000	5.00			
	PM	PM₁₀	PM_{2.5}	SOx	NOx	VOC	CO
	lbs/ton Produced	lbs/ton Produced	lbs/ton Produced	lbs/ton Produced	lbs/ton Produced	lbs/ton Produced	lbs/tons Produced
Emission Factor	14.50	13.30	13.30	3.50	0.60	2.40	--
Potential Emissions lb/hr	72.50	66.50	66.50	17.50	3.00	12.00	--
Potential Emissions tons/year	317.55	291.27	291.27	76.65	13.14	52.56	--
Compliance Determination for 326 IAC 6-3-2				Compliance Determination for 326 IAC 8-1-6			
Process	Allowable lb PM/hr Rate	PTE lb PM/hr Rate	Control Required?	Process	VOC Limitation lb/ton materials	PTE tons/yr	
Furnace melting and holding	12.24	72.50	YES	melting and holding	0.95	20.81	

SCC# 3-04-001-14 Casting For EU2							
TYPE OF MATERIAL		Throughput					
Aluminum		LBS/HR	1 TON/2000 lbs	TON/HR			
		10000	2000	5			
	PM	PM₁₀	PM_{2.5}	SOx	NOx	VOC	CO
	lbs/ton metal charged	lbs/ton metal charged	lbs/ton metal charged	lbs/ton metal charged	lbs/ton metal charged	lbs/ton metal charged	lbs/ton metal charged
Emission Factor	--	--	--	0.02	0.01	0.14	--
Potential Emissions lbs/hr	--	--	--	0.10	0.05	0.70	--
Potential Emissions tons/year	--	--	--	0.44	0.22	3.07	--

Methodology

Furnace melting emission factors from Fire Secondary Aluminum Sweat Furnaces (SCC #3-04-001-01), Version 6.25, provided by source.
Furnace pouring and casting (SCC#3-04-001-14) emission factors from AIRS EPA 450/4-90-003, provided by source.
PTE (lbs/hr) = Emission Factor (lbs/ton) x Throughput (tons/hr)
PTE (tons/yr) = PTE (lbs/hr) x 8,760 hrs/yr x 1 ton/2,000 lbs
PM includes filterables and PM₁₀ includes filterables and condensibles

**Appendix A: HAPs Calculations
Secondary Aluminum Production**

**Company Name: Metal Source, LLC
Address City IN Zip: 1743 South Wabash Ave., Wabash, IN 46992
FESOP Significant Permit Revision No: F169-32358-00067
Reviewer: Sarah Street**

Process	TON/HR (EU1)	TON/HR (EU2)
Al Throughput	1.25	5

Pollutants (HAPs)	EF (lbs/ton)	PTE		Total (tons/yr)
		(EU1) (tons/yr)	(EU2) (tons/yr)	
chromium*	4.04E-05	2.21E-04	5.34E-03	5.56E-03
nickel*	4.68E-05	2.56E-04	6.19E-03	6.44E-03
arsenic*	1.26E-06	6.92E-06	1.67E-04	1.74E-04
lead*	1.04E-05	5.67E-05	1.37E-03	1.43E-03
subtotal		5.41E-04	1.31E-02	1.36E-02

Methodology:

EF = Emission factor

Uncontrolled PTE = Rate (units/hr) x EF (lbs/unit) x 8760 hrs/yr / 2000 lbs/hr

*HAPs emissions factors for burning and drying of aluminum cans (SCC#30400109), EPA Fire version 2.5.

*HAPs emission factor (lb/ton) = FIRE EF (lb HAP/lb aluminum can processed) * 2000 (lb/ton)

Note: There is no fluxing in EU1, but there is fluxing in EU2 in some batches. See the following table for HAP emissions when fluxing

Since the HAP emissions from the fluxing process is much higher in just melting, The HAP emission from fluxing will be considered in EU2 only.

Melting with salt fluxing for EU-2

Pollutant	Fluxing Rate ⁽¹⁾ (lb/hr)	Total Fluxing ⁽²⁾ (tons/yr)	Flux Wt % Fluorine	Unlimited PTE ⁽³⁾ (tons/yr)	Limit Rate ⁽⁴⁾ lb/lb	Limit PTE (tons/yr)
HF	231.00	1012	60.33%	642.85	0.0095	9.61

Methodology:

* Sodium Aluminum Tetrafluoride (SAF) is used for fluxing

This unit uses baghouse coated with lime for control.

⁽¹⁾ Amount of salt used for fluxing is 231 lb/hr when melting at the rate of 10000 lb of aluminum/hr.

⁽²⁾ Total of amount of fluxing (tons/yr) = 231 (lb salt/hour) x 8760 (hour/yr) x (1 ton/2000 lb)

Assumes 100% conversion of flux % by weight fluorine to hydrofluoric acid (HF)

⁽³⁾ Uncontrolled PTE Flux HF (tons/yr) = amount of fluxing (lb/hr) * [Flux Wt % F * (20.01 MW HF / 19.0 MW F)] * 8760 (hr/yr) * 1/2000 (ton/lb)

⁽⁴⁾ Limit emissions rate to comply with FESOP, a one time testing for HF will be required for this unit.

Limit PTE Flux HF (tons/yr) = Limit Rate (lb/lb of salt) * amount of salt (lb of salt/hr) * 8760 (hr/yr) * 1/2000 ton/lbs)

Appendix A: Emissions Calculations

Natural Gas Combustion Only

EU-1

Company Name: Metal Source, LLC

Address City IN Zip: 1743 South Wabash Ave., Wabash, IN 46992

FESOP Significant Permit Revision No: F169-32358-00067

Reviewer: Sarah Street

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
6.0	1000	52.6

	Pollutant					
Emission Factor in lb/MMCF	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	50 **see below	5.5	84
Potential Emission in tons/yr	0.05	0.2	0.0	1.3	0.1	2.2

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

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

	HAPs - Organics				
Emission Factor in lb/MMcf	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	5.519E-05	3.154E-05	1.971E-03	4.730E-02	8.935E-05

	HAPs - Metals				
Emission Factor in lb/MMcf	Lead	Cadmium	Chromium	Manganese	Nickel
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	1.314E-05	2.891E-05	3.679E-05	9.986E-06	5.519E-05

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

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/1,000 MMBtu

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

	Greenhouse Gas		
Emission Factor in lb/MMcf	CO2	CH4	N2O
	120,000	2.3	2.2
Potential Emission in tons/yr	3,154	0.1	0.1
Summed Potential Emissions in tons/yr	3,154		
CO2e Total in tons/yr	3,173		

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.

Greenhouse 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) = 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: Emissions Calculations

Natural Gas Combustion Only

EU-2

Company Name: Metal Source, LLC
 Address City IN Zip: 1743 South Wabash Ave., Wabash, IN 46992
 FESOP Significant Permit Revision No: F169-32358-00067
 Reviewer: Sarah Street

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
32.8	1000	287.3

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	50 **see below	5.5	84
Potential Emission in tons/yr	0.3	1.1	0.1	7.2	0.8	12.1

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

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
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	3.017E-04	1.724E-04	1.077E-02	2.586E-01	4.885E-04

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
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	7.183E-05	1.580E-04	2.011E-04	5.459E-05	3.017E-04

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

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/1,000 MMBtu
 Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	17,240	0.3	0.3
Summed Potential Emissions in tons/yr	17,240		
CO2e Total in tons/yr	17,345		

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.
 Greenhouse 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) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential

**Appendix A: Emission Calculations
Aluminum Metal Shredding**

Company Name: Metal Source, LLC
 Address City IN Zip: 1743 South Wabash Ave., Wabash, IN 46992
 FESOP Significant Permit Revision No: F169-32358-00067
 Reviewer: Sarah Street

Emission Unit	Control Device	Maximum Throughput (lbs/hr)	Maximum Throughput (tons/hr)	Emission Factor PM/PM10/PM2.5* (lb/ton)	Uncontrolled PTE PM/PM10/PM2.5 (lbs/hr)	Uncontrolled PTE PM/PM10/PM2.5 (tons/yr)	Control Efficiency (%)	Controlled PM/PM10/PM2.5 (lbs/hr)	Controlled PM/PM10/PM2.5 (tons/yr)	326 IAC 6-3-2 Allowable Emissions (lb/hr)	FESOP and PSD Minor Limits (lb/hr)	FESOP and PSD Minor Limits (ton/yr)
Metal Reclaimer (MP1)	CE3	8,000	4.00	2.50	10.00	43.80	98.00%	0.20	0.88	10.38	2.78	12.18
Hammer Mill (MP2)		10,000	5.00	2.50	12.50	54.75	98.00%	0.25	1.10			
Ring Mill (MP3)	CE4	4,000	2.00	2.50	5.00	21.90	98.00%	0.10	0.44	6.52	0.84	3.68
TOTAL						120.45			2.41			15.86

*Currently there are no federally approved emission factors for metal shredders. The source used an emission factor used in another source's air permit to conservatively estimate particulate emissions. Stack tests will be required to demonstrate the compliance status.

PM = PM10 = PM2.5

METHODOLOGY

Maximum Throughput (tons/hr) = Maximum Throughput (lbs/hr) / 2,000 lb/ton
 Potential Emission (lbs/hr) = Emission Factor (lb/ton) * Maximum Capacity (tons/hr)
 Potential Emission (tons/year) = Emission Factor (lb/ton) * Maximum Capacity (tons/hr) * 8760 (hrs/year) * 1 ton/2000 lbs
 Controlled Emissions (lbs/hr) = Uncontrolled Emissions (lb/hr) / (100% - Control Efficiency)
 Controlled Emissions (tons/yr) = Uncontrolled Emissions (tons/yr) / (100% - Control Efficiency)

HAPs Emissions

Emission Factor = 2.50 (lb/ton) uncontrolled
 Maximum Capacity = 35.00 (tons/hr) all three shredders
 Maximum Capacity = 306.60 (tons/yr) all three shredders
 Control Efficiency = 98%

Pollutant Specific HAPs for Aluminum Processing	% of PM Emissions**	Uncontrolled Pollutant Emission Factor (lb/ton)	Uncontrolled Pollutant Emissions (tons/yr)	Controlled Pollutant Emission Factor (lb/ton)	Controlled Pollutant Emissions (tons/yr)
Chromium	0.005%	1.25E-04	1.92E-05	2.50E-06	3.83E-07
Manganese	0.008%	2.00E-04	3.07E-05	4.00E-06	6.13E-07
Nickel	0.196%	4.90E-03	7.51E-04	9.80E-05	1.50E-05
Lead	0.008%	2.00E-04	3.07E-05	4.00E-06	6.13E-07
TOTAL			8.32E-04		1.66E-05

METHODOLOGY

** HAP speciation data was obtained from the USEPA Speciate 3.2 Database (Aluminum Processing)
 Potential Emissions = Emission Factor (lb/ton) * % of PM Emissions * Maximum Capacity (ton/yr) * 1 (ton/2000lb)

**Appendix A: Emission Calculations
Fugitive Dust Emissions - Paved Roads**

Company Name: Metal Source, LLC
Address City IN Zip: 1743 South Wabash Ave., Wabash, IN 46992
FESOP Significant Permit Revision No: F169-32358-00067
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 Information (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)
Commercial (entering plant) (one-way trip)	30.0	1.0	30.0	40.0	1200.0	800	0.152	4.5	1659.1
Commercial (leaving plant) (one-way trip)	30.0	1.0	30.0	40.0	1200.0	800	0.152	4.5	1659.1
Automobile (entering plant) (one-way trip)	80.0	1.0	80.0	3.0	240.0	500	0.095	7.6	2765.2
Automobile (leaving plant) (one-way trip)	80.0	1.0	80.0	3.0	240.0	500	0.095	7.6	2765.2
Total			220.0		2880.0			24.2	8848.5

Average Vehicle Weight Per Trip =

13.1

 tons/trip
 Average Miles Per Trip =

0.11

 miles/trip

Unmitigated Emission Factor, $E_f = [k * (sL)^{0.91} * (W)^{1.02}]$ (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 =	13.1	13.1	13.1	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, $E_{ext} = E_f * [1 - (p/4N)]$ (Equation 2 from AP-42 13.2.1)

Mitigated Emission Factor, $E_{ext} = E_f * [1 - (p/4N)]$
 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, $E_f =$	1.199	0.240	0.0588	lb/mile
Mitigated Emission Factor, $E_{ext} =$	1.096	0.219	0.0538	lb/mile
Dust Control Efficiency =	50%	50%	50%	(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)
Commercial (entering plant) (one-way trip)	0.99	0.20	0.05	0.91	0.18	0.04	0.45	0.09	0.02
Commercial (leaving plant) (one-way trip)	0.99	0.20	0.05	0.91	0.18	0.04	0.45	0.09	0.02
Automobile (entering plant) (one-way trip)	1.66	0.33	0.08	1.52	0.30	0.07	0.76	0.15	0.04
Automobile (leaving plant) (one-way trip)	1.66	0.33	0.08	1.52	0.30	0.07	0.76	0.15	0.04
	5.30	1.06	0.26	4.85	0.97	0.24	2.42	0.48	0.12

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 = Particulate Matter (<2.5 um)
 PTE = Potential to Emit



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

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

TO:

Marcus Olson
Metal Source, LLC
PO Box 238
Wabash, IN 46992

DATE: January 7, 2013

FROM: Matt Stuckey, Branch Chief
Permits Branch
Office of Air Quality

SUBJECT: Final Decision
FNPER
169-32358-00067

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:
Benjamin Gebhart, Responsible Official
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 11/30/07



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
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www.idem.IN.gov

TO: Wabash Carnegie Public Library

From: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: Metal Source, LLC
Permit Number: 169-32358-00067

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 11/30/07

Mail Code 61-53

IDEM Staff	DPABST 1/7/2013 Metal Source, LLC 169-32358-00067 (Final)		Type of Mail: CERTIFICATE OF MAILING ONLY	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		

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		Marcus Olson Metal Source, LLC PO Box 238 Wabash IN 46992 (Source CAATS) (CONFIRM DELIVERY)										
2		Benjamin Gebhart President Metal Source, LLC PO Box 238 Wabash IN 46992 (RO CAATS)										
3		Wabash County Commissioners 1 West Hill Street Wabash IN 46992 (Local Official)										
4		Wabash City Council and Mayors Office 202 South Wabash Street Wabash IN 46992 (Local Official)										
5		Wabash County Health Department 89 W. Hill, Memorial Hall Wabash IN 46992-3184 (Health Department)										
6		Ted Little Wabash County Council 1076 West 900 North North Manchester IN 46962 (Affected Party)										
7		Wabash Carnegie Public Library 188 W Hill St Wabash IN 46992-3048 (Library)										
8												
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)	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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