



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: November 30, 2012

RE: OmniSource Corporation / 003-29387-00057

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

**OmniSource Corporation
1143 Fairview Avenue
3601 Maumee Avenue
Fort Wayne, Indiana 46803**

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

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-8-11.1, applicable to those conditions

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.: F003-29387-00057	
Issued by:  Nathan Bell, Section Chief Permits Branch Office of Air Quality	Issuance Date: November 30, 2012 Expiration Date: November 30, 2022

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Attachment A: Fugitive Dust Control Plan

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 metal recycling source.

Source Address:	1143 Fairview Avenue, Fort Wayne, IN 46803; and 3601 Maumee Avenue, Fort Wayne, IN 46803
General Source Phone Number:	(260) 423-8595
SIC Code:	5093 (Scrap and Waste Materials)
County Location:	Allen
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Source Definition [326 IAC 2-8-1] [326 IAC 2-7-1(22)]

This source consists of the following two (2) plants:

- (a) Plant1 is a metal chips recovery plant, located at 1143 Fairview Avenue, Fort Wayne, IN 46803; and
- (b) Plant 2 is a vehicle/metal shredding plant, located at 3601 Maumee Avenue, Fort Wayne, IN 46803.

Since these two (2) plants are under the common ownership and control of OmniSource Corporation, have the same two-digit SIC code, 50, for the major group Wholesale Trade-Durable Goods, and are located on properties that abut in the public right of way, IDEM, OAQ finds that the two OmniSource plants are part of the same source.

A.3 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:

Plant 1 - 1143 Fairview Avenue, Fort Wayne, IN, 46803

- (a) One (1) natural gas-fired copper wire reclamation furnace (CF-1), permitted in 1991, with a nominally-rated charge capacity of 2000 pounds per hour and a nominal heat input rate of 2.5 MMBtu/hr, consisting of the following facilities:
- (1) Two (2) primary chambers,
 - (2) One (1) auxiliary burner, and
 - (3) One (1) afterburner connected to a baghouse, exhausting to stack CF-1.
- (b) One (1) metal alloy chip recycling process line, permitted in 2001, with a nominal feed rate of 6,000 pounds of chips containing VOC turning oils per hour, consisting of the following facilities:
- (1) One (1) chip crusher,
 - (2) One (1) natural gas-fired rotary dryer (nominally rated at 0.6 MMBtu/hr), with particulate controlled by a baghouse (CE-3), with VOCs voluntarily controlled by a natural gas-fired afterburner (nominally rated at 1.8 MMBtu/hr) (CE-2), and exhausting to stack D-1,
 - (3) One (1) magnet-separator,
 - (4) One (1) non-ferrous metal chip separating line controlled by a baghouse (CE-3), exhausting to stack D-1 and,
 - (5) One (1) ferrous metal chip separating line controlled by a baghouse (CE-3), exhausting to stack D-1.

Plant 2 - 3601 Maumee Avenue, Fort Wayne, IN 46803

- (a) One vehicle/metal shredder process consisting of the following:
- (1) One (1) vehicle/metal shredder, identified as S-3, with a nominal capacity of 200 tons per hour, using integral water sprays at the materials feed chute, cutter head, and materials output chute.
 - (2) Not to exceed twenty (20) conveyor transfer points, identified as C-1, with a nominal capacity of 200 tons per hour of wetted material.
 - (3) One (1) ferrous/nonferrous metal separation process, with a nominal capacity of 200 tons per hour, consisting of:
 - (A) Two (2) magnetic separators in a series, identified as M-1A and M-1B; and
 - (B) One (1) closed loop zbox/cyclone air separation system, with no exhaust directed outside the unit.
 - (4) One (1) conveyor transfer point, identified as C-2, with a nominal capacity of 60 tons per hour of damp material.

A.4 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities:

Plant 1 - 1143 Fairview Avenue, Fort Wayne, IN 46083

- (a) One (1) metals recovery research and development project as defined in 326 IAC 2-1.1-3 (e)(2) and 326 IAC 2-7-1(21)(E), consisting of two (2) portable steel shell electric furnaces.
- (b) Paved roadways and parking lots.
- (c) Miscellaneous equipment used to sort, separate, and package various metal-containing materials, including sorting tables, briquetters, balers, shears, wire strippers, and torching stations.
- (d) One (1) precious metals recovery process.
- (e) One (1) copper shredding process, with a nominal capacity of 7.5 tons per hour, and consisting of:
 - (1) One (1) shredder; and
 - (2) Six (6) transfer points.

Plant 2 - 3601 Maumee Avenue, Fort Wayne, IN 46803

- (a) Three (3) metal inert gas (MIG) welding stations, constructed in 1996, each with a nominal consumption of 5 pounds of electrode per hour.
- (b) Five (5) stick welding stations, constructed in 1996, each with a nominal consumption of 30 pounds of electrode per hour.
- (c) Five (5) flame cutting stations using oxymethane, constructed in 1996, each with a nominal metal cutting rate of 24 inches of 1 inch thick stock per minute.
- (d) Forty-eight (48) natural gas-fired space heaters, with a nominal combined heat input capacity of 9.7 MMBtu per hour.
- (e) Sampling and testing equipment and activities for quality control/assurance purposes, consisting of small electric furnaces.

A.5 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) to renew a Federally Enforceable State Operating Permit (FESOP).

SECTION B GENERAL CONDITIONS

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

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

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

- (a) This permit, F003-29387-00057, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

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

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

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

B.4 Enforceability [326 IAC 2-8-6] [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.5 Severability [326 IAC 2-8-4(4)]

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

B.6 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

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

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

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

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

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

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All 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.10 Compliance Order Issuance [326 IAC 2-8-5(b)]

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

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

- (a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:
- (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.

The Permittee shall implement the PMPs.

- (b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

The Permittee shall implement the PMPs.

- (c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. 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).

- (d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

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

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation except as provided in 326 IAC 2-8-12.

- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, 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.13 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of permits established prior to F003-29387-00057 and issued pursuant to permitting programs approved into the state implementation plan have been either:
- (1) incorporated as originally stated,
- (2) revised, or

(3) deleted.

(b) All previous registrations and permits are superseded by this permit.

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

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

**B.15 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.16 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.17 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.18 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) and (c) without a prior permit revision, if each of the following conditions is met:
- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
 - (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
 - (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
 - (4) The Permittee notifies the:

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

and

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

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

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15(b)(1) and (c). The Permittee shall make such records available, upon reasonable request, for public review.

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

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

B.19 Source Modification Requirement [326 IAC 2-8-11.1]

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

B.20 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.21 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.22 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.23 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) and greenhouse gases (GHGs), 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.
- (4) The potential to emit greenhouse gases (GHGs) from the entire source shall be limited to less than one hundred thousand (100,000) tons of CO₂ equivalent emissions (CO₂e) per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-2 (PSD), potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided 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]

The Permittee shall comply with the applicable requirements of 326 IAC 14-10, 326 IAC 18, and 40 CFR 61.140.

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

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

Support information includes the following:

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

Records of required monitoring information include the following:

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

These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

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

C.18 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

- (b) The address for report submittal is:
- Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

Stratospheric Ozone Protection

C.19 Compliance with 40 CFR 82 and 326 IAC 22-1

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

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Plant 1 - 1143 Fairview Avenue, Fort Wayne, IN, 46803

- (a) One (1) natural gas-fired copper wire reclamation furnace (CF-1), permitted in 1991, with a nominally-rated charge capacity of 2000 pounds per hour and a nominal heat input rate of 2.5 MMBtu/hr, consisting of the following facilities:
- (1) Two (2) primary chambers,
 - (2) One (1) auxiliary burner, and
 - (3) One (1) afterburner connected to a baghouse, exhausting to stack CF-1.

(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 Incinerators [326 IAC 4-2-2]

Pursuant to 326 IAC 4-2-2, the Permittee shall comply with the following for the natural gas-fired wire reclamation furnace (CF-1):

- (a) All incinerators shall comply with the following requirements:
- (1) Consist of primary and secondary chambers or the equivalent.
 - (2) Be equipped with a primary burner unless burning only wood products.
 - (3) Comply with 326 IAC 5-1 and 326 IAC 2.
 - (4) Be maintained, operated, and burn waste in accordance with the manufacturer's specifications or an operation and maintenance plan as specified in subsection 326 IAC 4-2-2(c).
 - (5) Not emit particulate matter in excess of one (1) of the following:
 - (A) Three-tenths (0.3) pound of particulate matter per one thousand (1,000) pounds of dry exhaust gas under standard conditions corrected to fifty percent (50%) excess air for incinerators with a maximum solid waste capacity of greater than or equal to two hundred (200) pounds per hour.
 - (B) Five-tenths (0.5) pound of particulate matter per one thousand (1,000) pounds of dry exhaust gas under standard conditions corrected to fifty percent (50%) excess air for incinerators with solid waste capacity less than two hundred (200) pounds per hour.
 - (6) If any of the requirements of subdivisions (1) through (5) are not met, then the owner or operator shall stop charging the incinerator until adjustments are made that address the underlying cause of the deviation.
- (b) An owner or operator developing an operation and maintenance plan pursuant to subsection (a)(4) must comply with the following:

- (1) The operation and maintenance plan must be designed to meet the particulate matter emission limitation specified in subsection (a)(5) and include the following:
 - (A) Procedures for receiving, handling, and charging waste.
 - (B) Procedures for incinerator startup and shutdown.
 - (C) Procedures for responding to a malfunction.
 - (D) Procedures for maintaining proper combustion air supply levels.
 - (E) Procedures for operating the incinerator and associated air pollution control systems.
 - (F) Procedures for handling ash.
 - (G) A list of wastes that can be burned in the incinerator.
 - (2) Each incinerator operator shall review the plan before initial implementation of the operation and maintenance plan and annually thereafter.
 - (3) The operation and maintenance plan must be readily accessible to incinerator operators.
 - (4) The owner or operator of the incinerator shall notify the department, in writing, thirty (30) days after the operation and maintenance plan is initially developed pursuant to this section.
- (c) The owner or operator of the incinerator must make the manufacturer's specifications or the operation and maintenance plan available to the department upon request.

D.1.2 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 obligations regarding preventive maintenance plans.

Compliance Determination Requirements

D.1.3 Particulate Control

In order to ensure compliance with Condition D.1.1 - Incinerators, the baghouse for particulate matter control shall be in operation and control emissions from the copper wire reclamation furnace (CF-1) at all times that the copper wire reclamation furnace (CF-1) is in operation.

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

D.1.4 Visible Emissions Notations

- (a) Visible emissions notations of the stack CF-1 exhaust 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 a reasonable response step(s). Failure to take response steps shall be considered a deviation from this permit. Section C – Response to Excursions or Exceedances contains the Permittee’s obligations regarding responding to excursions or exceedances.

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

D.1.5 Record Keeping Requirements

- (a) To document the compliance status with Condition D.1.4 - Visible Emissions Notations, the Permittee shall maintain a daily record of visible emission notations of the CF-1 stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g., the process did not operate that day).
- (b) Section C - General Record Keeping Requirements contains the Permittee’s obligations regarding record keeping.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Plant 1 - 1143 Fairview Avenue, Fort Wayne, IN, 46803

- (b) One (1) metal alloy chip recycling process line, permitted in 2001, with a nominal feed rate of 6,000 pounds of chips containing VOC turning oils per hour, consisting of the following facilities:
- (1) One (1) chip crusher,
 - (2) One (1) natural gas-fired rotary dryer (nominally rated at 0.6 MMBtu/hr), with particulate controlled by a baghouse (CE-3), with VOCs voluntarily controlled by a natural gas-fired afterburner (nominally rated at 1.8 MMBtu/hr) (CE-2), and exhausting to stack D-1,
 - (3) One (1) magnet-separator,
 - (4) One (1) non-ferrous metal chip separating line controlled by a baghouse (CE-3), exhausting to stack D-1 and,
 - (5) One (1) ferrous metal chip separating line controlled by a baghouse (CE-3), exhausting to stack D-1.

(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 VOC Limits [326 IAC 8-1-6][326 IAC 2-8-4][326 IAC 2-2]

Pursuant to 326 IAC 2-8-4 (FESOP), and in order to render the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements), 326 IAC 2-7 (Part 70 Program), and 326 IAC 2-2 (PSD) not applicable, the metal alloy chip recycling process line shall be limited as follows:

- (a) The total material throughput through the Metal Alloy Chip Recycling Process Line shall not exceed 3,096 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (b) The oil content of the metal alloy chips shall not exceed two percent (2%) by weight; and
- (c) The volatile organic compound (VOC) content of the metal alloy chip oil shall not exceed forty and twenty-six hundredths percent (40.26%).

Compliance with these limits shall limit the potential to emit VOC (before control) from the Metal Alloy Chip Recycling Process Line to less than twenty-five (25) tons per twelve (12) consecutive month period and shall render 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities) not applicable.

Compliance with these limits, combined with the potential to emit VOC from all other emission units at this source, shall limit the potential to emit VOC from the entire source to less than one hundred (100) tons per twelve (12) consecutive month period and shall render 326 IAC 2-7 (Part 70 Program) and 326 IAC 2-2 (PSD) not applicable.

D.2.2 FESOP Limits [326 IAC 2-8-4]

Pursuant to 326 IAC 2-8-4 (FESOP), and in order to render the requirements of 326 IAC 2-7 (Part 70 Program) not applicable, the total material throughput through the Metal Alloy Chip Recycling Process Line shall not exceed 3,096 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with this limit, combined with the potential to emit PM10 and PM2.5 from all other emission units at this source, shall limit the potential to emit PM10 and PM2.5 from the entire source to less than one hundred (100) tons per twelve (12) consecutive month period and shall render 326 IAC 2-7 (Part 70 Program) not applicable.

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the metal alloy chip recycling process line shall not exceed 8.56 pounds per hour when operating at a process weight rate of 6,000 pounds per hour.

The pounds 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:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour;
and P = 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 this facility and its control device. Section B - Preventive Maintenance Plan contains the Permittee's obligations regarding preventive maintenance plans.

Compliance Determination Requirements

D.2.5 Volatile Organic Compounds (VOC)

- (a) The Permittee shall determine compliance with the oil content limitation contained in Condition D.2.1(b) - VOC Limits each month utilizing one of the following options:
- (1) Providing a chip supplier analysis of oil content accompanied by a chip supplier certification, or;
 - (2) Obtaining a laboratory analysis of the oil content of the metal alloy chips.
- (b) The Permittee shall determine compliance with the VOC content limitation contained in Condition D.2.1(c) - VOC Limits by performing an initial thermogravimetric analysis (TGA) of the metal alloy chip oils from each of the chip suppliers in accordance with the procedures specified in ASTM E1131. If at any time the chip oil is changed, a new TGA shall be performed. IDEM, OAQ reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.2.6 Particulate Control

In order to comply with Condition D.2.3 - Particulate Emission Limitations, the baghouse (CE-3) for particulate matter, PM10, and PM2.5 control shall be in operation and control emissions from the metal alloy chip recycling process line at all times this process is in operation.

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

D.2.7 Visible Emissions Notations

- (a) Visible emission notations of stack D-1 associated with the metal alloy chip recycling process line 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 a reasonable response step(s). 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.2.8 Parametric Monitoring

- (a) The Permittee shall record the pressure drop across baghouse CE-3, used in conjunction with the metal alloy chip recycling process line, at least once per day when this unit is in operation. When, for any one reading, the pressure drop across the baghouse is outside of the normal range, the Permittee shall take reasonable response steps. The normal range for this unit is a pressure drop between 1.0 and 8.0 inches of water unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. Section C – Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.
- (b) The 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 or other time period specified by the manufacturer. The Permittee shall maintain records of the manufacturer specifications, if used.

D.2.9 Broken or Failed Bag Detection

- (a) For a single compartment baghouse 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 baghouse 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 or filter failure can be indicated by a significant drop in the baghouses pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, or dust traces.

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

D.2.10 Record Keeping Requirements

- (a) To document the compliance status with Conditions D.2.1(a) - VOC Limits and D.2.2 - FESOP Limits, the Permittee shall maintain records of the throughput to the metal alloy chip recycling process line each month and each compliance period.
- (b) To document the compliance status with Condition D.2.5(a) - Volatile Organic Compounds, the Permittee shall maintain records of the chip oil content determinations.
- (c) To document the compliance status with Condition D.2.5(b) - Volatile Organic Compounds, the Permittee shall maintain records of the thermogravimetric analysis (TGA) results for the metal alloy chip oils from each of the chip suppliers.
- (d) To document the compliance status with Condition D.2.7 - Visible Emissions Notations, the Permittee shall maintain a daily record of visible emission notations of the D-1 stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emissions notation (e.g., the process did not operate that day).
- (e) To document the compliance status with Condition D.2.8 - Parametric Monitoring, the Permittee shall maintain a daily record of pressure drop for baghouse CE-3 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 (e.g., the process did not operate that day).
- (f) Section C - General Record Keeping Requirements, contains the Permittee's obligations with regard to the records required by this condition.

D.2.11 Reporting Requirements

A quarterly summary of the information to document the compliance status with Conditions D.2.1(a) - VOC Limits and D.2.2 - FESOP Limits shall be submitted using the reporting form located at the end of this permit, or its equivalent, no later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Plant 2 - 3601 Maumee Avenue, Fort Wayne, IN, 46803

- (a) One vehicle/metal shredder process consisting of the following:
- (1) One (1) vehicle/metal shredder, identified as S-3, with a nominal capacity of 200 tons per hour, using water sprays at the materials feed chute, cutter head, and materials output chute.
 - (2) Not to exceed twenty (20) conveyor transfer points, identified as C-1, with a nominal capacity of 200 tons per hour of wetted material.
 - (3) One (1) ferrous/nonferrous metal separation process, with a nominal capacity of 200 tons per hour, consisting of:
 - (A) Two (2) magnetic separators in a series, identified as M-1A and M-1B; and
 - (B) One (1) closed loop zbox/cyclone air separation system, with no exhaust directed outside the unit.
 - (4) One (1) conveyor transfer point, identified as C-2, with a nominal capacity of 60 tons per hour of damp material.

Insignificant Activities:

- (b) Five (5) stick welding stations, constructed in 1996, each with a nominal consumption of 30 pounds of electrode per hour.

(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.3.1 Volatile Organic Compounds (VOC) BACT Limits [326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6, the Permittee shall comply with the following Best Available Control Technology (BACT) requirements:

- (a) VOC emissions from the vehicle/metal shredder (S-3) shall not exceed 63.95 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (b) The Permittee shall drain and remove, to the extent practicable, VOC and VHAP containing fluids from vehicles, appliances, industrial machinery, and other metal scrap received by the Permittee prior to shredding; or the Permittee shall document that inspections have been performed to confirm the non-existence of VOC and VHAP containing fluids. Fluids shall include, but are not limited to, gasoline, motor oil, antifreeze, transmission oil, and hydraulic fluid.

D.3.2 FESOP Limits [326 IAC 2-8-4][326 IAC 2-2][326 IAC 2-4.1]

Pursuant to 326 IAC 2-8-4 (FESOP) and in order to render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants) not applicable, the Permittee shall comply with the following emission limits for the vehicle/metal shredder (S-3):

- (a) VOC emissions from the vehicle/metal shredder (S-3) shall not exceed 63.95 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (b) Combined HAP emissions from the vehicle/metal shredder (S-3) shall not exceed 19.99 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with these limits, combined with the potential to emit VOC and HAPs from all other emission units at this source, shall limit the source-wide total potential to emit VOC to less than one hundred (100) tons per twelve (12) consecutive month period and total HAPs to less than twenty-five (25) tons per twelve (12) consecutive month period and shall render 326 IAC 2-7 (Part 70 Permits), 326 IAC 2-2 (PSD), and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants) not applicable.

D.3.3 Particulate Emissions Limitations [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, particulate emissions from each of following operations shall not exceed the pound per hour limit listed in the table below:

Unit ID	Unit Description	Max. Throughput Rate (tons/hr)	Particulate Emission Limit (lbs/hr)
S-3	Vehicle/Metal Shredder	200	58.51
C-1	Conveyors (20)	200 (each)	58.51 (each)
C-2	Conveyor (1)	60	46.29
M-1A, M-1B	Ferrous/Nonferrous Metal Separators	200 (each)	58.51 (each)

The pounds per hour limitations were calculated using the following equation:

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

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

D.3.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan is required for these facilities and their 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.3.5 Volatile Organic Compounds (VOCs)

In order to comply with Conditions D.3.1(a)- Volatile Organic Compounds (VOC) BACT Limits and D.3.2(a) - FESOP Limits, the Permittee shall determine VOC emissions from the vehicle/metal shredder (S-3) according to the following formula:

$$\text{VOC} = \frac{V(EF_V) + M(EF_M)}{2,000 \text{ lbs/ton}}$$

where:

VOC = tons of VOC emissions per 12-month consecutive period
V = tons of vehicles/automobiles processed per 12-month consecutive period
M = tons of metal (non-vehicle) processed per 12-month consecutive period
EF_V = 0.25 lb/ton emission factor for vehicle/automobile emissions
EF_M = 0.14 lb/ton emission factor for metal (non-vehicle) emissions

D.3.6 Hazardous Air Pollutants (HAPs)

In order to comply with Condition D.3.2(b) - FESOP Limits, the Permittee shall determine combined HAP emissions from the vehicle/metal shredder (S-3) according to the following formula:

$$\text{HAPs} = \frac{V(\text{EF}_V) + M(\text{EF}_M)}{2,000 \text{ lbs/ton}}$$

where:

HAPs = tons of combined HAP emissions per 12-month consecutive period
V = tons of vehicles/automobiles processed per 12-month consecutive period
M = tons of metal (non-vehicle) processed per 12-month consecutive period
EF_V = 0.032 lb/ton emission factor for vehicle/automobile emissions
EF_M = 0.00927 lb/ton emission factor for metal (non-vehicle) emissions

D.3.7 Volatile Organic Compounds and Hazardous Air Pollutants

The Permittee shall drain and remove, to the extent practicable, VOC and VHAP containing fluids from vehicles, appliances, industrial machinery, and other metal scrap received by the Permittee prior to shredding; or the Permittee shall document that inspections have been performed to confirm the non-existence of VOC and VHAP containing fluids. Fluids shall include, but are not limited to, gasoline, motor oil, antifreeze, transmission oil, and hydraulic fluid.

D.3.8 Particulate Control

In order to ensure compliance with Condition D.3.3(a) - Particulate Emission Limitations:

- (a) The integral water sprays shall be in operation and control emissions from the vehicle/metal shredder (S-3) at all times that the vehicle/metal shredder (S-3) is in operation.
- (b) The integral zbox/cyclone air separation system shall be in operation and control emissions from the magnetic separators (M-1A and M-1B) at all times the magnetic separators (M-1A and M-1B) are in operation.

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

D.3.9 Record Keeping Requirements

- (a) To document the compliance status with Conditions D.3.1 - Volatile Organic Compound (VOC) BACT Limits, D.3.2 - FESOP Limits, D.3.5 - Volatile Organic Compounds (VOCs), and D.3.6 - Hazardous Air Pollutants (HAPs), the Permittee shall maintain the following records:
 - (1) The material throughput of vehicles/automobiles to S-3 each month and each compliance period;
 - (2) The material throughput of metal (non-vehicle) to S-3 each month and each compliance period;

- (3) The VOC emissions calculated using the equation in Condition D.3.5 - Volatile Organic Compounds (VOCs) each month and each compliance period;
 - (4) The Combined HAP emissions calculated using the equation in Condition D.3.6 - Hazardous Air Pollutants (HAPs) each month and each compliance period;
 - (5) Records that VOC and VHAP containing fluids have been drained and removed (to the extent practicable) from vehicles, appliances, industrial machinery, and other scrap metal received by the Permittee prior to shredding; and
 - (6) If the Permittee did not drain and remove VOC and VHAP containing fluids on-site, records of the inspections performed to confirm the non-existence of VOC and VHAP containing fluids in vehicles, appliances, industrial machinery, and other metal scrap received by the Permittee prior to shredding.
- (b) Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

D.3.10 Reporting Requirements

Quarterly summaries of the information to document the compliance status with Conditions D.3.1(a) - Volatile Organic Compounds (VOC) BACT Limits, D.3.2(a) - FESOP Limits, D.3.2(b) - FESOP Limits, D.3.5 - Volatile Organic Compounds (VOCs), and D.3.6 - Hazardous Air Pollutants (HAPs) shall be submitted using the reporting forms located at the end of this permit, or their equivalent, no later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The reports submitted by the Permittee 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).

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

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

Source Name: OmniSource Corporation
Source Address: 1143 Fairview Avenue, Fort Wayne, Indiana 46803
3601 Maumee Avenue, Fort Wayne, Indiana 46803
FESOP Permit No.: F003-29387-00057

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: OmniSource Corporation
Source Address: 1143 Fairview Avenue, Fort Wayne, Indiana 46803
3601 Maumee Avenue, Fort Wayne, Indiana 46803
FESOP Permit No.: F003-29387-00057

This form consists of 2 pages

Page 1 of 2

- | |
|---|
| <input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12) <ul style="list-style-type: none">• The Permittee must notify the Office of Air Quality (OAQ), within four (4) daytime 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**

**Plant 1 - 1143 Fairview Avenue
FESOP Quarterly Report**

Source Name: OmniSource Corporation
Source Address: 1143 Fairview Avenue, Fort Wayne, Indiana 46803
FESOP Permit No.: F003-29387-00057
Facility: Metal Alloy Chip Recycling Process Line
Parameter: Annual Throughput
Limit: The total material throughput through the Metal Alloy Chip Recycling Process Line shall not exceed 3,096 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	Material Throughput This Month (tons)	Material Throughput Previous 11 Months (tons)	Material Throughput 12 Month Total (tons)

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

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

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

**Plant 2 - 3601 Maumee Avenue
 FESOP Quarterly Report**

Source Name: OmniSource Corporation
 Source Address: 3601 Maumee Avenue, Fort Wayne, IN 46803
 FESOP Permit No.: F003-29387-00057
 Facility: Vehicle/Metal Shredder (S-3)
 Parameter: VOC Emissions
 Limit: VOC emissions from the vehicle/metal shredder (S-3) shall not exceed 63.95 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

The Permittee shall determine VOC emissions from the vehicle/metal shredder (S-3) according to the following formula:

$$\text{VOC} = \frac{V(\text{EF}_V) + M(\text{EF}_M)}{2,000 \text{ lbs/ton}}$$

where: VOC = tons of VOC emissions per 12-month consecutive period
 V = tons of vehicles/automobiles processed per 12-month consecutive period
 M = tons of metal (non-vehicle) processed per 12-month consecutive period
 EF_V = 0.25 lb/ton emission factor for vehicle/automobile emissions
 EF_M = 0.14 lb/ton emission factor for metal (non-vehicle) emissions

QUARTER: _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	VOC Emissions (tons)	VOC Emissions (tons)	VOC Emissions (tons)
	This Month	Previous 11 Months	12 Month Total

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

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

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

**Plant 2 - 3601 Maumee Avenue
 FESOP Quarterly Report**

Source Name: OmniSource Corporation
 Source Address: 3601 Maumee Avenue, Fort Wayne, IN 46803
 FESOP Permit No.: F003-29387-00057
 Facility: Vehicle/Metal Shredder (S-3)
 Parameter: Combined HAP Emissions
 Limit: Combined HAP emissions from the vehicle/metal shredder (S-3) shall not exceed 19.99 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

The Permittee shall determine Combined HAP emissions from the vehicle/metal shredder (S-3) according to the following formula:

$$\text{HAPs} = \frac{V(\text{EF}_V) + M(\text{EF}_M)}{2,000 \text{ lbs/ton}}$$

where: HAPs = tons of combined HAP emissions per 12-month consecutive period
 V = tons of vehicles/automobiles processed per 12-month consecutive period
 M = tons of metal (non-vehicle) processed per 12-month consecutive period
 EF_V = 0.032 lb/ton emission factor for vehicle/automobile emissions
 EF_M = 0.00927 lb/ton emission factor for metal (non-vehicle) emissions

QUARTER: _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	Combined HAP Emissions (tons)	Combined HAP Emissions (tons)	Combined HAP Emissions (tons)
	This Month	Previous 11 Months	12 Month Total

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

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

**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: OmniSource Corporation
 Source Address: 1143 Fairview Avenue, Fort Wayne, Indiana 46803
 3601 Maumee Avenue, Fort Wayne, Indiana 46803
 FESOP Permit No.: F003-29387-00057

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

This report shall be submitted quarterly based on a calendar year. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C- General Reporting. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

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

**Attachment A
Fugitive Dust Control Plan (FDCP)**

**OmniSource Corporation
1143 Fairview Avenue
3601 Maumee Avenue
Fort Wayne, Indiana 46803**

Permit No.: F003-29387-00057

Paved & Unpaved Surfaces/Roadways

- Unpaved site roadways will be controlled, as needed, by applications of water, calcium chloride, or other appropriate dust control compounds.
- All paved facility roadways will be swept as needed.

Material Shredding Operations

- Potential fugitive particulate matter emissions from the Hammermill will be controlled by the Water Injection System.
- The drop distance at each conveyor transfer point will be minimized to the extent practical.

Metal/Fluff Separation Cascade

- Potential fugitive particulate matter emissions from the z-box separation cascade will be controlled by a cyclone.

Material Handling

- Stockpiling of materials will be performed in a manner such that material drop distances are reduced to the extent practical.
- Inbound loads will be inspected for excessive non-conforming material that may contribute to excessive fugitive dust emissions during unloading.
- If weather conditions are observed to be unfavorable for loading and/r unloading certain commodities, any such loading and/or unloading activity will be halted until such time that conditions become acceptable.

Flame Cutting Stations

- Prior to downsizing scrap metal by torch cutting, material will be visually inspected and pre-processed (if necessary) to ensure the removal of non-conforming materials that may cause abnormal fugitive emissions.

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

Addendum to the Technical Support Document (ATSD) for a
Federally Enforceable State Operating Permit (FESOP) Renewal with
New Source Review (NSR)

Source Background and Description

Source Name:	OmniSource Corporation
Source Location(s):	1143 Fairview Ave., Fort Wayne, Indiana 46803; and 3601 Maumee Avenue, Fort Wayne, Indiana 46803
County:	Allen
SIC Code:	5093 (Scrap and Waste Materials)
Permit Renewal No.:	F003-29387-00057
Permit Reviewer:	Jason R Krawczyk

On October 17, 2012, the Office of Air Quality (OAQ) had a notice published in the Fort Wayne Journal Gazette, Fort Wayne, Indiana, stating that OmniSource Corporation had applied for a Federally Enforceable State Operating Permit (FESOP) Renewal with New Source Review (NSR).

The notice also stated that the OAQ proposed to issue a FESOP Renewal with New Source Review for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Comments and Responses

On November 16, 2012, Jaime Saylor with Hatchett & Hauck LLP, on behalf of OmniSource Corporation submitted comments to IDEM, OAQ on the draft FESOP Renewal.

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

Comment 1a:

Please replace Condition D.1.1 with the Particulate Emissions Limitation condition previously found in the permit. The fundamental difference between an incinerator and a furnace is that an incinerator is charged with nothing but waste substances, while a furnace is charged with scrap that happens to have incidental amounts of other materials and then processes the scrap into a product. OmniSource Corporation's wire reclamation furnace does not fit the definition of an "incinerator." IDEM is focusing on the small amounts of insulation covering which are incidental to the wire, and thus incorrectly determining that the unit is an incinerator. If IDEM maintains this position, it would result in every process furnace (e.g., steel mills, foundries, aluminum processors, etc.) and many other types of units being called "incinerators" for purposes of this rule, because process furnaces have "controls on combustion factors including, but not limited to temperature, retention time, and air" and nearly all of them burn some incidental "waste substances" while processing the material charged. The problem with this overbroad interpretation is that the requirements of 326 IAC 4-2-2 are nonsensical when applied to units whose charge is a process material rather than exclusively a waste, and IDEM's interpretation would pull in many, many more units than just wire reclamation furnaces; nearly every other type of process furnace or kiln would be incorrectly dragged into this rule.

The correct reading of the incinerator rule is to apply it only to those units whose entire charge is a waste substance. Using this standard, the requirements of 4-2-2 would only be applied to the units for which the requirements were intended – incinerators where a waste substance is charged for the sole purpose of disposal. If the alleged “waste” is incidental to the process, then the unit should not be an incinerator. As applied here, the material charged into this wire reclamation furnace is processed scrap metal, which is specifically exempted from the definition of solid waste. Congress has even specifically maintained this exemption in Superfund through the Superfund Recycling Equity Act of 1999 (SREA). Importantly, SREA exempts materials that may contain “minor amounts of material incident to or adhering to the scrap material as a result of its normal and customary use prior to becoming scrap.” USEPA has specifically pointed out in enforcement guidance that in the case of metal wire with insulation or coating fully intact, the coating or insulation is to be considered “minor amounts of material incident to or adhering to the scrap material” and thus considered a recyclable material and not a waste.

<http://www.epa.gov/compliance/resources/policies/cleanup/superfund/srea-guide-1999.pdf> - pp. 4-5.

Thus, because the charge to the reclamation furnace is a valuable material with small amounts of incidental material (and even that incidental material is not considered a waste under RCRA or CERCLA), this unit would not be considered an incinerator because its charged material is not a waste substance. This guidance specific to scrap wire merely underscores the correct dividing line between incinerators and furnaces.

Given the functional differences between incinerators and furnaces and the particular statutory and regulatory protections afforded to scrap metal, the wire reclamation furnace cannot be classified as an incinerator.

Response to Comment 1:

326 IAC 1-2-34 defines incinerator as an engineered apparatus that burns waste substances with controls on combustion factors including, but not limited to temperature, retention time, and air. In this instance, the copper wire coverings would be the “waste substances” being burned, and the unit is equipped with two (2) primary chambers, an auxiliary burner, and an afterburner, which would meet the “controls on combustion” portion of the definition. 326 IAC does not define waste substances.

IDEM, OAQ disagrees with the source's interpretation that 326 IAC 4-2-2 only applies to those units whose entire charge is a waste substance. Pursuant to 326 IAC 4-2-1(a), 326 IAC 4-2 establishes standards for the use of incinerators which emit regulated pollutants.

326 IAC 4-2-1(b) lists the following exemptions from the rule:

- (1) Incinerators in residential units consisting of four (4) or fewer families; and
- (2) Sources subject to the following:
 - (A) 40 CFR 60 Subpart Eb*, Large Municipal Waste Combustors for which Construction Commenced after September 20, 1994.
 - (B) 40 CFR 60 Subpart Ec*, Hospital/Medical/Infectious Waste Incinerators for which Construction Commenced after June 20, 1996.
 - (C) 40 CFR 60 Subpart CCCC*, Commercial and Industrial Solid Waste Incineration Units for which Construction Commenced after November 30, 1999.
 - (D) The state plan approved under 40 CFR 62.3640* through 40 CFR 62.3642*, Hospital/Medical/Infectious Waste Incinerators.
 - (E) The state plan approved under 40 CFR 62.3650* through 40 CFR 62.3652*, Large Municipal Waste Combustors.
 - (F) 40 CFR 63 Subpart EEE*, Hazardous Waste Combustors.

The wire reclamation furnace has the potential to emit regulated pollutants, is not a residential unit, is not subject to the requirements of 40 CFR 60, Subparts Eb, Ec, or CCCC, or the requirements of 40 CFR 63, Subpart EEE, and is not subject to the requirements of a state plan approved under 40 CFR 62.3640

through 40 CFR 62.3642, or the requirements of a state plan approved under 40 CFR 62.3650 through 62.3652. Therefore, the wire reclamation furnace is subject to the requirements of 326 IAC 4-2-2.

In a document submitted to IDEM June 3, 1991 regarding the installation of the wire reclamation furnace, OmniSource Corporation provided manufacturer data which shows that up to 30% of the material charged is consumables (waste). The document also states that:

"The furnace has two (2) primary chambers where the cable is sweated and the paper wire wrapping is burned off...The smoke and gases from the primary chambers pass through two (2) refractory checker walls and a retention chamber before entering the central holding chamber, and out the furnace. These retention chambers are designed to give good secondary combustion of smoke..."

The document (ID # 32658523) can be viewed in IDEM's Virtual File Cabinet at the following link:

<http://108.59.49.89/Pages/Public/Search.aspx>

IDEM, OAQ considers pyrolysis paint burn off ovens as a form of incineration subject to 326 IAC 4-2. For pyrolysis units, the furnace itself is primarily designed for the purpose of burning off paint and the purpose of the afterburner is to burn off unburned or partially burned VOC and smoke. In comparison, and as stated in the initial permit application document identified above, one of the purposes of this wire reclaim furnace is to burn off paper wire wrapping (and plastic wrapping for other types of wire) and one of the purposes of retention chambers and afterburners is to give good secondary combustion of smoke. For these reasons, IDEM, OAQ has determined that the requirements of 326 IAC 4-2 are applicable to the wire reclamation furnace.

IDEM, OAQ disagrees that defining the wire reclamation furnace as an "incinerator" would result in every process furnace (e.g., steel mills, foundries, aluminum processors, etc.) and many other types of units being called "incinerators" for purposes of this rule. The primary purpose of the wire reclamation furnace is to melt metal sheathing off wire and/or to burn off paper and plastic wire wrapping in order to process the scrap wire into a recyclable product. However, the primary purpose of furnaces utilized at steel mills, foundries, aluminum processors is to melt (and sometimes chemically react) raw material inputs in order to produce a molten metal, not to burn waste substances. Similarly, with respect IDEM OAQ permitting, the primary purpose of a "kiln" is typically to heat materials in order to remove moisture (drying) from those materials, to chemically alter the primary raw materials (e.g., portland cement kiln), or to melt (and sometimes chemically react) raw material inputs in order to produce a molten metal (i.e., not to burn waste substances).

The USEPA document cited by the source ("Superfund Recycling Equity Act of 1999, Factors To Consider In A CERCLA Enforcement Case" USEPA, August 2002, pp. 4-5) is intended to exempt persons who arranged for recycling of recyclable materials from liability under Sections 107 (a)(3) and 107(a)(4) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). This document is not intended for use in determining whether a wire reclamation furnace would be considered an "incinerator" under 326 IAC 4-2.

No changes were made to the permit as a result of this comment.

Comment 2:

The source has requested that IDEM, OAQ simplify the emission unit description of the precious metals recovery process.

The source has also requested that IDEM, OAQ make this revision to the Technical Support Document.

Response to Comment 2:

IDEM, OAQ agrees with the recommended permit changes. The permit has been revised as follows:

...

A.4 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities:

Plant 1 - 1143 Fairview Avenue, Fort Wayne, IN 46083

- (a) One (1) metals recovery research and development project as defined in 326 IAC 2-1.1-3 (e)(2) and 326 IAC 2-7-1(21)(E), consisting of two (2) portable steel shell electric furnaces.
- (b) Paved roadways and parking lots.
- (c) Miscellaneous equipment used to sort, separate, and package various metal-containing materials, including sorting tables, briquetters, balers, shears, wire strippers, and torching stations.
- (d) One (1) ~~catalytic converter~~ precious metals recovery process. ~~consisting of:~~
 - ~~(1) One (1) baler with precious metals recovery unit.~~

...

The Technical Support Document (TSD) is used by IDEM, OAQ for historical purposes and IDEM, OAQ does not make any changes to the original TSD. Therefore no changes were made to the TSD.

Comment 3:

OmniSource Corporation requests Condition D.1.1 be replaced with the 326 IAC 6-3-2 Particulate Emissions Limitation condition which was previously found in past versions of the permit. This furnace is not an incinerator. It is typically used to melt metal sheathing from copper wire, and the copper is recovered. No ash is created. It is not designed to combust waste substances as a means of disposal, and as described below, many of the requirements of 326 IAC 4-2-2 are nonsensical when applied to a furnace designed to produce a useful product as its output. IDEM's position has not been to apply the incinerator rules to industrial process furnaces. For example, EAFs are not considered incinerators. The same is true for many kinds of furnaces, ovens, thermal dryers with afterburners, etc. IDEM does not regulate units designed to combust waste gases, like coke oven gas, as incinerators. A review of the rule's requirements reveals that it is not intended to regulate industrial process units which have a purpose other than destroying wastes as a means of disposal.

The TSD of this permit states that this furnace will not be combusting refuse. The TSD is correct that the furnace does not combust refuse.

Additional comments are identified in the permit condition below in **bold** font style:

D.1.1 Incinerators [326 IAC 4-2-2]

Pursuant to 326 IAC 4-2-2, the Permittee shall comply with the following for the natural gas-fired wire reclamation furnace (CF-1):

- (a) All incinerators shall comply with the following requirements:
 - (1) Consist of primary and secondary chambers or the equivalent.

- (2) Be equipped with a primary burner unless burning only wood products.
- (3) Comply with 326 IAC 5-1 and 326 IAC 2.
- (4) Be maintained, operated, and burn waste in accordance with the manufacturer's specifications or an operation and maintenance plan as specified in subsection 326 IAC 4-2-2(c).

[The reference in these rules to "waste" makes clear that they are intended to apply to units which combust waste as a means of disposal. This requirement is nonsensical when applied to this furnace. OmniSource Corporation does not charge waste to this furnace. The scrap wire is considered "processed scrap metal" that is exempted from the RCRA definition of solid waste. Because the purpose of this specialty furnace is to recover copper, there are no manufacturer's specifications about using this to burn waste.]

- (5) Not emit particulate matter in excess of one (1) of the following:
 - (A) Three-tenths (0.3) pound of particulate matter per one thousand (1,000) pounds of dry exhaust gas under standard conditions corrected to fifty percent (50%) excess air for incinerators with a maximum solid waste capacity of greater than or equal to two hundred (200) pounds per hour.
 - (B) Five-tenths (0.5) pound of particulate matter per one thousand (1,000) pounds of dry exhaust gas under standard conditions corrected to fifty percent (50%) excess air for incinerators with solid waste capacity less than two hundred (200) pounds per hour.
 - (6) If any of the requirements of subdivisions (1) through (5) are not met, then the owner or operator shall stop charging the incinerator until adjustments are made that address the underlying cause of the deviation.
- (b) An owner or operator developing an operation and maintenance plan pursuant to subsection (a)(4) must comply with the following:
- (1) The operation and maintenance plan must be designed to meet the particulate matter emission limitation specified in subsection (a)(5) and include the following:
 - (A) Procedures for receiving, handling, and charging waste.

[OmniSource Corporation does not charge waste to this furnace. The scrap wire is considered "processed scrap metal" that is exempted from the RCRA definition of solid waste. Prior to processing, the copper wire is not handled as a waste.]

- (B) Procedures for incinerator startup and shutdown.
- (C) Procedures for responding to a malfunction.
- (D) Procedures for maintaining proper combustion air supply levels.

[OmniSource Corporation's goal is not combustion of the materials in the furnace - it cannot maintain air levels to ensure proper combustion, which would defeat the purpose of the unit for processing copper.]

- (E) Procedures for operating the incinerator and associated air pollution control systems.
- (F) Procedures for handling ash.
- (G) A list of wastes that can be burned in the incinerator.

[This requirement illustrates how this rule is nonsensical for a process furnace. This unit is not designed to dispose of wastes, which is the purpose of an incinerator.]

- (2) Each incinerator operator shall review the plan before initial implementation of the operation and maintenance plan and annually thereafter.
 - (3) The operation and maintenance plan must be readily accessible to incinerator operators.
 - (4) The owner or operator of the incinerator shall notify the department, in writing, thirty (30) days after the operation and maintenance plan is initially developed pursuant to this section.
- (c) The owner or operator of the incinerator must make the manufacturer's specifications or the operation and maintenance plan available to the department upon request.

The source has also requested that IDEM, OAQ make this revision to the Technical Support Document.

Response to Comment 3:

See Response to Comment 1.

The Technical Support Document (TSD) is used by IDEM, OAQ for historical purposes and IDEM, OAQ does not make any changes to the original TSD. Therefore no changes were made to the TSD.

No changes were made to the permit as a result of this comment.

Comment 4:

The reference to Condition D.2.2 in Condition D.2.6 is incorrect and should be removed for two reasons:

- 1) The limit in D.2.2 is a material throughput limit, not an annual limit on particulate. Running a control device like a baghouse has no bearing on whether the source is complying with a feedstock limit.
- 2) The emission calculations show that the limited, uncontrolled PM/PM10/PM2.5 PTE for this unit is only 23.02 tons per year. See TSD App A-1, page 5 of 11. The 23.02 tons per year is calculated by taking the 14.87 pound per ton uncontrolled emission factor for the process, and multiplying it by the annual throughput limit ($14.87 \text{ lb/ton} * 3096 \text{ tons/year} * (1 \text{ ton} / 2,000 \text{ pounds}) = 23.018 \text{ tons per year of PM}$). Because this is less than the Title V threshold even without accounting for the baghouse as control, the baghouse is not needed to comply with the FESOP limit.

Response to Comment 4:

IDEM, OAQ agrees with the recommended permit changes. The permit has been revised as follows:

...

D.2.6 Particulate Control

In order to comply with Conditions ~~D.2.2 - FESOP Limits~~ and D.2.3 - Particulate Emission Limitations, the baghouse (CE-3) for particulate matter, PM10, and PM2.5 control shall be in operation and control emissions from the metal alloy chip recycling process line at all times this process is in operation.

...

Comment 5:

The source has requested that IDEM, OAQ revise Condition D.2.8 to be consistent with the model language for the condition.

Response to Comment 5:

IDEM, OAQ agrees with the recommended changes. The permit has been revised as follows:

...

D.2.8 Parametric Monitoring

- (a) The Permittee shall record the pressure drop across baghouse CE-3, used in conjunction with the metal alloy chip recycling process line, at least once per day when this unit is in operation. When, for any one reading, the pressure drop across the baghouse is outside of the normal range, the Permittee shall take a reasonable response **steps**. The normal range for this unit is a pressure drop between 1.0 and 8.0 inches of water unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. Section C – Response to Excursions or Exceedances contains the Permittee’s obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

...

Comment 6:

The source requests IDEM, OAQ remove the requirements of 326 IAC 6-3-2 from the five (5) stick welding stations. This rule does not apply. The MSOP issued for this facility in 2006 determined this rule did not apply because less than 625 pounds of rod or wire is consumed per day (per station). IDEM has now determined this rule applies, although OmniSource Corporation did not seek to increase rod consumption. Actual rod consumption is considered for the rule. OmniSource Corporation would have to continuously weld for nearly 21 hours per day to exceed 625 pounds of rod per day, per station.

Further, even if this limit applied, it is already in Condition C.1. IDEM has in the past made efforts to remove duplicative requirements from permits, so that sources are not needlessly faced with double jeopardy issues in any potential enforcement.

Response to Comment 6:

OmniSource Corporation has the capability to consume 625 pounds of rod or wire per day (per station). Although actual usage rates have not exceeded the 625 pound per day consumption threshold, the source has the capability to exceed the 625 pound per day threshold. Unless actual rod or wire

consumption is limited to less than 625 pounds per day through an enforceable condition, 326 IAC 6-3-2 is applicable to the five (5) stick welding stations.

Since the requirements of 326 IAC 6-3-2 are included in the Emission Limitations and Standards Condition C.1 for processes with process weight rates less than one hundred (100) pounds per hour, IDEM, OAQ agrees with the recommended change to remove the duplicative condition contained in D.3.3(b). The permit has been revised as follows:

...
D.3.3 Particulate Emissions Limitations [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2, particulate emissions from each of following operations shall not exceed the pound per hour limit listed in the table below:

Unit ID	Unit Description	Max. Throughput Rate (tons/hr)	Particulate Emission Limit (lbs/hr)
S-3	Vehicle/Metal Shredder	200	58.51
C-1	Conveyors (20)	200 (each)	58.51 (each)
C-2	Conveyor (1)	60	46.29
M-1A, M-1B	Ferrous/Nonferrous Metal Separators	200 (each)	58.51 (each)

The pounds per hour limitations were calculated using the following equation:

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

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

(b) Pursuant to 326 IAC 6-3-2, particulate emissions from each of the five (5) stick welding stations shall not exceed 0.551 pounds per hour when operating at process weight rates of less than 0.05 tons per hour.

...
Comment 7:

The source requests IDEM, OAQ revise the HAPs emission factors in Condition D.3.6 and the FESOP Quarterly Report to be consistent with the HAPs emission calculations in Appendix A-2.

The source has also requested that IDEM, OAQ make this revision to the Technical Support Document.

Response to Comment 7:

IDEM, OAQ agrees with the recommended permit changes. The permit has been revised as follows:

...
D.3.6 Hazardous Air Pollutants (HAPs)

In order to comply with Condition D.3.2(b) - FESOP Limits, the Permittee shall determine combined HAP emissions from the vehicle/metal shredder (S-3) according to the following formula:

$$\text{HAPs} = \frac{V(EF_V) + M(EF_M)}{2,000 \text{ lbs/ton}}$$

where:

HAPs = tons of combined HAP emissions per 12-month consecutive period
V = tons of vehicles/automobiles processed per 12-month consecutive period
M = tons of metal (non-vehicle) processed per 12-month consecutive period
EF_V = 0.0332 lb/ton emission factor for vehicle/automobile emissions
EF_M = 0.0093227 lb/ton emission factor for metal (non-vehicle) emissions

...

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

Plant 2 - 3601 Maumee Avenue
FESOP Quarterly Report

Source Name: OmniSource Corporation
Source Address: 3601 Maumee Avenue, Fort Wayne, IN 46803
FESOP Permit No.: F003-29387-00057
Facility: Vehicle/Metal Shredder (S-3)
Parameter: Combined HAP Emissions
Limit: Combined HAP emissions from the vehicle/metal shredder (S-3) shall not exceed 19.99 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

The Permittee shall determine Combined HAP emissions from the vehicle/metal shredder (S-3) according to the following formula:

$$\text{HAPs} = \frac{V(\text{EF}_V) + M(\text{EF}_M)}{2,000 \text{ lbs/ton}}$$

where: HAPs = tons of combined HAP emissions per 12-month consecutive period
V = tons of vehicles/automobiles processed per 12-month consecutive period
M = tons of metal (non-vehicle) processed per 12-month consecutive period
EF_V = 0.0332 lb/ton emission factor for vehicle/automobile emissions
EF_M = 0.0093227 lb/ton emission factor for metal (non-vehicle) emissions

...

The Technical Support Document (TSD) is used by IDEM, OAQ for historical purposes and IDEM, OAQ does not make any changes to the original TSD. Therefore no changes were made to the TSD.

Comment 8:

The source requests IDEM, OAQ to correct the Plant 2 PM2.5 PTE total in the Potential to Emit of the Entire Source After Issuance of Renewal (tons/year) table on page 9 of 24 of the Technical Support Document from 21.91 to 21.81.

Response to Comment 8:

The Technical Support Document (TSD) is used by IDEM, OAQ for historical purposes. IDEM, OAQ does not make any changes to the original TSD. Therefore no changes were made to the TSD.

For reference purposes, the revised table is included below:

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Renewal (tons/year)									
	PM	PM10 ^A	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO ₂ e ^B	Total HAPs	Worst Single HAP (Toluene)
Plant 1 - 1143 Fairview Avenue										
<i>Copper Wire Reclamation Furnace (CF-1)</i>										
Natural Gas Combustion	0.02	0.08	0.08	0.01	1.10	0.06	0.92	1,322	0.02	3.7E-5
Reclamation	1.96	1.96	1.96	-	-	-	-	-	0.17	-
<i>Metal Alloy Chip Recycling Process Line^C</i>										
Natural Gas Combustion	0.02	0.08	0.08	0.01	1.05	0.06	0.88	1,269	0.02	3.6E-5
Recycling Process	23.02	23.02	23.02	-	-	-	-	-	-	-
Drying	2.30	2.30	2.30	-	-	-	-	-	-	-
Oils	-	-	-	-	-	24.93	-	-	-	-
Insignificant Copper Shredder	0.68	0.30	0.30	-	-	-	-	-	-	-
Baler & Precious Metals Recovery	0.16	0.16	0.16	-	-	-	-	-	-	-
Torch Cutting	0.32	0.32	0.32	-	-	-	-	-	-	-
Misc. Insig. Equip.	2.06	0.73	0.73	-	-	-	-	-	-	-
Plant 1 PTE	30.54	28.95	28.95	0.01	2.15	25.05	1.80	2,591	0.21	7.3E-5 Toluene
Plant 2 - 3601 Maumee Avenue										
Natural Gas Combustion	0.08	0.32	0.32	0.03	4.25	0.23	3.57	5,129	0.08	1.4E-4
Vehicle/Metal Shredder (S-3) ^{D,E}	2.25	2.25	2.25	-	-	63.95	-	-	19.99	7.30
Conveyors C-1	2.45	0.81	0.23	-	-	-	-	-	-	-
Conveyor C-2	0.79	0.29	0.29	-	-	-	-	-	-	-
Metal Separators M-1A, M-1B	5.26	1.93	1.93	-	-	-	-	-	-	-
Z-Box / Cyclone	Negl.	Negl.	Negl.	-	-	-	-	-	-	-
Welding/Cutting	16.79	16.79	16.79	-	-	-	-	-	0.62	-
Plant 2 PTE	27.62	22.39	21.81	0.03	4.25	64.18	3.57	5,129	20.69	7.30 Toluene
Combined PTE of Entire Source	58.16	51.35	50.77	0.04	6.39	89.23	5.37	7,720	20.90	7.30 Toluene
Title V Major Source Thresholds*	NA	100	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds*	250	250	NA	250	250	250	250	100,000	NA	NA

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Renewal (tons/year)									
	PM	PM10 ^A	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO ₂ e ^B	Total HAPs	Worst Single HAP (Toluene)
Negl. = Negligible										
A- 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".										
B- 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.										
C- In order to render the requirements of 326 IAC 2-7 (Part 70), 326 IAC 2-2 (PSD), and 326 IAC 8-1-6 (New Facilities: General Reduction Requirements), the total material throughput through the Metal Alloy Chip Recycling Process Line shall not exceed 3,096 tons per twelve (12) consecutive month period, with compliance determined at the end of each month; the oil content of the metal alloy chips shall not exceed two percent (2%) by weight; and the volatile organic compound (VOC) content of the metal alloy chip oil shall not exceed forty and twenty-six hundredths percent (40.26%).										
D- In order to render the requirements of 326 IAC 2-7 (Part 70) and 326 IAC 2-2 (PSD) not applicable, VOC emissions from the vehicle/metal shredder (S-3) shall not exceed 63.95 tons per twelve (12) consecutive month period.										
E- In order to render the requirements of 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants) not applicable, combined HAP emissions from the vehicle/metal shredder (S-3) shall not exceed 19.99 tons per twelve (12) consecutive month period.										
Fugitive emissions are not counted toward the determination of PSD and/or Part 70 Permit applicability. Therefore, fugitive emissions are not listed in the table above. Fugitive emissions are identified in Appendices A-1 and A-2 of this Technical Support Document.										

No changes were made to the permit as a result of this comment.

Comment 9:

The source requests IDEM, OAQ to clarify the FESOP Status portion of the Technical Support Document, which is contained in the Potential to Emit After Issuance of Renewal section of the TSD as follows:

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

Plant 1 - 1143 Fairview Avenue

- (1) The total material throughput through the Metal Alloy Chip Recycling Process Line shall not exceed 3,096 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (2) The oil content of the metal alloy chips shall not exceed two percent (2%) by weight; and
- (3) The volatile organic compound (VOC) content of the metal alloy chip oil shall not exceed forty and twenty-six hundredths percent (40.26%).

Compliance with these limits, combined with the potential to emit ~~PM10, PM2.5, and~~ VOC from all other emission units at this source, shall limit the source-wide total potential to emit of ~~PM10, PM2.5, and~~ VOC to less than one hundred (100) tons per 12 consecutive month period, each,

and shall render 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (PSD) not applicable.

Compliance with the limit in provision (1), combined with the potential to emit PM10 and PM2.5 from all other emission units at this source, shall limit the potential to emit PM10 and PM2.5 from the entire source to less than one hundred (100) tons per twelve (12) consecutive month period and shall render 326 IAC 2-7 (Part 70 Program) not applicable.

The revisions are required to clarify the fact that compliance with the oil and VOC content limits is not needed for compliance with the FESOP limits on particulate. The oil and VOC content limits are for VOC only. Only the annual throughput limit addresses particulate. Also, unlimited PTE of particulate does not exceed PSD levels, so there should not be a reference to PSD with respect to particulate.

Response to Comment 9:

IDEM, OAQ agrees with the clarified language as indicated above. However, the Technical Support Document (TSD) is used by IDEM, OAQ for historical purposes, and IDEM, OAQ does not make any changes to the original TSD. Therefore no changes were made to the TSD. Conditions D.2.1 and D.2.2 in the permit accurately reflect the underlying rules that the limits are rendering not applicable.

No changes were made to the permit as a result of this comment.

Comment 10:

The source has requested IDEM, OAQ revise the language contained in letter (b) under the Federal Rule Applicability Determination section of the TSD, and letter (r) under the State Rule Applicability Determination section of the TSD, from "designed specifically to burn the insulation off copper wire" to "designed specifically to melt sheathing off copper wire".

Response to Comment 10:

As identified in Response to Comment 1, in a document submitted to IDEM June 3, 1991 regarding the installation of the wire reclamation furnace, OmniSource Corporation provided manufacturer data which shows that up to 30% of the material charged is consumables (waste). The document also states that:

"The furnace has two (2) primary chambers where the cable is sweated and the paper wire wrapping is burned off...The smoke and gases from the primary chambers pass through two (2) refractory checker walls and a retention chamber before entering the central holding chamber, and out the furnace. These retention chambers are designed to give good secondary combustion of smoke..."

Therefore, IDEM, OAQ has determined that the purpose of the wire reclamation furnace is to melt metal sheathing off wire and/or to burn off paper and plastic wire wrapping in order to process the scrap wire into a recyclable product.

The Technical Support Document (TSD) is used by IDEM, OAQ for historical purposes. IDEM, OAQ does not make any changes to the original TSD. Therefore no changes were made to the TSD.

No changes were made to the permit as a result of this comment.

Additional Changes

IDEM, OAQ has corrected a typographical error as identified below:

...
D.2.1 VOC Limits [326 IAC 8-1-6][326 IAC 2-8-4][326 IAC 2-2]

Pursuant to 326 IAC 2-8-4 (FESOP), and in order to render the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements), 326 IAC 2-7 (Part 70 Program), and 326 IAC 2-2 (PSD) not applicable, the metal alloy chip recycling process line shall be limited as follows:

- (a) The total material throughput through the Metal Alloy Chip Recycling Process Line shall not exceed 3,096 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (b) The oil content of the metal alloy chips shall not exceed two percent (2%) by weight; and
- (c) The volatile organic compound (VOC) content of the metal alloy chip oil shall not exceed forty and twenty-six hundredths percent (40.26%).

...

IDEM Contact

- (a) Questions regarding this proposed FESOP Renewal with New Source Review can be directed to Jason R. Krawczyk 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) 234-5174 or toll free at 1-800-451-6027 extension 4-5174.
- (b) A copy of the permit is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a
Federally Enforceable State Operating Permit (FESOP) Renewal
With New Source Review (NSR)

Source Background and Description
--

Source Name:	OmniSource Corporation
Source Location(s):	1143 Fairview Ave., Fort Wayne, Indiana 46803; and 3601 Maumee Avenue, Fort Wayne, Indiana 46803
County:	Allen
SIC Code:	5093 (Scrap and Waste Materials)
Permit Renewal No.:	F003-29387-00057
Permit Reviewer:	Jason R Krawczyk

On March 17, 2009, the Office of Air Quality (OAQ) received an application from OmniSource Corporation (Source ID: 003-00057), located at 1143 Fairview Avenue, Fort Wayne, IN 46803, related to a modification to an existing metal chips recovery plant. Subsequently, on June 23, 2010, OmniSource Corporation submitted an application to the OAQ requesting to renew its operating permit. OmniSource Corporation was issued FESOP Renewal F003-20860-00057 on March 23, 2006.

On December 20, 2010, the Office of Air Quality (OAQ) received an application from OmniSource Corporation (Source ID: 003-00210) located at 3601 Maumee Avenue, Fort Wayne, IN 46803, requesting the transition from a Minor Source Operation Permit (MSOP) to a Federally Enforceable State Operating Permit (FESOP) for its existing vehicle/metal shredding plant, based on VOC stack test data from a sister facility in Jackson, Michigan. As a result of this request, the source would have transitioned from a MSOP and would have been issued a FESOP. OmniSource Corporation was issued MSOP M003-22024-00210 on April 20, 2006.

During review of the three (3) permit applications for OmniSource Corporation's two (2) plants (Source ID: 003-00057 and Source ID: 003-00210), it was determined that the two (2) plants should be evaluated as a single source (see the Source Definition section below). Therefore, the three (3) permit applications were combined and the two (2) plants will now be permitted under Second FESOP Renewal with New Source Review (NSR) F003-29387-00057.

Source Definition

This stationary recycling source consists of the following plants:

- (a) Plant1 is a metal chips recovery plant, located at 1143 Fairview Ave., Fort Wayne, IN 46803, Plant ID: 003-00057; and
- (b) Plant 2 is a vehicle/metal shredding plant, located at 3601 Maumee Avenue, Fort Wayne, IN 46803. (Previously identified as Plant ID: 003-00210)

In order to consider both plants as one single source, all three of the following criteria must be met:

- (1) The plants must have common ownership/control;
- (2) The plants must have the same SIC code or one must serve as a support facility for another; and
- (3) The plants must be located on contiguous or adjacent properties.

The two plants are owned by OmniSource Corporation. In 1996, IDEM adopted nonrule policy document (NPD) Air-005 to provide guidance for major source determinations. This nonrule policy states that if two plants are owned by the same entity, then common control exists. The two plants are under common ownership and common control, meeting the first criterion of the definition of major source.

The SIC Code is based on the source's primary activity or product. Although OSHA started using the North American Industry Classification System in 2003, Indiana's source definition still refers to the SIC Code Manual, 1987. OSHA keeps the Standard Industrial Classification Code Manual, 1987, available at http://www.osha.gov/pls/imis/sic_manual.html on the internet. The two OmniSource Corporation plants have the same two-digit SIC code, 50, for the major group Wholesale Trade–Durable Goods.

A plant is a support facility to another plant if it dedicates 50% or more of its output to the other plant. Neither plant sends any of its output to the other plant. There is no support facility relationship between them. However, since the plants have the same two-digit SIC Code, they meet the second criterion of the definition.

The last criterion of the definition is whether the two plants are located on contiguous or adjacent properties. The plants are located on separate properties and are separated by a public right of way. The two properties share a common border in the right of way.

NPD Air-005 states:

- o Properties that actually abut at any point would satisfy the requirement of contiguous or adjacent property;
- o Properties that are separated by a public road or public property would satisfy this requirement, absent special circumstances.

The two OmniSource plants are located on properties that abut in the public right of way, meeting the third part of the definition. Since the plants meet all three criteria of the major source definition, IDEM, OAQ finds that the two OmniSource plants are part of the same source.

Existing Approvals

Since the issuance of FESOP Renewal F003-20860-00057 on March 23, 2006, Plant 1 has not received any other construction or operating approvals.

Since the issuance of MSOP F003-22024-00210 on April 20, 2006, Plant 2 has not received any other construction or operating approvals.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the State Implementation Plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

County Attainment Status

The source is located in Allen County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Attainment effective February 12, 2007, for the Fort Wayne area, including Allen County, 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 (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Allen County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

- (b) **PM_{2.5}**
 Allen 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**
 Allen County has been classified as attainment or unclassifiable in Indiana for all 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 type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD and Part 70 Permit applicability.

Background and Description of Permitted Emission Units

Plant 1 - 1143 Fairview Avenue

The metal chips recovery plant consists of the following permitted emission units:

- (a) One (1) natural gas-fired copper wire reclamation furnace (CF-1), permitted in 1991, with a nominally-rated charge capacity of 2000 pounds per hour and a nominal heat input rate of 2.5 MMBtu/hr, consisting of the following facilities:
 - (1) Two (2) primary chambers,
 - (2) One (1) auxiliary burner, and

- (3) One (1) afterburner connected to a baghouse, exhausting to stack CF-1.
- (b) One (1) metal alloy chip recycling process line, permitted in 2001, with a nominal feed rate of 6,000 pounds of chips containing VOC turning oils per hour, consisting of the following facilities:
 - (1) One (1) chip crusher,
 - (2) One (1) natural gas-fired rotary dryer (nominally rated at 0.6 MMBtu/hr), with particulate controlled by a baghouse (CE-3), with VOCs voluntarily controlled by a natural gas-fired afterburner (nominally rated at 1.8 MMBtu/hr) (CE-2), and exhausting to stack D-1,
 - (3) One (1) magnet-separator,
 - (4) One (1) non-ferrous metal chip separating line controlled by a baghouse (CE-3), exhausting to stack D-1 and,
 - (5) One (1) ferrous metal chip separating line controlled by a baghouse (CE-3), exhausting to stack D-1.

The metal chips recovery plant consists of the following insignificant activities:

- (a) One (1) metals recovery research and development project as defined in 326 IAC 2-1.1-3 (e)(2) and 326 IAC 2-7-1(21)(E), consisting of two (2) portable steel shell electric furnaces.
- (b) Paved roadways and parking lots.
- (c) Miscellaneous equipment used to sort, separate, and package various metal-containing materials, including sorting tables, briquetters, balers, shears, wire strippers, and torching stations.
- (d) One (1) catalytic converter precious metals recovery process consisting of:
 - (1) One (1) baler with precious metals recovery unit.
- (e) One (1) copper shredding process, with a nominal capacity of 7.5 tons per hour, and consisting of:
 - (1) One (1) shredder; and
 - (2) Six (6) transfer points.

Plant 2 - 3601 Maumee Avenue

The vehicle/metal shredding plant consists of the following permitted emission units:

- (a) One vehicle/metal shredder process consisting of the following:
 - (1) One (1) vehicle/metal shredder, identified as S-3, with a nominal capacity of 200 tons per hour, using integral water sprays at the materials feed chute, cutter head, and materials output chute.
 - (2) Not to exceed twenty (20) conveyor transfer points, identified as C-1, with a nominal capacity of 200 tons per hour of wetted material.

- (3) One (1) ferrous/nonferrous metal separation process, with a nominal capacity of 200 tons per hour, consisting of:
 - (A) Two (2) magnetic separators in a series, identified as M-1A and M-1B; and
 - (B) One (1) closed loop zbox/cyclone air separation system, with no exhaust directed outside the unit.
- (4) One (1) conveyor transfer point, identified as C-2, with a nominal capacity of 60 tons per hour of damp material.

The vehicle/metal shredding plant consists of the following insignificant activities:

- (a) Three (3) metal inert gas (MIG) welding stations, constructed in 1996, each with a nominal consumption of 5 pounds of electrode per hour.
- (b) Five (5) stick welding stations, constructed in 1996, each with a nominal consumption of 30 pounds of electrode per hour.
- (c) Five (5) flame cutting stations using oxymethane, constructed in 1996, each with a nominal metal cutting rate of 24 inches of 1 inch thick stock per minute.
- (d) Forty-eight (48) natural gas-fired space heaters, with a nominal combined heat input capacity of 9.7 MMBtu per hour.
- (e) Sampling and testing equipment and activities for quality control/assurance purposes, consisting of small electric furnaces.

Emission Units and Pollution Control Equipment Removed From the Source

The following is a list of the emission unit being removed from the source:

Plant 1 - 1143 Fairview Avenue

- (a) One (1) non-ferrous metals shredding process (identified as NFMS-1), with a maximum throughput rate of 8,000 pounds of scrap metal per hour, using existing baghouse (CE-3) as control, and venting to existing stack D-1.

“Integral Part of the Process” Determination

- (a) OmniSource Corporation's 3601 Maumee Avenue facility submitted the following justifications during the review of their MSOP No. 003-22024-00210, such that the water sprays on the vehicle/metal shredder and the cyclones on the two (2) ferrous/nonferrous metal separators are an integral part of the metal shredding and metal separation processes, respectively.

Vehicle/metal shredder process description:

- (1) The material inputs to the metal shredder consist primarily of crushed and uncrushed vehicle/metal bodies. These vehicle bodies typically contain flammable liquids and flammable solids. The high speed shearing action of the cutters on the metal shredder creates high instantaneous temperatures and sparks. The simultaneous presence of flammable materials and ignition sources may result in fires and explosions within the machinery. In order to prevent this, water sprays are directed at the metal shredder's material input chute, cutterhead and materials output chute, thereby thoroughly wetting the material before, during and after it is shredded. This wetting process both prevents explosions within the machinery and extinguishes any materials that ignite.

Justification for integral to the process:

- (A) Any fire or explosion of flammable materials within the machinery would damage it and, therefore, must be prevented. Also, any solid materials that caught fire would be transported via automatic conveyor to downline processes, with the possibility of damaging other equipment.
- (B) The water sprays have an overall positive net economic effect, and are designed by the manufacturer of the equipment to operate whenever the shredder operates. The constant operation of the water sprays while the shredder is in operation prevents explosions and fires which could result in damage to the shredding machine and unplanned shutdowns of the process. Damage to the machinery would result in repair and replacement costs. Process shutdowns would result in loss of revenue. Either of these results would have substantial negative financial impacts on the company.

Metal separator process description:

- (2) The z-box/cyclone in the ferrous/nonferrous metal separator sorts the shredded metal into ferrous, nonferrous and mixed (tramp) metals by use of an air powered centripetal process. Upon entering the metal separator, the stream of shredded metal is first sorted with magnets into ferrous and nonferrous materials streams. The "ferrous" materials" stream (which, at this point in the process still contains about 4% nonferrous materials by weight) then enters the z-box/cyclone where, by use of air currents, it is spun, sorted, separated and collected into ferrous and nonferrous material streams.

Justification for integral to the process:

- (A) The z-box/cyclone is part of the materials sorting and collection mechanism. Its use enables high quality sorting of the input material into ferrous and nonferrous materials in a one-pass-through operation. (Without use of the cyclone, a poor quality sorting of materials occurs, requiring reprocessing.)
- (B) The process cannot operate without the z-box/cyclone. The cyclone creates the air current needed in the z-box/cyclone to sort the shredded metal that passes through the z-box/cyclone into ferrous and nonferrous materials. Without the air current, the shredded metal is not sorted.

IDEM, OAQ evaluated these justifications during the review of MSOP 003-22024-00210 and agreed to the following:

- (1) The water sprays on the metal shredder will be considered as an integral part of the metal shredding process based on safety measures necessary to ensure proper operation of the process. This has been verified by a written letter from the manufacturer supporting the company's claim.
- (2) The cyclones on the two (2) ferrous/nonferrous metal separators will be considered as an integral part of the metal separation process because the two (2) cyclones serve as pneumatic conveying for the material.

Therefore, the permitting level is determined using the potential to emit after the water sprays and cyclones.

- (b) On September 27, 2012, OmniSource Corporation's 1143 Fairview Avenue facility submitted the following information to justify why the precious metals recovery unit on the catalytic converter precious metals recovery process' baler is an integral part of the process:

Baler with Precious Metals Recovery Unit:

- (1) The precious metals recovery unit is required in order to collect the precious metals dust from the catalytic converters. The baler is used to open the catalytic converters and the precious metals recovery unit collects the dust containing the precious metals. The precious metals containing dust is then sold for its precious metals content.

IDEM, OAQ has evaluated the information submitted and agrees that the precious metals recovery unit should be considered an integral part of the catalytic converter precious metals recovery process. This determination is based on the fact that precious metals recovery unit serves a purpose other than pollution control.

Enforcement Issue

Based on a self-disclosure submitted by OmniSource Corporation, IDEM is aware that OmniSource Corporation's facility located at 3601 Maumee Avenue (Source ID 003-00210) and permitted under Minor Source Operating Permit (MSOP) M003-22024-00210 was operating under the incorrect permit level based on the calculated potential to emit VOC from the vehicle/metal shredder (S-3).

The source determination performed December 20, 2011 for the OmniSource Corporation plants located at 1143 Fairview Avenue (Source ID 003-00057) and 3601 Maumee Avenue (003-00210) identify the plants as part of the same source (see the Source Definition section above). Based on this source determination, OmniSource Corporation was operating under the incorrect permit level because the potential to emit criteria pollutants for the entire combined source exceeded Title V thresholds.

IDEM is aware that a determination was made on July 3, 2003, and included in the Technical Support Document for Registration 003-17112-00210, which identifies the multiple OmniSource facilities in Fort Wayne as being separate sources.

IDEM is reviewing these matters. This draft FESOP Renewal contains provisions to bring the source into compliance with construction and operation permit rules.

Emission Calculations

See Appendices A-1 and A-2 of this document for detailed emission calculations.

Unrestricted Potential Emissions

The following table reflects the unlimited potential to emit (PTE) of the entire source after the integral water sprays and cyclones. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	Less than 250
PM10 ⁽¹⁾	Less than 250
PM2.5	Less than 250
SO ₂	Less than 25
NO _x	Less than 25
VOC	Greater than 250
CO	Less than 25
GHGs as CO ₂ e	Less than 100,000

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

HAPs	Potential To Emit (tons/year)
Single HAP	Less than 10
Combined HAPs	Greater than 25

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM10, PM2.5, and VOC is equal to or greater than 100 tons per year, each. However, the Permittee has agreed to limit the source's PM10, PM2.5, and VOC emissions to less than Title V major source threshold levels, therefore the Permittee will be issued a FESOP Renewal.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all other criteria pollutants is less than 100 tons per year, each.
- (c) The potential to emit (PTE) (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the PTE of a combination of HAPs is greater than twenty-five (25) tons per year. However, the source has agreed to limit emissions of HAPs to less than the Title V major source threshold levels, therefore the Permittee will be issued a FESOP Renewal.
- (d) The potential to emit (PTE) (as defined in 326 IAC 2-7-1(29)) greenhouse gases (GHGs) is less than the Title V subject to regulation threshold of one hundred thousand (100,000) tons of CO₂ equivalent emissions (CO₂e) per year.

Description of Proposed Revisions

- (a) The source determination performed December 20, 2011 for the OmniSource Corporation plants located at 1143 Fairview Avenue (Source ID 003-00057) and 3601 Maumee Avenue (003-00210) identify the plants as part of the same source. The permit requirements for the two (2) plants are being combined into this Second FESOP Renewal with New Source Review.
- (b) The source has removed the non-ferrous metals shredding process, identified as NFMS-1 from the 1143 Fairview Avenue metal chip recovery plant.
- (c) The existing testing requirement for the metal alloy chip recycling process line has been removed from the permit. The source has agreed to limit the total annual material throughput of the metal alloy chip recycling process line, the oil content of the metal alloy chips, and the VOC content of the metal alloy chip oil, in order to render 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities) and 326 IAC 2-7 (Part 70 Program) not applicable. The use of the control device is not necessary to comply with these limits.
- (d) Based on the VOC emission factors determined during the sampling study performed at OmniSource Corporation's sister facility in Jackson, Michigan, the potential VOC emissions from the vehicle/metal shredder (S-3) were determined to be greater than twenty-five (25) tons per year. Since this process is not regulated under any other rule in 326 IAC 8, the source is required to control VOC emissions from S-3 pursuant to the provisions of 326 IAC 8-1-6 (New Facilities: General Reduction Requirements) which requires the use of Best Available Control Technology (BACT).
- (e) The existing FESOP limits have been adjusted as a result of the changes identified above.

Potential to Emit After Issuance of Renewal

The source has opted to remain a FESOP source. The table below summarizes the potential to emit, reflecting all limits of the emission units. Any control equipment is considered enforceable only after

issuance of this FESOP and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Renewal (tons/year)									
	PM	PM10 ^A	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO ₂ e ^B	Total HAPs	Worst Single HAP (Toluene)
Plant 1 - 1143 Fairview Avenue										
<i>Copper Wire Reclamation Furnace (CF-1)</i>										
Natural Gas Combustion	0.02	0.08	0.08	0.01	1.10	0.06	0.92	1,322	0.02	3.7E-5
Reclamation	1.96	1.96	1.96	-	-	-	-	-	0.17	-
<i>Metal Alloy Chip Recycling Process Line^C</i>										
Natural Gas Combustion	0.02	0.08	0.08	0.01	1.05	0.06	0.88	1,269	0.02	3.6E-5
Recycling Process	23.02	23.02	23.02	-	-	-	-	-	-	-
Drying	2.30	2.30	2.30	-	-	-	-	-	-	-
Oils	-	-	-	-	-	24.93	-	-	-	-
Insignificant Copper Shredder	0.68	0.30	0.30	-	-	-	-	-	-	-
Baler & Precious Metals Recovery	0.16	0.16	0.16	-	-	-	-	-	-	-
Torch Cutting	0.32	0.32	0.32	-	-	-	-	-	-	-
Misc. Insig. Equip.	2.06	0.73	0.73	-	-	-	-	-	-	-
Plant 1 PTE	30.54	28.95	28.95	0.01	2.15	25.05	1.80	2,591	0.21	7.3E-5 Toluene
Plant 2 - 3601 Maumee Avenue										
Natural Gas Combustion	0.08	0.32	0.32	0.03	4.25	0.23	3.57	5,129	0.08	1.4E-4
Vehicle/Metal Shredder (S-3) ^{D,E}	2.25	2.25	2.25	-	-	63.95	-	-	19.99	7.30
Conveyors C-1	2.45	0.81	0.23	-	-	-	-	-	-	-
Conveyor C-2	0.79	0.29	0.29	-	-	-	-	-	-	-
Metal Separators M-1A, M-1B	5.26	1.93	1.93	-	-	-	-	-	-	-
Z-Box / Cyclone	Negl.	Negl.	Negl.	-	-	-	-	-	-	-
Welding/Cutting	16.79	16.79	16.79	-	-	-	-	-	0.62	-
Plant 2 PTE	27.62	22.39	21.91	0.03	4.25	64.18	3.57	5,129	20.69	7.30 Toluene
Combined PTE of Entire Source	58.16	51.35	50.77	0.04	6.39	89.23	5.37	7,720	20.90	7.30 Toluene
Title V Major Source Thresholds*	NA	100	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds*	250	250	NA	250	250	250	250	100,000	NA	NA

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Renewal (tons/year)									
	PM	PM10 ^A	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO ₂ e ^B	Total HAPs	Worst Single HAP (Toluene)
Negl. = Negligible										
A- 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".										
B- 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.										
C- In order to render the requirements of 326 IAC 2-7 (Part 70), 326 IAC 2-2 (PSD), and 326 IAC 8-1-6 (New Facilities: General Reduction Requirements), the total material throughput through the Metal Alloy Chip Recycling Process Line shall not exceed 3,096 tons per twelve (12) consecutive month period, with compliance determined at the end of each month; the oil content of the metal alloy chips shall not exceed two percent (2%) by weight; and the volatile organic compound (VOC) content of the metal alloy chip oil shall not exceed forty and twenty-six hundredths percent (40.26%).										
D- In order to render the requirements of 326 IAC 2-7 (Part 70) and 326 IAC 2-2 (PSD) not applicable, VOC emissions from the vehicle/metal shredder (S-3) shall not exceed 63.95 tons per twelve (12) consecutive month period.										
E- In order to render the requirements of 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants) not applicable, combined HAP emissions from the vehicle/metal shredder (S-3) shall not exceed 19.99 tons per twelve (12) consecutive month period.										
Fugitive emissions are not counted toward the determination of PSD and/or Part 70 Permit applicability. Therefore, fugitive emissions are not listed in the table above. Fugitive emissions are identified in Appendices A-1 and A-2 of this Technical Support Document.										

(a) FESOP Status

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

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

Plant 1 - 1143 Fairview Avenue

- (1) The total material throughput through the Metal Alloy Chip Recycling Process Line shall not exceed 3,096 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (2) The oil content of the metal alloy chips shall not exceed two percent (2%) by weight; and
- (3) The volatile organic compound (VOC) content of the metal alloy chip oil shall not exceed forty and twenty-six hundredths percent (40.26%).

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

PM2.5, and VOC to less than one hundred (100) tons per 12 consecutive month period, each, and shall render 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (PSD) not applicable.

Plant 2 - 3601 Maumee Avenue

- (1) VOC emissions from the vehicle/metal shredder (S-3) shall not exceed 63.95 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (2) Combined HAP emissions from the vehicle/metal shredder (S-3) shall not exceed 19.99 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with these limits, combined with the potential to emit VOCs and HAPs from all other emission units at this source, shall limit the source-wide total potential to emit VOCs to less than 100 tons per 12 consecutive month period and 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 (PSD), and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP) not applicable.

- (b) PSD Minor Source
This existing source is not a major stationary source, under PSD (326 IAC 2-2), because the potential to emit VOC is limited to less than 250 tons per year, the potential to emit all other attainment regulated criteria pollutants are less than 250 tons per year, the potential to emit greenhouse gases (GHGs) is less than the PSD subject to regulation threshold of one hundred thousand (100,000) tons of CO₂ equivalent emissions (CO₂e) per year, and this source is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1). Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

- (a) The requirements of the New Source Performance Standard (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc (326 IAC 12), are not included in the permit for the copper wire reclamation furnace (CF-1) or the rotary dryer with afterburner (CE-2), because each of the units has a heat input rate less than or equal to 10 million Btu per hour (MMBtu/hr) and is not considered a steam generating unit as defined by 40 CFR 60.41c.
- (b) The requirements of the New Source Performance Standards (NSPS) for Incinerators, 40 CFR 60, Subpart E (60.50 through 60.54) (326 IAC 12), are not included in the permit for the copper wire reclamation furnace (CF-1) or the rotary dryer afterburner (CE-2), since these processes will not be combusting refuse, more than 50 percent of which is municipal type waste consisting of a mixture of paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustibles, and noncombustible materials such as glass and rock. The wire reclamation furnace (CF-1) is a specialty furnace designed specifically to burn the insulation off copper wire to facilitate the recovery of the copper. The rotary dryer afterburner (CE-2) is designed to achieve maximum destruction of the smoke which is generated by the drying process.
- (c) The requirements of the New Source Performance Standards (NSPS) for Large Municipal Waste Combustors for Which Construction is Commenced after December 20, 1989 and on or before September 20, 1994, 40 CFR 60, Subpart Ea (60.50a through 60.59a) (326 IAC 12), are not included in this permit for the following reasons:
 - (1) The copper wire reclamation furnace (CF-1) (constructed prior to 1991), is not considered a municipal waste combustor as defined 40 CFR 60.51a, and is exempted from this rule

- under 40 CFR 60.50a(j). Pursuant to 40 CFR 60.50a(j), any materials recovery facility that combusts waste for the primary purpose of recovering metals is exempt from 40 CFR 60, Subpart Ea.
- (2) The rotary dryer with afterburner (CE-2) is not considered a municipal waste combustor as defined 40 CFR 60.51a, since the rotary dryer and afterburner (CE-2) do not combust municipal waste and since a municipal waste combustor does not include air pollution control equipment.
- (d) The requirements of the New Source Performance Standards (NSPS) for Large Municipal Waste Combustors for Which Construction is Commenced after September 20, 1994, or for Which Modification or Reconstruction is commenced after June 19, 1996, 40 CFR 60, Subpart Eb (60.50b through 60.59b) (326 IAC 12), are not included in this permit for the following reasons:
- (1) The copper wire reclamation furnace (CF-1) (constructed prior to 1991), was not constructed, modified, or reconstructed after September 20, 1994, is not considered a municipal waste combustor as defined 40 CFR 60.51b, and is exempted from this rule under 40 CFR 60.50b(i). Pursuant to 40 CFR 60.50b(i), any materials recovery facility that combusts waste for the primary purpose of recovering metals is exempt from 40 CFR 60, Subpart Eb.
- (2) The rotary dryer with afterburner (CE-2) is not considered a municipal waste combustor as defined 40 CFR 60.51b, since the rotary dryer and afterburner (CE-2) do not combust municipal waste and since a municipal waste combustor does not include air pollution control equipment.
- (e) The requirements of the New Source Performance Standards (NSPS) for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced after January 20, 1996, 40 CFR 60, Subpart Ec (60.50c through 60.58c) (326 IAC 12), are not included in the permit for the copper wire reclamation furnace (CF-1) or the rotary dryer afterburner (CE-2), since each of these units is not considered a hospital/medical/infectious waste incinerator.
- (f) The requirements of the New Source Performance Standard for Primary Copper Smelters, 40 CFR 60, Subpart P (326 IAC 12), are not included in the permit, since the copper wire reclamation furnace, identified as CF-1, does not meet the definition of primary copper smelter as defined in 40 CFR 60.161(a).
- (g) The requirements of the New Source Performance Standard (NSPS) for Metallic Mineral Processing Plants, 40 CFR 60, Subpart LL (326 IAC 12), are not included in the permit since the source does not meet the definition of a metallic mineral processing plant, as defined in 40 CFR 60.381. The source operates a metal recycling facility and does not produce metallic mineral concentrates from ore.
- (h) The requirements of New Source Performance Standard (NSPS) for Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001, 40 CFR 60, Subpart AAAA (60.1000 through 60.1465), (326 IAC 12), are not included in this permit for the following reasons:
- (1) The copper wire reclamation furnace (CF-1) (constructed prior to 1991), was not constructed after August 30, 1999, was not modified or reconstructed after June 6, 2001, is not considered a municipal waste combustor as defined by 40 CFR 60.1465, and is exempted from this rule under 40 CFR 60.1020(f). Pursuant to 40 CFR 60.1020(f), any materials recovery facility that combusts waste mainly to recover metals is exempt from 40 CFR 60, Subpart AAAA.

- (2) The rotary dryer with afterburner (CE-2) is not considered a municipal waste combustion unit as defined 40 CFR 60.1465, since the rotary dryer and afterburner (CE-2) do not combust municipal waste and since a municipal waste combustion unit does not include air pollution control equipment.
- (i) The requirements of New Source Performance Standard (NSPS) for Commercial and Industrial Solid Waste Incinerations Units for Which Construction is Commenced After November 30, 1999 or for Which Modification or Reconstruction is Commenced on or After June 1, 2001, 40 CFR 60, Subpart CCCC (60.2000 through 60.2265) (326 IAC 12), are not included in this permit for the following reasons:
- (1) The copper wire reclamation furnace (CF-1) (constructed prior to 1991), is not considered a new incineration unit (i.e., did not commence construction after November 30, 1999), is not considered a commercial and industrial solid waste incineration (CISWI) unit as defined 40 CFR 60.2265, and is exempted from this rule under 40 CFR 60.2020(h). Pursuant to the definitions under 40 CFR 60.2265, a commercial and industrial solid waste incineration (CISWI) unit does not include any of the fifteen types of units described in 40 CFR 60.2555. Pursuant to 40 CFR 60.2555(h) and 40 CFR 60.2020(h), materials recovery units that combust waste for the primary purpose of recovering metals are exempt from 40 CFR 60, Subpart CCCC.
- (2) The rotary dryer with afterburner (CE-2) (constructed prior to 2001) is not considered a commercial and industrial solid waste incineration (CISWI) unit as defined by 40 CFR 60.2265, since the rotary dryer and afterburner (CE-2) do not combust commercial or industrial waste and since a commercial and industrial solid waste incineration (CISWI) unit does not include air pollution control equipment.
- (j) The requirements of the New Source Performance Standards for Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004 or for Which Modification or Reconstruction is commenced on or After June 16, 2006, 40 CFR 60, Subpart EEEE (60.2280 through 60, 2891), are not included in this permit for the following reasons:
- (1) The copper wire reclamation furnace (CF-1) (constructed prior to 1991) was not constructed after December 9, 2004, was not modified or reconstructed after June 16, 2006, is not considered an other solid waste incineration (OSWI) unit as defined by 40 CFR 60.2977, and is exempted from this rule under 40 CFR 60.2887(k). Pursuant to 40 CFR 60.2887(k), any materials recovery facility that combusts waste for the primary purpose of recovering metals is exempt from 40 CFR 60, Subpart EEEE.
- (2) The rotary dryer with afterburner (CE-2) (constructed prior to 2001) was not constructed after December 9, 2004, was not modified or reconstructed after June 16, 2006, is not considered an other solid waste incineration (OSWI) unit as defined by 40 CFR 60.2977, since the rotary dryer and afterburner (CE-2) do not combust municipal solid waste or institutional waste and since a OSWI unit does not include air pollution control equipment.
- (k) 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)

- (l) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) from Off-Site Waste and Recovery Operations, 40 CFR Part 63, Subpart DD (326 IAC 20-23), are not included in the permit, because this source is not considered any of the waste management operations or recovery operations specified under 63.680(a)(2)(i) through (a)(2)(vi) and this source is not a major source of HAPs.

- (m) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) Hazardous Waste Combustors, 40 CFR 63, Subpart EEE (326 IAC 20-28), are not included in the permit for the copper wire reclamation furnace (CF-1) or the rotary dryer afterburner (CE-2), since these units do not burn hazardous waste as defined in 40 CFR 63.1201.
- (n) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Primary Copper Smelting, 40 CFR 63, Subpart QQQ, are not included in the permit, since the source does not operate a primary copper smelter, as defined in 40 CFR 63.1459, that is (or is part of) a major source of hazardous air pollutants (HAP) emissions.
- (o) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63, Subpart DDDDD (326 IAC 20-95), are not included in this permit for the copper wire reclamation furnace (CF-1) or the rotary dryer with afterburner (CE-2), because this source is not a major source of HAPs and each of these is not considered a boiler.
- (p) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Primary Copper Smelting Area Sources, 40 CFR 63.11146, Subpart EEEEEEE, are not included in the permit, since the source does not own or operate a primary copper smelter, as defined in 40 CFR 63.11151, that is an area source of hazardous air pollutant (HAP) emissions.
- (q) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Secondary Copper Smelting Area Sources, 40 CFR 63, Subpart FFFFFFF, are not included in the permit, since the source is does not engage in secondary copper smelting as defined in 40 CFR 63.11158.
- (r) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Primary Nonferrous Metals Area Sources - Zinc, Cadmium, and Beryllium, 40 CFR 63, Subpart GGGGGG, are not included in the permit, since this source is not a primary zinc production facility or primary beryllium production facility. The source is a metal recycling facility.
- (s) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, 40 CFR 63, Subpart JJJJJJ, are not included in the permit for the copper wire reclamation furnace (CF-1) or the rotary dryer with afterburner (CE-2), because each of these units is not considered a boiler.
- (t) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Secondary Nonferrous Metals Processing Area Sources, 40 CFR 63.11462, Subpart TTTTTT, are not included in the permit, since the source does not own or operate a secondary nonferrous metals processing facility as defined in §63.11472.
- (u) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) Area Source Standards for Nine Metal Fabrication and Finishing Source Categories, 40 CFR 63.11514, Subpart XXXXXX, are not included in the permit, since the source is not primarily engaged in the operations in one of the nine source categories listed in paragraphs (a)(1) through (9) of 40 CFR 63.11514.
- (v) The requirements of the National Emission Standards for Hazardous Air Pollutant: Area Source Standards for Aluminum, Copper, and other Nonferrous Foundries, 40 CFR 63.11544, Subpart ZZZZZZ, are not included in the permit, since the source does not own or operate an aluminum foundry, copper foundry, or other nonferrous foundry as defined in §63.11556.
- (w) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit.

Compliance Assurance Monitoring (CAM)

- (x) 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

- (a) 326 IAC 2-8-4 (FESOP)
FESOP applicability is discussed under the PTE of the Entire Source After Issuance of the FESOP Renewal section above.
- (b) 326 IAC 2-2 (Prevention of Significant Deterioration(PSD))
PSD applicability is discussed under the PTE of the Entire Source After Issuance of the FESOP Renewal section above.
- (c) 326 IAC 1-6-3 (Preventive Maintenance Plan)
The source is subject to 326 IAC 1-6-3.
- (d) 326 IAC 1-7 (Stack Height Provisions)
The source is subject to the applicable provisions of 326 IAC 1-7, 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.
- (e) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The unlimited potential to emit of HAPs from the vehicle/metal shredder is less than ten (10) tons per year for any single HAP, but greater than twenty-five (25) tons per year of a combination of HAPs. However, the source shall limit the potential to emit of HAPs from the vehicle/metal shredder to less than twenty-five (25) tons per year of a combination of HAPs. Therefore, the source is not subject to the requirements of 326 IAC 2-4.1. See PTE of the Entire Source After Issuance of the FESOP Section above.
- (f) 326 IAC 2-6 (Emission Reporting)
This source is not subject to 326 IAC 2-6 (Emission Reporting) because it is not required to have an operating permit pursuant to 326 IAC 2-7 (Part 70); it is not located in Lake, Porter, or LaPorte County, and its potential to emit lead is less than 5 tons per year. Therefore, this rule does not apply.
- (g) 326 IAC 5-1 (Opacity Limitations)
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-1 (Applicability) and 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.
- (h) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)
Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4.

- (i) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
The source is subject to the requirements of 326 IAC 6-5, because it has potential fugitive particulate emissions greater than 25 tons per year. Pursuant to 326 IAC 6-5, fugitive particulate matter emissions shall be controlled according to the Fugitive Dust Control Plan, submitted on March 20, 2012, which is included as Attachment A to the permit.
- (j) 326 IAC 15-1 (Lead Emission Limitations)
The source is not specifically listed in 326 IAC 15-1-2, therefore the requirements of 326 IAC 15-1 are not applicable.
- (k) 326 IAC 12 (New Source Performance Standards)
See Federal Rule Applicability Section of this TSD.
- (l) 326 IAC 20 (Hazardous Air Pollutants)
See Federal Rule Applicability Section of this TSD.

Plant 1 - 1143 Fairview Avenue

Copper Wire Reclamation Furnace (CF-1)

- (m) 326 IAC 4-2-2 (Incinerators)
The natural gas-fired copper wire reclamation furnace (CF-1) is subject to the requirements of 326 IAC 4-2-2 because it meets the definition of an incinerator as defined in 326 IAC 1-2-34 and is not subject to any of the rules identified in 326 IAC 4-2-1(b)(2). CF-1 is subject to 326 IAC 4-2-2(a)(5) since it is not subject to a more stringent particulate matter emission limit in 40 CFR 52 Subpart P*, State Implementation Plan for Indiana.

Pursuant to 326 IAC 4-2-2, the Permittee shall comply with the following for the natural gas-fired wire reclamation furnace (CF-1):

- (a) All incinerators shall comply with the following requirements:
 - (1) Consist of primary and secondary chambers or the equivalent.
 - (2) Be equipped with a primary burner unless burning only wood products.
 - (3) Comply with 326 IAC 5-1 and 326 IAC 2.
 - (4) Be maintained, operated, and burn waste in accordance with the manufacturer's specifications or an operation and maintenance plan as specified in subsection 326 IAC 4-2-2(c).
 - (5) Not emit particulate matter in excess of one (1) of the following:
 - (A) Three-tenths (0.3) pound of particulate matter per one thousand (1,000) pounds of dry exhaust gas under standard conditions corrected to fifty percent (50%) excess air for incinerators with a maximum solid waste capacity of greater than or equal to two hundred (200) pounds per hour.
 - (B) Five-tenths (0.5) pound of particulate matter per one thousand (1,000) pounds of dry exhaust gas under standard conditions corrected to fifty percent (50%) excess air for incinerators with solid waste capacity less than two hundred (200) pounds per hour.
 - (6) If any of the requirements of subdivisions (1) through (5) are not met, then the owner or operator shall stop charging the incinerator until adjustments are made that address the underlying cause of the deviation.

- (b) An owner or operator developing an operation and maintenance plan pursuant to subsection (a)(4) must comply with the following:
 - (1) The operation and maintenance plan must be designed to meet the particulate matter emission limitation specified in subsection (a)(5) and include the following:
 - (A) Procedures for receiving, handling, and charging waste.
 - (B) Procedures for incinerator startup and shutdown.
 - (C) Procedures for responding to a malfunction.
 - (D) Procedures for maintaining proper combustion air supply levels.
 - (E) Procedures for operating the incinerator and associated air pollution control systems.
 - (F) Procedures for handling ash.
 - (G) A list of wastes that can be burned in the incinerator.
 - (2) Each incinerator operator shall review the plan before initial implementation of the operation and maintenance plan and annually thereafter.
 - (3) The operation and maintenance plan must be readily accessible to incinerator operators.
 - (4) The owner or operator of the incinerator shall notify the department, in writing, thirty (30) days after the operation and maintenance plan is initially developed pursuant to this section.
- (c) The owner or operator of the incinerator must make the manufacturer's specifications or the operation and maintenance plan available to the department upon request.

In order to ensure compliance with the particulate limits, the baghouse for particulate matter control shall be in operation and control emissions from the copper wire reclamation furnace (CF-1) at all times that the copper wire reclamation furnace (CF-1) is in operation.

- (n) 326 IAC 6-2 (Particulate Emissions Limitations for Sources of Indirect Heating)
The requirements of 326 IAC 6-2 are not being included in the permit for the natural gas-fired copper wire reclamation furnace (CF-1), since this rule applies to indirect heating facilities. CF-1 is direct fired. Therefore the requirements of 326 IAC 6-2 are not applicable.
- (o) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(b)(2), incineration is exempt from the requirements of 326 IAC 6-3. The copper wire reclamation furnace (CF-1) is subject to the requirements of 326 IAC 4-2-2 (Incinerators). Therefore the requirements of 326 IAC 6-3 are not applicable.
- (p) 326 IAC 7-1 (Sulfur dioxide emission limitations: Applicability)
The natural gas-fired copper wire reclamation furnace (CF-1) is not subject to the requirements of 326 IAC 7-1, because the potential and the actual emissions of sulfur dioxide are less than twenty-five (25) tons per year and ten (10) pounds per hour respectively.
- (q) 326 IAC 8-1-6 (VOC rules: General Reduction Requirements for New Facilities)
The copper wire reclamation furnace (CF-1) is not subject to the requirements of 326 IAC 8-1-6, since it has unlimited VOC potential emissions of less than twenty-five (25) tons per year.

There are no other 326 IAC 8 Rules that are applicable to the copper wire reclamation furnace (CF-1).

- (r) 326 IAC 9-1 (Carbon Monoxide Emission Limits)
This stationary source, constructed after the applicability date of March 21, 1972, is not subject to the requirements of 326 IAC 9-1-2(a)(3), since the copper wire reclamation furnace (CF-1) does not burn refuse. Under 40 CFR 60, Subpart E (NSPS for Incinerators), refuse (or solid waste) is defined as being composed of more than 50 percent municipal type waste consisting of a mixture of paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustibles, and noncombustible materials such as glass and rock. The wire reclamation furnace (CF-1) is a specialty furnace designed specifically to burn the insulation off copper wire to facilitate the recovery of the copper. The rotary dryer afterburner (CE-2) is designed to achieve maximum destruction of the smoke which is generated by the drying process.
- (s) 326 IAC 10-1-1 (Nitrogen Oxides Control)
The copper wire reclamation furnace (CF-1) is not subject to the requirements of 326 IAC 10-1-1 (Nitrogen Oxides Control), because the source is not located in Clark or Floyd counties.
- (t) 326 IAC 11-6 (Hospital/Medical/Infectious Waste Incinerators)
Pursuant to 326 IAC 11-6, the copper wire reclamation furnace (CF-1) is not subject to the requirements of 326 IAC 11-6, because it is not a hospital/medical/ infectious waste incinerator.
- (u) 326 IAC 11-7 (Emission Limitations for Municipal Waste Combustors)
Pursuant to 326 IAC 11-7, the copper wire reclamation furnace (CF-1) (constructed prior to 1991) is not subject to the requirements of 326 IAC 11-7, since it is not a municipal waste combustor and is exempted from this rule under 326 IAC 11-7-1(b)(4). Pursuant to 326 IAC 11-7-1(b)(4), any materials recovery facility that combusts waste for the primary purpose of recovering metals is exempt from 326 IAC 11-7.
- (v) 326 IAC 11-8 (Commercial and Industrial Solid Waste Incineration Units)
Pursuant to 326 IAC 11-8, the copper wire reclamation furnace (CF-1) is not subject to the requirements of 326 IAC 11-8, because it is not considered a commercial and industrial solid waste incineration (CISWI) unit as defined 40 CFR 60.2875 and is exempted from this rule under 326 IAC 11-8-1(b)(8). Pursuant to 326 IAC 11-8-1(b)(8), any materials recovery facility that combusts waste for the primary purpose of recovering metals is exempt from 326 IAC 11-8.

Pursuant to the definitions under 40 CFR 60.2875, a commercial and industrial solid waste incineration (CISWI) unit does not include any of the fifteen types of units described in 40 CFR 60.2555. Pursuant to 40 CFR 60.2555(h), materials recovery units that combust waste for the primary purpose of recovering metals are not considered commercial and industrial solid waste incineration (CISWI) units.

Metal Alloy Chip Recycling Process Line

- (w) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the metal alloy chip recycling process line shall not exceed 8.56 pounds per hour when operating at a process weight rate of 6,000 pounds per hour.

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

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

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

The baghouse (CE-3) shall be in operation at all times the metal alloy chip recycling process line is in operation, in order to comply with this limit.

- (x) 326 IAC 7-1 (Sulfur dioxide emission limitations: Applicability)
The natural gas-fired rotary dryer with afterburner (CE-2) is not subject to the requirements of 326 IAC 7-1, because the potential and the actual emissions of sulfur dioxide are less than twenty-five (25) tons per year and ten (10) pounds per hour respectively.
- (y) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
The unlimited VOC potential emissions from the metal alloy chip recycling process line is greater than twenty-five (25) tons per year. However, the source shall limit the VOC potential emissions from the metal alloy chip recycling line (before control) to less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 8-1-6 do not apply.

In order to render the requirements of 326 IAC 8-1-6 not applicable, the metal alloy chip recycling process line shall be limited as follows:

- (1) The total material throughput through the Metal Alloy Chip Recycling Process Line shall not exceed 3,096 tons per twelve (12) consecutive month period, with compliance determined at the end of each month;
- (2) The oil content of the metal alloy chips shall not exceed two percent (2%) by weight; and
- (3) The volatile organic compound (VOC) content of the metal alloy chip oil shall not exceed forty and twenty-six hundredths percent (40.26%).

Compliance with these limits shall limit the potential to emit VOC (before control) from the Metal Alloy Chip Recycling Process Line to less than twenty-five (25) tons per 12 consecutive month period and shall render 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities) not applicable.

Copper Shredding Process

- (z) 326 IAC 6-3 (Particulate Emission Limitations, Work Practices, and Control Technologies)
Pursuant to 326 IAC 6-3-1(b)(14) the one (1) copper shredder and six (6) transfer points comprising the copper shredding process are exempt from the requirements of 326 IAC 6-3, because each has potential particulate emissions less than five hundred fifty-one thousandths (0.551) pound per hour.

Baler with Precious Metals Recovery Unit

- (aa) 326 IAC 6-3 (Particulate Emission Limitations, Work Practices, and Control Technologies)
Pursuant to 326 IAC 6-3-1(b)(14) the baler with precious metals recovery unit is exempt from the requirements of 326 IAC 6-3, because it has potential particulate emissions less than five hundred fifty-one thousandths (0.551) pound per hour.

Torch Cutting

- (bb) 326 IAC 6-3 (Particulate Emission Limitations, Work Practices, and Control Technologies)
Pursuant to 326 IAC 6-3-1(b)(10) the two (2) torch cutting stations are exempt from the requirements of 326 IAC 6-3, because each station cuts less than three thousand four hundred (3,400) inches per hour of stock that is one (1) inch thick or less.

Miscellaneous Insignificant Equipment

- (cc) 326 IAC 6-3 (Particulate Emission Limitations, Work Practices, and Control Technologies)
Pursuant to 326 IAC 6-3-1(b)(14) the miscellaneous equipment used to sort, separate, and package various metal containing materials are exempt from the requirements of 326 IAC 6-3,

because each has potential particulate emissions less than five hundred fifty-one thousandths (0.551) pound per hour.

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Vehicle/Metal Shredder (S-3)

- (dd) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 ICA 6-3-2, particulate emissions from the vehicle/metal shredder (S-3) shall not exceed 58.51 pounds per hour when operating at a process weight rate of 200 tons per hour.

The pounds per hour limitations were calculated using the following equation:

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

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

In order to ensure compliance with this limit, the integral water sprays shall be in operation and control emissions from the vehicle/metal shredder (S-3) at all times that the vehicle/metal shredder (S-3) is in operation.

- (ee) 326 IAC 8-1-6 (New Facilities: General Reduction Requirements)
Based on the VOC emission factors determined during the sampling study performed at OmniSource's sister facility in Jackson, Michigan, the potential VOC emissions from the vehicle/metal shredder (S-3) were determined to be greater than twenty-five (25) tons per year. Since this process is not regulated under any other rule in 326 IAC 8, the Permittee is required to control VOC emissions from S-3 pursuant to the provisions of 326 IAC 8-1-6 which requires the use of Best Available Control Technologies (BACT) (see Appendix B). Appendix A-2 - Emission Calculations - of this Technical Support Document (TSD) contains the potential emission calculations for this process.

IDEM has determined that the best available control technology (BACT) to control VOC emissions from the vehicle/metal shredder (S-3) shall be as follows:

- (1) VOC emissions from the vehicle/metal shredder (S-3) shall not exceed 63.95 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (2) The Permittee shall drain and remove, to the extent practicable, VOC and VHAP containing fluids from vehicles, appliances, industrial machinery, and other metal scrap received by the Permittee prior to shredding; or the Permittee shall document that inspections have been performed to confirm the non-existence of VOC and VHAP containing fluids. Fluids shall include, but are not limited to, gasoline, motor oil, antifreeze, transmission oil, and hydraulic fluid.

Conveyors/Separators

- (ff) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2, particulate emissions from each of following operations shall not exceed the pound per hour limit listed in the table below:

Unit ID	Unit Description	Max. Throughput Rate (tons/hr)	Particulate Emission Limit (lbs/hr)
C-1	Conveyors (20)	200 (each)	58.51 (each)
C-2	Conveyor (1)	60	46.29
M-1A, M-1B	Ferrous/Nonferrous Metal Separators	200 (each)	58.51 (each)

The pounds per hour limitations were calculated using the following equation:

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

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

In order to ensure compliance with this limit, the integral zbox/cyclone air separation system shall be in operation and control emissions from the magnetic separators (M-1A and M-1B) at all times the magnetic separators (M-1A and M-1B) are in operation.

Welding/Cutting

- (gg) 326 IAC 6-3 (Particulate Emission Limitations, Work Practices, and Control Technologies)
 Pursuant to 326 IAC 6-3-1(b)(9) the three (3) metal inert gas (MIG) welding stations are exempt from the requirements of 326 IAC 6-3, because their potential to consume welding wire is less than six hundred twenty-five (625) pounds per day, each.
- (hh) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
 Pursuant to 326 IAC 6-3-2, particulate emissions from each of the five (5) stick welding stations shall not exceed 0.551 pounds per hour when operating at process weight rates of less than 0.05 tons per hour.
- (ii) 326 IAC 6-3 (Particulate Emission Limitations, Work Practices, and Control Technologies)
 Pursuant to 326 IAC 6-3-1(b)(10) the five (5) oxymethane cutting stations are exempt from the requirements of 326 IAC 6-3, because each station cuts less than three thousand four hundred (3,400) inches per hour of stock that is one (1) inch thick or less.

Compliance Determination and Monitoring Requirements

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

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

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

Plant 1 - 1143 Fairview Avenue

- (1) The baghouse for particulate matter control shall be in operation and control emissions from the copper wire reclamation furnace (CF-1) at all times that the copper wire reclamation furnace (CF-1) is in operation.
- (2) The oil content of the metal alloy chips shall not exceed two percent (2%) by weight. The Permittee shall determine compliance with the oil content limitation each month utilizing one of the following options:
 - (A) Providing a chip supplier analysis of oil content accompanied by a chip supplier certification, or;
 - (B) Obtaining a laboratory analysis of the oil content of the metal alloy chips.
- (3) The volatile organic compound (VOC) content of the metal alloy chip oil shall not exceed forty and twenty-six hundredths percent (40.26%). The Permittee shall determine compliance with the VOC content limitation by performing an initial thermogravimetric analysis (TGA) of the metal alloy chip oils from each of the chip suppliers in accordance with the procedures specified in ASTM E1131. If at any time the chip oil is changed, a new TGA shall be performed. IDEM, OAQ reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

Plant 2 - 3601 Maumee Avenue

- (1) The Permittee shall determine VOC emissions from the vehicle/metal shredder (S-3) according to the following formula:

$$\text{VOC} = \frac{V(\text{EF}_V) + M(\text{EF}_M)}{2,000 \text{ lbs/ton}}$$

where:

VOC = tons of VOC emissions per 12-month consecutive period
V = tons of vehicles/automobiles processed per 12-month consecutive period
M = tons of metal (non-vehicle) processed per 12-month consecutive period
EF_V = 0.25 lb/ton emission factor for vehicle/automobile emissions
EF_M = 0.14 lb/ton emission factor for metal (non-vehicle) emissions

- (2) The Permittee shall determine combined HAP emissions from the vehicle/metal shredder (S-3) according to the following formula:

$$\text{HAPs} = \frac{V(\text{EF}_V) + M(\text{EF}_M)}{2,000 \text{ lbs/ton}}$$

where:

HAPs = tons of combined HAP emissions per 12-month consecutive period
V = tons of vehicles/automobiles processed per 12-month consecutive period
M = tons of metal (non-vehicle) processed per 12-month consecutive period
EF_V = 0.033 lb/ton emission factor for vehicle/automobile emissions
EF_M = 0.00932 lb/ton emission factor for metal (non-vehicle) emissions

- (3) The Permittee shall drain and remove, to the extent practicable, VOC and VHAP containing fluids from vehicles, appliances, industrial machinery, and other metal scrap received by the Permittee prior to shredding; or the Permittee shall document that inspections have been performed to confirm the non-existence of VOC and VHAP containing fluids. Fluids shall include, but are not limited to, gasoline, motor oil, antifreeze, transmission oil, and hydraulic fluid.
 - (4) The integral water sprays shall be in operation and control emissions from the vehicle/metal shredder (S-3) at all times that the vehicle/metal shredder (S-3) is in operation.
 - (5) The integral zbox/cyclone air separation system shall be in operation and control emissions from the magnetic separators (M-1A and M-1B) at all times the magnetic separators (M-1A and M-1B) are in operation.
- (b) The compliance monitoring requirements applicable to this source are as follows:

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Stack ID / Control ID	Parameter	Frequency	Range	Excursions and Exceedances
Stack (CF-1) / Afterburner & Baghouse	Visible Emissions	Daily	Normal - Abnormal	Response Steps
	Pressure Drop	Daily	1.0 - 8.0 Inches	
Stack (D-1) / Baghouse (CE-3)	Visible Emissions	Daily	Normal - Abnormal	Response Steps
	Pressure Drop	Daily	1.0 - 8.0 Inches	

- (c) There are no testing requirements applicable to this source.

Conclusion and Recommendation

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. Applications for the purpose of this review were received on March 17, 2009, June 23, 2010, and December 20, 2010.

The operation of this source shall be subject to the conditions of the attached proposed FESOP Renewal No. F003-29387-00057. The staff recommends to the Commissioner that this FESOP Renewal be approved.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Jason R. Krawczyk 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) 234-5174 or toll free at 1-800-451-6027 extension 4-5174.
- (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.idem.in.gov

**Appendix A-1: Emissions Calculations
Plant 1 Emissions Summary**

Company Name: OmniSource Corporation
Address City IN Zip: 1143 Fairview Avenue, Fort Wayne, Indiana 46803
Permit Number: F003-29387-00057
Plt ID: 003-00057
Reviewer: Jason R. Krawczyk
Date: October 1, 2012

Pollutant	Uncontrolled Plant 1 Emissions (Tons/Yr)											
	Copper Wire Furnace		Metal Alloy Chip Recycling Line				Copper Shredder	Baler w/ Precious Metals Recovery	Torch Cutting	Miscellaneous Insignificant Equipment	Roadways**	Total
	Nat. Gas Combustion	Reclamation	Nat. Gas Combustion	Recycling Process	Drying	Oils						
PM	0.02	1.96	0.02	195.39	19.54	-	0.68	0.16	0.32	2.06	13.92	220.15
PM10	0.08	1.96	0.08	195.39	19.54	-	0.30	0.16	0.32	0.73	2.78	218.56
PM2.5	0.08	1.96	0.08	195.39	19.54	-	0.30	0.16	0.32	0.73	0.68	218.56
VOC	0.06	-	0.06	-	-	211.61	-	-	-	-	-	211.72
NOx	1.10	-	1.05	-	-	-	-	-	-	-	-	2.15
SO2	0.01	-	6.31E-03	-	-	-	-	-	-	-	-	0.01
CO	0.92	-	0.88	-	-	-	-	-	-	-	-	1.80
CO2e	1,322	-	1,269	-	-	-	-	-	-	-	-	2,591
Single HAP (Lead)	5.48E-06	0.17	5.26E-06	-	-	-	-	-	-	-	-	0.17
Combined HAPs	0.02	0.17	0.02	-	-	-	-	-	-	-	-	0.21

Pollutant	Controlled Plant 1 Emissions (Tons/Yr)											
	Copper Wire Furnace		Metal Alloy Chip Recycling Line				Copper Shredder	Baler w/ Precious Metals Recovery	Torch Cutting	Miscellaneous Insignificant Equipment	Roadways**	Total
	Nat. Gas Combustion	Reclamation	Nat. Gas Combustion	Recycling Process	Drying	Oils						
PM	0.02	1.96	0.02	24.81	0.59	-	0.68	0.16	0.32	2.06	13.92	30.62
PM10	0.08	1.96	0.08	24.81	0.59	-	0.30	0.16	0.32	0.73	2.78	29.03
PM2.5	0.08	1.96	0.08	24.81	0.59	-	0.30	0.16	0.32	0.73	0.68	29.03
VOC	0.06	-	0.06	-	-	6.35	-	-	-	-	-	6.47
NOx	1.10	-	1.05	-	-	-	-	-	-	-	-	2.15
SO2	0.01	-	6.31E-03	-	-	-	-	-	-	-	-	0.01
CO	0.92	-	0.88	-	-	-	-	-	-	-	-	1.80
CO2e	1,322	-	1,269	-	-	-	-	-	-	-	-	2,591
Single HAP (Lead)	5.48E-06	0.17	5.26E-06	-	-	-	-	-	-	-	-	0.17
Combined HAPs	0.02	0.17	0.02	-	-	-	-	-	-	-	-	0.21

Pollutant	Limited Plant 1 Emissions (Tons/Yr)											
	Copper Wire Furnace		Metal Alloy Chip Recycling Line*				Copper Shredder	Baler w/ Precious Metals Recovery	Torch Cutting	Miscellaneous Insignificant Equipment	Roadways**	Total
	Nat. Gas Combustion	Reclamation	Nat. Gas Combustion	Recycling Process	Drying	Oils						
PM	0.02	1.96	0.02	23.02	2.30	-	0.68	0.16	0.32	2.06	13.92	30.54
PM10	0.08	1.96	0.08	23.02	2.30	-	0.30	0.16	0.32	0.73	2.78	28.95
PM2.5	0.08	1.96	0.08	23.02	2.30	-	0.30	0.16	0.32	0.73	0.68	28.95
VOC	0.06	-	0.06	-	-	24.93	-	-	-	-	-	25.05
NOx	1.10	-	1.05	-	-	-	-	-	-	-	-	2.15
SO2	0.01	-	6.31E-03	-	-	-	-	-	-	-	-	0.01
CO	0.92	-	0.88	-	-	-	-	-	-	-	-	1.80
CO2e	1,322	-	1,269	-	-	-	-	-	-	-	-	2,591
Single HAP (Lead)	5.48E-06	0.17	5.26E-06	-	-	-	-	-	-	-	-	0.17
Combined HAPs	0.02	0.17	0.02	-	-	-	-	-	-	-	-	0.21

Note:

*In order to render the requirements of 326 IAC 2-7 (Part 70), 326 IAC 2-2 (PSD), and 326 IAC 8-1-6 (New Facilities: General Reduction Requirements), the total material throughput through the Metal Alloy Chip Recycling Process Line shall not exceed 3,096 tons per twelve (12) consecutive month period, with compliance determined at the end of each month; the oil content of the metal alloy chips shall not exceed two percent (2%) by weight; and the volatile organic compound (VOC) content of the metal alloy chip oil shall not exceed forty and two-tenths percent (40.26%).

**Fugitive emissions are not counted toward the determination of PSD and/or Part 70 Permit applicability.

Appendix A-1: Emissions Calculations
Potential Combustion Emissions from Copper Reclamation Furnace (CF-1)

Company Name: OmniSource Corporation
Address City IN Zip: 1143 Fairview Avenue, Fort Wayne, Indiana 46803
Permit Number: F003-29387-00057
Plt ID: 003-00057
Reviewer: Jason R. Krawczyk
Date: October 1, 2012

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
2.5	21.9

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.02	0.08	0.01	1.10	0.06	0.92

*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
 Assumed PM10 = PM2.5

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

Hazardous Air Pollutant Emissions

	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	2.300E-05	1.314E-05	8.213E-04	1.971E-02	3.723E-05

	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	5.475E-06	1.205E-05	1.533E-05	4.161E-06	2.300E-05

Combined HAPs: 0.02

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

Greenhouse Gas Emissions

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	1,314	0.03	0.02
Summed Potential Emissions in tons/yr	1,314		
CO2e Total in tons/yr	1,322		

Methodology:

The N2O Emission Factor for uncontrolled is 2.2.
 Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
 Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
 Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
 CO2e (tons/yr) = 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-1: Emissions Calculations
Potential Particulate and Lead Process Emissions from
Copper Wire Reclamation Furnace (CF-1)**

Company Name: OmniSource Corporation
Address City IN Zip: 1143 Fairview Avenue, Fort Wayne, Indiana 46803
Permit Number: F003-29387-00057
Plt ID: 003-00057
Reviewer: Jason R. Krawczyk
Date: October 1, 2012

Nominal Throughput (lb/hr)	Combustibles Charged* (weight %) (lb/hour)		PM Emission Factor** (lb PM/lb charged combustible)	Potential PM Emissions (ton/year)	Potential Lead Emissions*** (ton/year)
2000	26.70%	534	0.00084	1.96	0.17

Note:

* Pounds of combustibles charged per hour calculated from stack test data (1988) showing approximately 26.7% of charge weight is combustible

** Manufacturer supplied emission factor based on 1988 stack test of a similar unit showing 0.164 lb PM per 195 lb charged combustible per hour (0.164 lb PM/195 lb charged combustible per hour) = 0.00084 lb PM/lb charged combustible. IDEM previously determined that the stack test sampling procedures and results were acceptable.

*** Stack test results indicate lead makes up approximately 8.5% of uncontrolled particulate emissions
 Assumed PM = PM10 = PM2.5

Methodology:

Potential PM Emissions (ton/year) = Combustibles Charged (lb/hr) x Emission Factor (lb PM/lb charged combustible) x 8760 (hr/lb) x 1 ton/2000 lb

Potential Lead Emissions (ton/year) = Potential PM Emissions (ton/year) x 8.5% (lead make-up of particulate)

**Appendix A-1: Emissions Calculations
Potential Combustion Emissions from
Metal Alloy Chip Recycling Process Line's Rotary Dryer & Afterburner**

**Company Name: OmniSource Corporation
Address City IN Zip: 1143 Fairview Avenue, Fort Wayne, Indiana 46803
Permit Number: F003-29387-00057
Plt ID: 003-00057
Reviewer: Jason R. Krawczyk
Date: October 1, 2012**

Heat Input Capacity MMBtu/hr	Unlimited Potential Throughput MMCF/yr	Emission Unit ID
0.60	5.26	Rotary Dryer
1.80	15.77	Afterburner (CE-2)
2.40	21.02	

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100 **see below	5.5	84
Unlimited Potential Emission in tons/yr	0.02	0.08	0.01	1.05	0.06	0.88

*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
Assumed PM10 = PM2.5

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
Unlimited 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

Hazardous Air Pollutant Emissions

Emission Factor in lb/MMcf	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Unlimited Potential Emission in tons/yr	2.208E-05	1.261E-05	7.884E-04	1.892E-02	3.574E-05

Emission Factor in lb/MMcf	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Unlimited Potential Emission in tons/yr	5.256E-06	1.156E-05	1.472E-05	3.995E-06	2.208E-05

Combined HAPs: 0.02

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

Greenhouse Gas Emissions

Emission Factor in lb/MMcf	Greenhouse Gas		
	CO2	CH4	N2O
	120,000	2.3	2.2
Unlimited Potential Emissions in tons/yr	1,261	0.02	0.02
Summed Potential Emissions in tons/yr	1,261		
Unlimited CO2e Total in tons/yr	1,269		

Methodology:

The N2O Emission Factor for uncontrolled is 2.2.
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-1: Emissions Calculations
Particulate Emissions from Metal Alloy Recycling Process Line

Company Name: OmniSource Corporation
Address City IN Zip: 1143 Fairview Avenue, Fort Wayne, Indiana 46803
Permit Number: F003-29387-00057
Pit ID: 003-00057
Reviewer: Jason R. Krawczyk
Date: October 1, 2012

Unlimited Potential Particulate (PM/PM10/PM2.5) Emissions

Process	Maximum Process Throughput (tons/hr)	PM/PM10/PM2.5 Emission Factor* (lb/ton)	Estimated Capture Efficiency (%)	Estimated Control Efficiency (%)	Unlimited Uncontrolled PTE		Unlimited Controlled PTE	
					(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)
Metal Alloy Recycling Process Line	3.00	14.87	90.00%	97.00%	44.61	195.39	5.67	24.81

Note:

*Emission factor based on site specific mass balance information.
 Assumed PM = PM10 = PM2.5

Methodology:

Unlimited Uncontrolled PTE (lbs/hr) = Maximum process throughput (tons/hr) * Emission Factor (lb/ton)
 Unlimited Uncontrolled PTE (tons/yr) = Unlimited Uncontrolled PTE (lbs/hr) * 8,760 hrs * 1 ton / 2,000 lbs
 Unlimited Controlled PTE (lbs/hr) = Unlimited Uncontrolled PTE (lbs/hr) * [1 - (capture efficiency) * (control efficiency)]
 Unlimited Controlled PTE (tons/yr) = Unlimited Uncontrolled PTE (tons/yr) * [1 - (capture efficiency) * (control efficiency)]

Limited Potential Particulate (PM/PM10/PM2.5) Emissions

Process	Limited Process Throughput (tons/yr)	PM/PM10/PM2.5 Emission Factor* (lb/ton)	Estimated Capture Efficiency (%)	Estimated Control Efficiency (%)	Limited Uncontrolled PTE		Limited Controlled PTE	
					(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)
Metal Alloy Recycling Process Line	3096.00	14.87	90.00%	97.00%	44.61	23.02	5.67	2.92

Note:

The lb/hr emission rates will not decrease due to the annual throughput limit.
 Assumed PM = PM10 = PM2.5

Methodology:

Limited Uncontrolled PTE (lbs/hr) = Maximum process throughput (tons/hr) * Emission Factor (lb/ton)
 Limited Uncontrolled PTE (tons/yr) = Limited Uncontrolled PTE (lbs/hr) * 8,760 hrs * 1 ton / 2,000 lbs
 Limited Controlled PTE (lbs/hr) = Limited Uncontrolled PTE (lbs/hr) * [1 - (capture efficiency) * (control efficiency)]
 Limited Controlled PTE (tons/yr) = Limited Uncontrolled PTE (tons/yr) * [1 - (capture efficiency) * (control efficiency)]

Appendix A-1: Emissions Calculations
Particulate Emissions from Recycling Process' Rotary Dryer

Company Name: OmniSource Corporation
Address City IN Zip: 1143 Fairview Avenue, Fort Wayne, Indiana 46803
Permit Number: F003-29387-00057
Pit ID: 003-00057
Reviewer: Jason R. Krawczyk
Date: October 1, 2012

Unlimited Potential Particulate (PM/PM10/PM2.5) Emissions

Process	Maximum Process Throughput (tons/hr)	PM/PM10/PM2.5 Emission Factor* (lb/ton)	Estimated Capture Efficiency (%)	Estimated Control Efficiency (%)	Unlimited Uncontrolled PTE		Unlimited Controlled PTE	
					(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)
Rotary Dryer	3.00	1.49	100.00%	97.00%	4.46	19.54	0.13	0.59

Note:

*Emission factor based on site specific mass balance information.
 Baghouse CE-3 only receives 10% loading from the dryer.
 Assumed PM = PM10 = PM2.5

Methodology:

Unlimited Uncontrolled PTE (lbs/hr) = Maximum process throughput (tons/hr) * Emission Factor (lb/ton)
 Unlimited Uncontrolled PTE (tons/yr) = Unlimited Uncontrolled PTE (lbs/hr) * 8,760 hrs * 1 ton / 2,000 lbs
 Unlimited Controlled PTE (lbs/hr) = Unlimited Uncontrolled PTE (lbs/hr) * [1 - (capture efficiency) * (control efficiency)]
 Unlimited Controlled PTE (tons/yr) = Unlimited Uncontrolled PTE (tons/yr) * [1 - (capture efficiency) * (control efficiency)]

Limited Potential Particulate (PM/PM10/PM2.5) Emissions

Process	Limited Process Throughput (tons/yr)	PM/PM10/PM2.5 Emission Factor* (lb/ton)	Estimated Capture Efficiency (%)	Estimated Control Efficiency (%)	Limited Uncontrolled PTE		Limited Controlled PTE	
					(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)
Rotary Dryer	3096.00	1.49	100.00%	97.00%	4.46	2.30	0.13	0.07

Note:

The lb/hr emission rates will not decrease due to the annual throughput limit.
 Assumed PM = PM10 = PM2.5

Methodology:

Limited Uncontrolled PTE (lbs/hr) = Maximum process throughput (tons/hr) * Emission Factor (lb/ton)
 Limited Uncontrolled PTE (tons/yr) = Limited Uncontrolled PTE (lbs/hr) * 8,760 hrs * 1 ton / 2,000 lbs
 Limited Controlled PTE (lbs/hr) = Limited Uncontrolled PTE (lbs/hr) * [1 - (capture efficiency) * (control efficiency)]
 Limited Controlled PTE (tons/yr) = Limited Uncontrolled PTE (tons/yr) * [1 - (capture efficiency) * (control efficiency)]

Appendix A-1: Emissions Calculations
VOC Emissions from Metal Alloy Recycling Process Line

Company Name: OmniSource Corporation
Address City IN Zip: 1143 Fairview Avenue, Fort Wayne, Indiana 46803
Permit Number: F003-29387-00057
Pit ID: 003-00057
Reviewer: Jason R. Krawczyk
Date: October 1, 2012

Unlimited Potential VOC Emissions

Process	Maximum Process Throughput (tons/hr)	Oil On Chips (By Weight) (%)	Percent VOC of Oil (%)	Estimated Control Efficiency (%)	Unlimited Uncontrolled PTE		Unlimited Controlled PTE	
					(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)
Metal Alloy Recycling Process Line	3.00	2.00%	40.26%	97.00%	48.31	211.61	1.45	6.35

Note:

Oil on Chips and Percent VOC of Oil provided by source.

Methodology:

Unlimited Uncontrolled PTE (lbs/hr) = Maximum process throughput (tons/hr) * Oil on Chips (By Weight) (%) * Percent VOC of Oil (%) * 2,000 lbs/ton

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

Unlimited Controlled PTE (lbs/hr) = Unlimited Uncontrolled PTE (lbs/hr) * [1 - (control efficiency)]

Unlimited Controlled PTE (tons/yr) = Unlimited Uncontrolled PTE (tons/yr) * [1 - (control efficiency)]

Limited Potential VOC Emissions

Process	Limited Process Throughput (tons/yr)	Oil On Chips (By Weight) (%)	Percent VOC of Oil (%)	Estimated Control Efficiency (%)	Limited Uncontrolled PTE		Limited Controlled PTE	
					(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)
Metal Alloy Recycling Process Line	3096.00	2.00%	40.26%	97.00%	48.31	24.93	1.45	0.75

Note:

Oil on Chips and Percent VOC of Oil provided by source.

Methodology:

Limited Uncontrolled PTE (lbs/hr) = Maximum process throughput (tons/hr) * Oil on Chips (By Weight) (%) * Percent VOC of Oil (%) * 2,000 lbs/ton

Limited Uncontrolled PTE (tons/yr) = Limited process throughput (tons/yr) * Oil on Chips (By Weight) (%) * Percent VOC of Oil (%)

Limited Controlled PTE (lbs/hr) = Limited Uncontrolled PTE (lbs/hr) * [1 - (control efficiency)]

Limited Controlled PTE (tons/yr) = Limited Uncontrolled PTE (tons/yr) * [1 - (control efficiency)]

Appendix A-1: Emissions Calculations
Particulate Emissions from Insignificant Copper Shredder

Company Name: OmniSource Corporation
Address City IN Zip: 1143 Fairview Avenue, Fort Wayne, Indiana 46803
Permit Number: F003-29387-00057
Plt ID: 003-00057
Reviewer: Jason R. Krawczyk
Date: October 1, 2012

Process Description Copper Shredding Process	Number of Emission Points	Nominal Capacity (tons/hr)	PM Emission Factor (lbs/ton)	PM10 Emission Factor (lbs/ton)	PM2.5 Emission Factor (lbs/ton)	Uncontrolled Potential to Emit PM		Uncontrolled Potential to Emit PM10		Uncontrolled Potential to Emit PM2.5	
						(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)
MTB Shredder	1	7.5	2.57E-03	2.57E-03	2.57E-03	0.02	0.08	0.02	0.08	0.02	0.08
Transfer Point - Dry	6	7.5	3.00E-03	1.10E-03	1.10E-03	0.14	0.59	0.05	0.22	0.05	0.22
Total Potential to Emit:						0.68		0.30		0.30	

Note:

The particulate emission factor for the shredder is from the Institute of Scrap Recycling Industries, Inc. "Title V Applicability Workbook" Appendix D, Table D-10.F.
The emission factor for conveyor transfer points are from AP-42, Chapter 11.19, Table 11.19.2-2 (SCC 3-05-020-06) (8/04).

Methodology:

PTE of PM/PM10/PM2.5 (tons/year) = Number of Emission Points x Maximum Capacity (tons/hour) x Emission Factor (lbs/ton) x 8760 (hrs/year) x 1 ton/2000 lbs
PTE of PM/PM10/PM2.5 (lbs/hr) = PTE of PM/PM10/PM2.5 (tons/yr) * 2,000 lbs / 8,760 hrs

Appendix A-1: Emissions Calculations
Particulate Emissions from Baler with Precious Metals Recovery Unit

Company Name: OmniSource Corporation
Address City IN Zip: 1143 Fairview Avenue, Fort Wayne, Indiana 46803
Permit Number: F003-29387-00057
Plt ID: 003-00057
Reviewer: Jason R. Krawczyk
Date: October 1, 2012

Potential Emissions Prior to Integral Control

Process	Nominal Process Throughput (tons/hr)	PM/PM10/PM2.5 Emission Factor* (lb/ton)	PM/PM10/PM2.5 PTE	
			(lbs/hr)	(tons/yr)
Baler with Precious Metals Recovery	0.60	0.594	0.36	1.56

Note:

Assumed PM = PM10 = PM2.5
 Assumed Control Efficiency = 90%

Methodology:

*Emission Factor = 0.535 lbs dust collected/ton converters processed / 90% control efficiency
 PTE (lbs/hr) = Nominal Process Throughput (tons/hr) * Emission Factor (lb/ton)
 PTE (tons/yr) = PTE (lbs/hr) * Emission Factor (lb/ton) * 8,760 hrs / 2,000 lbs

Potential Emissions After Integral Control

Process	Nominal Process Throughput (tons/hr)	PM/PM10/PM2.5 Emission Factor* (lb/ton)	PM/PM10/PM2.5 PTE	
			(lbs/hr)	(tons/yr)
Baler with Precious Metals Recovery	0.60	0.059	0.04	0.16

Note:

Assumed PM = PM10 = PM2.5
 Assumed Control Efficiency = 90%

Methodology:

*Emission Factor = Uncaptured PM/PM10/PM2.5 Emission Factor (lb/ton) * (1 - Control Efficiency)
 PTE (lbs/hr) = Nominal Process Throughput (tons/hr) * Emission Factor (lb/ton)
 PTE (tons/yr) = PTE (lbs/hr) * Emission Factor (lb/ton) * 8,760 hrs / 2,000 lbs

Appendix A-2: Emissions Calculations

Torch Cutting

Company Name: OmniSource Corporation
Address City IN Zip: 3601 Maumee Avenue, Fort Wayne, Indiana 46803
Permit Number: F003-29387-00057
Plt ID: 003-00057
Reviewer: Jason R. Krawczyk
Date: October 1, 2012

FLAME CUTTING	Number of Stations	Max. Metal Thickness Cut (in.)	Max. Metal Cutting Rate (in./minute)	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick)**				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Oxymethane	2	0.5	15	0.0815	0.0002		0.0002	0.073	0.000	0.000	0.000	0.000
EMISSION TOTALS												
Potential Emissions lbs/hr								0.07				0.00
Potential Emissions lbs/day								1.76				0.00
Potential Emissions tons/year								0.32				0.00

Methodology:

Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" thick)

Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day

Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,000 lbs.

Appendix A-1: Emissions Calculations
Particulate Emissions from Miscellaneous Insignificant Equipment

Company Name: OmniSource Corporation
 Address City IN Zip: 1143 Fairview Avenue, Fort Wayne, Indiana 46803
 Permit Number: F003-29387-00057
 Pit ID: 003-00057
 Reviewer: Jason R. Krawczyk
 Date: October 1, 2012

Process Description	Number of Emission Points	Nominal Capacity (tons/hr)	PM Emission Factor (lbs/ton)	PM10 Emission Factor (lbs/ton)	PM2.5 Emission Factor (lbs/ton)	Uncontrolled Potential to Emit PM		Uncontrolled Potential to Emit PM10		Uncontrolled Potential to Emit PM2.5		
						(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	
<i>Magnetic Sorting Table</i>												
Oscillator - Dry	2	3.5	2.50E-02	8.70E-03	8.70E-03	0.18	0.77	0.06	0.27	0.06	0.27	
Transfer Point - Dry	2	3.5	3.00E-03	1.10E-03	1.10E-03	0.02	0.09	0.01	0.03	0.01	0.03	
D&J Briquetter	1	0.5	-	-	-	-	-	-	-	-	-	
HRB Baler	1	7.5	-	-	-	-	-	-	-	-	-	
2 large shears	2	0.5	-	-	-	-	-	-	-	-	-	
2 small shears	2	0.25	-	-	-	-	-	-	-	-	-	
<i>3-stage Brass Borings Sorting System</i>												
Oscillator - Dry	1	0.75	2.50E-02	8.70E-03	8.70E-03	0.02	0.08	0.01	0.03	0.01	0.03	
Transfer Point - Dry	3	0.75	3.00E-03	1.10E-03	1.10E-03	0.01	0.03	0.00	0.01	0.00	0.01	
Magnetic Sorting Table	1	1	2.50E-02	8.70E-03	8.70E-03	0.03	0.11	0.01	0.04	0.01	0.04	
2 Sorting Tables	2	1.5	3.00E-03	1.10E-03	1.10E-03	0.01	0.04	0.00	0.01	0.00	0.01	
Aluminum Shear	1	1.5	-	-	-	-	-	-	-	-	-	
<i>Aluminum Sorting Table</i>												
Transfer Point - Dry	2	7.5	3.00E-03	1.10E-03	1.10E-03	0.05	0.20	0.02	0.07	0.02	0.07	
4 Wire Strippers	4	N/A	-	-	-	-	-	-	-	-	-	
<i>Aluminum Shaker Table</i>												
Oscillator - Dry	1	3	2.50E-02	8.70E-03	8.70E-03	0.08	0.33	0.03	0.11	0.03	0.11	
Transfer Point - Dry	2	3	3.00E-03	1.10E-03	1.10E-03	0.02	0.08	0.01	0.03	0.01	0.03	
806 Baler	1	20	-	-	-	-	-	-	-	-	-	
<i>Copper sorting table</i>												
Oscillator - Dry	1	2	2.50E-02	8.70E-03	8.70E-03	0.05	0.22	0.02	0.08	0.02	0.08	
Transfer Point - Dry	2	2	3.00E-03	1.10E-03	1.10E-03	0.01	0.05	0.00	0.02	0.00	0.02	
<i>Mixed Non-Ferrous Sorting Table</i>												
Transfer Point - Dry	2	2.5	3.00E-03	1.10E-03	1.10E-03	0.02	0.07	0.01	0.02	0.01	0.02	
Second D&J Briquetter	1	0.5	-	-	-	-	-	-	-	-	-	
Total Potential to Emit:						2.06		0.73		0.73		

Note:

The emission factor for oscillators and conveyor transfer points are from AP-42, Chapter 11.19, Table 11.19.2-2 (SCC 3-05-020-06) (8/04).

Methodology:

PTE of PM/PM10/PM2.5 (tons/year) = Number of Emission Points x Maximum Capacity (tons/hour) x Emission Factor (lbs/ton) x 8760 (hrs/year) x 1 ton/2000 lbs
 PTE of PM/PM10/PM2.5 (lbs/hr) = PTE of PM/PM10/PM2.5 (tons/yr) * 2,000 lbs / 8,760 hrs

Appendix A-1: Emission Calculations
Fugitive Dust Emissions - Paved Roads

Company Name: OmniSource Corporation
Address City IN Zip: 1143 Fairview Avenue, Fort Wayne, Indiana 46803
Permit Number: F003-29387-00057
Pt ID: 003-00057
Reviewer: Jason R. Krawczyk
Date: October 1, 2012

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)
Vehicle (entering plant) (one-way trip)	50.0	1.0	50.0	55.0	2750.0	850	0.161	8.0	2938.0
Vehicle (leaving plant) (one-way trip)	50.0	1.0	50.0	55.0	2750.0	850	0.161	8.0	2938.0
Total			100.0		5500.0			16.1	5875.9

Average Vehicle Weight Per Trip = 55.0 tons/trip
 Average Miles Per Trip = 0.16 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 =	55.0	55.0	55.0	tons = average vehicle weight (provided by source)
sL =	9.7	9.7	9.7	g/m ² = silt loading value for paved roads at iron and steel production facilities - Table 13.2.1-3)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, $E_{ext} = E_f * [1 - (p/4N)]$ (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 =	5.182	1.036	0.2544	lb/mile
Mitigated Emission Factor, E_{ext} =	4.739	0.948	0.2326	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)
Vehicle (entering plant) (one-way trip)	7.61	1.52	0.37	6.96	1.39	0.34	3.48	0.70	0.17
Vehicle (leaving plant) (one-way trip)	7.61	1.52	0.37	6.96	1.39	0.34	3.48	0.70	0.17
	15.23	3.05	0.75	13.92	2.78	0.68	6.96	1.39	0.34

Methodology

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

Abbreviations

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

**Appendix A-1: Emissions Calculations
Source-Wide (Plant 1 & Plant 2) Emission Summary**

Company Name: OmniSource Corporation
Address(es): 1143 Fairview Avenue, Fort Wayne, Indiana 46803
3601 Maumee Avenue, Fort Wayne, Indiana 46803
Reviewer: Jason R. Krawczyk
Date: October 1, 2012

Process, Emission Units, Stack	Potential to Emit Before Control									
	PM	PM10	PM2.5	VOC	NOx	SO2	CO	CO2e as GHGs	Single HAP (Toluene)	Combined HAPs
Plant 1 - 1143 Fairview Avenue										
Emission Units										
<i>Copper Wire Reclamation Furnace (CF-1)</i>										
Nat. Gas Combustion	0.02	0.08	0.08	0.06	1.10	0.01	0.92	1,322	0.00003723	0.02
Reclamation Process Emissions	1.96	1.96	1.96	-	-	-	-	-	-	0.17
<i>Metal Alloy Chip Recycling Line</i>										
Nat. Gas Combustion	0.02	0.08	0.08	0.06	1.05	0.01	0.88	1,269	3.57E-05	0.02
Recycling Process	195.39	195.39	195.39	-	-	-	-	-	-	-
Drying	19.54	19.54	19.54	-	-	-	-	-	-	-
Oils	-	-	-	211.61	-	-	-	-	-	-
Insignificant Copper Shredder	0.68	0.30	0.30	-	-	-	-	-	-	-
Baler & Precious Metal Recovery	0.16	0.16	0.16	-	-	-	-	-	-	-
Torch Cutting	0.32	0.32	0.32	-	-	-	-	-	-	-
Miscellaneous Insignificant Equipment	2.06	0.73	0.73	-	-	-	-	-	-	-
Fugitive Emissions ^A										
Roadways	13.92	2.78	0.68	-	-	-	-	-	-	-
Total Fugitive:	13.92	2.78	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (non-Fugitive):	220.15	218.56	218.56	211.72	2.15	0.01	1.80	2,591	7.30E-05	0.21
Plant 2 - 3601 Maumee Avenue										
Emission Units										
Nat. Gas Combustion	0.08	0.32	0.32	0.23	4.25	0.03	3.57	5,129	1.44E-04	0.08
Vehicle/Metal Shredder S-3	2.25	2.25	2.25	219.00	-	-	-	-	7.30	28.28
Conveyors C-1	2.45	0.81	0.23	-	-	-	-	-	-	-
Conveyor C-2	0.79	0.29	0.29	-	-	-	-	-	-	-
Metal Separators M-1A, M1-B	5.26	1.93	1.93	-	-	-	-	-	-	-
Z-Box / Cyclone Air Separation System	Negl.	Negl.	Negl.	-	-	-	-	-	-	-
Welding/Cutting	16.79	16.79	16.79	-	-	-	-	-	-	0.62
Fugitive Emissions ^A										
Roadways ^B	25.00	25.00	25.00	-	-	-	-	-	-	-
Drop Operations	1.93	0.91	0.14	-	-	-	-	-	-	-
Total Fugitive:	26.93	25.91	25.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (non-Fugitive):	27.62	22.39	21.81	219.23	4.25	0.03	3.57	5,129	7.30	28.99
Combined Total Fugitive:	40.85	28.70	25.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined Total (non-Fugitive):	247.77	240.95	240.38	430.96	6.39	0.04	5.37	7,720	7.30	29.19

Notes:

- A- Fugitive emissions are not counted toward the determination of PSD and/or Part 70 Permit applicability.
 - B- The source has submitted a Fugitive Dust Control Plan (FDCCP) in lieu of assessing fugitive roadway emissions. Uncontrolled roadway emissions are assumed to be 25 tons per year.
- Negl. = negligible

Appendix A: Emission Calculations
Source-Wide (Plant 1 & Plant 2) Emission Summary (continued)

Process, Emission Units, Stack	Potential to Emit After Control (ton/yr)									
	PM	PM10	PM2.5	VOC	NOx	SO2	CO	CO2e as GHGs	Single HAP (Toluene)	Combined HAPs
Plant 1 - 1143 Fairview Avenue										
<u>Emission Units</u>										
<i>Copper Wire Reclamation Furnace (CF-1)</i>										
Nat. Gas Combustion	0.02	0.08	0.08	0.06	1.10	0.01	0.92	1,322	3.72E-05	0.02
Reclamation Process Emissions	1.96	1.96	1.96	-	-	-	-	-	-	0.17
<i>Metal Alloy Chip Recycling Line</i>										
Nat. Gas Combustion	0.02	0.08	0.08	0.06	1.05	0.01	0.88	1,269	3.57E-05	0.02
Recycling Process	24.81	24.81	24.81	-	-	-	-	-	-	-
Drying	0.59	0.59	0.59	-	-	-	-	-	-	-
Oils	-	-	-	6.35	-	-	-	-	-	-
Insignificant Copper Shredder	0.68	0.30	0.30	-	-	-	-	-	-	-
Baler & Precious Metal Recovery	0.16	0.16	0.16	-	-	-	-	-	-	-
Torch Cutting	0.32	0.32	0.32	-	-	-	-	-	-	-
Miscellaneous Insignificant Equipment	2.06	0.73	0.73	-	-	-	-	-	-	-
<u>Fugitive Emissions^A</u>										
Roadways	6.96	1.39	0.34	-	-	-	-	-	-	-
Total Fugitive:	6.96	1.39	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (non-Fugitive):	30.62	29.03	29.03	6.47	2.15	0.01	1.80	2,591	7.30E-05	0.21
Plant 2 - 3601 Maumee Avenue										
<u>Emission Units</u>										
Nat. Gas Combustion	0.08	0.32	0.32	0.23	4.25	0.03	3.57	5,129	1.44E-04	0.08
Vehicle/Metal Shredder S-3	2.25	2.25	2.25	219.00	-	-	-	-	7.30	28.28
Conveyors C-1	2.45	0.81	0.23	-	-	-	-	-	-	-
Conveyor C-2	0.79	0.29	0.29	-	-	-	-	-	-	-
Metal Separators M-1A, M1-B	5.26	1.93	1.93	-	-	-	-	-	-	-
Z-Box / Cyclone Air Separation System	Negl.	Negl.	Negl.	-	-	-	-	-	-	-
Welding/Cutting	16.79	16.79	16.79	-	-	-	-	-	-	0.62
<u>Fugitive Emissions^A</u>										
Roadways ^B	12.50	12.50	12.50	-	-	-	-	-	-	-
Drop Operations	1.93	0.91	0.14	-	-	-	-	-	-	-
Total Fugitive:	14.43	13.41	12.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (non-Fugitive):	27.62	22.39	21.81	219.23	4.25	0.03	3.57	5,129	7.30	28.99
Combined Total Fugitive:	21.39	14.80	12.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined Total (non-Fugitive)	58.24	51.43	50.85	225.70	6.39	0.04	5.37	7,720	7.30	29.19

Notes:

- A- Fugitive emissions are not counted toward the determination of PSD and/or Part 70 Permit applicability.
 - B- The source has submitted a Fugitive Dust Control Plan (FDCP) in lieu of assessing fugitive roadway emissions. Controlled roadway emissions are assumed to be 12.50 tons per year.
- Negl. = negligible

Appendix A: Emission Calculations
Source-Wide (Plant 1 & Plant 2) Emission Summary (continued)

Process, Emission Units, Stack	Limited Potential to Emit (ton/yr)									
	PM	PM10	PM2.5	VOC	NOx	SO2	CO	CO2e as GHGs	Single HAP (Toluene)	Combined HAPs
Plant 1 - 1143 Fairview Avenue										
<u>Emission Units</u>										
<i>Copper Wire Reclamation Furnace (CF-1)</i>										
Nat. Gas Combustion	0.02	0.08	0.08	0.06	1.10	0.01	0.92	1,322	3.72E-05	0.02
Reclamation Process Emissions	1.96	1.96	1.96	-	-	-	-	-	-	0.17
<i>Metal Alloy Chip Recycling Line ^A</i>										
Nat. Gas Combustion	0.02	0.08	0.08	0.06	1.05	0.01	0.88	1,269	3.57E-05	0.02
Recycling Process	23.02	23.02	23.02	-	-	-	-	-	-	-
Drying	2.30	2.30	2.30	-	-	-	-	-	-	-
Oils	-	-	-	24.93	-	-	-	-	-	-
Insignificant Copper Shredder	0.68	0.30	0.30	-	-	-	-	-	-	-
Baler & Precious Metal Recovery	0.16	0.16	0.16	-	-	-	-	-	-	-
Torch Cutting	0.32	0.32	0.32	-	-	-	-	-	-	-
Miscellaneous Insignificant Equipment	2.06	0.73	0.73	-	-	-	-	-	-	-
<u>Fugitive Emissions ^E</u>										
Roadways	6.96	1.39	0.34	-	-	-	-	-	-	-
Total Fugitive:	6.96	1.39	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (non-Fugitive):	30.54	28.95	28.95	25.05	2.15	0.01	1.80	2,591	7.30E-05	0.21
Plant 2 - 3601 Maumee Avenue										
<u>Emission Units</u>										
Nat. Gas Combustion	0.08	0.32	0.32	0.23	4.25	0.03	3.57	5,129	1.44E-04	0.08
Vehicle/Metal Shredder S-3 ^{B,C}	2.25	2.25	2.25	63.95	-	-	-	-	7.30	19.99
Conveyors C-1	2.45	0.81	0.23	-	-	-	-	-	-	-
Conveyor C-2	0.79	0.29	0.29	-	-	-	-	-	-	-
Metal Separators M-1A, M1-B	5.26	1.93	1.93	-	-	-	-	-	-	-
Z-Box / Cyclone Air Separation System	Negl.	Negl.	Negl.	-	-	-	-	-	-	-
Welding/Cutting	16.79	16.79	16.79	-	-	-	-	-	-	0.62
<u>Fugitive Emissions ^E</u>										
Roadways ^{D,F}	12.50	12.50	12.50	-	-	-	-	-	-	-
Drop Operations	1.93	0.91	0.14	-	-	-	-	-	-	-
Total Fugitive:	14.43	13.41	12.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (non-Fugitive):	27.62	22.39	21.81	64.18	4.25	0.03	3.57	5,129	7.30	20.69
Combined Total Fugitive:	21.39	14.80	12.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined Total (non-Fugitive)	58.16	51.35	50.77	89.23	6.39	0.04	5.37	7,720	7.30	20.90

Notes:

- A- In order to render the requirements of 326 IAC 2-7 (Part 70), 326 IAC 2-2 (PSD), and 326 IAC 8-1-6 (New Facilities: General Reduction Requirements), the total material throughput through the Metal Alloy Chip Recycling Process Line shall not exceed 3,096 tons per twelve (12) consecutive month period, with compliance determined at the end of each month; the oil content of the metal alloy chips shall not exceed two percent (2%) by weight; and the volatile organic compound (VOC) content of the metal alloy chip oil shall not exceed forty and two-tenths percent (40.26%).
- B- In order to render the requirements of 326 IAC 2-7 (Part 70) and 326 IAC 2-2 (PSD) not applicable, VOC emissions from the vehicle/metal shredder (S-3) shall not exceed 63.95 tons per twelve (12) consecutive month period.
- C- In order to render the requirements of 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants) not applicable, combined HAP emissions from the vehicle/metal shredder (S-3) shall not exceed 19.99 tons per twelve (12) consecutive month period.
- D- The source has submitted a Fugitive Dust Control Plan (FDCP) in lieu of assessing fugitive roadway emissions. Controlled roadway emissions are assumed to be 12.50 tons per year.
- E- Fugitive emissions are not counted toward the determination of PSD and/or Part 70 Permit applicability.
- F- The source is required to control fugitive dust emissions pursuant to their Fugitive Dust Control Plan (FDCP), therefore the controlled PTE is listed for the limited roadways.

Negl. = negligible

**Appendix A-2: Emissions Calculations
Plant 2 Emissions Summary**

Company Name: OmniSource Corporation
Address City IN Zip: 3601 Maumee Avenue, Fort Wayne, Indiana 46803
Permit Number: F003-29387-00057
Plt ID: 003-00057
Reviewer: Jason R. Krawczyk
Date: October 1, 2012

Uncontrolled Plant 2 Emissions (Tons/Yr)										
Pollutant	Nat. Gas Combustion	Vehicle/Metal Shredder*	Conveyors C-1	Conveyor C-2	Metal Separators	Z-Box / Cyclone***	Welding	Drop Operations (Fugitive)	Roadways (Fugitive)**	Total
PM	0.08	2.25	2.45	0.79	5.26	Negl.	16.79	1.93	25.00	27.62
PM10	0.32	2.25	0.81	0.29	1.93	Negl.	16.79	0.91	25.00	22.39
PM2.5	0.32	2.25	0.23	0.29	1.93	Negl.	16.79	0.14	25.00	21.81
VOC	0.23	219.00	-	-	-	-	-	-	-	219.23
NOx	4.25	-	-	-	-	-	-	-	-	4.25
SO2	0.03	-	-	-	-	-	-	-	-	0.03
CO	3.57	-	-	-	-	-	-	-	-	3.57
CO2e	5129.35	-	-	-	-	-	-	-	-	5,129
Single HAP (Toluene)	1.44E-04	7.30	-	-	-	-	-	-	-	7.30
Combined HAPs	0.08	28.28	-	-	-	-	0.62	-	-	28.99

Note:

*Vehicle/Metal Shredder emissions based on 100% automobiles being shredded. The unlimited potential to emit PM/PM10/PM2.5 is after the integral water sprays.
**The source has submitted a Fugitive Dust Control Plan (FDCP) in lieu of assessing fugitive roadway emissions. Uncontrolled roadway emissions are assumed to be 25 tons per year. Fugitive emissions are not counted toward the determination of PSD and/or Part 70 Permit applicability.

Controlled Plant 2 Emissions (Tons/Yr)										
Pollutant	Nat. Gas Combustion	Vehicle/Metal Shredder*	Conveyors C-1	Conveyor C-2	Metal Separators	Z-Box / Cyclone***	Welding	Drop Operations (Fugitive)	Roadways (Fugitive)**	Total
PM	0.08	2.25	2.45	0.79	5.26	Negl.	16.79	1.93	12.50	27.62
PM10	0.32	2.25	0.81	0.29	1.93	Negl.	16.79	0.91	12.50	22.39
PM2.5	0.32	2.25	0.23	0.29	1.93	Negl.	16.79	0.14	12.50	21.81
VOC	0.23	219.00	-	-	-	-	-	-	-	219.23
NOx	4.25	-	-	-	-	-	-	-	-	4.25
SO2	0.03	-	-	-	-	-	-	-	-	0.03
CO	3.57	-	-	-	-	-	-	-	-	3.57
CO2e	5,129	-	-	-	-	-	-	-	-	5,129
Single HAP (Toluene)	1.44E-04	7.30	-	-	-	-	-	-	-	7.30
Combined HAPs	0.08	28.28	-	-	-	-	0.62	-	-	28.99

Note:

*Vehicle/Metal Shredder emissions based on 100% automobiles being shredded. The unlimited potential to emit PM/PM10/PM2.5 is after the integral water sprays.
**The source has submitted a Fugitive Dust Control Plan (FDCP) in lieu of assessing roadway emissions. Controlled roadway emissions are assumed to be 12.50 tons per year. Fugitive emissions are not counted toward the determination of PSD and/or Part 70 Permit applicability.

Limited Plant 2 Emissions (Tons/Yr)										
Pollutant	Nat. Gas Combustion	Vehicle/Metal Shredder*	Conveyors C-1	Conveyor C-2	Metal Separators	Z-Box / Cyclone***	Welding	Drop Operations (Fugitive)	Roadways (Fugitive)**	Total
PM	0.08	2.25	2.45	0.79	5.26	Negl.	16.79	1.93	12.50	27.62
PM10	0.32	2.25	0.81	0.29	1.93	Negl.	16.79	0.91	12.50	22.39
PM2.5	0.32	2.25	0.23	0.29	1.93	Negl.	16.79	0.14	12.50	21.81
VOC	0.23	63.95	-	-	-	-	-	-	-	64.18
NOx	4.25	-	-	-	-	-	-	-	-	4.25
SO2	0.03	-	-	-	-	-	-	-	-	0.03
CO	3.57	-	-	-	-	-	-	-	-	3.57
CO2e	5,129	-	-	-	-	-	-	-	-	5,129
Single HAP (Toluene)	1.44E-04	7.30	-	-	-	-	-	-	-	7.30
Combined HAPs	0.08	19.99	-	-	-	-	0.62	-	-	20.69

Note:

*In order to render the requirements of 326 IAC 2-7 (Part 70) and 326 IAC 2-2 (PSD) not applicable, VOC emissions from the vehicle/metal shredder shall not exceed 63.95 tons per twelve (12) consecutive month period. The potential to emit PM/PM10/PM2.5 is after the integral water sprays.
In order to render the requirements of 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants) not applicable, combined HAP emissions from the vehicle/metal shredder shall not exceed 19.99 tons per twelve (12) consecutive month period.
**The source has submitted a Fugitive Dust Control Plan (FDCP) in lieu of assessing roadway emissions. The source is required to control fugitive dust emissions pursuant to their Fugitive Dust Control Plan (FDCP), therefore the controlled PTE is listed for the limited roadways. Fugitive emissions are not counted toward the determination of PSD and/or Part 70 Permit applicability.
*** The Z-box/Cyclone is a closed-loop system with no external exhaust point. Therefore emissions are expected to be negligible.
Negl. = negligible

**Appendix A-2: Emissions Calculations
Natural Gas Combustion Only**

Company Name: OmniSource Corporation
Address City IN Zip: 3601 Maumee Avenue, Fort Wayne, Indiana 46803
Permit Number: F003-29387-00057
Plt ID: 003-00057
Reviewer: Jason R. Krawczyk
Date: October 1, 2012

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr	Emission Unit ID
9.70	84.97	Forty-eight (48) heaters

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.08	0.32	0.03	4.25	0.23	3.57

*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

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

Hazardous Air Pollutant Emissions

	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	8.922E-05	5.098E-05	3.186E-03	7.65E-02	1.445E-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	2.124E-05	4.673E-05	5.948E-05	1.614E-05	8.922E-05

Combined HAPs: 0.08

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

Greenhouse Gas Emissions

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120000	2.3	2.2
Potential Emission in tons/yr	5,098	0.10	0.09
Summed Potential Emissions in tons/yr	5,099		
CO2e Total in tons/yr	5,129		

Methodology:

The N2O Emission Factor for uncontrolled is 2.2.
 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-2: Emissions Calculations
Unlimited Vehicle/Metal Shredder Emissions**

**Company Name: OmniSource Corporation
Address City IN Zip: 3601 Maumee Avenue, Fort Wayne, Indiana 46803
Permit Number: F003-29387-00057
Pit ID: 003-00057
Reviewer: Jason R. Krawczyk
Date: October 1, 2012**

Particulate Emissions

Process Description	Maximum Capacity (tons/hr)	Particulate Emission Factor (lbs/ton)	PTE of PM/PM10/PM2.5	
			(lb/hr)	(tons/yr)
Vehicle/Metal Shredder (S-3)	200	0.00257	0.514	2.25

Note:

Material is wetted with an integral smart water injection system to minimize explosion and fire hazards.

The particulate emission factor for the shredder is from the Institute of Scrap Recycling Industries, Inc. "Title V Applicability Workbook" Appendix D, Table D-10.F for dry milling of a 75% Auto & 25% Scrap throughput mixture.

The ISRI, Inc.'s "Title V Applicability Workbook" Appendix D, Table D-10.F emission factor is higher than the factor determined through the stack testing performed at Capital City Metals, LLC in Indianapolis on February 8, 2005, where the vehicle/metal shredder at that facility was utilizing a Smart Water Injection system.

Assumed PM = PM10 = PM2.5

Methodology:

PTE of PM/PM10 (lb/hr) = Maximum Capacity (tons/hr) * Emission Factor (lbs/ton)

PTE of PM/PM10 (tons/yr) = Maximum Capacity (tons/hr) * Emission Factor (lbs/ton) * 8760 hrs / 2000 lbs.

VOC Emissions

Process Description	Maximum Capacity (tons/hr)	VOC Emission Factor		Auto PTE of VOC		Sheet PTE of VOC	
		(lbs/ton)	(lbs/ton)	(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)
Vehicle/Metal Shredder (S-3)	200	0.25	0.14	50.00	219.00	28.00	122.64

Note:

VOC emission factor is from the April 2010 Jackson, Michigan shredder VOC study conducted by OmniSource Corporation facility for a similar unit.

The PTE is based on the worst-case assumption that 100% auto scrap is being processed.

Methodology:

PTE of VOC (lb/hr) = Maximum Capacity (tons/hr) * VOC Emission Factor (lbs/ton)

PTE of VOC (ton/yr) = Maximum Capacity (tons/hr) * VOC Emission Factor (lbs/ton) * 8,760 hrs / 2,000 lbs.

HAP Emissions (Auto Shredding)		Organic HAPs											Metal HAPs			Polychlorinated Biphenyls	
Process Description	Maximum Capacity (tons/hr)	Hexane (lbs/ton)	Benzene (lbs/ton)	MIBK (lbs/ton)	Trichloroethene (lbs/ton)	Toluene (lbs/ton)	Ethylbenzene (lbs/ton)	m,p-Xylenes (lbs/ton)	Styrene (lbs/ton)	o-Xylene (lbs/ton)	Cumene (lbs/ton)	Napthalene (lbs/ton)	Isooctane (lbs/ton)	Cadmium (lbs/ton)	Chromium (lbs/ton)	Lead (lbs/ton)	PCB's (lbs/ton)
Vehicle/Metal Shredder (S-3)	200	0.0037	0.0019	0.0002	0.0002	0.0083	0.0019	0.0068	0.0009	0.0025	0.0002	0.0001	0.00531	1.16E-06	1.28E-06	7.89E-06	0.0000873
		Hexane (tons/yr)	Benzene (tons/yr)	MIBK (tons/yr)	Trichloroethene (tons/yr)	Toluene (tons/yr)	Ethylbenzene (tons/yr)	m,p-Xylenes (tons/yr)	Styrene (tons/yr)	o-Xylene (tons/yr)	Cumene (tons/yr)	Napthalene (tons/yr)	Isooctane (tons/yr)	Cadmium (tons/yr)	Chromium (tons/yr)	Lead (tons/yr)	PCB's (tons/yr)
		3.26	1.68	0.22	0.18	7.30	1.70	5.95	0.75	2.21	0.17	0.13	4.65	0.00	0.00	0.01	0.08
Combined HAPs:																	28.28

HAP Emissions (Sheet Shredding)		Organic HAPs																
Process Description	Maximum Capacity (tons/hr)	Chloromethane (lbs/ton)	1,3 Butadiene (lbs/ton)	Acrolein (lbs/ton)	Dichloroethene (lbs/ton)	Hexane (lbs/ton)	Benzene (lbs/ton)	Trichloroethene (lbs/ton)	Methyl Methacrylate (lbs/ton)	MIBK (lbs/ton)	Toluene (lbs/ton)	Ethylbenzene (lbs/ton)	m,p-Xylenes (lbs/ton)	Styrene (lbs/ton)	o-Xylene (lbs/ton)	Cumene (lbs/ton)	1,4 Dichlorobenzene (lbs/ton)	Napthalene (lbs/ton)
Vehicle/Metal Shredder (S-3)	200	0.00002	0.00002	0.00002	0.00005	0.00076	0.00024	0.00003	0.00006	0.00056	0.00240	0.00074	0.00263	0.00039	0.00104	0.00010	0.00002	0.00020
		Chloromethane (tons/yr)	1,3 Butadiene (tons/yr)	Acrolein (tons/yr)	Dichloroethene (tons/yr)	Hexane (tons/yr)	Benzene (tons/yr)	Trichloroethene (tons/yr)	Methyl Methacrylate (tons/yr)	MIBK (tons/yr)	Toluene (tons/yr)	Ethylbenzene (tons/yr)	m,p-Xylenes (tons/yr)	Styrene (tons/yr)	o-Xylene (tons/yr)	Cumene (tons/yr)	1,4 Dichlorobenzene (tons/yr)	Napthalene (tons/yr)
		0.01	0.02	0.02	0.04	0.67	0.21	0.02	0.05	0.49	2.10	0.65	2.30	0.34	0.91	0.09	0.02	0.17
Combined HAPs:																		8.12

Note:

Organic HAP Emission Factors determined from the April 2010 TO-15 stack test performed at the Jackson, Michigan OmniSource Corporation facility. Emission Factors are averages of three test runs.

The Organic HAP PTE is based on the worst-case assumption that 100% auto scrap is being processed.

Metal HAP and PCB emission factors from the Institute of Scrap Recycling Industries, Inc. "Title V Applicability Workbook" Appendix D, Table D-11.F

Methodology:

HAP Emissions (tons/yr) = Maximum Capacity (tons/hr) * HAP (lbs/ton) * 8,760 hrs / 2000 lbs

**Appendix A-2: Emissions Calculations
Conveyors (C-1) Particulate Emissions**

Company Name: OmniSource Corporation
Address City IN Zip: 3601 Maumee Avenue, Fort Wayne, Indiana 46803
Permit Number: F003-29387-00057
Plt ID: 003-00057
Reviewer: Jason R. Krawczyk
Date: October 1, 2012

Unlimited Particulate Matter Emissions

Process Description	Number of Emission Points	Maximum Capacity (tons/hr)	PM Emission Factor (lbs/ton)	PM10 Emission Factor (lbs/ton)	PM2.5 Emission Factor (lbs/ton)	Unlimited PTE of PM		Unlimited PTE of PM10		Unlimited PTE of PM2.5	
						(lb/hr)	(tons/yr)	(lb/hr)	(tons/yr)	(lb/hr)	(tons/yr)
Conveyor Transfer Point (C-1) - wet*	20	200	1.40E-04	4.60E-05	1.30E-05	0.56	2.45	0.18	0.81	0.05	0.23
Potential Emissions:							2.45		0.81		0.23

Note:

The emission factor for conveyor transfer points are from AP-42, Chapter 11.19, Table 11.19.2-2 (SCC 3-05-020-06) (8/04).

* The smart water injection system on the vehicle/metal shredder is considered an integral control device. This system leaves the items in the downstream conveyors wet. Therefore the controlled emission factor has been used for these conveyor transfer points.

Methodology:

Unlimited PTE (lb/hr) = Maximum Capacity (tons/hr) * Emission Factor (lbs/ton)

Unlimited PTE (tons/yr) = Number of Emission Points * Maximum Capacity (tons/hr) * Emission Factor (lbs/ton) * 8760 (hrs/yr) * 1 ton/2000 lbs

**Appendix A-2: Emissions Calculations
Conveyor (C-2) Particulate Emissions**

Company Name: OmniSource Corporation
Address City IN Zip: 3601 Maumee Avenue, Fort Wayne, Indiana 46803
Permit Number: F003-29387-00057
Plt ID: 003-00057
Reviewer: Jason R. Krawczyk
Date: October 1, 2012

Unlimited Particulate Matter Emissions

Process Description	Number of Emission Points	Maximum Capacity (tons/hr)	PM Emission Factor (lbs/ton)	PM10 Emission Factor (lbs/ton)	PM2.5 Emission Factor (lbs/ton)	Unlimited PTE of PM		Unlimited PTE of PM10		Unlimited PTE of PM2.5	
						(lb/hr)	(tons/yr)	(lb/hr)	(tons/yr)	(lb/hr)	(tons/yr)
Conveyor Transfer Point (C-2) - dry*	1	60	3.00E-03	1.10E-03	1.10E-03	0.18	0.79	6.60E-02	0.29	6.60E-02	0.29
Potential Emissions:							0.79		0.29		0.29

Note:

The emission factor for conveyor transfer points are from AP-42, Chapter 11.19, Table 11.19.2-2 (SCC 3-05-020-06) (8/04).

*The conveyor transfer point is a damp process. The emission factor for a dry process was used as a worst case.

No emission factor is identified for PM2.5 for dry conveying, therefore it is assumed PM10 = PM2.5

Methodology:

Unlimited PTE (lb/hr) = Maximum Capacity (tons/hr) * Emission Factor (lbs/ton)

Unlimited PTE (tons/yr) = Number of Emission Points * Maximum Capacity (tons/hr) * Emission Factor (lbs/ton) * 8760 (hrs/yr) * 1 ton/2000 lbs

**Appendix A: Emissions Calculations
Magnetic Separators (M-1A & M-1B) Particulate Emissions**

**Company Name: OmniSource Corporation
Source Address: 3601 Maumee Avenue, Fort Wayne, Indiana 46803
Permit Number: F003-29387-00057
Plt ID: 003-00057
Reviewer: Jason R. Krawczyk
Date: October 1, 2012**

Unlimited Particulate Matter Emissions

Process Description	Number of Emission Points	Maximum Capacity (tons/hr)	PM Emission Factor (lbs/ton)	PM10 Emission Factor (lbs/ton)	PM2.5 Emission Factor (lbs/ton)	Unlimited PTE of PM		Unlimited PTE of PM10		Unlimited PTE of PM2.5	
						(lb/hr)	(tons/yr)	(lb/hr)	(tons/yr)	(lb/hr)	(tons/yr)
Magnetic Separators (M-1A & M-1B)	2	200	3.00E-03	1.10E-03	1.10E-03	1.20	5.26	4.40E-01	1.93	4.40E-01	1.93
Potential Emissions:						5.26		1.93		1.93	

Note:

Emissions from magnetic separation of metal scrap are calculated using emission factors for crushed stone conveyor transfer points from AP-42, Chapter 11.19, Table 11.19.2-2 (SCC 3-05-020-06) (8/04).

Methodology:

Unlimited PTE (lb/hr) = Maximum Capacity (tons/hr) * Emission Factor (lbs/ton)

Unlimited PTE (tons/yr) = Number of Emission Points * Maximum Capacity (tons/hr) * Emission Factor (lbs/ton) * 8760 (hrs/yr) * 1 ton/2000 lbs

Appendix A-2: Emissions Calculations

Welding and Thermal Cutting

Company Name: OmniSource Corporation
Address City IN Zip: 3601 Maumee Avenue, Fort Wayne, Indiana 46803
Permit Number: F003-29387-00057
Plt ID: 003-00057
Reviewer: Jason R. Krawczyk
Date: October 1, 2012

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)		EMISSION FACTORS* (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
WELDING												
Metal Inert Gas (MIG)(carbon steel)	3	5		0.0055	0.0005			0.083	0.008	0.000	0	0.008
Stick (E7018 electrode)	5	30		0.0211	0.0009			3.165	0.135	0.000	0	0.135
FLAME CUTTING	Number of Stations	Max. Metal Thickness Cut (in.)	Max. Metal Cutting Rate (in./minute)	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick)**				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Oxymethane	5	1	24	0.0815	0.0002		0.0002	0.587	0.000	0.000	0.000	0.000
EMISSION TOTALS												
Potential Emissions lbs/hr								3.83				0.14
Potential Emissions lbs/day								92.02				3.42
Potential Emissions tons/year								16.79				0.62

Methodology:

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

Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" thick)

Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)

Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day

Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,000 lbs.

**Appendix A-2: Emissions Calculations
Batch Drop Operations**

Company Name: OmniSource Corporation
Source Address: 3601 Maumee Avenue, Fort Wayne, Indiana 46803
Permit Number: F003-29387-00057
Source ID: 003-00057
Reviewer: Jason R. Krawczyk
Date: October 1, 2012

Batch Drop Operations (AP-42 Section 13.2.4)

To estimate potential fugitive dust emissions from processing and handling of raw materials (batch or continuous drop operations), AP 42 emission factors for Aggregate Handling, Section 13.2.4 (fifth edition, 1/95) are utilized.

$$E_f = k * (0.0032) * [(U/5)^{1.3} / (M/2)^{1.4}]$$

where: Ef = Emission factor (lb/ton)

k (PM) =	0.74	= particle size multiplier (0.74 assumed for aerodynamic diameter <=100 um)
k (PM10) =	0.35	= particle size multiplier (0.35 assumed for aerodynamic diameter <=10 um)
k (PM2.5) =	0.053	= particle size multiplier (0.053 assumed for aerodynamic diameter <=2.5 um)
U =	10.2	= worst case annual mean wind speed (Source: NOAA, 2006*)
M =	11.0	= material % moisture content of aggregate (Source: AP-42 Section 11.1.1.1)
Ef (PM) =	5.50E-04	lb PM/ton of material handled
Ef (PM10) =	2.60E-04	lb PM10/ton of material handled
Ef (PM2.5) =	3.94E-05	lb PM2.5/ton of material handled

Unlimited Particulate Emissions

Maximum Material Handling Throughput = 200 tons/hr
 Maximum Material Handling Throughput = 1,752,000 tons/yr

Type of Activity	PTE of PM (tons/yr)	PTE of PM10 (tons/yr)	PTE of PM2.5 (tons/yr)
Truck unloading of materials into storage piles	0.48	0.23	0.03
Dumping of materials into feeder bins	0.48	0.23	0.03
Unloading of crushed metal and fluff into storage piles	0.48	0.23	0.03
Loading of crushed metal and fluff into trucks	0.48	0.23	0.03
Total (tons/yr)	1.93	0.91	0.14

Methodology:

Maximum Material Handling Throughput (tons/yr) = Maximum throughput (90 tons/hr) * 8,760 hrs/yr

Unlimited Potential to Emit (tons/yr) = (Maximum Material Handling Throughput (tons/yr)) * (Emission Factor (lb/ton)) * (ton/2000 lbs)

*Worst case annual mean wind speed (Indianapolis, IN) from "Comparative Climatic Data", National Climatic Data Center, NOAA, 2006

**Appendix A-2: Emissions Calculations
Source-Wide (Plant 1 & Plant 2) Emission Summary**

Company Name: OmniSource Corporation
Address(es): 1143 Fairview Avenue, Fort Wayne, Indiana 46803
3601 Maumee Avenue, Fort Wayne, Indiana 46803
Reviewer: Jason R. Krawczyk
Date: October 1, 2012

Process, Emission Units, Stack	Potential to Emit Before Control									
	PM	PM10	PM2.5	VOC	NOx	SO2	CO	CO2e as GHGs	Single HAP (Toluene)	Combined HAPs
Plant 1 - 1143 Fairview Avenue										
<u>Emission Units</u>										
<i>Copper Wire Reclamation Furnace (CF-1)</i>										
Nat. Gas Combustion	0.02	0.08	0.08	0.06	1.10	0.01	0.92	1,322	3.723E-05	0.02
Reclamation Process Emissions	1.96	1.96	1.96	-	-	-	-	-	-	0.17
<i>Metal Alloy Chip Recycling Line</i>										
Nat. Gas Combustion	0.02	0.08	0.08	0.06	1.05	0.01	0.88	1,269	0.00	0.02
Recycling Process	195.39	195.39	195.39	-	-	-	-	-	-	-
Drying	19.54	19.54	19.54	-	-	-	-	-	-	-
Oils	-	-	-	211.61	-	-	-	-	-	-
Insignificant Copper Shredder	0.68	0.30	0.30	-	-	-	-	-	-	-
Baler & Precious Metal Recovery	0.16	0.16	0.16	-	-	-	-	-	-	-
Torch Cutting	0.32	0.32	0.32	-	-	-	-	-	-	-
Miscellaneous Insignificant Equipment	2.06	0.73	0.73	-	-	-	-	-	-	-
<u>Fugitive Emissions^A</u>										
Roadways	13.92	2.78	0.68	-	-	-	-	-	-	-
Total Fugitive:	13.92	2.78	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (non-Fugitive):	220.15	218.56	218.56	211.72	2.15	0.01	1.80	2,591	7.30E-05	0.21
Plant 2 - 3601 Maumee Avenue										
<u>Emission Units</u>										
Nat. Gas Combustion	0.08	0.32	0.32	0.23	4.25	0.03	3.57	5,129	1.44E-04	0.08
Vehicle/Metal Shredder S-3	2.25	2.25	2.25	219.00	-	-	-	-	7.30	28.28
Conveyors C-1	2.45	0.81	0.23	-	-	-	-	-	-	-
Conveyor C-2	0.79	0.29	0.29	-	-	-	-	-	-	-
Metal Separators M-1A, M1-B	5.26	1.93	1.93	-	-	-	-	-	-	-
Z-Box / Cyclone Air Separation System	Negl.	Negl.	Negl.	-	-	-	-	-	-	-
Welding/Cutting	16.79	16.79	16.79	-	-	-	-	-	-	0.62
<u>Fugitive Emissions^A</u>										
Roadways ^B	25.00	25.00	25.00	-	-	-	-	-	-	-
Drop Operations	1.93	0.91	0.14	-	-	-	-	-	-	-
Total Fugitive:	26.93	25.91	25.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (non-Fugitive):	27.62	22.39	21.81	219.23	4.25	0.03	3.57	5,129	7.30	28.99
Combined Total Fugitive:	40.85	28.70	25.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined Total (non-Fugitive)	247.77	240.95	240.38	430.96	6.39	0.04	5.37	7,720	7.30	29.19

Notes:

- A- Fugitive emissions are not counted toward the determination of PSD and/or Part 70 Permit applicability.
 - B- The source has submitted a Fugitive Dust Control Plan (FDCP) in lieu of assessing fugitive roadway emissions. Uncontrolled roadway emissions are assumed to be 25 tons per year.
- Negl. = negligible

Appendix A-2: Emission Calculations
Source-Wide (Plant 1 & Plant 2) Emission Summary (continued)

Process, Emission Units, Stack	Potential to Emit After Control (ton/yr)									
	PM	PM10	PM2.5	VOC	NOx	SO2	CO	CO2e as GHGs	Single HAP (Toluene)	Combined HAPs
Plant 1 - 1143 Fairview Avenue										
<i>Emission Units</i>										
<i>Copper Wire Reclamation Furnace (CF-1)</i>										
Nat. Gas Combustion	0.02	0.08	0.08	0.06	1.10	0.01	0.92	1,322	3.72E-05	0.02
Reclamation Process Emissions	1.96	1.96	1.96	-	-	-	-	-	-	0.17
<i>Metal Alloy Chip Recycling Line</i>										
Nat. Gas Combustion	0.02	0.08	0.08	0.06	1.05	0.01	0.88	1,269	3.57E-05	0.02
Recycling Process	24.81	24.81	24.81	-	-	-	-	-	-	-
Drying	0.59	0.59	0.59	-	-	-	-	-	-	-
Oils	-	-	-	6.35	-	-	-	-	-	-
Insignificant Copper Shredder	0.68	0.30	0.30	-	-	-	-	-	-	-
Baler & Precious Metal Recovery	0.16	0.16	0.16	-	-	-	-	-	-	-
Torch Cutting	0.32	0.32	0.32	-	-	-	-	-	-	-
Miscellaneous Insignificant Equipment	2.06	0.73	0.73	-	-	-	-	-	-	-
<i>Fugitive Emissions^A</i>										
Roadways	6.96	1.39	0.34	-	-	-	-	-	-	-
Total Fugitive:	6.96	1.39	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (non-Fugitive):	30.62	29.03	29.03	6.47	2.15	0.01	1.80	2,591	7.30E-05	0.21
Plant 2 - 3601 Maumee Avenue										
<i>Emission Units</i>										
Nat. Gas Combustion	0.08	0.32	0.32	0.23	4.25	0.03	3.57	5,129	1.44E-04	0.08
Vehicle/Metal Shredder S-3	2.25	2.25	2.25	219.00	-	-	-	-	7.30	28.28
Conveyors C-1	2.45	0.81	0.23	-	-	-	-	-	-	-
Conveyor C-2	0.79	0.29	0.29	-	-	-	-	-	-	-
Metal Separators M-1A, M1-B	5.26	1.93	1.93	-	-	-	-	-	-	-
Z-Box / Cyclone Air Separation System	Negl.	Negl.	Negl.	-	-	-	-	-	-	-
Welding/Cutting	16.79	16.79	16.79	-	-	-	-	-	-	0.62
<i>Fugitive Emissions^A</i>										
Roadways ^B	12.50	12.50	12.50	-	-	-	-	-	-	-
Drop Operations	1.93	0.91	0.14	-	-	-	-	-	-	-
Total Fugitive:	14.43	13.41	12.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (non-Fugitive):	27.62	22.39	21.81	219.23	4.25	0.03	3.57	5,129	7.30	28.99
Combined Total Fugitive:	21.39	14.80	12.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined Total (non-Fugitive)	58.24	51.43	50.85	225.70	6.39	0.04	5.37	7,720	7.30	29.19

Notes:

- A- Fugitive emissions are not counted toward the determination of PSD and/or Part 70 Permit applicability.
 - B- The source has submitted a Fugitive Dust Control Plan (FDCP) in lieu of assessing fugitive roadway emissions. Controlled roadway emissions are assumed to be 12.50 tons per year.
- Negl. = negligible

Appendix A-2: Emission Calculations
Source-Wide (Plant 1 & Plant 2) Emission Summary (continued)

Process/Emission Units	Limited Potential to Emit (ton/yr)									
	PM	PM10	PM2.5	VOC	NOx	SO2	CO	CO2e as GHGs	Single HAP (Toluene)	Combined HAPs
Plant 1 - 1143 Fairview Avenue										
<u>Emission Units</u>										
<i>Copper Wire Reclamation Furnace (CF-1)</i>										
Nat. Gas Combustion	0.02	0.08	0.08	0.06	1.10	0.01	0.92	1,322	3.72E-05	0.02
Reclamation Process Emissions	1.96	1.96	1.96	-	-	-	-	-	-	0.17
<i>Metal Alloy Chip Recycling Line ^A</i>										
Nat. Gas Combustion	0.02	0.08	0.08	0.06	1.05	0.01	0.88	1,269	0.00	0.02
Recycling Process	23.02	23.02	23.02	-	-	-	-	-	-	-
Drying	2.30	2.30	2.30	-	-	-	-	-	-	-
Oils	-	-	-	24.93	-	-	-	-	-	-
Insignificant Copper Shredder	0.68	0.30	0.30	-	-	-	-	-	-	-
Baler & Precious Metal Recovery	0.16	0.16	0.16	-	-	-	-	-	-	-
Torch Cutting	0.32	0.32	0.32	-	-	-	-	-	-	-
Miscellaneous Insignificant Equipment	2.06	0.73	0.73	-	-	-	-	-	-	-
<u>Fugitive Emissions ^E</u>										
Roadways	6.96	1.39	0.34	-	-	-	-	-	-	-
Total Fugitive:	6.96	1.39	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (non-Fugitive):	30.54	28.95	28.95	25.05	2.15	0.01	1.80	2,591	7.30E-05	0.21
Plant 2 - 3601 Maumee Avenue										
<u>Emission Units</u>										
Nat. Gas Combustion	0.08	0.32	0.32	0.23	4.25	0.03	3.57	5,129	1.44E-04	0.08
Vehicle/Metal Shredder S-3 ^{B,C}	2.25	2.25	2.25	63.95	-	-	-	-	7.30	19.99
Conveyors C-1	2.45	0.81	0.23	-	-	-	-	-	-	-
Conveyor C-2	0.79	0.29	0.29	-	-	-	-	-	-	-
Metal Separators M-1A, M1-B	5.26	1.93	1.93	-	-	-	-	-	-	-
Z-Box / Cyclone Air Separation System	Negl.	Negl.	Negl.	-	-	-	-	-	-	-
Welding/Cutting	16.79	16.79	16.79	-	-	-	-	-	-	0.62
<u>Fugitive Emissions ^E</u>										
Roadways ^{D,F}	12.50	12.50	12.50	-	-	-	-	-	-	-
Drop Operations	1.93	0.91	0.14	-	-	-	-	-	-	-
Total Fugitive:	14.43	13.41	12.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (non-Fugitive):	27.62	22.39	21.81	64.18	4.25	0.03	3.57	5,129	7.30	20.69
Combined Total Fugitive:	21.39	14.80	12.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Combined Total (non-Fugitive)	58.16	51.35	50.77	89.23	6.39	0.04	5.37	7,720	7.30	20.90

Notes:

- A- In order to render the requirements of 326 IAC 2-7 (Part 70), 326 IAC 2-2 (PSD), and 326 IAC 8-1-6 (New Facilities: General Reduction Requirements), the total material throughput through the Metal Alloy Chip Recycling Process Line shall not exceed 3,096 tons per twelve (12) consecutive month period, with compliance determined at the end of each month; the oil content of the metal alloy chips shall not exceed two percent (2%) by weight, and the volatile organic compound (VOC) content of the metal alloy chip oil shall not exceed forty and two-tenths percent (40.26%).
 - B- In order to render the requirements of 326 IAC 2-7 (Part 70) and 326 IAC 2-2 (PSD) not applicable, VOC emissions from the vehicle/metal shredder (S-3) shall not exceed 63.95 tons per twelve (12) consecutive month period.
 - C- In order to render the requirements of 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants) not applicable, combined HAP emissions from the vehicle/metal shredder (S-3) shall not exceed 19.99 tons per twelve (12) consecutive month period.
 - D- The source has submitted a Fugitive Dust Control Plan (FDCP) in lieu of assessing fugitive roadway emissions. Controlled roadway emissions are assumed to be 12.50 tons per year.
 - E- Fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.
 - F- The source is required to control fugitive dust emissions pursuant to their Fugitive Dust Control Plan (FDCP), therefore the controlled PTE is listed for the limited roadways.
- Negl. = negligible

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

**Appendix B
Best Available Control Technology (BACT) Determination**

Source Background and Description

Source Name:	OmniSource Corporation
Source Location(s):	1143 Fairview Avenue, Fort Wayne, IN 46803 3601 Maumee Avenue, Fort Wayne, IN 46803
County:	Allen
SIC Code:	5093 (Scrap and Waste Materials)
Operation Permit No.:	F003-29387-00057
Permit Reviewer:	Jason R. Krawczyk

Background Information

On March 17, 2009, the Office of Air Quality (OAQ) received an application from OmniSource Corporation (Source ID: 003-00057), located at 1143 Fairview Avenue, Fort Wayne, IN 46803, related to a modification to an existing metal chips recovery plant. Subsequently, on June 23, 2010, OmniSource Corporation submitted an application to the OAQ requesting to renew its operating permit. OmniSource Corporation was issued FESOP Renewal F003-20860-00057 on March 23, 2006.

On December 20, 2010, the Office of Air Quality (OAQ) received an application from OmniSource Corporation (Source ID: 003-00210) located at 3601 Maumee Avenue, Fort Wayne, IN 46803, requesting the transition from a Minor Source Operation Permit (MSOP) to a Federally Enforceable State Operating Permit (FESOP) for its existing vehicle/metal shredding plant, based on VOC stack test data from a sister facility in Jackson, Michigan. As a result of this request, the source would have transitioned from a MSOP and would have been issued a FESOP. OmniSource Corporation was issued MSOP M003-22024-00210 on April 20, 2006.

During review of the three (3) permit applications for OmniSource Corporation's two (2) plants (Source ID: 003-00057 and Source ID: 003-00210), it was determined that the two (2) plants should be evaluated as a single source (see the Source Definition section below). Therefore, the three (3) permit applications were combined and the two (2) plants will now be permitted under Second FESOP Renewal with New Source Review (NSR) F003-29387-00057.

Based on the VOC emission factors determined during the sampling study performed at OmniSource Corporation's sister facility in Jackson, Michigan, the potential VOC emissions from the vehicle/metal shredder (S-3) were determined to be greater than twenty-five (25) tons per year. Since this process is not regulated under any other rule in 326 IAC 8, the Permittee is required to control VOC emissions from S-3 pursuant to the provisions of 326 IAC 8-1-6 (New Facilities: General Reduction Requirements) which requires the use of Best Available Control Technology (BACT). Appendix A-2 - Emission Calculations - of this Technical Support Document (TSD) contain the potential emission calculations for this process.

IDEM, OAQ conducts BACT analyses in accordance with the *"Top-Down" Best Available Control Technology Guidance Document* outlined in the 1990 draft U.S. EPA *New Source Review Workshop Manual*, which outlines the steps for conducting a top-down BACT analysis. Those steps are listed below.

- (1) Identify all potentially available control options;
- (2) Eliminate technically infeasible control options;

- (3) Rank remaining control technologies;
- (4) Evaluate the most effective controls and document the results; and
- (5) Select BACT.

Also in accordance with the "Top-Down" Best Available Control Technology Guidance Document outlined in the 1990 draft U.S. EPA New Source Review Workshop Manual, BACT analyses take into account the energy, environmental, and economic impacts of the control options. Emission reductions may be determined through the application of available control techniques, process design, and/or operational limitations. Such reductions are necessary to demonstrate that the emissions remaining after application of BACT will not cause adverse environmental effects to public health and the environment.

VOC BACT Analysis

Step One: Identify All Potentially Available Control Technologies

Based on the information reviewed for this BACT determination, the following potentially available control technologies were identified for controlling VOC emissions from the vehicle/metal shredder (S-3):

(a) Absorption:

Absorption is a commonly-applied operation in chemical processing that is used as a raw material or product recovery technique in the separation and purification of gaseous streams containing high concentrations of organics. In absorption, the organics in the gas stream are dissolved in a liquid. The contact between the absorbing liquid and the gas stream is accomplished in counter current spray towers, scrubbers, or packed or plate columns. The resulting material from the absorption cycle must be treated or disposed once the solution reaches its saturation point. The scrubbing liquid containing the contaminant is typically regenerated in a stripping column in conditions of elevated temperature or reduced pressure (vacuum conditions). The contaminant is then recovered using a condenser.

(b) Adsorption:

Adsorption itself is a phenomenon where gas molecules passing through a bed of solid particles are selectively held there by attractive forces which are weaker and less specific than those of chemical bonds. During adsorption, a gas molecule migrates from the gas stream to the surface of the solid where it is held by physical attraction. Adsorbents in large scale use include activated carbon, silica gel, activated alumina, synthetic zeolites, fuller's earth, and other clays. The most commonly used is activated carbon (e.g. carbon bed). The adsorption of VOCs on activated carbon is dependent upon two factors. The first is the equilibrium relationship between the particular VOC, or mixture of VOCs, and the activated carbon adsorbent. The second is the rate of transfer of the VOC from the gas stream to the adsorption sites within the activated carbon. The equilibrium relationship between the gas and the carbon is a function of the VOC concentration, temperature, and total pressure. After adsorption, most gases can be removed, or desorbed for the adsorbent by heating to a sufficiently high temperature, usually via steam or hot combustion gases, or by reducing the pressure to a sufficiently low value. The adsorbates can typically be recovered and concentrated after being desorbed.

(c) Condensation Systems:

Emissions sources that have low flow rates of high concentration VOCs (up to 100%) such as tank vents are ideal applications for refrigerated and cryogenic condensers. The condensed

liquid is returned to the process and non-condensable liquids (with low levels of VOCs) are vented to the atmosphere.

(1) Single Stage

Single stage systems, which can reduce the vented gas stream to minus 20°F, can be used for high boiling compounds (such as gasoline tank vapors from tank transfer operations), and can achieve 90-95% control efficiencies. High control efficiencies require lower temperatures and more complexity such as multiple stages and pumping systems.

(2) Multi-Stage Systems

Cascade (multi-stage) condensing systems using cryogenics can produce temperatures as low as minus 120°F. These systems are required for lower molecular weight VOCs with high vapor pressures or for vent streams with significant condensables such as nitrogen from air.

(d) Flares:

Flares are typically used for safety control of a large volume of hydrocarbon pollutant resulting from a process upset. They require a high heating value waste gas (in excess of 300 BTU/scf) or supplemental fuel. Flares can produce undesirable noise, light, and smoke and waste heat cannot be recovered.

(e) UV Oxidation:

UV oxidation is used to eliminate VOC through a 2 or 3 stage process. The exhaust air stream is treated with a UV-C light in the first phase, beginning in the photolytic oxidation process. In the second stage, ozone is used to complete the oxidation of contaminants. As needed, a third stage filtration is used to catalyze the reaction. The process is best suited for treatment of easily oxidized organic compounds.

(f) Catalytic Oxidation:

Catalytic oxidation is the process of oxidizing organic contaminants in a waste gas stream within a heated chamber containing a catalyst bed in the presence of oxygen for sufficient time to completely oxidize the organic contaminants to carbon dioxide and water. The catalyst is used to lower the activation energy of the oxidation reaction. The residence time; temperature; flow velocity and mixing; the oxygen concentration; and type of catalyst used in the combustion chamber affect the oxidation rate and destruction efficiency. Catalytic oxidizers typically require combustion of an auxiliary fuel (e.g., natural gas) to maintain combustion chamber temperature high enough to completely oxidize the contaminant gases, and as with the thermal oxidizers, fume preheating devices are commonly used to minimize operating costs. Catalytic oxidizers are typically designed to have a residence time of 0.5 seconds or less and combustion chamber temperatures between 600 and 1,200°F. Catalytic systems are usually limited to 1100-1300°F outlet temperatures, which limits VOC inputs to a maximum of 25% of LEL.

(1) Precious Metal Type (Platinum, Palladium, etc.)

Precious metals catalyst chambers are usually constructed of a ceramic or metallic substrate with the catalyst applied to the substrate. The catalyst assembly is stationary. These catalysts are highly efficient in a clean state but are subject to deactivation by several mechanisms. Sulfur, phosphorus, halogens, bismuth and heavy metals such as zinc, lead, arsenic, antimony, mercury, iron oxide, tin, and silicon can poison the catalyst

bed in a non-reversible manner. A thorough understanding of the VOC constituents is necessary to apply this type of control device.

(2) Non-Precious Metal Type (Chromium, Manganese, etc.)

These systems are usually less susceptible to poisoning and deactivation, but require larger amounts of catalyst. These are usually in bulk form, applied to a ceramic substance and are arranged on a grid or screen. Catalyst beds are usually fixed relative to fume flow; however, there are fluidized bed types that negate the blinding by organic solids. The VOC constituents must be known to apply this control device.

(g) Thermal Oxidation:

Thermal oxidizers regularly achieve 97% to 99% destruction efficiencies because of the inherent efficiency of the combustion processes. Thermal oxidizers typically consist of an enclosed combustion chamber with an auxiliary burner fired with a conventional fuel. The firing rate of the burner is automatically controlled to maintain a preset combustion chamber temperature. Thermal oxidizers provide maximum operating flexibility because they can handle most known VOCs at a wide range of concentrations and flows. However, thermal oxidizers require relatively high fuel input because of operating temperatures. Heat recovery is frequently used with thermal oxidation systems to minimize the fuel operating cost, especially with low concentrations of VOC. Heat recovery devices used in VOC systems are most commonly indirect recuperative heat exchangers or thermal mass regenerative heat exchangers.

The three types of thermal oxidation systems include direct flame, recuperative, and regenerative thermal oxidizers, which are differentiated by the type of heat recovery equipment used.

(1) Direct Flame:

A direct flame thermal oxidizer consists of only a combustion chamber with no heat recovery equipment.

(2) Recuperative Thermal Oxidizer:

These systems employ an indirect heat exchanger device to preheat the VOC laden fume. They are applied to oxidizers that operate at temperatures as high as 1800°F. The maximum design efficiency is usually dictated by the exchanger outlet temperature and the VOC content in the stream.

(3) Regenerative Thermal Oxidizer:

These systems employ a large thermal mass to collect the heat and return it to the incoming fume. Each oxidizer is supplied with several large "cells" which are filled with ceramic packing. The cells are alternated from heat-up to cool-down cycles for fume preheating by a series of dampers and ducts on the outlet side of the system. These units can achieve high removal efficiencies (95-98%) at relatively low temperatures (1400-1500°F) because of the thorough mixing in the ceramic packing sections. These systems are more maintenance-intensive than recuperative types because of the mechanical system that performs the alternating of cells.

In general, thermal oxidizers are less efficient at treating waste gas streams with highly variable flow rates, since the variable flow rate results in varying residence times, combustion chamber temperature, and poor mixing.

(h) Bio-Filtration:

Bio-filtration systems are designed to follow three basic steps. First, a pollutant in the gas phase is passed through a biologically active packed bed. The pollutant then diffuses into the biofilm immobilized on the packing medium. Finally, microorganisms growing in the biofilm oxidize the pollutant as a primary substrate or co-metabolite and in the process convert contaminants into the benign end products of carbon dioxide, water and additional biomass.

Three primary bioreactor configurations are available to treat stationary sources of air pollution: bio-filters, bio-trickling filters, and bio-scrubbers.

(1) Bio-Filters

Bio-filters are the simplest and oldest of the three vapor-phase bioreactors and involve passing a contaminated air stream through a reactor containing biologically-active packing material. The contaminants are transferred from the air stream into a bio-film immobilized on the support media and are converted by the microorganisms into CO₂, water, and additional biomass. Moisture is typically supplied to the bio-film in a humid inlet waste gas stream. Packing media used in bio-filter beds can be broadly categorized as either "natural" or "synthetic". Natural media include wood chips, peat, and compost, with compost by far the most widely used. Synthetic media include activated carbon, ceramic pellets, polystyrene beads, ground tires, plastic media, and polyurethane foam. Natural organic packing media generally contain a supply of nutrients as a naturally occurring component of the packing itself. When a synthetic support medium is used, nutrients must be added for microbial growth.

(2) Bio-Trickling Filters

Bio-trickling filters are similar to bio-filters with the exception that there is a liquid nutrient medium continuously recirculating through the column. To facilitate the recirculation of the liquid phase, rigid synthetic media is used as the packing medium. Microorganisms grow primarily as a fixed film on inert packing media but may also be present in the liquid phase because they can both grow suspended in the liquid phase and because the flowing liquid imparts sufficient force to detach biomass from the solid support media. Contaminants are transferred from the air stream into the liquid phase and bio-film for subsequent degradation.

Potential disadvantages of bio-trickling filter operations include: clogging of the pore space if the filter is treating high VOC loads or if the filter is provided excess nutrients, and the need to manage the liquid stream. An additional disadvantage is that bio-trickling filters may have more difficulty treating poorly soluble compounds since the specific surface area in bio-trickling filters is generally lower.

(3) Bio-Scrubbers

Bio-scrubbers combine physical and chemical treatment with a biological treatment in two separate reactors. In the first reactor, the contaminated air stream is contacted with water in a reactor packed with inert media, resulting in contaminant transfer from the air phase to the liquid phase. The liquid is then directed into an activated sludge reactor where the contaminants are biologically degraded. The separated activated sludge tank allows the reactor to treat higher concentrations of compounds than bio-filters can handle. In addition since compound transfer and degradation occur in separate reactors, optimization of each reactor can take place separately. As with bio-trickling filters, bio-scrubbers offer greater operator control over nutrient supply, acidity, and the build-up of toxic by-products.

A potential disadvantage of bio-scrubbers is that slower growing microorganisms may be washed out of the system and disposal of excess sludge is required.

Step Two: Eliminate Technically Infeasible Control Options

To be considered technically feasible, a control technology must either be successfully demonstrated on a unit or, if not demonstrated, then be "available and applicable". A technology is considered "available" if it can be obtained by the applicant through commercial channels. An available technology is considered "applicable" if it can reasonably be installed and operated on the unit in question.

The feasibility of each of the potentially applicable control options identified is evaluated below.

- (a) Based on the information reviewed for this BACT determination, the use of absorption systems is infeasible because of the low VOC concentration of the exhaust gas.
- (b) Based on the information reviewed for this BACT determination, the use of condensation systems is infeasible because of the low VOC concentration of the exhaust gas.
- (c) Based on the information reviewed for this BACT determination, the use of flares is infeasible because of the low VOC concentration of the exhaust gas.
- (d) Based on the information reviewed for this BACT determination, the use of UV oxidation is infeasible due to the difficulty in selecting the appropriate UV light frequency for the expected matrix of volatile organics, as well as the pretreatment requirements, catalyst interferences, high energy requirements, and excessive maintenance requirements.
- (e) Based on the information reviewed for this BACT determination, the use of catalytic oxidation is not technically feasible. Due to the wide variety of associated materials that may pass through the vehicle/metal shredder, it is unknown what chemical constituents may be entrained in these materials. The variation in the type and concentration of VOC entrained in the exhaust gas flow could lead to the fouling of the catalyst bed, rendering it ineffective in enhancing the destruction of VOC in the oxidizer.
- (f) Based on the information reviewed for this BACT determination, the use of a bio-filtration system is infeasible because a biofiltration system would require the pollutants of concern to be biodegradable within a relatively short time frame, are limited to very low organic loading rates, function only in a very narrow temperature range, require pH maintenance, require acclimation periods for the system during periods of start-up and shut-down, and would required extensive pilot testing since mixtures of organics degrade at different rates.

The following table summarizes other BACT determinations at similar sources or for similar processes that were identified in the EPA's RACT/BACT/LAER Clearinghouse (RBLC), as well as IDEM, OAQ permits, Ohio EPA permits, and Michigan MDEQ permits issued to date:

Company/ Location	Year Issued	Process Description	Control Device	BACT Emission Limits/Requirements	Reference
OmniSource Indianapolis, LLC Indianapolis, IN	2012	Automobile/Scrap Metal Shredding	N/A	VOC emissions shall not exceed 88.75 tons per 12 consecutive month period. Work Practice Standards	F097-30042-00580 IDEM OAQ
OmniSource Corporation Toledo, OH	2008	Automobile/Scrap Metal Shredding	N/A	Work Practice Standards VOC Emissions shall not exceed 55.33 lbs/hr VOC Emissions shall not exceed 88.92 tons/yr Throughput of materials shall be restricted to 720,000 tons per rolling 12 month period, assuming a VOC emission factor of 0.247 lbs/ton	PTIO P0103630 Ohio EPA
Toledo Shredding Toledo, OH	2006	Automobile/Scrap Shredding	Venturi Scrubber	Work Practice Standards VOC Emissions shall not exceed 29.82 lb/hr VOC Emissions shall not exceed 47 tons/yr Operation of the shredder/hammermill shall not exceed 3,000 hours per rolling 12 month period	PTI 0400529 Ohio EPA
Penn Recycling - Williamsport Car Shredder Plant Williamsport, PA	2001	Automobile Body Shredding/ Incineration	Foam Dust Collection System/Cyclone	No VOC limits Particulate Emissions shall not exceed 0.02 gr/dscf	41-399-061 Pennsylvania DEP RBLC ID: PA-0180

Step Three: Rank Feasible Technologies

The remaining technically feasible options for controlling VOC emissions from the vehicle/metal shredder (S-3) are as follows (listed in descending order of most technically feasible):

Options for VOC Control	Control Efficiency (%)
RTO & Baghouse	95%
RTO & Scrubber	95%
Carbon Bed & Baghouse	95%
Carbon Bed & Scrubber	95%

IDEM is aware that the above control technologies may be able to periodically achieve control efficiencies that exceed 95% under certain operating conditions. However, BACT must be achievable on a consistent basis under normal operational conditions. BACT limitations do not necessarily reflect the highest possible control efficiency achievable by the technology on which the emission limitation is based. The permitting authority has the discretion to base the emission limitation on a control efficiency that is somewhat lower than the optimal level. There are several reasons why the permitting authority might choose to do this. One reason is that the control efficiency achievable through the use of the technology may fluctuate, so that it would not always achieve its optimal control efficiency. In that case, setting the emission limitation to reflect the highest control efficiency would make violations of the permit unavoidable. To account for this possibility, a permitting authority must be allowed a certain degree of

discretion to set the emission limitation at a level that does not necessarily reflect the highest possible control efficiency, but will allow the Permittee to achieve compliance consistently. While we recognize that greater than 95% may be achievable as an average during testing, IDEM allows for sources to include a safety factor, or margin of error, to allow for minor variations in the operation of the emission units and the control device.

Step Four: Evaluate Top Control Alternatives

Further evaluation including economic, energy and environmental impacts are required for controlling VOC emissions from vehicle and metal shredding. Annualized costs were determined in accordance with the EPA guidance (EPA's Office of Air Quality Planning and Standards Control Cost Manual), with other relevant information provided by the respective equipment vendors, inputs from plant personnel, and engineering judgment.

Pursuant to Section IV.D.2.c of EPA's BACT Guidance Document, costs that are within the range of normal costs for a control method may be reviewed in comparison to similar sources. This comparison may allow for the elimination of a technologically- and otherwise economically-feasible control option, provided that the costs of pollutant removal for the subject source are unduly high when compared to the costs borne by sources in recent BACT determinations.

The technologically-feasible options for controlling VOC emissions from the vehicle and metal shredding operations and the costs estimated for OmniSource Corporation to purchase and operate each control method are summarized in Appendix C. The cost effectiveness for similar controls at similar facilities are not available for comparison for the vehicle and metal shredding operation because there were no records readily available where control devices have been known to be implemented for VOC control for vehicle and metal shredding operations.

The source has agreed to limit VOC emissions from the vehicle/metal shredder (S-3) to less than 63.95 tons per twelve (12) consecutive month period. Therefore, the cost analysis is based on the estimated VOC controlled of 60.75 tons per year, which takes into consideration the estimated ninety-five percent (95%) control efficiency.

Control Device Option	Estimated Capital Costs	Estimated Annualized Costs	Estimated VOC Controlled (tons/year)	Cost Effectiveness (\$/ton)
RTO & Baghouse	\$1,726,437	\$892,158	60.75	\$14,685
RTO & Venturi Scrubber	\$1,726,437	\$894,494	60.75	\$14,724
Carbon Bed & Baghouse	\$982,200	\$991,108	60.75	\$16,314
Carbon Bed & Venturi Scrubber	\$982,200	\$993,444	60.75	\$16,352

Note:

In order for regenerative thermal oxidizers (RTOs) or carbon bed adsorption systems to be feasible VOC removal options for this type of operation, the particulate matter would need to be removed from the exhaust gas stream prior the exhaust stream entering the VOC control device. For that reason, the cost analysis contains the costs for installing a baghouse or venturi scrubber or particulate control, in addition to a RTO or carbon bed for VOC control. High particulate loadings can cause significant operational problems which can reduce VOC control efficiency and the life of the add-on control.

The cost analyses submitted were for the costs for purchasing and installing the add-on control devices for a typical facility and do not include the costs associated with the retrofitting of the vehicle/metal shredder, the construction of a building to house the vehicle/metal shredder, or the construction and operation costs of the additional air handlers that would be required to duct the emissions to the add-on control devices.

IDEM recognizes that the estimated capital costs and annualized costs would increase significantly higher than the values presented in the table above if the source was to retrofit the facility in order to install the add-on control devices. IDEM, OAQ has therefore determined that the costs for installing add-on control devices to the vehicle/metal shredder (S-3) are economically infeasible.

The source proposes that requiring add-on controls for the vehicle and metal shredding operation would place them at a significant economic disadvantage in the metal recycling industry. The source proposes to take a ton per twelve (12) consecutive month period VOC emission limit for the vehicle/metal shredder (S-3) and reduce potential emissions through operational and work practice standards.

Step Five: Select BACT

IDEM has determined that the best available control technology (BACT) to control VOC emissions from the vehicle/metal shredder (S-3) shall be as follows:

- (a) VOC emissions from the vehicle/metal shredder (S-3) shall not exceed 63.95 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (b) The Permittee shall drain and remove, to the extent practicable, VOC and VHAP containing fluids from vehicles, appliances, industrial machinery, and other metal scrap received by the Permittee prior to shredding; or the Permittee shall document that inspections have been performed to confirm the non-existence of VOC and VHAP containing fluids. Fluids shall include, but are not limited to, gasoline, motor oil, antifreeze, transmission oil, and hydraulic fluid.

Compliance with the above limits and conditions will satisfy the requirements of 326 IAC 8-1-6 (BACT).

IDEM Contact

Questions regarding this BACT Analysis can be directed to Jason R. Krawczyk at the Indiana Department Environmental Management, Office of Air Quality, 100 North Senate Avenue, MC 61-53, Room 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-5174 or toll free at 1-800-451-6027 extension 4-5174.

**Appendix C: Cost Analyses for Control Devices
Controlling the Vehicle/Metal Shredder (S-3)**

Page 1 of 4 TSD App. C

Company Name: OmniSource Corporation
Address City IN Zip: 1143 Fairview Avenue, Fort Wayne, IN 46803
 3601 Maumee Avenue, Fort Wayne, IN 46803
Permit Number: F003-29387-00057
Plt ID: 003-00057
Reviewer: Jason R. Krawczyk
Date: August 27, 2012

RTO & 40,000 CFM Baghouse		
DIRECT COST (Pollution Control Equipment)	Unit Cost	TOTAL (\$)
Direct Purchased Equipment		
Equipment Total (A)	A =	\$1,235,514
Instrumentation		-
Sales Taxes		-
Freight		-
Total Equipment Costs (B)	B =	\$1,235,514
Direct Installation Cost		
Foundation and Support (Engineering Estimate)		-
Auxiliaries - Ductwork / Fittings (CSM Worldwide)		-
Handling and Erection (Contractor Estimate)		-
Piping (Engineering Estimate)		-
Insulation and Painting		-
Electrical (Engineering Estimate)		-
Site Preparation		-
Other		-
Total Direct Installation Costs		\$147,334
TOTAL Direct Investment (TDI) =		
(Total Equipment Cost + Total Direct Installation Cost)	TDI =	\$1,382,848
Indirect Installation Costs		
Engineering and Supervision (Engineering Estimate)		\$123,551
Lost Production (for retrofit situation)		-
Construction and Field Expenses		\$61,776
Contractor Fees		\$123,551
Start-up		\$24,710
Performance Test		\$10,000
Working Capital		-
Total Indirect Installation Costs (TIC)	TIC =	\$343,589
TOTAL CAPITAL INVESTMENT (TCI) = (TDI + TIC)		
	TCI =	\$1,726,437
ANNUAL OPERATION & MAINTENANCE		
Direct Operating Costs (DA)		
Operator Labor - (0.5 hr/shift/device) @ \$23/hr		\$8,395
Supervision Overhead (15%)		\$1,259
Maintenance Labor @ \$40/hr		\$14,600
Maintenance Materials (100% of Labor)		\$14,600
Replacement Parts (5% Equipment costs)		\$61,776
Electricity		\$72,532
Nat. Gas		\$219,267
Total Direct Operating Costs (DA)	DA =	\$392,429
Indirect Operating Costs (IC)		
Overhead (60% of O&M labor/mat'ls)		\$54,585
Property Tax (1% of total equipment costs)		\$12,355
Insurance (1% of total equipment costs)		\$12,355
Admin. (2% of total equipment costs)		\$24,710
Capital Recovery Cost (Assumes 5.5% interest over 5 years)		\$395,723
Total Indirect Operating Costs (IA)	IA =	\$104,006
Heat Recovery Credits		\$0
Total Operating Costs (DA + IA - Heat Recovery Credits)	TOC =	\$496,435
Total Annualized Cost (Capital Recovery Cost + TOC)		
	TAC =	\$892,158
Tons VOC Removed @ 95.0%* =		60.75
Cost per Ton VOC Removed (TAC / Tons VOC Removed) =		\$14,685

Note:

The source has agreed to limit VOC emissions from the vehicle/metal shredder to less than 63.95 tons per twelve (12) consecutive month period.

**Appendix C: Cost Analyses for Control Devices
Controlling the Vehicle/Metal Shredder (S-3)**

Page 2 of 4 TSD App. C

Company Name: OmniSource Corporation
Address City IN Zip: 1143 Fairview Avenue, Fort Wayne, IN 46803
 3601 Maumee Avenue, Fort Wayne, IN 46803
Permit Number: F003-29387-00057
Plt ID: 003-00057
Reviewer: Jason R. Krawczyk
Date: August 27, 2012

RTO & 40,000 CFM Venturi Scrubber		
DIRECT COST (Pollution Control Equipment)	Unit Cost	TOTAL (\$)
Direct Purchased Equipment		
Equipment Total (A)	A =	\$1,235,514
Instrumentation		-
Sales Taxes		-
Freight		-
Total Equipment Costs (B)	B =	\$1,235,514
Direct Installation Cost		
Foundation and Support (Engineering Estimate)		-
Auxiliaries - Ductwork / Fittings (CSM Worldwide)		-
Handling and Erection (Contractor Estimate)		-
Piping (Engineering Estimate)		-
Insulation and Painting		-
Electrical (Engineering Estimate)		-
Site Preparation		-
Other		-
Total Direct Installation Costs		\$147,334
TOTAL Direct Investment (TDI) =		
(Total Equipment Cost + Total Direct Installation Cost)	TDI =	\$1,382,848
Indirect Installation Costs		
Engineering and Supervision (Engineering Estimate)		\$123,551
Lost Production (for retrofit situation)		-
Construction and Field Expenses		\$61,776
Contractor Fees		\$123,551
Start-up		\$24,710
Performance Test		\$10,000
Working Capital		-
Total Indirect Installation Costs (TIC)	TIC =	\$343,589
TOTAL CAPITAL INVESTMENT (TCI) = (TDI + TIC)		
	TCI =	\$1,726,437
ANNUAL OPERATION & MAINTENANCE		
Direct Operating Costs (DA)		
Operator Labor - (0.5 hr/shift/device) @ \$23/hr		\$8,395
Supervision Overhead (15%)		\$1,259
Maintenance Labor @ \$40/hr (+5% for wet scrubber)		\$15,330
Maintenance Materials (100% of Labor)		\$15,330
Replacement Parts (5% Equipment costs)		\$61,776
Electricity		\$72,532
Nat. Gas		\$219,267
Total Direct Operating Costs (DA)	DA =	\$393,889
Indirect Operating Costs (IC)		
Overhead (60% of O&M labor/mat's)		\$55,461
Property Tax (1% of total equipment costs)		\$12,355
Insurance (1% of total equipment costs)		\$12,355
Admin. (2% of total equipment costs)		\$24,710
Capital Recovery Cost (Assumes 5.5% interest over 5 years)		\$395,723
Total Indirect Operating Costs (IA)	IA =	\$104,882
Heat Recovery Credits		\$0
Total Operating Costs (DA + IA - Heat Recovery Credits)	TOC =	\$498,771
Total Annualized Cost (Capital Recovery Cost + TOC)		
	TAC =	\$894,494
Tons VOC Removed @ 95.0% =		60.75
Cost per Ton VOC Removed (TAC / Tons VOC Removed) =		\$14,724

Note:

The source has agreed to limit VOC emissions from the vehicle/metal shredder to less than 63.95 tons per twelve (12) consecutive month period.

**Appendix C: Cost Analyses for Control Devices
Controlling the Vehicle/Metal Shredder (S-3)**

Company Name: OmniSource Corporation
Address City IN Zip: 1143 Fairview Avenue, Fort Wayne, IN 46803
 3601 Maumee Avenue, Fort Wayne, IN 46803
Permit Number: F003-29387-00057
Plt ID: 003-00057
Reviewer: Jason R. Krawczyk
Date: August 27, 2012

Carbon Bed & 40,000 CFM Baghouse		
DIRECT COST (Pollution Control Equipment)	Unit Cost	TOTAL (\$)
Direct Purchased Equipment		
Equipment Total (A)	A =	\$680,000
Instrumentation		-
Sales Taxes		-
Freight		-
Total Equipment Costs (B)	B =	\$680,000
Direct Installation Cost		
Foundation and Support (Engineering Estimate)		-
Auxiliaries - Ductwork / Fittings (CSM Worldwide)		-
Handling and Erection (Contractor Estimate)		-
Piping (Engineering Estimate)		-
Insulation and Painting		-
Electrical (Engineering Estimate)		-
Site Preparation		-
Other		-
Total Direct Installation Costs		\$108,600
TOTAL Direct Investment (TDI) =		
(Total Equipment Cost + Total Direct Installation Cost)	TDI =	\$788,600
Indirect Installation Costs		
Engineering and Supervision (Engineering Estimate)		\$68,000
Lost Production (for retrofit situation)		-
Construction and Field Expenses		\$34,000
Contractor Fees		\$68,000
Start-up		\$13,600
Performance Test		\$10,000
Working Capital		-
Total Indirect Installation Costs (TIC)	TIC =	\$193,600
TOTAL CAPITAL INVESTMENT (TCI) = (TDI + TIC)		
	TCI =	\$982,200
ANNUAL OPERATION & MAINTENANCE		
Direct Operating Costs (DA)		
Operator Labor - (0.5 hr/shift/device) @ \$23/hr		\$8,395
Supervision Overhead (15%)		\$1,259
Maintenance Labor @ \$40/hr		\$14,600
Maintenance Materials (100% of Labor)		\$14,600
Replacement Parts (5% Equipment costs)		\$34,000
Electricity		\$68,000
Carbon		\$560,000
Total Direct Operating Costs (DA)	DA =	\$700,854
Indirect Operating Costs (IC)		
Overhead (60% of O&M labor/mat'l's)		\$37,920
Property Tax (1% of total equipment costs)		\$6,800
Insurance (1% of total equipment costs)		\$6,800
Admin. (2% of total equipment costs)		\$13,600
Capital Recovery Cost (Assumes 5.5% interest over 5 years)		\$225,134
Total Indirect Operating Costs (IA)	IA =	\$65,120
Heat Recovery Credits		\$0
Total Operating Costs (DA + IA - Heat Recovery Credits)	TOC =	\$765,974
Total Annualized Cost (Capital Recovery Cost + TOC)		
	TAC =	\$991,108
Tons VOC Removed @ 95.0% =		60.75
Cost per Ton VOC Removed (TAC / Tons VOC Removed) =		\$16,314

Note:

The source has agreed to limit VOC emissions from the vehicle/metal shredder to less than 63.95 tons per twelve (12) consecutive month period.

**Appendix C: Cost Analyses for Control Devices
Controlling the Vehicle/Metal Shredder (S-3)**

Company Name: OmniSource Corporation
Address City IN Zip: 1143 Fairview Avenue, Fort Wayne, IN 46803
 3601 Maumee Avenue, Fort Wayne, IN 46803
Permit Number: F003-29387-00057
Plt ID: 003-00057
Reviewer: Jason R. Krawczyk
Date: August 27, 2012

Carbon Bed & 40,000 CFM Venturi Scrubber		
DIRECT COST (Pollution Control Equipment)	Unit Cost	TOTAL (\$)
Direct Purchased Equipment		
Equipment Total (A)	A =	\$680,000
Instrumentation		-
Sales Taxes		-
Freight		-
Total Equipment Costs (B)	B =	\$680,000
Direct Installation Cost		
Foundation and Support (Engineering Estimate)		-
Auxiliaries - Ductwork / Fittings (CSM Worldwide)		-
Handling and Erection (Contractor Estimate)		-
Piping (Engineering Estimate)		-
Insulation and Painting		-
Electrical (Engineering Estimate)		-
Site Preparation		-
Other		-
Total Direct Installation Costs		\$108,600
TOTAL Direct Investment (TDI) =		
(Total Equipment Cost + Total Direct Installation Cost)	TDI =	\$788,600
Indirect Installation Costs		
Engineering and Supervision (Engineering Estimate)		\$68,000
Lost Production (for retrofit situation)		-
Construction and Field Expenses		\$34,000
Contractor Fees		\$68,000
Start-up		\$13,600
Performance Test		\$10,000
Working Capital		-
Total Indirect Installation Costs (TIC)	TIC =	\$193,600
TOTAL CAPITAL INVESTMENT (TCI) = (TDI + TIC)		
	TCI =	\$982,200
ANNUAL OPERATION & MAINTENANCE		
Direct Operating Costs (DA)		
Operator Labor - (0.5 hr/shift/device) @ \$23/hr		\$8,395
Supervision Overhead (15%)		\$1,259
Maintenance Labor @ \$40/hr (+5% for wet scrubber)		\$15,330
Maintenance Materials (100% of Labor)		\$15,330
Replacement Parts (5% Equipment costs)		\$34,000
Electricity		\$68,000
Carbon		\$560,000
Total Direct Operating Costs (DA)	DA =	\$702,314
Indirect Operating Costs (IC)		
Overhead (60% of O&M labor/mat'l's)		\$38,796
Property Tax (1% of total equipment costs)		\$6,800
Insurance (1% of total equipment costs)		\$6,800
Admin. (2% of total equipment costs)		\$13,600
Capital Recovery Cost (Assumes 5.5% interest over 5 years)		\$225,134
Total Indirect Operating Costs (IA)	IA =	\$65,996
Heat Recovery Credits		\$0
Total Operating Costs (DA + IA - Heat Recovery Credits)	TOC =	\$768,310
Total Annualized Cost (Capital Recovery Cost + TOC)		
	TAC =	\$993,444
Tons VOC Removed @ 95.0% =		60.75
Cost per Ton VOC Removed (TAC / Tons VOC Removed) =		\$16,352

Note:

The source has agreed to limit VOC emissions from the vehicle/metal shredder to less than 63.95 tons per twelve (12) consecutive month period.



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: Brian Winters
OmniSource Corporation
7575 Jefferson Blvd
Ft. Wayne, IN 46804

DATE: November 30, 2012

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

SUBJECT: Final Decision
FESOP
003-29387-00057

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:
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

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Toll Free (800) 451-6027
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November 30, 2012

TO: Allen County Public Library

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

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

Applicant Name: OmniSource Corporation
Permit Number: 003-29387-00057

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	MIDENNEY 11/30/2012 OmniSource Corporation 003-29387-00057 (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		Brian Winters OmniSource Corporation 7575 Jefferson Blvd Ft Wayne IN 46804 (Source CAATS) via confirm delivery										
2		Daniel & Sandy Trimmer 15021 Yellow River Road Columbia City IN 46725 (Affected Party)										
3		Duane & Deborah Clark Clark Farms 6973 E. 500 S. Columbia City IN 46725 (Affected Party)										
4		Allen County Public Library 900 Library Plaza, P.O. Box 2270 Fort Wayne IN 46802 (Library)										
5		Fort Wayne City Council and Mayors Office 200 E Berry Street Ste 120 Fort Wayne IN 46802 (Local Official)										
6		Mr. John E. Hampton Plumbers & Steamfitters, Local 166 2930 W Ludwig Rd Fort Wayne IN 46818-1328 (Affected Party)										
7		Allen Co. Board of Commissioners 200 E Berry Street Ste 410 Fort Wayne IN 46802 (Local Official)										
8		Fort Wayne-Allen County Health Department 200 E Berry St Suite 360 Fort Wayne IN 46802 (Health Department)										
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