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

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

TO: Interested Parties / Applicant

DATE: September 17, 2013

RE: Brandenburg Industrial Service Company / 089-32793-00176

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, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-6-1(b) or IC 13-15-6-1(a) require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204.

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

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

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

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

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

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

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

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

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

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

Enclosures
FNTVOP.dot 6/13/2013

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

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

Part 70 Operating Permit Renewal
OFFICE OF AIR QUALITY

Brandenburg Industrial Service Company
1 N. Broadway TS 670
Gary, Indiana 46401

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

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

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

Operation Permit No.: T089-32793-00176	
Issued by: Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: September 17, 2013 Expiration Date: September 17, 2018

TABLE OF CONTENTS

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

D.3.2 Record Keeping Requirements [326 IAC 8-9-6(a) and (b)]

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

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 2-7-4(c)][326 IAC 2-7-5(14)][326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary stationary scrap steel processing operation.

Source Address:	1 N. Broadway TS 670, Gary, Indiana 46401
General Source Phone Number:	(219) 881-0200
SIC Code:	1795 (Wrecking and Demolition Work) and 5093 (Scrap and Waste Materials)
County Location:	Lake
Source Location Status:	Nonattainment for 8-hour ozone standard Attainment for all other criteria pollutants
Source Status:	Part 70 Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(14)]

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

(a) Material handling and storage piles of approximately 40 acres and maximum of 100,000 tons per year of material handled.

(b) One (1) Scrap Steel Preparation (burning field) process, identified as Unit 001, with a capacity to cut 30 tons per hour of scrap steel to acceptable sizes for balling, using LPG (propane) torches for cutting, located outside of the building, and constructed in 1995.

(c) One (1) scrap cast iron balling operation, identified as Unit 001A, with a maximum capacity of 50 tons per hour (a sporadic process done eight (8) to ten (10) hours per week), with no control and constructed in 1995.

(d) One (1) paint booth using airless or air atomization spray guns to apply primer and finish coats to metal trailers and lunch boxes, identified as Unit 002, with a maximum paint usage of 3.63 gallons of primer per hour and 1.4 gallons of finish coat per hour, with a production rate 0.33 units/hr for primer coating and 0.2 units/hr for finish coating, using dry filters as control, constructed in 2002, and exhausting to stacks PBES-01 and PBES-02.

(e) One (1) enclosed blast booth, identified as Unit 003, equipped with two (2) blast guns, with each gun having a maximum capacity of 240 square feet of metal per hour and 105.4 pounds of steel grit per minute per nozzle, using dry filters as control, constructed in 2002, and exhausting inside the building.

(f) Paved road and unpaved road.

A.3 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(14)]

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

(a) One (1) petroleum fuel (non-gasoline) dispensing facility, with a storage capacity less than or equal to ten thousand five hundred (10,500) gallons, and dispensing three thousand five hundred (3,500) gallons per day or less. [326 IAC 8-9-1]

(b) Natural gas-fired space heaters with total heat input 4 MMBtu/hour. [326 IAC 6.8-1-2(a)]

(c) A gasoline fuel transfer and dispensing operation handling 300 gallons of diesel per day, such as filling of tanks, locomotives, automobiles having a storage capacity equal to 500 gallons.

(d) Application of oils, greases, lubricants, or nonvolatile materials applied as temporary protective coatings.

(e) Cutting 200,000 linear feet or less of one (1) inch plate for structural steel and bridge fabrication activities.[326 IAC 6.8-1-2(a)]

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

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

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

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

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

B.2 Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)][IC 13-15-3-6(a)]

(a) This permit, T089-32793-00176, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, 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 2-7-7] [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 2-7-5(5)]

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

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

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

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

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

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

(a) A certification required by this permit meets the requirements of 326 IAC 2-7-6(1) if:

(1) it contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(35), 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) A "responsible official" is defined at 326 IAC 2-7-1(35).

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

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

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

and

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

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

(c) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

(5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(12)][326 IAC 1-6-3]

(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 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

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

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

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

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

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

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865
Northwest Regional Office phone: (219) 464-0233; fax: (219) 464-0553**.**

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

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

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

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

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(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 2-7-4(c)(8) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

(g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

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

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

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

(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

(c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.

(d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:

(1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;

(2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;

(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and

(4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.

(e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).

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

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

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]

(a) All terms and conditions of permits established prior to T089-32793-00176 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised under 326 IAC 2-7-10.5, or

(3) deleted under 326 IAC 2-7-10.5.

(b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit.

B.14 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]

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

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

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 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 2-7-5(6)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

(c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.16 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if,

subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-7-4(a)(2)(D), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.17 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]

(a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
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 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

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

(a) No Part 70 permit revision or notice shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

(b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

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

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b) or (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 preconstruction approval required by 326 IAC 2-7-10.5 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 2-7-20(b)(1) and (c)(1). 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 2-7-20(b)(1) and (c)(1).

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

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

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

(e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

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

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

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

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

(a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

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

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
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 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

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

(a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

(b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.24 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [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 2-7-5(1)]

C.1 Opacity [326 IAC 5-1]

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

(a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

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

C.2 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.3 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.4 Fugitive Dust Emissions [326 IAC 6-4]

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

C.5 Fugitive Particulate Matter Emissions [326 IAC 6.8-10-3]

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

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

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

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

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

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

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

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

(h) Material processing facilities shall include the following:

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

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

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

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

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

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

(j) Material transfer limits shall be as follows:

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

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

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

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

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

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

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

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

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

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

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Demolition and Renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).

(g) Indiana Licensed Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

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

C.7 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 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(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 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

Compliance Requirements [326 IAC 2-1.1-11]

C.8 Compliance Requirements [326 IAC 2-1.1-11]

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

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

C.9 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)][40 CFR 64][326 IAC 3-8]

(a) 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 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

(b) For monitoring required by CAM, at all times, the Permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

(c) For monitoring required by CAM, except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the Permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

C.10 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale. The analog instrument shall be capable of measuring values outside of the normal range.

(b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

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

C.11 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

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

(a) The Permittee shall maintain the most recently submitted written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

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

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

C.13 Response to Excursions or Exceedances [40 CFR 64][326 IAC 3-8][326 IAC 2-7-5] [326 IAC 2-7-6]

(I) Upon detecting an excursion where a response step is required by the D Section, or an exceedance of a limitation, not subject to CAM, 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.

(II)

(a) CAM *Response to excursions or exceedances.*

(1) Upon detecting an excursion or exceedance, subject to CAM, the Permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective

actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(2) 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, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

(b) If the Permittee identifies a failure to achieve compliance with an emission limitation, subject to CAM, or standard, subject to CAM, for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the Permittee shall promptly notify the IDEM, OAQ and, if necessary, submit a proposed significant permit modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

(c) Based on the results of a determination made under paragraph (II)(a)(2) of this condition, the EPA or IDEM, OAQ may require the Permittee to develop and implement a QIP. The Permittee shall develop and implement a QIP if notified to in writing by the EPA or IDEM, OAQ.

(d) Elements of a QIP:
The Permittee shall maintain a written QIP, if required, and have it available for inspection. The plan shall conform to 40 CFR 64.8 b (2).

(e) If a QIP is required, the Permittee shall develop and implement a QIP as expeditiously as practicable and shall notify the IDEM, OAQ if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.

(f) Following implementation of a QIP, upon any subsequent determination pursuant to paragraph (II)(a)(2) of this condition the EPA or the IDEM, OAQ may require that the Permittee make reasonable changes to the QIP if the QIP is found to have:

(1) Failed to address the cause of the control device performance problems; or

(2) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

(g) Implementation of a QIP shall not excuse the Permittee from compliance with any existing emission limitation or standard, or any existing monitoring, testing,

reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.

(h) *CAM recordkeeping requirements.*

(1) The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to paragraph (II)(a)(2) of this condition and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this condition (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

(2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements

C.14 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall 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 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

C.15 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

In accordance with the compliance schedule specified in 326 IAC 2-6-3(b)(1), starting in 2007 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

(1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);

(2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1 (32) (“Regulated pollutant, which is used only for purposes of Section 19 of this rule”) from the source, for purpose of fee assessment.

The statement must be submitted to:

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

The emission statement does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

C.16 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

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

(AA) All calibration and maintenance records.
(BB) All original strip chart recordings for continuous monitoring instrumentation.
(CC) Copies of all reports required by the Part 70 permit.

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

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

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

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

C.17 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [40 CFR 64][326 IAC 3-8]

(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 2-7-6(1) by a

"responsible official" as defined by 326 IAC 2-7-1(35). 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) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

Stratospheric Ozone Protection

C.18 Compliance with 40 CFR 82 and 326 IAC 22-1

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

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Scrap Iron and Steel Preparation Operations

(a) Material handling and storage piles of approximately 40 acres and maximum of 100,000 tons per year of material handled.

(b) One (1) Scrap Steel Preparation (burning field) process, identified as Unit 001, with a capacity to cut 30 tons per hour of scrap steel to acceptable sizes for balling, using LPG (propane) torches for cutting, located outside of the building, and constructed in 1995.

(c) One (1) scrap cast iron balling operation, identified as Unit 001A, with a maximum capacity of 50 tons per hour (a sporadic process done eight (8) to ten (10) hours per week), with no control and constructed in 1995.

(f) Paved road and unpaved road.

(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 2-7-5(1)]

D.1.1 Fugitive Dust Emission Limitations [326 IAC 6.8-10-3]

Pursuant to 326 IAC 6.8-10-3 (Lake County Fugitive Particulate Matter Emissions Limitations), fugitive emissions from the Paved, unpaved road and storage piles activities shall comply with the emissions limitations in Section C - Fugitive Dust Emissions according to the attached Fugitive Dust Control Plan.

SECTION D.2 FACILITY OPERATION CONDITIONS

Emissions Unit Description: Paint Booth and Blast Booth

(c) One (1) paint booth using airless or air atomization spray guns to apply primer and finish coats to metal trailers and lunch boxes, identified as Unit 002, with a maximum paint usage of 3.63 gallons of primer per hour and 1.4 gallons of finish coat per hour, using dry filters as control, constructed in 2002, and exhausting to stacks PBES-01 and PBES-02.

(d) One (1) enclosed blast booth, identified as Unit 003, equipped with two (2) blast guns, with each having a maximum capacity of 240 square feet of metal per hour and 105.4 pounds of steel grit per minute per nozzle, using dry filters as control, constructed in 2002, and exhausting inside the building.

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

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

D.2.1 PSD Minor Limit [326 IAC 2-2]

In order to render 326 IAC 2-2 not applicable, the Permittee shall comply with the following:

(a) The PM emissions after control from the Blast Booth (Unit 003) shall not exceed 12.64 pounds per hour.

(b) The PM10 emissions after control from the Blast Booth (Unit 003) shall not exceed 8.85 pounds per hour.

(c) The PM2.5 emissions after control from the Blast Booth (Unit 003) shall not exceed 8.85 pounds per hour.

Compliance with this limits in conjunction with the uncontrolled PM, PM10 and PM2.5 emissions of Paint Booth (Unit 002) will limit source-wide non-fugitive PM, PM10 and PM2.5 emissions, each, to less than 250 tons per twelve consecutive month period and therefore, render the source minor under 326 IAC 2-2 (PSD).

D.2.2 Particulate Emissions [326 IAC 6.8-1-2]

(a) Pursuant to 326 IAC 6.8-1-2(h), Particulate from the Paint Booth (Unit 002) shall be controlled by dry particulate filters and the Permittee shall operate the dry particulate filters in accordance with manufacturer's specifications.

(b) Pursuant to 326 IAC 6.8-1-2(a), Particulate from the Blast Booth (Unit 003) shall be limited to three-hundredths (0.03) grain per dry standard cubic foot (dscf).

D.2.3 Volatile Organic Compound (VOC) [326 8-2-9]

The Permittee shall comply for the Paint Booth (Unit 002) as specified below.

(a) Pursuant to 326 IAC 8-2-9(d)(1)(A), the VOC content of the coating delivered to the applicator shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for extreme performance coatings.

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

(A) Electrostatic equipment.

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

(c) Pursuant to 326 IAC 8-2-9(f), the work practices shall include, but not be limited to, the following:

(1) Store all VOC containing coatings, thinners, coating related waste, and cleaning materials in closed containers.
(2) Ensure that mixing and storage containers used for VOC containing coatings, thinners, coating related waste, and cleaning materials are kept closed at all times except when depositing or removing these materials.
(3) Minimize spills of VOC containing coatings, thinners, coating related waste, and cleaning materials.
(4) Convey VOC containing coatings, thinners, coating related waste, and cleaning materials from one (1) location to another in closed containers or pipes.
(5) Minimize VOC emissions from the cleaning of application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers.

D.2.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan is required for this facility and its control devices. Section B - Preventative Maintenance Plan contains the Permittee's obligation with regard to the preventative maintenance plan required by this condition.

Compliance Determination Requirements

D.2.5 Particulate Control [326 IAC 2-7-6(6)]

In order to demonstrate compliance with Condition D.2.1 and D.2.2(b), the dry filters used to control particulate emissions shall be in operation and control emissions from the blast booth at all times the blast booth is in operation.

D.2.6 Volatile Organic Compounds (VOC) [326 IAC 8-1-4] [326 IAC 8-1-2(a)]

Compliance with the VOC content limitation specified in Condition D.2.3(a) shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the “as supplied” and “as applied” VOC data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.2.7 Volatile Organic Compounds (VOC) [326 IAC 8-1-2]

Compliance with the VOC content limit in condition D.2.3(a) shall be determined pursuant to 326 IAC 8-1-2(a)(7), using a volume weighted average of coatings on a daily basis. This volume weighted average shall be determined by the following equation:

$$A = [\sum (c \times U) / \sum U]$$

Where:

A is the volume weighted average in pounds VOC per gallon less water as applied;

C is the VOC content of the coating in pounds VOC per gallon less water as applied; and

U is the usage rate of the coating in gallons per day.

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

D.2.8 Monitoring [40 CFR 64]

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters equipped on Paint Booth (Unit 002) and the Blast Booth (Unit 003). To monitor the performance of the dry filters equipped on Paint Booth (Unit 002), weekly observations shall be made of the overspray from the paint booth while the booth is in operation. If a condition exists which should result in a response step, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

This condition satisfies CAM for the filters equipped on Blast Booth (Unit 003).

(b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Response to Excursions or Exceedances for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

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

D.2.9 Record Keeping Requirements

(a) To document the compliance status with Condition D.2.3(a), the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken daily and shall be complete and sufficient to establish compliance with the VOC content and usage limits and the VOC emission limits established in Condition D.2.3(a).

(1) The amount of VOC in each coating material and solvent used;

(2) The amount of coating material and solvent less water used on a daily basis.

(A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

(B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;

(3) The volume weighted VOC content of the coating used for each day;

(4) The cleanup solvent usage for each day; and

(5) The total VOC usage for each day.

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

SECTION D.3 FACILITY OPERATION CONDITIONS

Emissions Unit Description: Specifically Regulated Insignificant Activities:

(a) One (1) petroleum fuel (non-gasoline) dispensing facility, with a storage capacity less than or equal to ten thousand five hundred (10,500) gallons, and dispensing three thousand five hundred (3,500) gallons per day or less. [326 IAC 8-9-1]

(b) Natural gas-fired space heaters with total heat input 4 MMBtu/hour. [326 IAC 6.8-1-2(a)]

(e) Cutting 200,000 linear feet or less of one (1) inch plate for structural steel and bridge fabrication activities.[326 IAC 6.8-1-2(a)]

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

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

D.3.1 Volatile Organic Liquid Storage Vessels [326 IAC 8-9-1]

Pursuant to 326 IAC 8-9-1 (a) and (b) (Volatile Organic Liquid Storage Vessels), the one (1) petroleum fuel (non-gasoline) dispensing facility is subject to the reporting and record keeping requirements contained in 326 IAC 8-9-6(b)(1)-(3) and is exempt from all other provisions of 326 IAC 8-9.

D.3.2 Particulate Emissions [326 IAC 6.8-1-2]

Pursuant to 326 IAC 6.8-1-2(a), the particulate emissions from the space heaters and structural steel and bridge fabrication activities shall not exceed 0.03 grains/dscf.

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

D.3.3 Record Keeping Requirements [326 IAC 8-9-6(a) and (b)]

(a) To document the compliance status with Condition D.3.1, the Permittee shall maintain records for the life of the vessel in accordance with (1) through (3) below.

(1) The vessel identification number;

(2) The vessel dimensions, and

(3) The vessel capacity.

(b) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required to be maintained by this condition.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
PART 70 OPERATING PERMIT
CERTIFICATION

Source Name: Brandenburg Industrial Service Company
Source Address: 1 N. Broadway TS 670, Gary, Indiana 46401
Part 70 Permit No.: T089-32793-00176

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

Please check what document is being certified:

□ Annual Compliance Certification Letter

□ Test Result (specify)

□ Report (specify)

□ Notification (specify)

□ Affidavit (specify)

□ Other (specify)

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
Signature:
Printed Name:
Title/Position:
Phone:
Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: (317) 233-0178
Fax: (317) 233-6865

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: Brandenburg Industrial Service Company
Source Address: 1 N. Broadway TS 670, Gary, Indiana 46401
Part 70 Permit No.: T089-32793-00176

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

□ This is an emergency as defined in 326 IAC 2-7-1(12)

- The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (**2**) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

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

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

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N
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
PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Brandenburg Industrial Service Company
Source Address: 1 N. Broadway TS 670, Gary, Indiana 46401
Part 70 Permit No.: T089-32793-00176

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".

□ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

□ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

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

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

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

Facility Description

Brandenburg Industrial Service Company operates a stationary scrap steel processing facility located inside of the US Steel Gary Works property located in Gary, Indiana.

Figure 1 is attached to identify our facility location within US Steel.
Scrap steel generated from demolition projects and other salvage work is brought to the site for processing into material ready to be remelted at one of several steel mills. Once the material is prepared for use, it is loaded into trucks or railcars for delivery to an end user.

Identification of Facilities

Roadways and Roadway Fugitive Dust

Roadways located at and around the shop and office area are paved with either concrete or asphalt. These roads are traveled by trucks entering and leaving the facility and by heavy equipment traffic working at the site. The roads range from 20 to 30 feet in width and vary in length. Unpaved roads consisting of compacted asphalt grinding or crushed slag or stone are located throughout the western portion of the facility. See Figures 2 and 3 for the location of the roads and traffic pattern specifications for facility roadway emissions.

Storage Piles

The scrap materials brought to the site are generated on demolition projects or from other locations within the local steel mills. The scrap material piles include steel beams, piping, trusses, etc. with small amounts of non-ferrous metals (copper, stainless steel, aluminum) to be segregated. The only silt in the material would be minor amounts generated while loading the material at the off-site locations. As material is brought to the site, either by truck or railcar, it is placed into an ‘unprepared’ storage pile. These piles will grow, shrink, or slightly change positions as the existing pile is processed and new materials come to the site. Figure 2 shows the general location of these piles. After the material is prepared for shipment, it is placed in one of several ‘prepared’ storage piles. As with the unprepared piles, the size and exact location will change depending on the volume generated and shipping frequency.

Scrap / Torch Work Areas

Scrap material is taken from the unprepared piles and either cut with a hydraulic shear mounted on an excavator or spread out to be torch cut by laborers. Once the scrap is cut to size and any non-ferrous materials segregated, the prepared material is placed into a separate pile.

Control Measures

The main activity to control the fugitive dust at the site is application of water; or occasionally a chemical dust suppressant on the unpaved roads. During times of varying weather, this process may be suspended. During rainfall events which keep the facility wet, during freezing weather which would cause ice; water applications will be suspended until it is necessary for reapplication. Additional control measures include reducing travel speed while on site and the maintenance of tree lines to act as a wind barrier and prevent windblown dust.

Roadways and Yard Areas

Water will be applied to roadway and yard areas to minimize dust during operating hours. This will be accomplished using a variety of methods including spraying from a fire hose, water truck, bucket of the front-end loaders, or any other water conveying method. On occasion, a chemical dust suppressant will be sprayed onto the unpaved sections of roads. Road sweeping using a bobcat with sweeper attachment or a regular street sweeping vehicle is performed on a periodic basis to remove any accumulations of dust. This can be performed on the unpaved roads as well due to the hard asphalt grinding base material.

Storage Piles

To minimize the potential dust generated from the storage pile, dropping distances from the loader or magnet are kept to a minimum. When necessary, water will be sprayed onto the storage piles to control any dust disturbed by wind or operation activities. The materials are processed and shipped as quickly as feasible to maintain minimal quantities in the storage piles.

Scrap Field Operations

Using water to keep the torch work area wet is the main control to minimize emissions from this process. Water spray from fire hoses will be utilized to keep the area wet. Excess dirt or debris is removed from the scrap prior to torch cutting and the slag from the cutting is removed from the field to prevent any re-burning of this material. When possible, a shear mounted on a hydraulic excavator is utilized to eliminate the use of the torches and to minimize the movement and handling of the scrap.

Loading and Unloading

Unloading of unprepared material is performed primarily by the emptying of dump trucks. The trucks are backed up adjacent to the unprepared piles to minimize the handling and transportation to these piles. Any unloading of railcars is performed by an excavator with a magnet or grapple and placed into piles along the railroad tracks. Drop distances from the magnet or grapple are kept to a minimum for both dust control and safety reasons.

The prepared material is loaded into railcars or dump trucks for transportation to various steel mills. This is performed using both front-end loaders and excavators with magnets. The magnets and buckets are placed as far into the trailers and railcars as can be performed without damaging the equipment. This minimizes the drop distance and any dust created.

Documentation and Record Retention

A documentation log of the measures performed to control the fugitive dust will be maintained to comply with regulations. The most current copy of the log, ENV-38 Scrap Yard Inspection Form, is available on site.

The site supervisor and Environmental Manager will review and update this plan as necessary. All documents will be retained as required on QUA-05 Records Retention Form.

Figure 1 – Location of Brandenburg Facility - Gary, IN

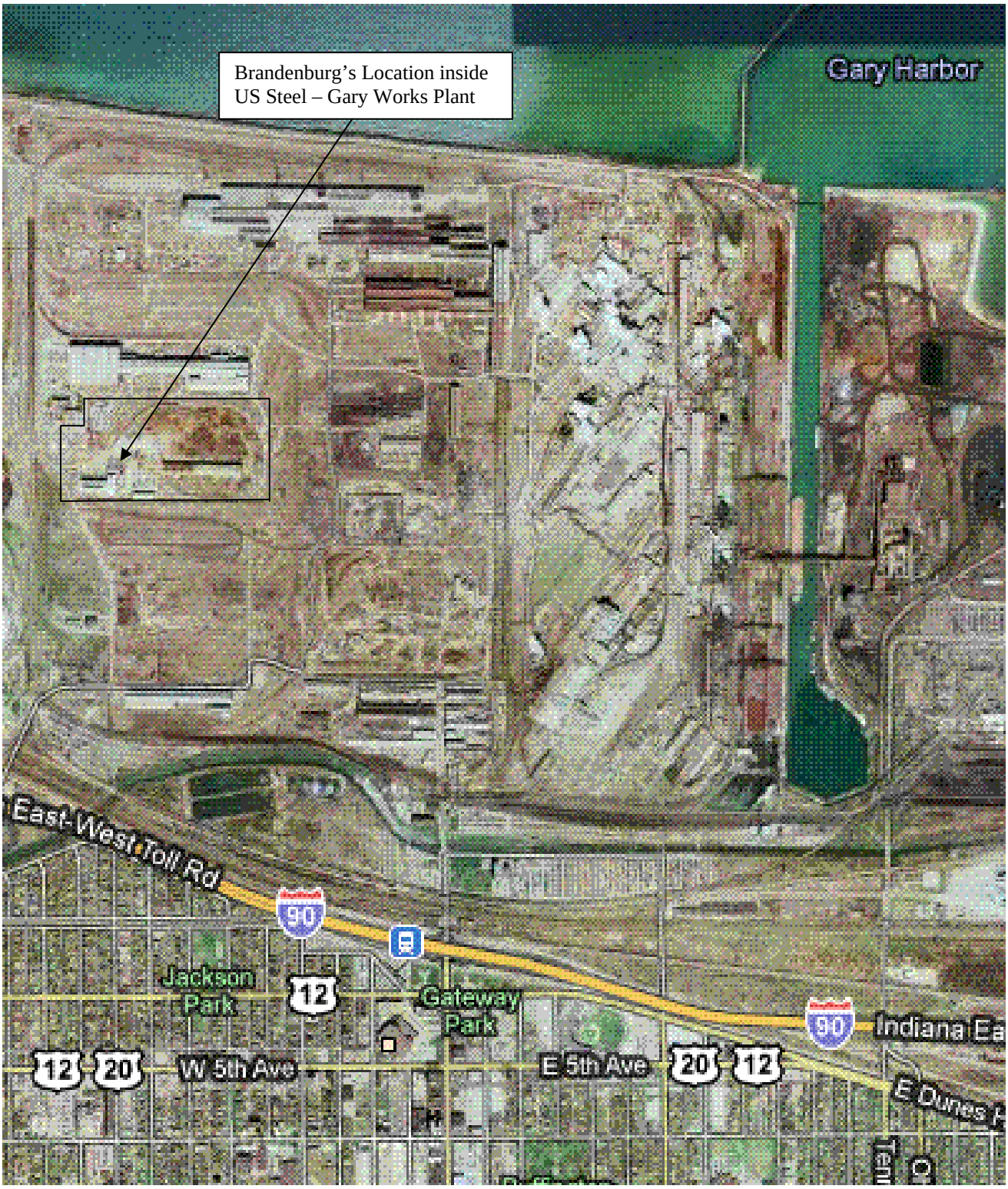

Figure 2 – Site Map, Directory

CERAMICS LABORATORY

SUB 28

CAST/STEEL VALVES

SNOW DUMPING

SCRAP LOADING & UNLOADING

NO.10 SANITARY LIFT STATION

FLOW DIRECTION TO OUTFALL–032 GW–13

PREMIUM FERROUS STAGING AREA

SCRAP PROCESSING

NON–FERROUS STAGING AREA

SCRAP PREPARATION BUILDING

222.50

BRANDENBURG OFFICE

MECHANIC SHOP

BRANDENBURG MAINTENANCE SHOP

BRANDENBURG FABRICATION SHOP

LOADING ZONE

DIESEL FUEL LOW & HIGH SULFUR 500 GAL EACH

1776 GALLONS WASTE OIL

OIL WASTE BOX

179.00

BALLING PIT

254.78

FLOW DIRECTION TO OUTFALL–032 GW–13

97.50

76.00

64.37

FLAMMABLE STORAGE

STORAGE BUILDING

PAINT WASTE

21.44

Paved Area

Gravel Area

Brandenburg
Industrial Service Company

REV.	DATE	DESCRIPTION	REV.	DATE	DESCRIPTION

SCALE: NOT TO SCALE

PLOT DATE: 8-10-10

DRAWN BY: burmara

TITLE: Brandenburg Industrial Service Co.

Complete Site Map

DRAWING NUMBER: 1 of 1

Figure 3 – Traffic Information

Unpaved Roads **Controlled at 90%**

Vehicle	Maximum Throughput (ton/yr)	Tare Weight (Ton)	Gross Weight (Tons)	Product Weight (Tons)	Round Trips (Yr)	Miles (RT)	VMT (Yr)
Roll off Truck	108,000	21	40	19	5400	0.4	2160
WA500 Komatsu Ldr	126,000	42	49	7	18000	0.33	5940
Bobcat skidsteer	1000	4	5	1	1000	0.33	330
954 with Shear	27,000	68	73	5	590	0.33	195
924 with Magnet	85,000	33	36	3	590	0.33	195
Pick Up Trucks		3	3	0	1500	0.4	600

Paved Roads **Controlled at 90%**

Vehicle	Maximum Throughput (ton/yr)	Tare Weight (Ton)	Gross Weight (Tons)	Product Weight (Tons)	Round Trips (Yr)	Miles (RT)	VMT (Yr)
Roll off Truck	108,000	21	40	19	5400	0.2	1080
Tractor / Trailer		67.36	100.81	33.45	160	0.2	31.2
Pick Up Trucks		3	3	0	10000	0.2	2000

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the Technical Support Document (ATSD) for
Part 70 Operating Permit Renewal

Source Description and Location

Source Name:	Brandenburg Industrial Service Company
Source Location:	1 N. Broadway TS 670, Gary, IN 46401
County:	Lake
SIC Code:	1795 (Wrecking and Demolition Work) and 5093 (Scrap and Waste Materials)
Permit Renewal No.:	T089-32793-00176
Permit Reviewer:	Mehul Sura

Public Notice Information

On July 22, 2013, the Office of Air Quality (OAQ) had a notice published in *The Post Tribune* in Merrillville, Indiana and *The Times in Munster*, Indiana stating that IDEM had received an application from Brandenburg Industrial Service Company located at 1 N. Broadway TS 670, Gary, Indiana for a renewal of its Part 70 Operating Permit issued on November 6, 2008. The notice also stated that OAQ proposed to issue this Part 70 Operating Permit Renewal and provided information on how the public could review the proposed Part 70 Operating Permit Renewal 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 Part 70 Operating Permit Renewal should be issued as proposed.

On July 26, 2013, Mr. Pete Julovich (a Manager from City of Gary Department of Green Urbanism & Environmental Affairs) submitted comment on the proposed Part 70 Operating Permit Renewal which is listed below. The comment is followed by IDEM's response.

Comment
Please include industrial space heaters in the Part 70 Operating Permit Renewal.

Response
The space heaters described as below have been included in the Part 70 Operating Permit Renewal.

(a) Natural gas-fired space heaters with total heat input 4 MMBtu/hour.

Upon further review IDEM, OAQ has included the following insignificant activities in the Part 70 Operating Permit Renewal.

(b) A gasoline fuel transfer and dispensing operation handling 300 gallons of diesel per day, such as filling of tanks, locomotives, automobiles having a storage capacity equal to 500 gallons.

(c) Application of oils, greases, lubricants, or nonvolatile materials applied as temporary protective coatings.

(d) Cutting 200,000 linear feet or less of one (1) inch plate for structural steel and bridge fabrication activities.

All of the above insignificant activities were identified by the source in the original TV application. However, these insignificant activities were not listed in the permit. The Permit has been revised to include these insignificant activities in this Part 70 Operating Permit Renewal. For details of these permit revisions, please refer 'Permit Changes' section of this ATSD.

Emission Calculations

See Appendix A of this ATSD for detailed emission calculations.

State Rule Applicability

326 IAC 6.8-1-2(a) (Particulate emission limitations)
The space heaters and structural steel and bridge fabrication activities are subject to the provisions of 326 IAC 6.8-1-2(a) because particulate matter is emitted from these facilities and these type of operations are not listed in 326 IAC 6.8-1-2(b) through (g).

Pursuant to 326 IAC 6.8-1-2(a), the particulate emissions from the space heaters and structural steel and bridge fabrication activities shall not exceed 0.03 grains/dscf.

326 IAC 8-4-6 (Gasoline dispensing facilities)
The requirements of 326 IAC 8-4-6 do not apply to the gasoline fuel transfer and dispensing operation because diesel is dispensed at this facility and diesel is not considered as motor fuel under this rule.

326 IAC 8-1-6 (New facilities; general reduction requirements)
The requirements of 326 IAC 8-1-6 do not apply to the gasoline fuel transfer and dispensing operation because the potential VOC emissions from this facility is less than 25 tons per year. There are no limitations and standards specified in 326 IAC 8 for gasoline fuel transfer and dispensing operation.

Federal Rule Applicability

National Emission Standards for Hazardous Air Pollutants (NESHAP)

(a) **Subpart CCCCCC—National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities**
The gasoline fuel transfer and dispensing operation is not subject to the requirements of this NESHAP because diesel is dispensed at this facility, and diesel is not considered as Gasoline under this NESHAP as diesel has Reid vapor pressure less than 27.6 kilopascals.

(b) **Subpart XXXXXX—National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories**
This source is not subject to this NESHAP because this source is not engaged in one of the operation listed in 40 CFR 63.11514(a)(1) through (9).

Permit Level Determination – PSD

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 permit modification, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

	Potential to Emit (tons/year)									
	PM	PM10	PM2.5	SO2	VOC	CO	NOX	CO2e	Total HAPs	Single HAP
Paint Booth (Unit 002)	8.88	8.88	8.88	--	75.25	--	--	--	9.567	6.434
Blast Booth (Unit 003)	55.40	38.78	38.78	--	--	--	--	--	--	--
Fugitive Emissions										
Scrap Steel Preparation (burning field) combustion	0.002	0.008	0.008	0.001	0.012	0.090	0.156	152.98	--	--
Scrap Steel Preparation (burning field) process emissions	0.857	0.857	0.857	--	--	--	--	--	0.004	--
Bailing operations	6	2.620	0.824	--	--	--	--	--	--	--
Unpaved Road	8.650	2.205	0.220	--	--	--	--	--	--	--
Paved Roads	0.39	0.08	0.01	--	--	--	--	--	--	--
material drop operations	063	0.3	0.09	--	--	--	--	--	--	--
Material Storage Piles	6.76	2.37	2.37	--	--	--	--	--	--	--
Space heaters - Natural Gas Combustion Only	**0.04**	**0.14**	**0.14**	**0.01**	**0.104**	**1.587**	**1.889**	**2281.092**	**0.036**	**0.034**
Total	**84.37** ~~**84.34**~~	**54.92** ~~**54.78**~~	**51.77** ~~**51.63**~~	**0.01** ~~**0.001**~~	**75.37** ~~**75.27**~~	**1.68** ~~**0.09**~~	**2.04** ~~**0.16**~~	**2434.07** ~~**152.98**~~	**9.61** ~~**9.57**~~	**6.47** ~~**6.43**~~
PSD Major	**250**	**250**	**250**	**250**	**-**	**250**	**250**	**100,000**	**-**	**-**
Emission Offset/ Nonattainment NSR	**-**	**-**	**-**	**-**	**100**	**-**	**-**	**-**	**-**	**-**

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

	Potential to Emit (tons/year)									
	PM	PM10	PM2.5	SO2	VOC	CO	NOX	CO2e	Total HAPs	Single HAP
Paint Booth (Unit 002)	8.88	8.88	8.88	--	75.25	--	--	--	9.567	6.434
Blast Booth (Unit 003)	55.40	38.78	38.78	--	--	--	--	--	--	--
Fugitive Emissions										
Scrap Steel Preparation (burning field) combustion	0.002	0.008	0.008	0.001	0.012	0.090	0.156	152.98	--	--
Scrap Steel Preparation (burning field) process emissions	0.857	0.857	0.857	--	--	--	--	--	0.004	--
Bailing operations	6	2.620	0.824	--	--	--	--	--	--	--
Unpaved Road	8.650	2.205	0.220	--	--	--	--	--	--	--
Paved Roads	0.39	0.08	0.01	--	--	--	--	--	--	--
material drop operations	063	0.3	0.09	--	--	--	--	--	--	--
Material Storage Piles	6.76	2.37	2.37	--	--	--	--	--	--	--
Space heaters - Natural Gas Combustion Only	0.04	0.14	0.14	0.01	0.104	1.587	1.889	2281.092	0.036	0.034
Total	**84.37**	**54.92**	**51.77**	**0.01**	**75.37**	**1.68**	**2.04**	**2434.07**	**9.61**	**6.47**
PSD Major	**250**	**250**	**250**	**250**	**-**	**250**	**250**	**100,000**	**-**	**-**
Emission Offset/ Nonattainment NSR	**-**	**-**	**-**	**-**	**100**	**-**	**-**	**-**	**-**	**-**

Permit Changes

The changes listed below have been made to Part 70 Operating Permit No. T089-32793-00176. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

A.3 ~~Specifically Regulated~~ Insignificant Activities
[326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(14)]

This stationary source also includes the following insignificant activities~~ which are specifically regulated~~, as defined in 326 IAC 2-7-1(21):

(a) One (1) petroleum fuel (non-gasoline) dispensing facility, with a storage capacity less than or equal to ten thousand five hundred (10,500) gallons, and dispensing three thousand five hundred (3,500) gallons per day or less. [326 IAC 8-9-1]

(b) Natural gas-fired space heaters with total heat input 4 MMBtu/hour. [326 IAC 6.8-1-2(a)]

(c) A gasoline fuel transfer and dispensing operation handling 300 gallons of diesel per day, such as filling of tanks, locomotives, automobiles having a storage capacity equal to 500 gallons.

(d) Application of oils, greases, lubricants, or nonvolatile materials applied as temporary protective coatings.

(e) Cutting 200,000 linear feet or less of one (1) inch plate for structural steel and bridge fabrication activities.[326 IAC 6.8-1-2(a)]

SECTION D.3 FACILITY OPERATION CONDITIONS

Emissions Unit Description: Specifically Regulated Insignificant Activities:

(a) One (1) petroleum fuel (non-gasoline) dispensing facility, with a storage capacity less than or equal to ten thousand five hundred (10,500) gallons, and dispensing three thousand five hundred (3,500) gallons per day or less. [326 IAC 8-9-1]

(b) Natural gas-fired space heaters with total heat input 4 MMBtu/hour. [326 IAC 6.8-1-2(a)]

(e) Cutting 200,000 linear feet or less of one (1) inch plate for structural steel and bridge fabrication activities.[326 IAC 6.8-1-2(a)]

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

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

D.3.1 Volatile Organic Liquid Storage Vessels [326 IAC 8-9-1]

Pursuant to 326 IAC 8-9-1 (a) and (b) (Volatile Organic Liquid Storage Vessels), the one (1) petroleum fuel (non-gasoline) dispensing facility is subject to the reporting and record keeping requirements contained in 326 IAC 8-9-6(b)(1)-(3) and is exempt from all other provisions of 326 IAC 8-9.

D.3.2 Particulate Emissions [326 IAC 6.8-1-2]

Pursuant to 326 IAC 6.8-1-2(a), the particulate emissions from the space heaters and structural steel and bridge fabrication activities shall not exceed 0.03 grains/dscf.

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

~~D.3.2~~**D.3.3** Record Keeping Requirements [326 IAC 8-9-6(a) and (b)]

. . .

Appendix A: Emission Calculations

Scrap Steel Preparation (burning field) combustion

LPG-Propane Combustion

(Heat input capacity: > 10 MMBtu/hr and < 100 MMBtu/hr)

Company Name: Brandenburg Industrial Service Company
Address City IN Zip: One N. Broadway TS 670, Gary, Indiana 46402
Permit Number: T089-32793-00176
Reviewer: Mehul Sura
Date: 8/27/2013

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	SO2 Emission factor = 0.10 x S
0.25	23.93	S = Sulfur Content = 1.00 grains/100ft^3

	Pollutant						
	PM*	PM10*	direct PM2.5**	SO2	NOx	VOC	CO
Emission Factor in lb/kgal	0.2	0.7	0.7	0.10	13.0	1.0	7.5
				(0.10S)		**TOC value	
Potential Emission in tons/yr	0.002	0.008	0.008	0.001	0.156	0.012	0.090

*PM emission factor is filterable PM only. PM emissions are stated to be all less than 10 microns in aerodynamic equivalent diameter, footnote in Table 1.5-1, therefore PM10 is based on the filterable and condensable PM emission factors.

** No direct PM2.5 emission factor was given. Direct PM2.5 is a subset of PM10. If one assumes all PM10 to be all direct PM2.5, then a worst case assumption of direct PM2.5 can be made.

**The VOC value given is TOC. The methane emission factor is 0.2 lb/kgal.

Methodology

1 gallon of LPG has a heating value of 94,000 Btu
1 gallon of propane has a heating value of 91,500 Btu (use this to convert emission factors to an energy basis for propane)
(Source - AP-42 (Supplement B 10/96) page 1.5-1)

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.0915 MMBtu

Emission Factors are from AP42 (7/08), Table 1.5-1 (SCC #1-02-010-02)
Propane Emission Factors shown. Please see AP-42 for butane.
Emission (tons/yr) = Throughput (kgals/yr) x Emission Factor (lb/kgal) / 2,000 lb/ton
See Page 2 for Greenhouse Gas calculations.

Greenhouse Gas

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/kgal	12,500	0.2	0.9
Potential Emission in tons/yr	150	0.0	0.0
Summed Potential Emissions in tons/yr		150	
CO2e Total in tons/yr		153	

Methodology

The CO2 Emission Factor for Propane is 12500. The CO2 Emission Factor for Butane is 14300.
Emission Factors are from AP 42 (7/08), Table 1.5-1 (SCC #1-02-010-02)
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

Appendix A: Emissions Calculations
Scrap Steel Preparation (burning field) process emissions

Company Name: Brandenburg Industrial Service Company
Address City IN Zip: One N. Broadway TS 670, Gary, Indiana 46402
Permit Number: T089-32793-00176
Reviewer: Mehul Sura
Date: 8/27/2013

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)		EMISSION FACTORS* (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
WELDING				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Submerged Arc	0	0		0.036	0.011			0.000	0.000	0.000	0	0.000
Metal Inert Gas (MIG)(carbon steel)	0	0		0.0055	0.0005			0.000	0.000	0.000	0	0.000
Stick (E7018 electrode)	0	0		0.0211	0.0009			0.000	0.000	0.000	0	0.000
Tungsten Inert Gas (TIG)(carbon steel)	0	0		0.0055	0.0005			0.000	0.000	0.000	0	0.000
Oxyacetylene(carbon steel)	0			0.0055	0.0005			0.000	0.000	0.000	0	0.000
	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)
FLAME CUTTING				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Oxyacetylene	0	0	0	0.1622	0.0005	0.0001	0.0003	0.000	0.000	0.000	0.000	0.000
Oxymethane	2	1	20	0.0815	0.0002		0.0002	0.196	0.000	0.000	0.000	0.001
Plasma**	0	0	0	0.0039				0.000	0.000	0.000	0.000	0.000
EMISSION TOTALS												
Potential Emissions lbs/hr								0.20				0.00
Potential Emissions lbs/day								4.69				0.02
Potential Emissions tons/year								0.86				0.0042

Methodology:

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

**Emission Factor for plasma cutting from American Welding Society (AWS). Trials reported for wet cutting of 8 mm thick mild steel with 3.5 m/min cutting speed (at 0.2 g/min emitted). Therefore, the emission factor for plasma cutting is for 8 mm thick rather than 1 inch, and the maximum metal thickness is not used in calculating the emissions.

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

Plasma cutting emissions, lb/hr: (# of stations)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 8 mm thick)

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: Emissions Calculations
Bailing operations

Company Name: Brandenburg Industrial Service Company
Address City IN Zip: One N. Broadway TS 670, Gary, Indiana 46402
Permit Number: T089-32793-00176
Reviewer: Mehul Sura
Date: 8/27/2013

From AP-42 13.2.4, Aggregate Handling and Storage Piles, 11/2006

Emissions from storage piles can be described by the following empirical equation:

$$E = k(0.0032)\frac{\left(\frac{U}{5}\right)^{1.3}}{\left(\frac{M}{2}\right)^{1.4}}$$

Where:
E = emission factor (lb/tn)
k = particle size multiplier (dimensionless)
U = mean wind speed, miles per hour
M = material moisture content (%)

k =	PM	0.74
	PM10	0.35
	PM2.5	0.11

U = 13.4 mean wind speed, (mph) [source=rredc.nrel.gov/wind/pubs/atlas/maps/chap1/2-06m.html]

The mean moisture content was estimated as the average moisture content based on onsite test data.
M = 0.92 %, site specific moisture data

E = Emission Factors (lb/ton)

PM	PM10	PM2.5
0.02529857	0.011966	0.0037606

Maximum amount of material handled (tons/yr): 438,000 tons/year
Dust Control Efficiency: 50%

5.54	**Uncontrolled PM (tons/year)**
2.62	**Uncontrolled PM10 (tons/year)**
0.82	**Uncontrolled PM2.5 (tons/year)**
2.77	**Controlled PM (tons/year)**
1.31	**Controlled PM10 (tons/year)**
0.412	**Controlled PM2.5 (tons/year)**

Notes: Production is 50 tons/hour.

Methodology:
Maximum amount of material handled information is provided by the source.
Uncontrolled Emissions (tons/yr) = Emission Factors (lb/ton) * Production (tons/yr) * (ton/2000 lbs)
Controlled PTE (tons/yr) = (Uncontrolled Emissions (tons/yr)) * (1 - Dust Control Efficiency)

Company Name: Brandenburg Industrial Service Company
Address: One N. Broadway TS 670, Gary, Indiana 46402
Part 70 Operating Permit No.: T089-32793-00176
Reviewer: Mehul Sura
Date: 8/27/2013

Paint Booth (Unit 002)
VOC and PM/PM_{10}/$PM_{2.5}$ Emissions

Material	Density (lb/gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	VOC PTE pounds per hour	VOC PTE pounds per day	VOC PTE tons per year	PM/PM_{10}/$PM_{2.5}$ PTE (ton/yr)	Transfer Efficiency
Primer Coat															
DuPont 681-705	11.9	28.7%	0.0%	28.7%	0.0%	51.6%	10.0	0.33	3.40	3.40	11.22	269.30	49.15	67.25	45%
Thinner	6.3	100.0%	0.0%	100.0%	0.0%	0.0%	1.0	0.33	6.33	6.33	2.09	50.13	9.15	0.00	45%
Finish Coat															
Yellow 40P	9.1	37.4%	0.0%	37.4%	0.0%	51.6%	5.3	0.20	3.39	3.39	3.56	85.39	15.58	14.35	45%
Activator	9.4	9.5%	0.0%	9.5%	0.0%	87.0%	1.8	0.20	0.90	0.90	0.31	7.53	1.37	7.20	45%
										PTE Before Controls	**17.18**	**412.36**	75.25	88.80	
METHODOLOGY													**PTE After Controls**	**8.88**	

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
VOC PTE Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
PM/PM10 PTE Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Note: PTE Calculations based on worst case product consisting of metal 3-axle trailers.]
Note: PM/PM_{10}/$PM_{2.5}$ PTE is calculated using worst case transfer efficiency of 45%. Airless spray guns are used to apply the primer and air atomization spray guns are used to apply the finish coat. The actual transfer efficiencies for these guns may be as high as 50 to 75%.
Note: Control Efficiency = 90%

Volume Weighted Average

Material	Gal of Mat. (gal/unit)	Maximum (unit/hour)	VOC Content of Coating (lbs VOC/gal of coating less water as applied)	Σ(C*U)	Coating Usage Rate (Σ U)	Volume Weighted Average (A)
Primer Coat						
DuPont 681-705	10.0	0.33	3.4	269.30	79.20	
Thinner	1.0	0.33	6.3	50.13	7.92	
Finish Coat						
Yellow 40P	5.3	0.20	3.4	85.39	25.20	
Activator	1.8	0.20	0.9	7.53	8.40	
				412.36	**120.72**	**3.42**

Methodology
Volume Weighted Average Equation:
A = [∑ (C x U) / ∑ U]
Where:
A = the volume weighted average in pounds VOC per gallon less water as applied;
C = the VOC content of the coating in pounds VOC per gallon less water as applied; and
U = the usage rate of the coating in gallons per day

Company Name: Brandenburg Industrial Service Company
Address City IN Zip: One N. Broadway TS 670, Gary, Indiana 46402
Part 70 Operating Permit No.: T089-32793-00176
Reviewer: Mehul Sura
Date 8/27/2013

Paint Booth (Unit 002)
HAP Emissions

Material	Density (lb/gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % EthylBenzene	Weight % 1,2,4-trimethyl Benzene	Weight % Aliphatic Diisocyanate	Xylene PTE (ton/yr)	Toluene PTE (ton/yr)	Ethyl Benzene PTE (ton/yr)	1,2,4-trimethyl Benzene PTE (ton/yr)	Aliphatic Diisocyanate PTE (ton/yr)
Primer Coat													
DuPont 681-705	11.9	10.0	0.33	3.0%	0.0%	0.6%	0.0%	0.0%	5.14	0.00	1.03	0.00	0.00
Thinner	6.3	1.0	0.33	5.0%	16.0%	1.7%	0.0%	0.0%	0.46	1.46	0.16	0.00	0.00
Finish Coat													
Yellow 40P	9.1	5.3	0.20	2.0%	0.0%	0.4%	0.0%	0.0%	0.83	0.00	0.17	0.00	0.00
Activator	9.4	1.8	0.20	0.0%	0.0%	0.0%	2.0%	0.2%	0.00	0.00	0.00	0.29	0.03
								Total Potential Emissions	**6.43**	**1.46**	**1.35**	**0.29**	**0.03**

METHODOLOGY

Total HAPs (tons/yr): 9.57

HAP PTE (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

[Note: Calculations based on worst case product consisting of metal 3-axle trailer.]

Company Name: Brandenburg Industrial Service Company
Address: One N. Broadway TS 670, Gary, Indiana 46402
Part 70 Operating Permit No.: T089-32793-00176
Reviewer: Mehul Sura
Date: 8/27/2013

Blast Booth (Unit 003)
$PM/PM_{10}/PM_{2.5}$ Emissions

Table 1 - Emission Factors for Abrasives

	Emission Factor (EF)	
Abrasive	lb PM / lb abrasive	lb PM10 / lb PM
Sand	0.041	0.70
Grit	0.010	0.70
Steel Shot	0.004	0.86
Other	0.010	

Potential to Emit Before Control				
FR = Flow rate of actual abrasive (lb/hr) =	6324.0000	lb/hr (per nozzle)		
w = fraction of time of wet blasting =	0	%		
N = number of nozzles =	2			
EF = PM emission factor for actual abrasive from Table 1 =	0.010	lb PM/ lb abrasive		
PM10 emission factor ratio for actual abrasive from Table 1 =	0.70	lb PM10 / lb PM		
	PM	**PM10**		
Potential to Emit (before control) =	**126.5**	**88.5**	**lb/hr**	
=	**3035.5**	**2124.9**	**lb/day**	
=	**554.0**	**387.8**	**ton/yr**	

Potential to Emit After Control	**PM**	**PM10**	
Emission Control Device Efficiency =	**90.0%**	**90.0%**	
Potential to Emit (after control) =	**12.6**	**8.9**	**lb/hr**
=	**303.6**	**212.5**	**lb/day**
=	**55.4**	**38.8**	**ton/yr**

METHODOLOGY

Emission Factors from STAPPA/ALAPCO "Air Quality Permits", Vol. I, Section 3 "Abrasive Blasting" (1991 edition)
Potential to Emit (before control) = EF x FR x (1 - w/200) x N (where w should be entered in as a whole number (if w is 50%, enter 50))
Potential to Emit (after control) = [Potential to Emit (before control)] * [1 - control efficiency]
Potential to Emit (tons/year) = [Potential to Emit (lbs/hour)] x [8760 hours/year] x [ton/2000 lbs]

Unpaved Roads

Company Name: Brandenburg Industrial Service Company
Address City IN Zip: One N. Broadway TS 670, Gary, Indiana 46402
Permit Number: T089-32793-00176
Reviewer: Mehul Sura
Date: 8/27/2013

Unpaved Roads at Industrial Site

The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2 (12/2003).

Vehicle Type	Maximum Weight of Vehicle (tons)	Maximum Weight of Load (tons)	Maximum Weight of Vehicle and Load (tons/trip)	Maximum trips per year (trip/yr)	Total Weight driven per year (ton/yr)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/yr)
Roll off Truck	40.0	21	61	5400	3.3E+05	0.200	1080.0
WA500 Komatsu Ldr	49.0	42	91.0	18000	1.6E+06	0.165	2970.0
Bobcat skidsteer	5.0	4	9.0	1000	9.0E+03	0.165	165.0
954 with Shear	73.0	68	141.0	590	8.3E+04	0.165	97.4
924 with Magnet	37.0	33	70.0	590	4.1E+04	0.165	97.4
Pick up trucks	3.0	3	6.0	1,500	9.0E+03	0.200	300.0
Total				**2.7E+04**	**2.1E+06**		**4.7E+03**

Average Vehicle Weight Per Trip = 77.9 tons/trip
Average Miles Per Trip = 0.174 miles/trip

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

	PM	PM10	PM2.5	
where k =	4.9	1.5	0.15	lb/mi = particle size multiplier (AP-42 Table 13.2.2-2 for Industrial Roads)
s =	4.8	4.8	4.8	% = mean % silt content of unpaved roads (AP-42 Table 13.2.2-3 Sand/Gravel Processing Plant Road)
a =	0.7	0.9	0.9	= constant (AP-42 Table 13.2.2-2)
W =	77.9	77.9	77.9	tons = average vehicle weight (provided by source)
b =	0.45	0.45	0.45	= constant (AP-42 Table 13.2.2-2)

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

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	11.17	2.85	0.28	lb/mile
Mitigated Emission Factor, Eext =	7.35	1.87	0.19	lb/mile
Dust Control Efficiency =	50%	50%	50%	(pursuant to control measures outlined in fugitive dust control plan)

Vehicle Type	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)
Roll off Truck	6.03	1.54	0.15	3.97	1.01	0.10	1.98	0.51	0.05
WA500 Komatsu Ldr	16.59	4.23	0.42	10.91	2.78	0.28	5.45	1.39	0.14
Bobcat skidsteer	0.92	0.23	0.02	0.61	0.15	0.02	0.30	0.08	0.01
954 with Shear	0.54	0.14	0.01	0.36	0.09	0.01	0.18	0.05	0.00
924 with Magnet	0.54	0.14	0.01	0.36	0.09	0.01	0.18	0.05	0.00
Pick up trucks	1.68	0.43	0.04	1.10	0.28	0.03	0.55	0.14	0.01
Totals	**26.31**	**6.71**	**0.67**	**17.30**	**4.41**	**0.44**	**8.65**	**2.20**	**0.22**

Methodology

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

Abbreviations

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

Appendix A: Emissions Calculations

Paved Roads

Company Name: Brandenburg Industrial Service Company
Address City IN Zip: One N. Broadway TS 670, Gary, Indiana 46402
Permit Number: T089-32793-00176
Reviewer: Mehul Sura
Date: 8/27/2013

Maximum Throughput (ton/yr)	Vehicle Type	Maximum Weight of Vehicle (tons/trip)	Maximum Weight of Load (tons/trip)	Maximum Weight of Vehicle and Load (tons/trip)	Maximum trips per year (trip/yr)	Total Weight driven per day (ton/yr)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/yr)
108,000	Roll off Truck	19.0	21	40.0	5400	2.2E+05	1.0E-01	5.4E+02
126,000	Tractor / Trailer	33.5	67.36	100.8	160	1.6E+04	1.0E-01	1.6E+01
108,000	Pick Up Trucks	3.0	3	6.0	7665	4.6E+04	1.0E-01	7.7E+02
342,000					**13225**	**2.8E+05**		**1.3E+03**

Unmitigated Emission Factor, Ef = [k * (sL/2)^0.65 * (W/3)^1.5 - C] (Equation 1 from AP-42 13.2.1)

	PM	PM10	PM2.5	
where k =	0.082	0.016	0.0024	lb/mi = particle size multiplier (AP-42 Table 13.2.1-1)
C =	0.00047	0.00047	0.00047	lb/mi = emission factor for vehicle exhaust, brake wear, and tire wear (AP-42 Table 13.2.1-2)
sL =	1.05	1.05	1.05	g/m^2 = Ubitiguous Baseline Silt Loading Values of paved roads (Table 13.2.1-3 for summer months)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = E * [1 - (p/4N)]
Mitigated Emission Factor, Eext = Ef * [1 - (p/4N)]

where p =	125	days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)
N =	365	days per year

	Denaturant Receiving			DDGS Shipped			Denaturant Ethanol Shipped			
	PM	PM10	PM2.5	PM	PM10	PM2.5	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	2.63	0.51	0.08	10.51	2.05	0.00	0.15	0.03	0.00	lb/mile
Mitigated Emission Factor, Eext =	2.40	0.47	0.07	9.61	1.87	0.00	0.14	0.03	0.00	lb/mile
Dust Control Efficiency =	50%	50%	50%	50%	50%	50%	50%	50%	50%	

Vehicle Type	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)
Denaturant Receiving	0.71	0.14	0.02	0.65	0.13	0.02	0.32	0.06	0.01
DDGS Shipped	0.08	0.02	0.00	0.08	0	0	0.04	0.01	0.00
Denaturant Ethanol Shipped	0.058	0.011	0.002	0.053	0	0	0.027	5.1E-03	7.0E-04
Totals	**0.85**	**0.17**	**0.02**	**0.78**	**0.2**	**0.0**	**0.39**	**0.08**	**0.01**

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

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

Appendix A: Emissions Calculations
material drop operations

Company Name: Brandenburg Industrial Service Company
Address City IN Zip: One N. Broadway TS 670, Gary, Indiana 46402
Permit Number: T089-32793-00176
Reviewer: Mehul Sura
Date: 8/27/2013

From AP-42 13.2.4, Aggregate Handling and Storage Piles, 11/2006

Emissions from slag storage piles can be described by the following empirical equation

$$E = k(0.0032)\frac{\left(\frac{U}{5}\right)^{1.3}}{\left(\frac{M}{2}\right)^{1.4}}$$

Where:
E = emission factor (lb/tn)
k = particle size multiplier (dimensionless)
U = mean wind speed, miles per hour
M = material moisture content (%)

k =		
	PM	0.74
	PM10	0.35
	PM2.5	0.11

U = 13.4 mean wind speed, (mph) [source=rredc.nrel.gov/wind/pubs/atlas/maps/chap1/2-06m.html]

The mean moisture content was estimated as the average moisture content based on onsite test data

M = 0.92 %, site specific moisture data

E = Emission Factors (lb/ton)

PM	PM10	PM2.5
0.02529857	0.011966	0.003761

Maximum amount of material handled (tons/yr): 100,000
Control Eff: 50%

1.26	**Uncontrolled PM (tons/year)**
0.60	**Uncontrolled PM10 (tons/year)**
0.19	**Uncontrolled PM2.5 (tons/year)**
0.63	**Controlled PM (tons/year)**
0.30	**Controlled PM10 (tons/year)**
0.094	**Controlled PM2.5 (tons/year)**

Methodology
Maximum amount of material handled information is provided by the source.
Uncontrolled Emissions (tons/yr) = Emission Factors (lb/ton) * Production (tons/yr) * (ton/2000 lbs
Controlled PTE (tons/yr) = (Uncontrolled Emissions (tons/yr)) * (1 - Dust Control Efficiency)

Appendix A: Emissions Calculations
Material Storage Piles

Company Name: Brandenburg Industrial Service Company
Address City IN Zip: One N. Broadway TS 670, Gary, Indiana 46402
Permit Number: T089-32793-00176
Reviewer: Mehul Sura
Date: 8/27/2013

The following calculations determine the amount of emissions created by wind erosion of storage stockpiles, based o
8,760 hours of use and USEPA's AP-42 (Pre 1983 Edition), Section 11.2.3

Ef = 1.7*(s/1.5)*(365-p)/235*(f/15)
where Ef = emission factor (lb/acre/day)
s = silt content (wt %)
p = 125 days of rain greater than or equal to 0.01 inches
f = 15 % of wind greater than or equal to 12 mph

				Uncontrolled		Controlled	
Material	Silt Content (wt %)*	Emission Factor (lb/acre/day)	Maximum Anticipated Pile Size (acres)**	PM (tons/yr)	PM10/PM2.5 (tons/yr)	PM (tons/yr)	PM10/PM2.5 (tons/yr)
Steel Scrap	1.6	1.85	40.00	13.52	4.73	6.76	2.37

Methodology
Uncontrolled PM (tons/yr) = (Emission Factor (lb/acre/day)) * (Maximum Pile Size (acres)) * (ton/2000 lbs) * (8760 hours/yr
Uncontrolled PM10/PM2.5 (tons/yr) = (Potential PM Emissions (tons/yr)) * 35%
Controlled Emissions (tons/yr) = Uncontrolled Emissions (tons/yr) * control efficiency (50%
*Lime stone Silt content values is used from AP-42 Table 13.2.4-1 (dated 1/95) has been used for the calculation purpose
**Maximum anticipated pile size (acres) provided is provided by the source.

Appendix A: Emissions Calculations
Space heaters - Natural Gas Combustion Only
MM BTU/HR <100

Company Name: Brandenburg Industrial Service Company
Address City IN Zip: One N. Broadway TS 670, Gary, Indiana 46402
Permit Number: T089-32793-00176
Reviewer: Mehul Sura
Date: 8/27/2013

Heat Input Capacity MMBtu/hr	HHV mmBtu/mmscf	Potential Throughput MMCF/yr
4.4	1020	37.8

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.04	0.1	0.1	0.0	1.9	0.1	1.6

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

Methodology

All emission factors are based on normal firing
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

HAPS Calculations

	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	**Total - Organics**
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	3.968E-05	2.267E-05	1.417E-03	3.401E-02	6.424E-05	**3.555E-02**

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	**Total - Metals**
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	9.447E-06	2.078E-05	2.645E-05	7.180E-06	3.968E-05	**1.035E-04**
					Total HAPs	**3.566E-02**
					Worst HAP	**3.401E-02**

Methodology is the same as above.

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

Greenhouse Gas Calculations

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	2,267	0.0	0.0
Summed Potential Emissions in tons/yr	2,267		
CO2e Total in tons/yr	2,281		

Methodology

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

Appendix A: Emission Calculations
Emissions Summary

Company Name: Brandenburg Industrial Service Company
Address City IN Zip: One N. Broadway TS 670, Gary, Indiana 46402
Permit Number: T089-32793-00176
Reviewer: Mehul Sura
Date: 8/27/2013

Uncontrolled Emissions

	PM	PM10	PM2.5	SO2	VOC	CO	NOX	CO2e	Total HAPs	Single HAP
Paint Booth (Unit 002)	88.80	88.80	88.80	-	75.25	-	-	-	9.567	6.434
Blast Booth (Unit 003)	553.98	387.79	387.79	-	-	-	-	-	-	-
Scrap Steel Preparation (burning field) combustion	0.002	0.008	0.008	0.001	0.012	0.090	0.156	152.98	-	-
Scrap Steel Preparation (burning field) process emissions	0.86	0.86	0.86	-	-	-	-	-	0.004	-
Bailing operations	5.54	2.62	0.82	-	-	-	-	-	-	-
Unpaved Roads	26.31	6.71	0.67	-	-	-	-	-	-	-
Paved Roads	0.851	0.166	0.022	-	-	-	-	-	-	-
material drop operations	1.26	0.60	0.19	-	-	-	-	-	-	-
Material Storage Piles	13.52	4.73	6.76	-	-	-	-	-	-	-
Space heaters - Natural Gas Combustion Only	0.04	0.14	0.14	0.01	0.104	1.587	1.889	2281.092	0.036	0.034
	691.16	492.42	486.06	0.01	75.37	1.68	2.04	2434.07	9.61	6.47

Controlled/ Limited PTE

	PM	PM10	PM2.5	SO2	VOC	CO	NOX	CO2e	Total HAPs	Single HAP
Paint Booth (Unit 002)	8.88	8.88	8.88	-	75.25	-	-	-	9.567	6.434
Blast Booth (Unit 003)	55.40	38.78	38.78	-	-	-	-	-	-	-
Scrap Steel Preparation (burning field) combustion	0.002	0.008	0.008	0.001	0.012	0.090	0.156	152.98	-	-
Scrap Steel Preparation (burning field) process emissions	0.86	0.86	0.86	-	-	-	-	-	0.004	-
Bailing operations	2.77	1.31	0.41	-	-	-	-	-	-	-
Unpaved Roads	8.65	2.20	0.22	-	-	-	-	-	-	-
Paved Roads	0.39	0.08	0.01	-	-	-	-	-	-	-
material drop operations	0.63	0.30	0.09	-	-	-	-	-	-	-
Material Storage Piles	6.76	2.37	2.37	-	-	-	-	-	-	-
Space heaters - Natural Gas Combustion Only	0.04	0.14	0.14	0.01	0.10	1.59	1.89	2281.09	0.04	0.03
	84.37	54.92	51.77	0.01	75.37	1.68	2.04	2434.07	9.61	6.47

Indiana Department of Environmental Management
Office of Air Quality

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

Source Background and Description

Source Name:	Brandenburg Industrial Service Company
Source Location:	1 N. Broadway TS 670, Gary, IN 46401
County:	Lake
SIC Code:	1795 (Wrecking and Demolition Work) and 5093 (Scrap and Waste Materials)
Permit Renewal No.:	T089-32793-00176
Permit Reviewer:	Mehul Sura

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Brandenburg Industrial Service Company relating to the operation of a stationary scrap steel processing operation. On January 31, 2013, Brandenburg Industrial Service Company submitted an application to the OAQ requesting to renew its operating permit. Brandenburg Industrial Service Company was issued its first Part 70 Operating Permit T089-25094-00176 on November 6, 2008.

IDEM, OAQ finds that Brandenburg Industrial Service Company and US Steel - Gary Works are not part of the same major source. Each plant has been permitted as a separate source. This determination has been determined in Part 70 Operating Permit T089-25094-00176 on November 6, 2008.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units:

(a) Material handling and storage piles of approximately 40 acres and maximum of 100,000 tons per year of material handled.

(b) One (1) Scrap Steel Preparation (burning field) process, identified as Unit 001, with a capacity to cut 30 tons per hour of scrap steel to acceptable sizes for balling, using LPG (propane) torches for cutting, located outside of the building, and constructed in 1995.

(c) One (1) scrap cast iron balling operation, identified as Unit 001A, with a maximum capacity of 50 tons per hour (a sporadic process done eight (8) to ten (10) hours per week), with no control and constructed in 1995.

(d) One (1) paint booth using airless or air atomization spray guns to apply primer and finish coats to metal trailers and lunch boxes, identified as Unit 002, with a maximum paint usage of 3.63 gallons of primer per hour and 1.4 gallons of finish coat per hour, with a production rate 0.33 units/hr for primer coating and 0.2 units/hr for finish coating, using dry filters as control, constructed in 2002, and exhausting to stacks PBES-01 and PBES-02.

(e) One (1) enclosed blast booth, identified as Unit 003, equipped with two (2) blast guns, with each gun having a maximum capacity of 240 square feet of metal per hour and 105.4 pounds of steel grit per minute per nozzle, using dry filters as control, constructed in 2002, and exhausting inside the building.

(f) Paved road and unpaved road.

Emission Units and Pollution Control Equipment Removed From the Source

The source has removed the following emission unit since the first Part 70 Operating Permit T089-25094-00176 issued on November 6, 2008:

One (1) Scrap Preparation (roll burning hood) process, identified as Unit 001, with a capacity to cut 10 tons per hour of steel rolls using LPG (propane) torches, using a dual cyclone and baghouse as control, constructed in 1995, and exhausting to stack 1.

Insignificant Activities

The source also consists of the following insignificant activities:

(a) One (1) petroleum fuel (non-gasoline) dispensing facility, with a storage capacity less than or equal to ten thousand five hundred (10,500) gallons, and dispensing three thousand five hundred (3,500) gallons per day or less. [326 IAC 8-9-1]

Existing Approvals

Since the issuance of the Part 70 Operating Permit T089-25094-00176 on November 6, 2008, the source has constructed or has been operating under the following additional approvals:

(a) Significant Permit Modification No. 089-27503-00176 issued on July 16, 2009

(b) Administrative Amendment No. 089-29613-00176 issued on December 17, 2010

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.

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

County Attainment Status

The source is located in Lake County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Attainment effective February 18, 2000, for the part of the city of East Chicago bounded by Columbus Drive on the north; the Indiana Harbor Canal on the west; 148th Street, if extended, on

Pollutant	Designation
	the south; and Euclid Avenue on the east. Unclassifiable or attainment effective November 15, 1990, for the remainder of East Chicago and Lake County.
O_3	On June 11, 2012, the U.S. EPA designated Lake County nonattainment, for the 8-hour ozone standard.
PM_{10}	Attainment effective March 11, 2003, for the cities of East Chicago, Hammond, Whiting, and Gary. Unclassifiable effective November 15, 1990, for the remainder of Lake County.
NO_2	Cannot be classified or better than national standards.
Pb	Not designated.

[1]The U. S. EPA has acknowledged in both the proposed and final rulemaking for this redesignation that the anti-backsliding provisions for the 1-hour ozone standard no longer apply as a result of the redesignation under the 8-hour ozone standard. Therefore, permits in Lake County are no longer subject to review pursuant to Emission Offset, 326 IAC 2-3.
Unclassifiable or attainment effective February 6, 2012, for PM2.5.

(a) Ozone Standards

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

(b) $PM_{2.5}$

Lake County has been classified as attainment for $PM_{2.5}$. On May 8, 2008, U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for $PM_{2.5}$ emissions. These rules became effective on July 15, 2008. On May 4, 2011 the air pollution control board issued an emergency rule establishing the direct $PM_{2.5}$ significant level at ten (10) tons per year. This rule became effective, June 28, 2011. Therefore, direct $PM_{2.5}$, SO_2, and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.

(c) Other Criteria Pollutants

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

Fugitive Emissions

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

Unrestricted Potential Emissions

Appendix A of this TSD reflects the unrestricted potential emissions of the source.

The potential to emit of GHGs is less than one hundred thousand (100,000) tons of CO2 equivalent emissions (CO2e) per year, the potential to emit any single HAP is <10 tons per year, and the potential to emit any combination of HAP is <25 tons per year.

The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM, PM10 and PM2.5, each, is greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7 and will be issued a Part 70 Operating Permit Renewal.

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, because the source met the following:

(a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.

(b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any new control equipment is considered federally enforceable only after issuance of this Part 70 permit renewal, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

	Potential to Emit (tons/year)									
	PM	PM10	PM2.5	SO2	VOC	CO	NOX	CO2e	Total HAPs	Single HAP
Paint Booth (Unit 002)	8.88	8.88	8.88	--	75.25(i)	--	--	--	9.567	6.434
Blast Booth (Unit 003)	55.40 (ii)	38.78 (ii)	38.78 (ii)	--	--	--	--	--	--	--
Fugitive Emissions										
Scrap Steel Preparation (burning field) combustion	0.002	0.008	0.008	0.001	0.012	0.090	0.156	152.98	--	--
Scrap Steel Preparation (burning field) process emissions	0.857	0.857	0.857	--	--	--	--	--	0.004	--
Bailing operations	6	2.620	0.824	--	--	--	--	--	--	--
Unpaved Road	8.650	2.205	0.220	--	--	--	--	--	--	--
Paved Roads	0.39	0.08	0.01	--	--	--	--	--	--	--
material drop operations	063	0.3	0.09	--	--	--	--	--	--	--
Material Storage Piles	6.76	2.37	2.37	--	--	--	--	--	--	--
Total	**84.34**	**54.78**	**51.63**	**0.001**	**75.27**	**0.09**	**0.16**	**152.98**	**9.57**	**6.43**
PSD Major	**250**	**250**	**250**	**250**	**-**	**250**	**250**	**100,000**	**-**	**-**
Emission Offset/ Nonattainment NSR	**-**	**-**	**-**	**-**	**100**	**-**	**-**	**-**	**-**	**-**

(i) The VOC emissions are limited to less than 25 tons/year because Lake County was

considered severe nonattainment for ozone when the existing permit was issued. However, in this renewal Lake County's status has changed to moderate nonattainment for ozone. Therefore, the VOC emissions limit has been removed. There is no need to specify VOC emissions limit because the unlimited PTE of the source is less than 100 tons per year.

(ii) PTE based on the PSD Minor limits as follows:

	PSD Minor limit (lb/hr)		
Emission Units	**PM**	**PM10**	**PM2.5**
Blast Booth (Unit 003)	12.64	8.85	8.85

Compliance with this limits in conjunction with the uncontrolled PM, PM10 and PM2.5 emissions of Paint Booth (Unit 002) will limit source-wide non-fugitive PM, PM10 and PM2.5 emissions, each, to less than 250 tons per 12 consecutive month period and therefore, render the source minor under 326 IAC 2-2 (PSD).

Each limit in the above table is calculated as follows:

PM, PM10 and PM2.5 limit = Controlled Emissions (tons/yr) x 2000 (lbs/ton) / 8760 (hours/year)

All the PTEs which are specified in the above table but not referenced in the paragraph (i) and (ii) above are uncontrolled emissions rates.

(a) This existing stationary source is not major for PSD because the emissions of each regulated pollutant, excluding GHGs, are less than two hundred fifty (<250) tons per year, emissions of GHGs are less than one hundred thousand (<100,000) tons of CO_2 equivalent emissions (CO_2e) per year, and it is not in one of the twenty-eight (28) listed source categories.

(b) This existing stationary source is not major for Emission Offset because the emissions of VOC, are less than one hundred (<100) tons per year.

Federal Rule Applicability

(a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to each existing pollutant-specific emission unit that meets the following criteria:

(1) has a potential to emit before controls equal to or greater than the major source threshold for the pollutant involved;

(2) is subject to an emission limitation or standard for that pollutant; and

(3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each existing emission unit and specified pollutant subject to CAM:

Emission Unit / Pollutant	Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Blast Booth	PM	dry filters	Y	553.98	55.4	100	Y	N

Emission Unit / Pollutant	Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
(Unit 003)	PM10	dry filters	Y	387.8	38.8	100	Y	N
	PM2.5	dry filters	Y	387.8	38.8	100	Y	N
Paint Booth (Unit 002)	PM	dry filters	Y	88.5	8.88	100	N	N
	PM10	dry filters	Y	88.5	8.88	100	N	N
	PM2.5	dry filters	Y	88.5	8.88	100	N	N
Paint Booth (Unit 002)	VOC	none	Y	-	-	-	N	-

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to Blast Booth (Unit 003) . Compliance Determination and Monitoring Requirements section includes a detailed description of the CAM requirements.

All of the remaining emission units located at the source are not equipped with control. Therefore, the requirements of 40 CFR Part 64, CAM are not applicable to any of the remaining emission units located at the source as part of this Part 70 permit renewal.

The source-wide uncontrolled single HAP and combined HAPs emissions are less than 10 and 25 tons per year respectively. Therefore, the requirements of 40 CFR Part 64, CAM are not applicable for HAPs to any of the existing units as part of this Part 70 permit renewal.

National Emission Standards for Hazardous Air Pollutants (NESHAPs)

(a) The PTE of single HAP and combined HAPs are less than 10 and 25 tons per year, respectively. Therefore this source is considered as an area source under NESHAP.

(b) Subpart HHHHHH - NESHAP for Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources

This source is not subject to this NESHAP because paint stripping operations are not performed at this source and the coating material used for metal trailers and lunch boxes does not contain target HAPs.

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

This source is not subject to this NESHAP because this source is not engaged in the operations listed in 40 CFR 63.11514(a).

(c) Subpart CCCCCC—National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities

One (1) petroleum fuel dispensing facility is not subject to this NESHAP because it does not dispense fuel for internal combustion engines.

(d) There are no NESHAP (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit due to this renewal.

New Source Performance Standards (NSPS):

(a) Subpart K—Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978

One (1) petroleum fuel dispensing facility is not subject to this NSPS because it has a capacity less than 65,000 gallons.

(b) Subpart Ka—Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984

One (1) petroleum fuel dispensing facility is not subject to this NSPS because it has a capacity less than 40,000 gallons.

(c) Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984

One (1) petroleum fuel dispensing facility is not subject to this NSPS because it has a capacity less than 75 cubic meters (19,813 gallons).

(d) There are no NSPS (326 IAC 12 and 40 CFR Part 60) included in this permit renewal.

State Rule Applicability - Entire Source

326 IAC 2-3 (Emission Offset)

Pursuant to Part 70 No. 089-25094-00176, issued on November 6, 2008, the VOC input, including coatings, dilution solvents, and cleaning solvents, to the Paint Booth (Unit 002), shall not exceed 24.9 tons per twelve (12) consecutive month period with compliance determined at the end of each month. Compliance with the above VOC limit, in combination with the VOC emissions from the other emission units, shall limit the source-wide VOC emissions to less than twenty five (25) tons per twelve (12) consecutive month period, and shall render the source minor under 326 IAC 2-3 (Emission Offset).

This condition has been removed in this renewal because Lake County's status for ozone has changed from severe to moderate non attainment.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit pursuant to 326 IAC 2-7 (Part 70). Although this source is located in Lake County, its potential to emit of VOC and NOx, each, is less than 25 tons per year. Therefore, pursuant to 326 IAC 2-6-3(b)(1), triennial reporting is required. An emission statement shall be submitted in accordance with the compliance schedule in 326 IAC 2-6-3 by July 1, 2016 and every three (3) years thereafter. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

The existing Part 70 Operating Permit No. T089-25094-00176 requires Emission Reporting annually. This annual Emission Reporting frequency will be changed to triennial Emission Reporting frequency through this renewal.

326 IAC 5-1 (Opacity Limitations)

This source is subject to the opacity limitations specified in 326 IAC 5-1-2(2).

326 IAC 6-4 (Fugitive Dust Emissions)

Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions), fugitive dust shall not be visible crossing the boundary or property line of a source. Observances of visible emissions crossing property lines may be refuted by factual data expressed in 326 IAC 6-4-2(1), (2) or (3).

State Rule Applicability – Individual Facilities

326 IAC 8-1-6 (New facilities; general reduction requirements)

The Paint Booth (Unit 002) is not subject to 326 IAC 8-1-6 (New facilities; general reduction requirements) because it is subject to 326 IAC 8-2-9.

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

The operation of the Paint Booth (Unit 002) emit less than 10 tons per year of a single HAP and less than 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply to Paint Booth (Unit 002).

326 IAC 6.8-1-2(a) (Particulate Emissions)

The actual PM emissions from the source is more than 10 tons per year and emission units at this source are not specifically listed under 326 IAC 6.8-4, 326 IAC 6.8-5, 326 IAC 6.8-8, 326 IAC 6.8-9, 326 IAC 6.8-10, and 326 IAC 6.8-11.

(a) Pursuant to 326 IAC 6.8-1-2(h), Particulate from the Paint Booth (Unit 002) shall be controlled by dry particulate filters and the Permittee shall operate the dry particulate filters in accordance with manufacturer's specifications.

This is a new requirement to this paint booth.

(b) Pursuant to 326 IAC 6.8-1-2(a), Particulate from the Blast Booth (Unit 003) shall be limited to three-hundredths (0.03) grain per dry standard cubic foot (dscf).

The Dry Filters equipped on Blast Booth (Unit 003) shall be in operation and control particulate emissions at all times when one Blast Booth (Unit 003) is in operation.

326 IAC 6.8-10 (Compliance Requirements: Control Plans)

Paved road, unpaved road, material transfer and storage piles activities at this source are subject to 326 IAC 6.8-10 because these operations emit 5 tons per year of fugitive particulate matter. The Permittee shall comply with the particulate emission limitations specified in 326 IAC 6.8-10-3 (Lake County Fugitive Particulate Matter Control Requirements) for all of these facilities, using the fugitive dust control plan (FDCP) (See Attachment A).

326 IAC 6.8-11 (Lake County Particulate Matter Contingency Measures)

The source is subject to 326 IAC 6.8-11 (Lake County Particulate Matter Contingency Measures), because the source has potential PM10 emissions greater than ten (10) tons per year. Pursuant to this rule, the source shall comply with the requirements of 326 IAC 6.8-11-4 and 326 IAC 6.8-11-6.

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

Paint Booth (Unit 002) is subject to 326 IAC 8-2-9 because it was constructed after July 1, 1990, its actual before control emissions are greater than fifteen (15) pounds per day, and it coats Automotive or transportation equipment (metal trailers) and Fabricated metal products (lunch boxes).

Pursuant to 326 IAC 8-2-9(d)(1)(A), the VOC content of the coating delivered to the applicator at the Paint Booth (Unit 002) shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for extreme performance coatings.

Compliance with the VOC content limit, shall be determined pursuant to 326 IAC 8-1-2(a)(7), using a volume weighted average of coatings on a daily basis. This volume weighted average shall be determined by the following equation:

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

Where: A is the volume weighted average in pounds VOC per gallon less water as applied;
C is the VOC content of the coating in pounds VOC per gallon less water as applied; and
U is the usage rate of the coating in gallons per day.

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

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

The Permittee uses airless or air atomization spray guns. Therefore, the Permittee can comply with the requirements of 326 IAC 8-2-9(d)(2).

Pursuant to 326 IAC 8-2-9(f), the work practices shall include, but not be limited to, the following:

(1) Store all VOC containing coatings, thinners, coating related waste, and cleaning materials in closed containers.
(2) Ensure that mixing and storage containers used for VOC containing coatings, thinners, coating
related waste, and cleaning materials are kept closed at all times except when depositing or removing these materials.
(3) Minimize spills of VOC containing coatings, thinners, coating related waste, and cleaning materials.
(4) Convey VOC containing coatings, thinners, coating related waste, and cleaning materials from one (1) location to another in closed containers or pipes.
(5) Minimize VOC emissions from the cleaning of application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers.

326 IAC 8-9-1 (Volatile Organic Storage Vessels)

Pursuant to 326 IAC 8-9-1 (Volatile Organic Storage Vessels), stationary vessels used to store volatile organic liquids (VOL) that are located in Lake County with a capacity of less than thirty nine thousand (39,000) gallons are subject to the provisions contained in 326 IAC 8-9-1(a) and (b). Therefore, the one (1) petroleum fuel (non-gasoline) dispensing facility is subject to the reporting and record keeping requirements of 326 IAC 8-9-1(a) and (b) and is exempt from all other provisions of this rule.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 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 2-7-5. 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.

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

Emission Units	Control	Parameter	Frequency
Paint Booth (Unit 002)	Dry Filters	filter inspection	Daily
		overspray observation	Weekly
		overspray on the rooftops and the nearby ground	Monthly
Blast Booth (Unit 003)*	Dry Filters	filter inspection	Daily

* Blast Booth (Unit 003) is venting inside, therefore, visible emission monitoring requirements are not included for this emission unit.

These monitoring conditions are necessary because the Dry Filters for the Paint Booth (Unit 002) and Blast Booth (Unit 003) must operate properly to ensure compliance with 326 IAC 6.8-1-2, 326 IAC 2-7 and CAM.

Testing Requirement for Blast Booth (Unit 003)
The control efficiency required for the filters equiped on the Blast Booth (Unit 003) to meet the PSD Minor limits of PM, PM10 and PM2.5 specified in 'Potential to Emit After Issuance' section of this TSD is low. Therefore, testing requirement for the filters equped on Blast Booth (Unit 003) is not included in this permit renewal.

Recommendation

The staff recommends to the Commissioner that the Part 70 Operating Permit Renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on January 31, 2013.

Conclusion

The operation of this stationary scrap steel processing operation shall be subject to the conditions of the attached Part 70 Operating Permit Renewal No. T089-32793-00176.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Mehul Sura 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) 233-6868 or toll free at 1-800-451-6027 extension 3-6868.

(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: Emission Calculations

Scrap Steel Preparation (burning field) combustion

LPG-Propane Combustion

(Heat input capacity: > 10 MMBtu/hr and < 100 MMBtu/hr)

Company Name: Brandenburg Industrial Service Company
Address City IN Zip: One N. Broadway TS 670, Gary, Indiana 46402
Permit Number: T089-32793-00176
Reviewer: Mehul Sura
Date: 4/24/2013

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	SO2 Emission factor = 0.10 x S S = Sulfur Content =	1.00 grains/100ft^3
0.25	23.93		

	Pollutant						
	PM*	PM10*	direct PM2.5**	SO2	NOx	VOC	CO
Emission Factor in lb/kgal	0.2	0.7	0.7	0.10	13.0	1.0	7.5
				(0.10S)		**TOC value	
Potential Emission in tons/yr	0.002	0.008	0.008	0.001	0.156	0.012	0.090

*PM emission factor is filterable PM only. PM emissions are stated to be all less than 10 microns in aerodynamic equivalent diameter, footnote in Table 1.5-1, therefore PM10 is based on the filterable and condensable PM emission factors.

** No direct PM2.5 emission factor was given. Direct PM2.5 is a subset of PM10. If one assumes all PM10 to be all direct PM2.5, then a worst case assumption of direct PM2.5 can be made.

**The VOC value given is TOC. The methane emission factor is 0.2 lb/kgal.

Methodology

1 gallon of LPG has a heating value of 94,000 Btu
1 gallon of propane has a heating value of 91,500 Btu (use this to convert emission factors to an energy basis for propane)
(Source - AP-42 (Supplement B 10/96) page 1.5-1)

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.0915 MMBtu

Emission Factors are from AP42 (7/08), Table 1.5-1 (SCC #1-02-010-02)
Propane Emission Factors shown. Please see AP-42 for butane.
Emission (tons/yr) = Throughput (kgals/yr) x Emission Factor (lb/kgal) / 2,000 lb/ton
See Page 2 for Greenhouse Gas calculations.

Greenhouse Gas

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/kgal	12,500	0.2	0.9
Potential Emission in tons/yr	150	0.0	0.0
Summed Potential Emissions in tons/yr		150	
CO2e Total in tons/yr		153	

Methodology

The CO2 Emission Factor for Propane is 12500. The CO2 Emission Factor for Butane is 14300.
Emission Factors are from AP 42 (7/08), Table 1.5-1 (SCC #1-02-010-02)
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

Appendix A: Emissions Calculations
Scrap Steel Preparation (burning field) process emissions

Company Name: Brandenburg Industrial Service Company
Address City IN Zip: One N. Broadway TS 670, Gary, Indiana 46402
Permit Number: T089-32793-00176
Reviewer: Mehul Sura
Date: 4/24/2013

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)		EMISSION FACTORS* (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
WELDING				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Submerged Arc	0	0		0.036	0.011			0.000	0.000	0.000	0	0.000
Metal Inert Gas (MIG)(carbon steel)	0	0		0.0055	0.0005			0.000	0.000	0.000	0	0.000
Stick (E7018 electrode)	0	0		0.0211	0.0009			0.000	0.000	0.000	0	0.000
Tungsten Inert Gas (TIG)(carbon steel)	0	0		0.0055	0.0005			0.000	0.000	0.000	0	0.000
Oxyacetylene(carbon steel)	0			0.0055	0.0005			0.000	0.000	0.000	0	0.000
	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)
FLAME CUTTING				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Oxyacetylene	0	0	0	0.1622	0.0005	0.0001	0.0003	0.000	0.000	0.000	0.000	0.000
Oxymethane	2	1	20	0.0815	0.0002		0.0002	0.196	0.000	0.000	0.000	0.001
Plasma**	0	0	0	0.0039				0.000	0.000	0.000	0.000	0.000
EMISSION TOTALS												
Potential Emissions lbs/hr								0.20				0.00
Potential Emissions lbs/day								4.69				0.02
Potential Emissions tons/year								0.86				0.0042

Methodology:

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

**Emission Factor for plasma cutting from American Welding Society (AWS). Trials reported for wet cutting of 8 mm thick mild steel with 3.5 m/min cutting speed (at 0.2 g/min emitted). Therefore, the emission factor for plasma cutting is for 8 mm thick rather than 1 inch, and the maximum metal thickness is not used in calculating the emissions.

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

Plasma cutting emissions, lb/hr: (# of stations)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 8 mm thick)

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: Emissions Calculations
Bailing operations

Company Name: Brandenburg Industrial Service Company
Address City IN Zip: One N. Broadway TS 670, Gary, Indiana 46402
Permit Number: T089-32793-00176
Reviewer: Mehul Sura
Date: 4/24/2013

From AP-42 13.2.4, Aggregate Handling and Storage Piles, 11/2006

Emissions from storage piles can be described by the following empirical equation:

$$E = k(0.0032)\frac{\left(\frac{U}{5}\right)^{1.3}}{\left(\frac{M}{2}\right)^{1.4}}$$

Where:
E = emission factor (lb/tn)
k = particle size multiplier (dimensionless)
U = mean wind speed, miles per hour
M = material moisture content (%)

k =	PM	0.74
	PM10	0.35
	PM2.5	0.11

U = 13.4 mean wind speed, (mph) [source=rredc.nrel.gov/wind/pubs/atlas/maps/chap1/2-06m.html]

The mean moisture content was estimated as the average moisture content based on onsite test data.
M = 0.92 %, site specific moisture data

E = Emission Factors (lb/ton)

PM	PM10	PM2.5
0.02529857	0.011966	0.0037606

Maximum amount of material handled (tons/yr): 438,000 tons/year
Dust Control Efficiency: 50%

5.54	**Uncontrolled PM (tons/year)**
2.62	**Uncontrolled PM10 (tons/year)**
0.82	**Uncontrolled PM2.5 (tons/year)**
2.77	**Controlled PM (tons/year)**
1.31	**Controlled PM10 (tons/year)**
0.412	**Controlled PM2.5 (tons/year)**

Notes: Production is 50 tons/hour.

Methodology:
Maximum amount of material handled information is provided by the source.
Uncontrolled Emissions (tons/yr) = Emission Factors (lb/ton) * Production (tons/yr) * (ton/2000 lbs)
Controlled PTE (tons/yr) = (Uncontrolled Emissions (tons/yr)) * (1 - Dust Control Efficiency)

Company Name: Brandenburg Industrial Service Company
Address: One N. Broadway TS 670, Gary, Indiana 46402
Part 70 Operating Permit No.: T089-32793-00176
Reviewer: Mehul Sura
Date: 4/24/2013

Paint Booth (Unit 002)
VOC and PM/PM_{10}/$PM_{2.5}$ Emissions

Material	Density (lb/gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	VOC PTE pounds per hour	VOC PTE pounds per day	VOC PTE tons per year	$PM/PM_{10}/PM_{2.5}$ PTE (ton/yr)	Transfer Efficiency
Primer Coat															
DuPont 681-705	11.9	28.7%	0.0%	28.7%	0.0%	51.6%	10.0	0.33	3.40	3.40	11.22	269.30	49.15	67.25	45%
Thinner	6.3	100.0%	0.0%	100.0%	0.0%	0.0%	1.0	0.33	6.33	6.33	2.09	50.13	9.15	0.00	45%
Finish Coat															
Yellow 40P	9.1	37.4%	0.0%	37.4%	0.0%	51.6%	5.3	0.20	3.39	3.39	3.56	85.39	15.58	14.35	45%
Activator	9.4	9.5%	0.0%	9.5%	0.0%	87.0%	1.8	0.20	0.90	0.90	0.31	7.53	1.37	7.20	45%
										PTE Before Controls	**17.18**	**412.36**	75.25	88.80	
METHODOLOGY													**PTE After Controls**	**8.88**	

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
VOC PTE Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
PM/PM10 PTE Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Note: PTE Calculations based on worst case product consisting of metal 3-axle trailers.]
Note: $PM/PM_{10}/PM_{2.5}$ PTE is calculated using worst case transfer efficiency of 45%. Airless spray guns are used to apply the primer and air atomization spray guns are used to apply the finish coat. The actual transfer efficiencies for these guns may be as high as 50 to 75%.
Note: Control Efficiency = 90%

Volume Weighted Average

Material	Gal of Mat. (gal/unit)	Maximum (unit/hour)	VOC Content of Coating (lbs VOC/gal of coating less water as applied)	Σ(C*U)	Coating Usage Rate (Σ U)	Volume Weighted Average (A)
Primer Coat						
DuPont 681-705	10.0	0.33	3.4	269.30	79.20	
Thinner	1.0	0.33	6.3	50.13	7.92	
Finish Coat						
Yellow 40P	5.3	0.20	3.4	85.39	25.20	
Activator	1.8	0.20	0.9	7.53	8.40	
				412.36	**120.72**	**3.42**

Methodology
Volume Weighted Average Equation:
A = [∑ (C x U) / ∑ U]
Where:
A = the volume weighted average in pounds VOC per gallon less water as applied;
C = the VOC content of the coating in pounds VOC per gallon less water as applied; and
U = the usage rate of the coating in gallons per day

Company Name: Brandenburg Industrial Service Company
Address City IN Zip: One N. Broadway TS 670, Gary, Indiana 46402
Part 70 Operating Permit No.: T089-32793-00176
Reviewer: Mehul Sura
Date 4/24/2013

Paint Booth (Unit 002)
HAP Emissions

Material	Density (lb/gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % EthylBenzene	Weight % 1,2,4-trimethyl Benzene	Weight % Aliphatic Diisocyanate	Xylene PTE (ton/yr)	Toluene PTE (ton/yr)	Ethyl Benzene PTE (ton/yr)	1,2,4-trimethyl Benzene PTE (ton/yr)	Aliphatic Diisocyanate PTE (ton/yr)
Primer Coat													
DuPont 681-705	11.9	10.0	0.33	3.0%	0.0%	0.6%	0.0%	0.0%	5.14	0.00	1.03	0.00	0.00
Thinner	6.3	1.0	0.33	5.0%	16.0%	1.7%	0.0%	0.0%	0.46	1.46	0.16	0.00	0.00
Finish Coat													
Yellow 40P	9.1	5.3	0.20	2.0%	0.0%	0.4%	0.0%	0.0%	0.83	0.00	0.17	0.00	0.00
Activator	9.4	1.8	0.20	0.0%	0.0%	0.0%	2.0%	0.2%	0.00	0.00	0.00	0.29	0.03
								Total Potential Emissions	**6.43**	**1.46**	**1.35**	**0.29**	**0.03**

METHODOLOGY

Total HAPs (tons/yr): 9.57

HAP PTE (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

[Note: Calculations based on worst case product consisting of metal 3-axle trailer.]

Company Name: Brandenburg Industrial Service Company
Address: One N. Broadway TS 670, Gary, Indiana 46402
Part 70 Operating Permit No.: T089-32793-00176
Reviewer: Mehul Sura
Date: 4/24/2013

Blast Booth (Unit 003)
$PM/PM_{10}/PM_{2.5}$ Emissions

Table 1 - Emission Factors for Abrasives

	Emission Factor (EF)	
Abrasive	lb PM / lb abrasive	lb PM10 / lb PM
Sand	0.041	0.70
Grit	0.010	0.70
Steel Shot	0.004	0.86
Other	0.010	

Potential to Emit Before Control				
FR = Flow rate of actual abrasive (lb/hr) =	6324.0000	lb/hr (per nozzle)		
w = fraction of time of wet blasting =	0	%		
N = number of nozzles =	2			
EF = PM emission factor for actual abrasive from Table 1 =	0.010	lb PM/ lb abrasive		
PM10 emission factor ratio for actual abrasive from Table 1 =	0.70	lb PM10 / lb PM		
	PM	**PM10**		
Potential to Emit (before control) =	**126.5**	**88.5**	**lb/hr**	
=	**3035.5**	**2124.9**	**lb/day**	
=	**554.0**	**387.8**	**ton/yr**	

Potential to Emit After Control	**PM**	**PM10**	
Emission Control Device Efficiency =	**90.0%**	**90.0%**	
Potential to Emit (after control) =	**12.6**	**8.9**	**lb/hr**
=	**303.6**	**212.5**	**lb/day**
=	**55.4**	**38.8**	**ton/yr**

METHODOLOGY

Emission Factors from STAPPA/ALAPCO "Air Quality Permits", Vol. I, Section 3 "Abrasive Blasting" (1991 edition)
Potential to Emit (before control) = EF x FR x (1 - w/200) x N (where w should be entered in as a whole number (if w is 50%, enter 50))
Potential to Emit (after control) = [Potential to Emit (before control)] * [1 - control efficiency]
Potential to Emit (tons/year) = [Potential to Emit (lbs/hour)] x [8760 hours/year] x [ton/2000 lbs]

Appendix A: Emission Calculations

Unpaved Roads

Company Name: Brandenburg Industrial Service Company
Address City IN Zip: One N. Broadway TS 670, Gary, Indiana 46402
Permit Number: T089-32793-00176
Reviewer: Mehul Sura
Date: 4/24/2013

Unpaved Roads at Industrial Site

The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2 (12/2003).

Vehicle Type	Maximum Weight of Vehicle (tons)	Maximum Weight of Load (tons)	Maximum Weight of Vehicle and Load (tons/trip)	Maximum trips per year (trip/yr)	Total Weight driven per year (ton/yr)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/yr)
Roll off Truck	40.0	21	61	5400	3.3E+05	0.200	1080.0
WA500 Komatsu Ldr	49.0	42	91.0	18000	1.6E+06	0.165	2970.0
Bobcat skidsteer	5.0	4	9.0	1000	9.0E+03	0.165	165.0
954 with Shear	73.0	68	141.0	590	8.3E+04	0.165	97.4
924 with Magnet	37.0	33	70.0	590	4.1E+04	0.165	97.4
Pick up trucks	3.0	3	6.0	1,500	9.0E+03	0.200	300.0
Total				**2.7E+04**	**2.1E+06**		**4.7E+03**

Average Vehicle Weight Per Trip = 77.9 tons/trip
Average Miles Per Trip = 0.174 miles/trip

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

	PM	PM10	PM2.5	
where k =	4.9	1.5	0.15	lb/mi = particle size multiplier (AP-42 Table 13.2.2-2 for Industrial Roads)
s =	4.8	4.8	4.8	% = mean % silt content of unpaved roads (AP-42 Table 13.2.2-3 Sand/Gravel Processing Plant Road)
a =	0.7	0.9	0.9	= constant (AP-42 Table 13.2.2-2)
W =	77.9	77.9	77.9	tons = average vehicle weight (provided by source)
b =	0.45	0.45	0.45	= constant (AP-42 Table 13.2.2-2)

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

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	11.17	2.85	0.28	lb/mile
Mitigated Emission Factor, Eext =	7.35	1.87	0.19	lb/mile
Dust Control Efficiency =	50%	50%	50%	(pursuant to control measures outlined in fugitive dust control plan)

Vehicle Type	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)
Roll off Truck	6.03	1.54	0.15	3.97	1.01	0.10	1.98	0.51	0.05
WA500 Komatsu Ldr	16.59	4.23	0.42	10.91	2.78	0.28	5.45	1.39	0.14
Bobcat skidsteer	0.92	0.23	0.02	0.61	0.15	0.02	0.30	0.08	0.01
954 with Shear	0.54	0.14	0.01	0.36	0.09	0.01	0.18	0.05	0.00
924 with Magnet	0.54	0.14	0.01	0.36	0.09	0.01	0.18	0.05	0.00
Pick up trucks	1.68	0.43	0.04	1.10	0.28	0.03	0.55	0.14	0.01
Totals	**26.31**	**6.71**	**0.67**	**17.30**	**4.41**	**0.44**	**8.65**	**2.20**	**0.22**

Methodology

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

Abbreviations

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

Appendix A: Emissions Calculations

Paved Roads

Company Name: Brandenburg Industrial Service Company
Address City IN Zip: One N. Broadway TS 670, Gary, Indiana 46402
Permit Number: T089-32793-00176
Reviewer: Mehul Sura
Date: 4/24/2013

Maximum Throughput (ton/yr)	Vehicle Type	Maximum Weight of Vehicle (tons/trip)	Maximum Weight of Load (tons/trip)	Maximum Weight of Vehicle and Load (tons/trip)	Maximum trips per year (trip/yr)	Total Weight driven per day (ton/yr)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/yr)
108,000	Roll off Truck	19.0	21	40.0	5400	2.2E+05	1.0E-01	5.4E+02
126,000	Tractor / Trailer	33.5	67.36	100.8	160	1.6E+04	1.0E-01	1.6E+01
108,000	Pick Up Trucks	3.0	3	6.0	7665	4.6E+04	1.0E-01	7.7E+02
342,000					**13225**	**2.8E+05**		**1.3E+03**

Unmitigated Emission Factor, Ef = [k * (sL/2)^0.65 * (W/3)^1.5 - C] (Equation 1 from AP-42 13.2.1)

	PM	PM10	PM2.5	
where k =	0.082	0.016	0.0024	lb/mi = particle size multiplier (AP-42 Table 13.2.1-1)
C =	0.00047	0.00047	0.00047	lb/mi = emission factor for vehicle exhaust, brake wear, and tire wear (AP-42 Table 13.2.1-2)
sL =	1.05	1.05	1.05	g/m^2 = Ubitiguous Baseline Silt Loading Values of paved roads (Table 13.2.1-3 for summer months)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = E * [1 - (p/4N)]
Mitigated Emission Factor, Eext = Ef * [1 - (p/4N)]

where p =	125	days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)
N =	365	days per year

	Denaturant Receiving			DDGS Shipped			Denaturant Ethanol Shipped			
	PM	PM10	PM2.5	PM	PM10	PM2.5	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	2.63	0.51	0.08	10.51	2.05	0.00	0.15	0.03	0.00	lb/mile
Mitigated Emission Factor, Eext =	2.40	0.47	0.07	9.61	1.87	0.00	0.14	0.03	0.00	lb/mile
Dust Control Efficiency =	50%	50%	50%	50%	50%	50%	50%	50%	50%	

Vehicle Type	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)
Denaturant Receiving	0.71	0.14	0.02	0.65	0.13	0.02	0.32	0.06	0.01
DDGS Shipped	0.08	0.02	0.00	0.08	0	0	0.04	0.01	0.00
Denaturant Ethanol Shipped	0.058	0.011	0.002	0.053	0	0	0.027	5.1E-03	7.0E-04
Totals	**0.85**	**0.17**	**0.02**	**0.78**	**0.2**	**0.0**	**0.39**	**0.08**	**0.01**

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

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

Appendix A: Emissions Calculations
material drop operations

Company Name: Brandenburg Industrial Service Company
Address City IN Zip: One N. Broadway TS 670, Gary, Indiana 46402
Permit Number: T089-32793-00176
Reviewer: Mehul Sura
Date: 4/24/2013

From AP-42 13.2.4, Aggregate Handling and Storage Piles, 11/2006

Emissions from slag storage piles can be described by the following empirical equation:

$$E = k(0.0032)\frac{\left(\frac{U}{5}\right)^{1.3}}{\left(\frac{M}{2}\right)^{1.4}}$$

Where:
E = emission factor (lb/tn)
k = particle size multiplier (dimensionless)
U = mean wind speed, miles per hour
M = material moisture content (%)

k =		
	PM	0.74
	PM10	0.35
	PM2.5	0.11

U = 13.4 mean wind speed, (mph) [source=rredc.nrel.gov/wind/pubs/atlas/maps/chap1/2-06m.html]

The mean moisture content was estimated as the average moisture content based on onsite test data.

M = 0.92 %, site specific moisture data

E = Emission Factors (lb/ton)

PM	PM10	PM2.5
0.02529857	0.011966	0.003761

Maximum amount of material handled (tons/yr): 100,000
Control Eff: 50%

1.26	**Uncontrolled PM (tons/year)**
0.60	**Uncontrolled PM10 (tons/year)**
0.19	**Uncontrolled PM2.5 (tons/year)**
0.63	**Controlled PM (tons/year)**
0.30	**Controlled PM10 (tons/year)**
0.094	**Controlled PM2.5 (tons/year)**

Methodology
Maximum amount of material handled information is provided by the source.
Uncontrolled Emissions (tons/yr) = Emission Factors (lb/ton) * Production (tons/yr) * (ton/2000 lbs)
Controlled PTE (tons/yr) = (Uncontrolled Emissions (tons/yr)) * (1 - Dust Control Efficiency)

Appendix A: Emissions Calculations
Material Storage Piles

Company Name: Brandenburg Industrial Service Company
Address City IN Zip: One N. Broadway TS 670, Gary, Indiana 46402
Permit Number: T089-32793-00176
Reviewer: Mehul Sura
Date: 4/24/2013

The following calculations determine the amount of emissions created by wind erosion of storage stockpiles, based o
8,760 hours of use and USEPA's AP-42 (Pre 1983 Edition), Section 11.2.3

Ef = 1.7*(s/1.5)*(365-p)/235*(f/15)
where Ef = emission factor (lb/acre/day)
s = silt content (wt %)
p = 125 days of rain greater than or equal to 0.01 inches
f = 15 % of wind greater than or equal to 12 mph

				Uncontrolled		Controlled	
Material	Silt Content (wt %)*	Emission Factor (lb/acre/day)	Maximum Anticipated Pile Size (acres)**	PM (tons/yr)	PM10/PM2.5 (tons/yr)	PM (tons/yr)	PM10/PM2.5 (tons/yr)
Steel Scrap	1.6	1.85	40.00	13.52	4.73	6.76	2.37

Methodology
Uncontrolled PM (tons/yr) = (Emission Factor (lb/acre/day)) * (Maximum Pile Size (acres)) * (ton/2000 lbs) * (8760 hours/yr
Uncontrolled PM10/PM2.5 (tons/yr) = (Potential PM Emissions (tons/yr)) * 35%
Controlled Emissions (tons/yr) = Uncontrolled Emissions (tons/yr) * control efficiency (50%
*Lime stone Silt content values is used from AP-42 Table 13.2.4-1 (dated 1/95) has been used for the calculation purpose
**Maximum anticipated pile size (acres) provided is provided by the source.

Appendix A: Emission Calculations
Emissions Summary

Company Name: Brandenburg Industrial Service Company
Address City IN Zip: One N. Broadway TS 670, Gary, Indiana 46402
Permit Number: T089-32793-00176
Reviewer: Mehul Sura
Date: 4/24/2013

Uncontrolled Emissions

	PM	PM10	PM2.5	SO2	VOC	CO	NOX	CO2e	Total HAPs	Single HAP
Paint Booth (Unit 002)	88.80	88.80	88.80	-	75.25	-	-	-	9.567	6.434
Blast Booth (Unit 003)	553.98	387.79	387.79	-	-	-	-	-	-	-
Scrap Steel Preparation (burning field) combustion	0.002	0.008	0.008	0.001	0.012	0.090	0.156	152.98	-	-
Scrap Steel Preparation (burning field) process emissions	0.86	0.86	0.86	-	-	-	-	-	0.004	-
Bailing operations	5.54	2.62	0.82	-	-	-	-	-	-	-
Unpaved Roads	26.31	6.71	0.67	-	-	-	-	-	-	-
Paved Roads	0.851	0.166	0.022	-	-	-	-	-	-	-
material drop operations	1.26	0.60	0.19	-	-	-	-	-	-	-
Material Storage Piles	13.52	4.73	6.76	-	-	-	-	-	-	-
	691.13	492.28	485.92	0.00	75.27	0.09	0.16	152.98	9.57	6.43

Controlled/ Limited PTE

	PM	PM10	PM2.5	SO2	VOC	CO	NOX	CO2e	Total HAPs	Single HAP
Paint Booth (Unit 002)	8.88	8.88	8.88	-	75.25	-	-	-	9.567	6.434
Blast Booth (Unit 003)	55.40	38.78	38.78	-	-	-	-	-	-	-
Scrap Steel Preparation (burning field) combustion	0.002	0.008	0.008	0.001	0.012	0.090	0.156	152.98	-	-
Scrap Steel Preparation (burning field) process emissions	0.86	0.86	0.86	-	-	-	-	-	0.004	-
Bailing operations	2.77	1.31	0.41	-	-	-	-	-	-	-
Unpaved Roads	8.65	2.20	0.22	-	-	-	-	-	-	-
Paved Roads	0.39	0.08	0.01	-	-	-	-	-	-	-
material drop operations	0.63	0.30	0.09	-	-	-	-	-	-	-
Material Storage Piles	6.76	2.37	2.37	-	-	-	-	-	-	-
	84.34	54.78	51.63	0.001	75.27	0.09	0.16	152.98	9.57	6.43

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

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

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

TO: Jessica Zvyak
Brandenburg Industrial Service Company
1 North Broadway TS 670
Gary, IN 46402

DATE: September 17, 2013

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

SUBJECT: Final Decision
Renewal of a Part 70 Operating Permit
089-32793-00176

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:
Robert Stevenson, Fabrication Division Manager
General Manager, US Steel
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.

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

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

September 17, 2013

TO: Gary Public Library

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

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

Applicant Name: **Brandenburg Industrial Service Company**
Permit Number: **089-32793-00176**

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures
Final Library.dot 6/13/2013

Mail Code 61-53

IDEM Staff	VHAUN 9/17/2013 Brandenburg Industrial Service Co 089-32793-00176 FINAL			AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender	▶	Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: **CERTIFICATE OF MAILING ONLY**	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee Remarks
1		Jessica Zvyak Brandenburg Industrial Service Co 1 N Broadway TS 670 Gary IN 46402 (Source CAATS) Confirmed Delivery									
2		Robert Stevenson Fabrication Div Mgr Brandenburg Industrial Service Co 1 N Broadway TS 670 Gary IN 46402 *(RO CAATS)*									
3		East Chicago City Council 4525 Indianapolis Blvd East Chicago IN 46312 *(Local Official)*									
4		Gary - Hobart Water Corp 650 Madison St, P.O. Box M486 Gary IN 46401-0486 *(Affected Party)*									
5		Gary Mayors Office 401 Broadway # 203 Gary IN 46402 *(Local Official)*									
6		Lake County Health Department-Gary 1145 W. 5th Ave Gary IN 46402-1795 *(Health Department)*									
7		WJOB / WZVN Radio 6405 Olcott Ave Hammond IN 46320 *(Affected Party)*									
8		Shawn Sobocinski 3229 E. Atlanta Court Portage IN 46368 *(Affected Party)*									
9		Mark Coleman 107 Diana Road Portage IN 46368 *(Affected Party)*									
10		Mr. Chris Hernandez Pipefitters Association, Local Union 597 8762 Louisiana St., Suite G Merrillville IN 46410 *(Affected Party)*									
11		Craig Hogarth 7901 West Morris Street Indianapolis IN 46231 *(Affected Party)*									
12		Lake County Commissioners 2293 N. Main St, Building A 3rd Floor Crown Point IN 46307 *(Local Official)*									
13		Northwestern In Regional Planning Com (NIRPC) 6100 Southport Road Portage IN 46368 (Affected Party)									
14		Anthony Copeland 2006 E. 140th Street East Chicago IN 46312 *(Affected Party)*									
15		Barbara G. Perez 506 Lilac Street East Chicago IN 46312 *(Affected Party)*									

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is $50,000 per piece subject to a limit of $50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is $500. The maximum indemnity payable is $25,000 for registered mail, sent with optional postal insurance. See ***Domestic Mail Manual*** **R900, S913**, and **S921** for limitations of coverage on inured and COD mail. See ***International Mail Manual*** for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
14			

FACSIMILIE OF PS Form 3877

Mail Code 61-53

IDEM Staff	VHAUN 9/17/2013 Brandenburg Industrial Service Co 089-32793-00176 FINAL			AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender	▶	Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: **CERTIFICATE OF MAILING ONLY**	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee Remarks
1		Robert Garcia 3733 Parrish Avenue East Chicago IN 46312 (Affected Party)									
2		General Manager US Steel One North Broadway Gary IN 46402 *(Source ? addl contact)*									
3		Ms. Karen Kroczek 8212 Madison Ave Munster IN 46321-1627 *(Affected Party)*									
4		Joseph Hero 11723 S Oakridge Drive St. John IN 46373 *(Affected Party)*									
5		Gary City Council 401 Broadway # 209 Gary IN 46402 *(Local Official)*									
6		Peter Julovich Gary Dept. of Envrionmental Affairs 839 Broadway N206 Gary IN 46402 *(Local Official)*									
7		Mr. Larry Davis 268 South, 600 West Hebron IN 46341 *(Affected Party)*									
8		Ryan Dave 939 Cornwallis Munster IN 46321 *(Affected Party)*									
9		Matt Mikus 409 Yellowstone Rd - Apt 1 Valparaiso IN 46385 *(Affected Party)*									
10		Gary Public Library 501 South Lake Street Gary IN 46403-2408 *(Library)*									
11											
12											
13											
14											
15											

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is $50,000 per piece subject to a limit of $50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is $500. The maximum indemnity payable is $25,000 for registered mail, sent with optional postal insurance. See ***Domestic Mail Manual*** **R900, S913**, and **S921** for limitations of coverage on inured and COD mail. See ***International Mail Manual*** for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
10			

FACSIMILIE OF PS Form 3877