**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: August 6, 2013

RE: Ward Corporation / 003-31506-00198

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

# Notice of Decision: Approval - Effective Immediately

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

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

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

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

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

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

Enclosures
FNPER.dot 6/13/13

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# Federally Enforceable State Operating Permit Renewal

# OFFICE OF AIR QUALITY

## Ward Corporation
## 642 Growth Avenue
## Ft. Wayne, Indiana 46808

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

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

| Operation Permit No.: F003-31506-00198 | |
|---|---|
| Issued by:<br><br>Chrystal A. Wagner, Section Chief<br>Permits Branch<br>Office of Air Quality | Issuance Date: August 6, 2013<br><br>Expiration Date: August 6, 2023 |

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## SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

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

The Permittee owns and operates a stationary aluminum foundry producing and heat treating aluminum castings.

| | |
|---|---|
| Source Address: | 642 Growth Avenue, Ft. Wayne, Indiana 46808 |
| General Source Phone Number: | 260-426-8700 |
| SIC Code: | 3365 |
| County Location: | Allen |
| Source Location Status: | Attainment for all criteria pollutants |
| Source Status: | Federally Enforceable State Operating Permit Program<br>Minor Source, under PSD and Emission Offset Rules<br>Minor Source, Section 112 of the Clean Air Act<br>Not 1 of 28 Source Categories |

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

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

(a) One (1) Melting Operation, melting only clean aluminum charge, consisting of:

(1) Four (4) natural gas-fired reverberatory furnaces, as follows:

(A) Three (3) natural gas fired reverberatory furnaces, identified as GR1 through GR3, constructed in 1964, each with a rated heat input of 2.9 MMBtu per hour, each with a maximum melting capacity of 0.5 tons per hour, using no controls, and exhausting at stacks 6, 8 and 23, respectively.

(B) One (1) natural gas-fired reverberatory furnace, identified as GR4, constructed in 2012, with a maximum heat input capacity of 2.90 MMBtu/hr and a maximum melting capacity of 0.50 tons per hour, using no controls, exhausting to stack 23.

(2) Eight (8) natural gas fired crucibles, identified as CR1 through CR8, each with a rated heat input of 1 MMBtu per hour and a maximum melting capacity of 0.165 tons per hour of aluminum, exhausting at stack 15. These crucibles use no flux.

(3) One (1) Dry Hearth Sow melt furnace (no bath), identified as SOW1, constructed in 2013, with a maximum rated capacity of 1.5 MM Btu per hour and a rated capacity of one (1) ton aluminum per hour, feeds furnace EM2 and uses no flux.

(4) Two (2) glow bar electric melt furnaces, identified as EM1 and EM2, each with a maximum melting capacity of 1 ton of aluminum per hour, using no controls and exhausting through stacks 25 and 27, respectively.

(5) One (1) electric melt furnace, identified as EM3, with a maximum melting capacity of 1 ton of aluminum per hour, using no controls, and exhausting through stacks 25 and 27.

(6) One (1) electric melt furnace (constructed in 2000 and modified in 2012), identified as EM4, with a maximum melting capacity of 2.5 tons of aluminum per hour, using no controls, and exhausting through stacks 25 and 27.

Under 40 CFR 63, Subpart ZZZZZZ, the collection of melting operations is considered an affected source.

Note: the collection of melting operations uses two types of solid flux material in its operation; one is chlorine-based flux and the other is fluorine-based flux.

(b) One (1) Casting, Cleaning, and Finishing Operation, consisting of:

(1) One (1) Sand Handling, Casting Shakeout, and Ancillary Operation, constructed in 1964, and consisting of:

(A) One (1) sand Mullor, identified as MU1, replaced in 2013, with a maximum capacity of 48 tons of sand/hr, with particulate matter emissions controlled by a baghouse (BH6) exhausting inside the building.

(B) One (1) elevator/shake-out screen, identified as EV1, with a maximum capacity of 50 tons/hr, utilizing a baghouse (BH1) for particulate control, and exhausting to stack 3.

(2) Aluminum Casting, cooling, core knockout and casting finishing operations consisting of:

(A) One (1) pouring/casting, and cooling operation, identified as P1/P2, constructed in1964 and acquired in 1978, with a maximum capacity of 8.82 tons per hour of melted aluminum, impacting the 3.332 tons/hr core sand;

(B) One (1) Castings Core Knockout operation, constructed in 1978, and consisting of:

(i) Six (6) knockout machines to separate core sand from castings, identified as KN1 through KN6, with a combined maximum capacity of 3.332 tons per hour, utilizing a baghouse (BH1) for particulate control exhausting at stack 3.

(C) One (1) Wheelabrator shotblaster, identified as SB1, constructed in 1978, with a maximum capacity of 12 tons of steel shot per hour, utilizing a baghouse (BH3) for particulate control, exhausting at stack 2;

(D) One (1) Wheelabrator shotblaster, identified as SB2, constructed in 1978, with a maximum capacity of 8.25 tons of steel shot per hour, utilizing a baghouse (BH3) for particulate control, exhausting at stack 2.

(c) Three (3) aluminum belt grinders, identified as BG1 through BG3, constructed in 1984, with a combined maximum capacity of 8.82 tons per hour, utilizing a baghouse (BH2) for particulate control.

(d) Two (2) disc grinders, identified as DG1 through DG2, constructed in 1984, with a combined maximum capacity of 8.82 tons per hour, utilizing a baghouse (BH2) for particulate control.

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

This stationary source also includes the following insignificant activities:

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour;

(1) Eight (8) core machines, constructed in 1978, each with a maximum throughput of 0.4165 tons per hour (total 3.332 tons/hr), consisting of:

(A) Two (2) core machines, identified as CM1 and CM2, each with a rated heat input of 0.1100 MMBtu per hour,

(B) Two (2) core machines, identified as CM3 and CM4, each with a rated heat input of 0.1972 MMBtu per hour,

(C) Two (2) core machines, identified as CM5 and CM6, each with a rated heat input of 0.3712 MMBtu per hour,

(D) One (1) core machine, identified as CM7, with a rated heat input of 0.5800 MMBtu per hour, and

(E) One (1) core machine, identified as CM8, with a maximum heat input of 0.21 MMBtu per hour.

(2) One (1) heat treat oven, identified as HT1, constructed in 1978, with a rated heat input of 1.5 MMBtu per hour; exhausting at stack 32.

(3) Nine (9) space heaters, identified as SH1 through SH9, each constructed in 1978 with a rated heat input of 0.123 MMBtu per hour.

(4) Thirty-one (31) space heaters, identified as SH10 through SH40, each constructed in 2011 with a rated heat input of 0.123 MMBtu per hour, using no controls, and exhausting to atmosphere.

(5) One (1) radiant gas heater, identified as RGH1, constructed in 2011, with a rated heat input of 0.100 MMBtu per hour, using no controls, and exhausting to atmosphere.

(b) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to 0.003 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations:

(1) Pattern woodshop equipment, utilizing a cyclone on some units for particulate control, and consisting of:

(A) one (1) jointer, identified as J1,
(B) one (1) planer, identified as P1,
(C) two (2) routers, identified as R1 and R2,
(D) one (1) milling machine, identified as M1,

(E) two (2) band saws, identified as BS1 and BS2.
(F) two (2) disc sanders, identified as DS1 and DS2,
(G) one (1) wood lathe, identified as L1,
(H) one (1) table saw, identified as TS1, and
(I) one (1) radial arm saw, identified as RAS 1.

(2) Saws for removing gates and risers from castings.

(3) Five (5) aluminum cut off band saws, identified as CO1 through CO5, with no particulate control.

(4) One (1) carbide tip aluminum chop saw, identified as CS1.

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

(d) Any operation using aqueous solutions containing less than 1% by weight of VOCs excluding HAPs.

(e) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

(f) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone.

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

(h) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

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

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

## SECTION B GENERAL CONDITIONS

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

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

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

(a) This permit, F003-31506-00198, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

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

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

(a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or

(b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability [326 IAC 2-8-6] [IC 13-17-12]

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

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

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

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

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

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

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

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

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

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

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

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

(b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

(c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

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

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

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

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

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

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

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and

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

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

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

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

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

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

The Permittee shall implement the PMPs.

(b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

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

The Permittee shall implement the PMPs.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

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

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

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

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

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

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

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

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865

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

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

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

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

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

(C) Corrective actions taken.

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

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

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.

(g) Operations may continue during an emergency only if the following conditions are met:

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

(2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:

(A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and

(B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

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

(a) All terms and conditions of permits established prior to F003-31506-00198 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised, or

(3) deleted.

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

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

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

B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Federally Enforceable State Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

(1) That this permit contains a material mistake.

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

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]

(c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]

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

B.16 Permit Renewal [326 IAC 2-8-3(h)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

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

Indianapolis, Indiana 46204-2251

(b) A timely renewal application is one that is:

(1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-8-3(g), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.17 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

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

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

Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

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

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

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any approval required by 326 IAC 2-8-11.1 has been obtained;

(3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

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

and

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

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

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

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

(b) Emission Trades [326 IAC 2-8-15(b)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(b).

(c) Alternative Operating Scenarios [326 IAC 2-8-15(c)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ, or U.S. EPA is required.

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

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

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

B.20 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

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

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

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

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

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

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

B.21 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

(a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

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

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

Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

B.22 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ no later than thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

(b) Failure to pay may result in administrative enforcement action or revocation of this permit.

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

B.23 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [326 IAC 1-1-6]

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

**SECTION C SOURCE OPERATION CONDITIONS**

Entire Source

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

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

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

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

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

(a) Pursuant to 326 IAC 2-8:

(1) The potential to emit any regulated pollutant, except particulate matter (PM) and greenhouse gases (GHGs), from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.

(2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and

(3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(4) The potential to emit greenhouse gases (GHGs) from the entire source shall be limited to less than one hundred thousand (100,000) tons of $CO_2$ equivalent ($CO_2e$) emissions per twelve (12) consecutive month period.

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

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

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

C.3 Opacity [326 IAC 5-1]

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

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

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

C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

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

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

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

C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

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

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

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

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

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

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

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

All required notifications shall be submitted to:

Indiana Department of Environmental Management

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

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

(g) Indiana Licensed Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.

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

C.8 Performance Testing [326 IAC 3-6]

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

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

**Compliance Requirements [326 IAC 2-1.1-11]**

C.9 Compliance Requirements [326 IAC 2-1.1-11]

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

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

C.10 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or of initial start-up, whichever is later, to begin such monitoring. If due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance or the date of initial startup, whichever is later, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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

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

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

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

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

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

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

C.12 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.13 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]

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

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

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

(a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.

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

(1) initial inspection and evaluation;

(2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to normal or usual manner of operation.

(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

(1) monitoring results;

(2) review of operation and maintenance procedures and records; and/or

(3) inspection of the control device, associated capture system, and the process.

(d) Failure to take reasonable response steps shall be considered a deviation from the permit.

(e) The Permittee shall record the reasonable response steps taken.

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.

(b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

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

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

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

Records of required monitoring information include the following:

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

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

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

C.17 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

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

(b) The address for report submittal is:

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

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

**Stratospheric Ozone Protection**

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

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

**SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS**

**Emissions Unit Description:**

(a) One (1) Melting Operation, melting only clean aluminum charge, consisting of:

(1) Four (4) natural gas-fired reverberatory furnaces, as follows:

(A) Three (3) natural gas fired reverberatory furnaces, identified as GR1 through GR3, constructed in 1964, each with a rated heat input of 2.9 MMBtu per hour, each with a maximum melting capacity of 0.5 tons per hour, using no controls, and exhausting at stacks 6, 8 and 23, respectively.

(B) One (1) natural gas-fired reverberatory furnace, identified as GR4, constructed in 2012, with a maximum heat input capacity of 2.90 MMBtu/hr and a maximum melting capacity of 0.50 tons per hour, using no controls, exhausting to stack 23.

(2) Eight (8) natural gas fired crucibles, identified as CR1 through CR8, each with a rated heat input of 1 MMBtu per hour and a maximum melting capacity of 0.165 tons per hour of aluminum, exhausting at stack 15. These crucibles use no flux.

(3) One (1) Dry Hearth Sow melt furnace (no bath), identified as SOW1, constructed in 2013, with a maximum rated capacity of 1.5 MM Btu per hour and a rated capacity of one (1) ton aluminum per hour, feeds furnace EM2 and uses no flux.

(4) Two (2) glow bar electric melt furnaces, identified as EM1 and EM2, each with a maximum melting capacity of 1 ton of aluminum per hour, using no controls and exhausting through stacks 25 and 27, respectively.

(5) One (1) electric melt furnace, identified as EM3, with a maximum melting capacity of 1 ton of aluminum per hour, using no controls, and exhausting through stacks 25 and 27.

(6) One (1) electric melt furnace (constructed in 2000 and modified in 2012), identified as EM4, with a maximum melting capacity of 2.5 tons of aluminum per hour, using no controls, and exhausting through stacks 25 and 27.

Under 40 CFR 63, Subpart ZZZZZZ, the collection of melting operations is considered an affected source.

Note: the collection of melting operations uses two types of solid flux material in its operation; one is chlorine-based flux and the other is fluorine-based flux.

(b) One (1) Casting, Cleaning, and Finishing Operation, consisting of:

(1) One (1) Sand Handling, Casting Shakeout, and Ancillary Operation, constructed in 1964, and consisting of:

(A) One (1) sand Mullor, identified as MU1, replaced in 2013, with a maximum capacity of 48 tons of sand/hr, with particulate matter emissions controlled by a baghouse (BH6) exhausting inside the building.

(B) One (1) elevator/shake-out screen, identified as EV1, with a maximum capacity of 50 tons/hr, utilizing a baghouse (BH1) for particulate control,

and exhausting to stack 3.

(2) Aluminum Casting, cooling, core knockout and casting finishing operations consisting of:

(A) One (1) pouring/casting, and cooling operation, identified as P1/P2, constructed in1964 and acquired in 1978, with a maximum capacity of 8.82 tons per hour of melted aluminum, impacting the 3.332 tons/hr core sand;

(B) One (1) Castings Core Knockout operation, constructed in 1978, and consisting of:

(i) Six (6) knockout machines to separate core sand from castings, identified as KN1 through KN6, with a combined maximum capacity of 3.332 tons per hour, utilizing a baghouse (BH1) for particulate control exhausting at stack 3.

(C) One (1) Wheelabrator shotblaster, identified as SB1, constructed in 1978, with a maximum capacity of 12 tons of steel shot per hour, utilizing a baghouse (BH3) for particulate control, exhausting at stack 2;

(D) One (1) Wheelabrator shotblaster, identified as SB2, constructed in 1978, with a maximum capacity of 8.25 tons of steel shot per hour, utilizing a baghouse (BH3) for particulate control, exhausting at stack 2.

(c) Three (3) aluminum belt grinders, identified as BG1 through BG3, constructed in 1984, with a combined maximum capacity of 8.82 tons per hour, utilizing a baghouse (BH2) for particulate control.

(d) Two (2) disc grinders, identified as DG1 through DG2, constructed in 1984, with a combined maximum capacity of 8.82 tons per hour, utilizing a baghouse (BH2) for particulate control.

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

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

D.1.1 Particulate [326 IAC 6-3-2]

The particulate emissions from the emission units listed in the table below shall be limited by the following:

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

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

or

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

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

The allowable emissions for each facility operating at its maximum process weight rate are as follows:

| Emission Unit | Process Weight Rate (tons/hr) | Controlled / Limited PM Emissions (lb/hr) | Allowable Particulate Emissions (326 IAC 6-3-2) (lb/hr) |
|---|---|---|---|
| Gas Reverberatory Furnaces (GR1-GR4) | 0.501 ea | 0.31 ea (Unlimited) | 2.58 ea |
| Crucibles (CR1-CR8) | 0.165 ea | | 1.22 ea |
| Electric Melt Furnace (EM1) | 1.0 | | 4.10 |
| Electric Melt Furnace (EM2) | 1.0 | | 4.10 |
| Electric Melt Furnace (EM3) | 1.0 | | 4.10 |
| Electric Melt Furnace (EM4) | 2.5 | | 7.57 |
| Dry Hearth Sow Melt Furnace (SOW1) | 1.0 | | 4.10 |
| Sand Muller Units (MU 1) | 48.00 | 17.28 | 44.19 |
| Shakeout | 8.83 | 2.82 | 17.64 |
| Pouring/Casting/Cooling Knockout Machines (6), (KN1-KN6) | 0.55 ea | 1.07 | 2.74 ea |
| Shot Blasting (SB1) | 12.0 | 0.04 (BH3) | 21.67 |
| Shot Blasting (SB2) | 8.25 | 0.02 (BH3) | 16.85 |
| Belt Grinders (BG1 through BG3) | 2.94 ea | 0.03 ea (BH1) | 8.44 ea |
| Disc Grinders (DG1 and DG2) | 4.41 ea | 0.03 ea (BH1) | 11.08 ea |

D.1.2 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

(a) In order to render 326 IAC 2-2 (PSD) not applicable, the Permittee shall melt only clean charge in the melt furnaces identified as reverberatory furnaces GR1-GR4, Gas Crucible furnaces CR1-CR8, Dry Hearth Sow furnace SOW1, and electric melt furnaces EM1-EM4, at all times.

(b) Clean charge shall be defined as furnace charge materials, including molten aluminum; T-bar; sow; ingot; billet; pig; aluminum scrap known by the owner to be entirely free of paints, coatings, and lubricants; uncoated/unpainted aluminum chips that have been thermally dried or treated by a centrifugal cleaner; aluminum scrap dried at 365°C (650°F) or higher; aluminum scrap delacquered/decoated at 483°C (900°F) or higher; and runaround scrap.

D.1.3 PSD Minor Limit [326 IAC 2-2]

(a) The total core sand throughput to the core knockout process shall not exceed 27,728.9 tons of core sand per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The PM emissions from melting furnaces (GR1 through GR4, CR1 through CR8, SOW1, and EM1 through EM4) shall not exceed 0.533 pounds per ton of metal.

(c) The PM emissions from Pouring/Casting, Cooling, Knockout operation shall not exceed 3.2 pounds per ton of cores.

(d) The PM emissions from Shakeout operation shall not exceed 3.2 pounds per ton of metal. The baghouse BH1 shall operate at all times that the Shakeout process is operating.

(e) The PM emissions from Wheelabrator Shotblasters (SB1 and SB2) shall not exceed 2.0 pounds per hour. The baghouse BH3 shall operate at all times that the shotblasters SB1 and SB2 are operating.

(f) The PM emissions from Sand Muller (MU1) shall not exceed 5.0 pounds per hour. The baghouse BH1 shall operate at all times that the sand muller MU1 is operating.

Compliance with above emission limits in combination with potential emissions of PM emissions from the entire source shall limit PM emissions from the entire source to less than 250 tons per twelve consecutive month period, and shall render 326 IAC 2-2 (PSD) not applicable.

D.1.4 PSD Minor and FESOP Limits [326 IAC 2-2] [326 IAC 2-8-4] [326 IAC 2-4.1]

(a) The total core sand throughput to the core knockout process shall not exceed 27,728.9 tons of core sand per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The source shall use only solid flux in the Group 1 melting furnaces (GR1 through GR4, SOW1, and EM1 through EM4).

(c) HCl emissions from solid flux addition to the melt process shall not exceed 6.18 tons per twelve (12) consecutive month period, with compliance shown at the end of each month.

(d) HF emissions from solid flux addition to the melt process shall not exceed 2.27 tons per twelve (12) consecutive month period, with compliance shown at the end of each month.

(e) The PM10 emissions from melting furnaces (GR1 through GR4, CR1 through CR8, SOW1, and EM1 through EM4) shall not exceed 1.1 pounds per ton of metal.

(f) The PM10 emissions from melting furnaces (GR1 through GR4, CR1 through CR8, SOW1, and EM1 through EM4) shall not exceed 1.1 pounds per ton of metal.

(g) The PM10 emissions from Pouring/Casting, Cooling, Knockout operation shall not exceed 2.24 pounds per ton of cores.

(h) The PM2.5 emissions from Pouring/Casting, Cooling, Knockout operation shall not exceed 1.34 pounds per ton of cores.

(i) The PM10 emissions from Shakeout operation shall not exceed 2.24 pounds per ton of metal. The baghouse BH1 shall operate at all times that the Shakeout process is operating.

(j) The PM2.5 emissions from Shakeout operation shall not exceed 2.24 pounds per ton of metal. The baghouse BH1 shall operate at all times that the Shakeout process is operating.

(k) The PM10 emissions from Wheelabrator Shotblasters (SB1 and SB2) shall not exceed 2.0 pounds per hour. The baghouse BH3 shall operate at all times that the shotblasters SB1 and SB2 are operating.

(l) The PM2.5 emissions from Wheelabrator Shotblasters (SB1 and SB2) shall not exceed 2.0 pounds per hour. The baghouse BH3 shall operate at all times that the shotblasters SB1 and SB2 are operating.

(m) The PM10 emissions from Sand Muller (MU1) shall not exceed 1.0 pound per hour. The baghouse BH1 shall operate at all times that the sand muller MU1 is operating.

(n) The PM10 emissions from Sand Muller (MU1) shall not exceed 1.0 pound per hour. The baghouse BH1 shall operate at all times that the sand muller MU1 is operating.

(o) The CO emissions from the Pouring/Casting (P1/P2), Cooling and Castings Knockout operations for sand molds shall not exceed 6.0 pounds per ton of core sand.

Compliance with above emission limits in combination with potential emissions of PM10, PM2.5, CO, single HAP, and total HAPs from insignificant activities shall limit the source-wide PM10, PM2.5, and CO emissions to less than 100 tons per twelve consecutive month period, each, and single HAP and total HAPs emissions to less than 10 and 25 tons per twelve consecutive month period, respectively. Therefore, the requirements of 326 IAC 2-7 (Part 70) do not apply. The above limits for PM10 and PM2.5 will also render 326 IAC 2-2 (PSD) and 326 IAC 2-4.1 (New Source Toxics Control) not applicable.

D.1.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan is required for these facilities and their control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

**Compliance Determination Requirements**

D.1.6 Particulate and HAP Emission Control

(a) In order to comply with conditions D.1.1, D.1.3, D.1.4, and D.1.6, the baghouses (BH1, BH2, BH3, and BH6) for particulate control shall be in operation and control emissions from the Castings Knockout and Shakeout operation, Wheelabrator Shotblasters SB1 and SB2, Belt Grinders (BG1 through BG3), and Disc Grinders DG1 and DG2), at all times that the facilities are in operation.

(b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

(c) In order to demonstrate compliance with conditions D.1.4(c) and D.1.4(d), the Permittee shall use the following equation to calculate monthly emissions for each HAP from each of the solid flux materials used in the melting process:

$$E_{HAP} = \sum \frac{(U_a \times HAP_a)}{2000 \text{ lb/ton}}$$

Where:

$E_{HAP}$ = HAP emissions (tons for the month)
$U_a$ = solid flux material usage, in pounds per month, for each flux used
$HAP_a$ = weight percentage of HAP for each HAP used in each flux used

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

D.1.7 Visible Emissions Notations

(a) Visible emission notations of the baghouse BH1, BH2, BH3, and BH6 stacks exhausts (3, 33, and 2, respectively) shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps. Section C- Response to Excursions or Exceedances contains the Permittee's obligation with regard to the response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.1.8 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouse BH1, BH2, BH3, and BH6 used in conjunction with the emission units Castings Knockout and Shakeout operation, MU1, MU3, SB-1, SB-2, BG1 through BG3, DG1 and DG2, at least once per day when the process is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 to 6.0 inches of water for BH1, 4.0 and 6.0 inches of water for BH2 and BH6, and 1.0 to 5.0 inches of water for BH3 or a range established during the latest stack test, 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. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

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

D.1.9 Broken or Failed Bag Detection

(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

**Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

D.1.10 Record Keeping Requirements

(a) To document compliance with Conditions D.1.3, D.1.4, and D.1.6, the Permittee shall maintain monthly records of the amount of HAPs emissions from the solid flux operation in the melting process.

(b) To document compliance with Condition D.1.3 and D.1.4, the Permittee shall maintain monthly records of the amount of material processed through core knockout process.

(c) To document compliance with Condition D.1.7, the Permittee shall maintain a daily record of visible emission notations of baghouse BH1, BH2, BH3, and BH6 stacks exhausts (3, 33, and 2, respectively). The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (e.g. the process did not operate that day).

(d) To document compliance with Condition D.1.8, the Permittee shall maintain a daily record of the pressure drop across each baghouse controlling the Castings Knockout and Shakeout operation, SB-1 and SB-2, BG1 through BG3, DG1 and DG2. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g. the process did not operate that day).

(e) In order to document the compliance status with Condition D.1.2, the Permittee shall maintain records that document that only clean charge, as defined by Condition D.1.2(b), has been used in the furnaces.

(f) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the record keeping required by this condition.

D.1.11 Reporting Requirements

A quarterly summary to document compliance with Conditions D.1.3, D.1.4, and D.1.6, shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

**SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS**

**Emissions Unit Description:** Insignificant Activities:

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour;

(1) Eight (8) core machines, constructed in 1978, each with a maximum throughput of 0.4165 tons per hour (total 3.332 tons/hr), consisting of:

(A) Two (2) core machines, identified as CM1 and CM2, each with a rated heat input of 0.1100 MMBtu per hour,

(B) Two (2) core machines, identified as CM3 and CM4, each with a rated heat input of 0.1972 MMBtu per hour,

(C) Two (2) core machines, identified as CM5 and CM6, each with a rated heat input of 0.3712 MMBtu per hour,

(D) One (1) core machine, identified as CM7, with a rated heat input of 0.5800 MMBtu per hour, and

(E) One (1) core machine, identified as CM8, with a maximum heat input of 0.21 MMBtu per hour.

(2) One (1) heat treat oven, identified as HT1, constructed in 1978, with a rated heat input of 1.5 MMBtu per hour; exhausting at stack 32.

(3) Nine (9) space heaters, identified as SH1 through SH9, each constructed in 1978 with a rated heat input of 0.123 MMBtu per hour.

(4) Thirty-one (31) space heaters, identified as SH10 through SH40, each constructed in 2011 with a rated heat input of 0.123 MMBtu per hour, using no controls, and exhausting to atmosphere.

(5) One (1) radiant gas heater, identified as RGH1, constructed in 2011, with a rated heat input of 0.100 MMBtu per hour, using no controls, and exhausting to atmosphere.

(b) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to 0.003 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations:

(1) Pattern woodshop equipment, utilizing a cyclone on some units for particulate control, and consisting of:

(A) one (1) jointer, identified as J1,
(B) one (1) planer, identified as P1,
(C) two (2) routers, identified as R1 and R2,
(D) one (1) milling machine, identified as M1,
(E) two (2) band saws, identified as BS1 and BS2.

(F) two (2) disc sanders, identified as DS1 and DS2,
(G) one (1) wood lathe, identified as L1,
(H) one (1) table saw, identified as TS1, and
(I) one (1) radial arm saw, identified as RAS 1.

(2) Saws for removing gates and risers from castings.

(3) Five (5) aluminum cut off band saws, identified as CO1 through CO5, with no particulate control.

(4) One (1) carbide tip aluminum chop saw, identified as CS1.

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

(d) Any operation using aqueous solutions containing less than 1% by weight of VOCs excluding HAPs.

(e) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

(f) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone.

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

(h) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

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

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

D.2.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2(c)]

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

(1) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.

$$0.03 \frac{\text{grains}}{\text{acfm}} \times 4000 \text{ acfm} \times \frac{1 \text{ pound}}{7000 \text{ grains}} \times \frac{60 \text{ min}}{1 \text{ hour}} = 1.028 \text{ lb/hour}$$

(A) Pattern woodshop equipment, utilizing a cyclone on some units for particulate control, and consisting of:
(i) one (1) jointer, identified as J1,
(ii) one (1) planer, identified as P1,
(iii) two (2) routers, identified as R1 and R2,
(iv) one (1) milling machine, identified as M1,
(v) two (2) band saws, identified as BS1 and BS2.

(vi) two (2) disc sanders, identified as DS1 and DS2,
(vii) one (1) wood lathe, identified as L1,
(viii) one (1) table saw, identified as TS1, and
(ix) one (1) radial arm saw, identified as RAS 1.

(B) Saws for removing gates and risers from castings.

(C) Five (5) aluminum cut off band saws, identified as CO1 through CO5, with no particulate control.

(D) One (1) carbide tip aluminum chop saw, identified as CS1.

**SECTION E.1 EMISSIONS UNIT OPERATION CONDITIONS**

**Emissions Unit Description:**

(a) One (1) Melting Operation, melting only clean aluminum charge, consisting of:

(1) Four (4) natural gas-fired reverberatory furnaces, as follows:

(A) Three (3) natural gas fired reverberatory furnaces, identified as GR1 through GR3, constructed in 1964, each with a rated heat input of 2.9 MMBtu per hour, each with a maximum melting capacity of 0.5 tons per hour, using no controls, and exhausting at stacks 6, 8 and 23, respectively.

(B) One (1) natural gas-fired reverberatory furnace, identified as GR4, constructed in 2012, with a maximum heat input capacity of 2.90 MMBtu/hr and a maximum melting capacity of 0.50 tons per hour, using no controls, exhausting to stack 23.

(2) Eight (8) natural gas fired crucibles, identified as CR1 through CR8, each with a rated heat input of 1 MMBtu per hour and a maximum melting capacity of 0.165 tons per hour of aluminum, exhausting at stack 15. These crucibles use no flux.

(3) One (1) Dry Hearth Sow melt furnace (no bath), identified as SOW1, constructed in 2013, with a maximum rated capacity of 1.5 MM Btu per hour and a rated capacity of one (1) ton aluminum per hour, feeds furnace EM2 and uses no flux.

(4) Two (2) glow bar electric melt furnaces, identified as EM1 and EM2, each with a maximum melting capacity of 1 ton of aluminum per hour, using no controls and exhausting through stacks 25 and 27, respectively.

(5) One (1) electric melt furnace, identified as EM3, with a maximum melting capacity of 1 ton of aluminum per hour, using no controls, and exhausting through stacks 25 and 27.

(6) One (1) electric melt furnace (constructed in 2000 and modified in 2012), identified as EM4, with a maximum melting capacity of 2.5 tons of aluminum per hour, using no controls, and exhausting through stacks 25 and 27.

Under 40 CFR 63, Subpart ZZZZZZ, the collection of melting operations is considered an affected source.

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

**National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements**

E.1.1 General Provisions Relating to NESHAP [40 CFR Part 63, Subpart A] [326 IAC 20-1]

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

E.1.2 National Emission Standards for Hazardous Air Pollutants (NESHAP) for Area Sources for Aluminum, Copper, and other Nonferrous Foundries [40 CFR Part 63, Subpart ZZZZZZ]

The Permittee, which engages in secondary aluminum production, shall comply with the following provisions of 40 CFR Part 63, Subpart ZZZZZZ (included as Attachment A of this permit) for the aluminum foundry, with a compliance date upon initial startup:

Non applicable portions of the NESHAP will not be included in the permit; however, the NESHAP will be shown in its entirety in Appendix A of the permit. This source is subject to the following portions of Subpart 6Z:

(a) 40 CFR 63.11554(a)(1), (a)(2), (a)(4), (b), and (c)
(b) 40 CFR 63.11545(b)
(c) 40 CFR 63.11550(a)(1), (a)(2), (a)(3), (b)(1), (b)(2), and (d)
(d) 40 CFR 63.11551(b)(1), (b)(2) (testing)
(e) 40 CFR 63.11552(a), (b)(1), (b)(2), (b)(3), (c)(1), (c)(2), (c)(3), and (c)(4)
(f) 40 CFR 63.11553(a), (b), (c), (d), and (e)
(g) 40 CFR 63.11556

The provisions of 40 CFR 63 Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63 Subpart ZZZZZZ (6Z).

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

The Permittee shall perform the stack testing required under NESHAP 40 CFR 63, Subpart ZZZZZZ, utilizing methods as approved by the Commissioner to document compliance with Condition E.1.2. These tests shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

## OFFICE OF AIR QUALITY
## COMPLIANCE AND ENFORCEMENT BRANCH

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

Source Name: Ward Corporation
Source Address: 642 Growth Avenue, Ft. Wayne, Indiana 46808
FESOP Permit No.: F003-31506-00198

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

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify)_____

☐ Report (specify)_____

☐ Notification (specify)_____

☐ Affidavit (specify)_____

☐ Other (specify)_____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

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

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

Source Name: Ward Corporation
Source Address: 642 Growth Avenue, Ft. Wayne, Indiana 46808
FESOP Permit No.: F003-31506-00198

**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<br>Describe: |
| Type of Pollutants Emitted: TSP, PM-10, $SO_2$, VOC, $NO_X$, CO, Pb, other: |
| Estimated amount of pollutant(s) emitted during emergency: |
| Describe the steps taken to mitigate the problem: |
| Describe the corrective actions/response steps taken: |
| Describe the measures taken to minimize emissions: |
| If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value: |

Form Completed by:_____

Title / Position:_____

Date:_____

Phone: _____

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

**FESOP Usage Report #1**
(Submit Report Quarterly)

Source Name: Ward Corporation
Source Address: 642 Growth Avenue, Ft. Wayne, Indiana 46808
FESOP Permit No.: F003-31506-00198
Facility: Cores
Parameter: Core sand throughput
Limit: The total core sand throughput to the process shall be less than 27,728.9 tons of core sand per twelve (12) consecutive month period each, with compliance determined at the end of each month.

YEAR:

| Month | Column 1<br>Core Sand Throughput<br>This Month | Column 2<br>Core Sand Throughput<br>Previous 11 Months | Column 1+ Column 2<br>Core Sand Throughput<br>12 Month Total |
|---|---|---|---|
| Month 1 | | | |
| Month 2 | | | |
| Month 3 | | | |

☐ No deviation occurred in this month.

☐ Deviation/s occurred in this month.
Deviation has been reported on:

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

Attach a signed certification to complete this report.

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

**FESOP Usage Report #2**
(Submit Report Quarterly)

Source Name: Ward Corporation
Source Address: 642 Growth Avenue, Ft. Wayne, Indiana 46808
FESOP Permit No.: F003-31506-00198
Facility: Melting Furnaces
Parameter: Hydrochloric acid (HCl) Emissions from Flux Used
Limit: The total HCl emissions from the solid flux added to the melting furnaces shall be less than 6.18 tons of HCl per twelve (12) consecutive month period each, with compliance determined at the end of each month.

YEAR:

| Month | Column 1<br>HCl Emissions<br>This Month | Column 2<br>HCl Emissions<br>Previous 11 Months | Column 1+ Column 2<br>HCl Emissions<br>12 Month Total |
|---|---|---|---|
| Month 1 | | | |
| Month 2 | | | |
| Month 3 | | | |

☐ No deviation occurred in this month.

☐ Deviation/s occurred in this month.
Deviation has been reported on:

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

Attach a signed certification to complete this report.

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

**FESOP Usage Report #3**
(Submit Report Quarterly)

Source Name: Ward Corporation
Source Address: 642 Growth Avenue, Ft. Wayne, Indiana 46808
FESOP Permit No.: F003-31506-00198
Facility: Melting Furnaces
Parameter: Hydrofluoric acid (HF) Emissions from Flux Used
Limit: The total HF emissions from the solid flux added to the melting furnaces shall be less than 2.27 tons of HF per twelve (12) consecutive month period each, with compliance determined at the end of each month.

YEAR:

| Month | Column 1<br>HF Emissions | Column 2<br>HF Emissions | Column 1+ Column 2<br>HF Emissions |
|---|---|---|---|
| | This Month | Previous 11 Months | 12 Month Total |
| Month 1 | | | |
| Month 2 | | | |
| Month 3 | | | |

☐ No deviation occurred in this month.

☐ Deviation/s occurred in this month.
Deviation has been reported on:

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

Attach a signed certification to complete this report.

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

Source Name: Ward Corporation
Source Address: 642 Growth Avenue, Ft. Wayne, Indiana 46808
FESOP Permit No.: F003-31506-00198

**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: _____

# Attachment A

# NESHAP Subpart ZZZZZZ
# for
# Ward Corporation, Ft. Wayne, Indiana

## Subpart ZZZZZZ—National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries

SOURCE: 74 FR 30393, June 25, 2009, unless otherwise noted.

**Applicability and Compliance Dates**

**§ 63.11544 Am I subject to this subpart?**

(a) You are subject to this subpart if you own or operate an aluminum foundry, copper foundry, or other nonferrous foundry as defined in § 63.11556, "What definitions apply to this subpart?" that is an area source of hazardous air pollutant (HAP) emissions as defined in § 63.2 and meets the criteria specified in paragraphs (a)(1) through (4) of this section. Once you are subject to this subpart, you must remain subject to this subpart even if you subsequently do not meet the criteria in paragraphs (a)(1) through (4) of this section.

(1) Your aluminum foundry uses material containing aluminum foundry HAP, as defined in § 63.11556, "What definitions apply to this subpart?"; or

(2) Your copper foundry uses material containing copper foundry HAP, as defined in § 63.11556, "What definitions apply to this subpart?"; or

(3) Your other nonferrous foundry uses material containing other nonferrous foundry HAP, as defined in § 63.11556, "What definitions apply to this subpart?".

(4) Your aluminum foundry, copper foundry, or other nonferrous foundry has an annual metal melt production (for existing affected sources) or an annual metal melt capacity (for new affected sources) of at least 600 tons per year (tpy) of aluminum, copper, and other nonferrous metals, including all associated alloys. You must determine the annual metal melt production and capacity for the time period as described in paragraphs (a)(4)(i) through (iv) of this section. The quantity of ferrous metals melted in iron or steel melting operations and the quantity of nonferrous metal melted in non-foundry melting operations are not included in determining the annual metal melt production for existing affected sources or the annual metal melt capacity for new affected sources.

(i) If you own or operate a melting operation at an aluminum, copper or other nonferrous foundry as of February 9, 2009, you must determine if you are subject to this rule based on your facility's annual metal melt production for calendar year 2010.

(ii) If you construct or reconstruct a melting operation at an aluminum, copper or other nonferrous foundry after February 9, 2009, you must determine if you are subject to this rule based on your facility's annual metal melt capacity at startup.

(iii) If your foundry with an existing melting operation increases production after calendar year 2010 such that the annual metal melt production equals or exceeds 600 tpy, you must submit a written notification of applicability to the Administrator within 30 days after the end of the calendar year and comply within 2 years after the date of the notification.

(iv) If your foundry with a new melting operation increases capacity after startup such that the annual metal melt capacity equals or exceeds 600 tpy, you must submit a written notification of applicability to the Administrator within 30 days after the capacity increase year and comply at the time of the capacity increase.

(b) This subpart applies to each new or existing affected source located at an aluminum, copper or other nonferrous foundry that is an area source as defined by § 63.2. The affected source is the collection of all melting operations located at an aluminum, copper, or other nonferrous foundry.

(c) An affected source is an existing source if you commenced construction or reconstruction of the affected source on or before February 9, 2009.

(d) An affected source is a new source if you commenced construction or reconstruction of the affected source after February 9, 2009.

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

(f) You are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not otherwise required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart applicable to area sources.

[74 FR 30393, June 25, 2009, as amended at 74 FR 46495, Sept. 10, 2009]

**§ 63.11545 What are my compliance dates?**

(a) If you own or operate an existing affected source, you must achieve compliance with the applicable provisions of this subpart no later than June 27, 2011.

(b) If you start up a new affected source on or before June 25, 2009, you must achieve compliance with the provisions of this subpart no later than June 25, 2009.

(c) If you start up a new affected source after June 25, 2009, you must achieve compliance with the provisions of this subpart upon startup of your affected source.

**Standards and Compliance Requirements**

**§ 63.11550 What are my standards and management practices?**

(a) If you own or operate new or existing affected sources at an aluminum foundry, copper foundry, or other nonferrous foundry that is subject to this subpart, you must comply with the requirements in paragraphs (a)(1) through (3) of this section.

(1) Cover or enclose each melting furnace that is equipped with a cover or enclosure during the melting operation to the extent practicable (e.g., except when access is needed; including, but not limited to charging, alloy addition, and tapping).

(2) Purchase only metal scrap that has been depleted (to the extent practicable) of aluminum foundry HAP, copper foundry HAP, or other nonferrous foundry HAP (as applicable) in the materials charged to the melting furnace, except metal scrap that is purchased specifically for its HAP metal content for use in alloying or to meet specifications for the casting. This requirement does not apply to material that is not scrap (e.g., ingots, alloys, sows) or to materials that are not purchased (e.g., internal scrap, customer returns).

(3) Prepare and operate pursuant to a written management practices plan. The management practices plan must include the required management practices in paragraphs (a)(1) and (2) of this section and may include any other management practices that are implemented at the facility to minimize emissions from melting furnaces. You must inform your appropriate employees of the management practices that they must follow. You may use your standard operating procedures as the management practices plan provided the standard operating procedures include the required management practices in paragraphs (a)(1) and (2) of this section.

(b) If you own or operate a new or existing affected source that is located at a large foundry as defined in § 63.11556, you must comply with the additional requirements in paragraphs (b)(1) and (2) of this section.

(1) For existing affected sources located at a large foundry, you must achieve a particulate matter (PM) control efficiency of at least 95.0 percent or emit no more than an outlet PM concentration limit of 0.034 grams per dry standard cubic meter (g/dscm) (0.015 grains per dry standard cubic feet (gr/dscf)).

(2) For new affected sources located at a large foundry, you must achieve a PM control efficiency of at least 99.0 percent or emit no more than an outlet PM concentration limit of at most 0.023 g/dscm (0.010 gr/dscf).

(c) If you own or operate an affected source at a small foundry that subsequently becomes a large foundry after the applicable compliance date, you must meet the requirements in paragraphs (c)(1) through (3) of this section.

(1) You must notify the Administrator within 30 days after the capacity increase or the production increase, whichever is appropriate;

(2) You must modify any applicable permit limits within 30 days after the capacity increase or the production increase to reflect the current production or capacity, if not done so prior to the increase;

(3) You must comply with the PM control requirements in paragraph (b) of this section no later than 2 years from the date of issuance of the permit for the capacity increase or production increase, or in the case of no permit issuance, the date of the increase in capacity or production, whichever occurs first.

(d) These standards apply at all times.

**§ 63.11551 What are my initial compliance requirements?**

(a) Except as specified in paragraph (b) of this section, you must conduct a performance test for existing and new sources at a large copper or other nonferrous foundry that is subject to § 63.11550(b). You must conduct the test within 180 days of your compliance date and report the results in your Notification of Compliance Status according to § 63.9(h).

(b) If you own or operate an existing affected source at a large copper or other nonferrous foundry that is subject to § 63.11550(b), you are not required to conduct a performance test if a prior performance test was conducted within the past 5 years of the compliance date using the same methods specified in paragraph (c) of this section and you meet either of the following two conditions:

(1) No process changes have been made since the test; or

(2) You demonstrate to the satisfaction of the permitting authority that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process changes.

(c) You must conduct each performance test according to the requirements in § 63.7 and the requirements in paragraphs (c)(1) and (2) of this section.

(1) You must determine the concentration of PM (for the concentration standard) or the mass rate of PM in pounds per hour at the inlet and outlet of the control device (for the percent reduction standard) according to the following test methods:

(i) Method 1 or 1A (40 CFR part 60, appendix A-1) to select sampling port locations and the number of traverse points in each stack or duct. If you are complying with the concentration provision in § 63.11550(b), sampling sites must be located at the outlet of the control device and prior to any releases to the atmosphere. If you are complying with the percent reduction provision in § 63.11550(b), sampling sites must be located at the inlet and outlet of the control device and prior to any releases to the atmosphere.

(ii) Method 2, 2A, 2C, 2D, 2F (40 CFR part 60, appendix A-1), or Method 2G (40 CFR part 60, appendix A-2) to determine the volumetric flow rate of the stack gas.

(iii) Method 3, 3A, or 3B (40 CFR part 60, appendix A-2) to determine the dry molecular weight of the stack gas. You may use ANSI/ASME PTC 19.10-1981, “Flue and Exhaust Gas Analyses” (incorporated by reference—see § 63.14) as an alternative to EPA Method 3B.

(iv) Method 4 (40 CFR part 60, appendix A-3) to determine the moisture content of the stack gas.

(v) Method 5 or 5D (40 CFR part 60, appendix A-3) or Method 17 (40 CFR part 60, appendix A-6) to determine the concentration of PM or mass rate of PM (front half filterable catch only). If you choose to comply with the percent reduction PM standard, you must determine the mass rate of PM at the inlet and outlet in pounds per hour and calculate the percent reduction in PM.

(2) Three valid test runs are needed to comprise a performance test. Each run must cover at least one production cycle (charging, melting, and tapping).

(3) For a source with a single control device exhausted through multiple stacks, you must ensure that three runs are performed by a representative sampling of the stacks satisfactory to the Administrator or his or her delegated representative. You must provide data or an adequate explanation why the stack(s) chosen for testing are representative.

**§ 63.11552 What are my monitoring requirements?**

(a) You must record the information specified in § 63.11553(c)(2) to document conformance with the management practices plan required in § 63.11550(a).

(b) Except as specified in paragraph (b)(3) of this section, if you own or operate an existing affected source at a large foundry, you must conduct visible emissions monitoring according to the requirements in paragraphs (b)(1) and (2) of this section.

(1) You must conduct visual monitoring of the fabric filter discharge point(s) (outlets) for any VE according to the schedule specified in paragraphs (b)(1)(i) and (ii) of this section.

(i) You must perform a visual determination of emissions once per day, on each day the process is in operation, during melting operations.

(ii) If no VE are detected in consecutive daily visual monitoring performed in accordance with paragraph (b)(1)(i) of this section for 30 consecutive days or more of operation of the process, you may decrease the frequency of visual monitoring to once per calendar week of time the process is in operation, during melting operations. If VE are detected during these inspections, you must resume daily visual monitoring of that operation during each day that the process is in operation, in accordance with paragraph (b)(1)(i) of this section until you satisfy the criteria of this section to resume conducting weekly visual monitoring.

(2) If the visual monitoring reveals the presence of any VE, you must initiate procedures to determine the cause of the emissions within 1 hour of the initial observation and alleviate the cause of the emissions within 3 hours of initial observation by taking whatever corrective action(s) are necessary. You may take more than 3 hours to alleviate a specific condition that causes VE if you identify in the monitoring plan this specific condition as one that could lead to VE in advance, you adequately explain why it is not feasible to alleviate this condition within 3 hours of the time the VE occurs, and you demonstrate that the requested time will ensure alleviation of this condition as expeditiously as practicable.

(3) As an alternative to the monitoring requirements for an existing affected source in paragraphs (b)(1) and (2) of this section, you may install, operate, and maintain a bag leak detection system for each fabric filter according to the requirements in paragraph (c) of this section.

(c) If you own or operate a new affected source located at a large foundry subject to the PM requirements in § 63.11550(b)(2) that is equipped with a fabric filter, you must install, operate, and maintain a bag leak detection system for each fabric filter according to paragraphs (c)(1) through (4) of this section.

(1) Each bag leak detection system must meet the specifications and requirements in paragraphs (c)(1)(i) through (viii) of this section.

(i) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 1 milligram per actual cubic meter (0.00044 grains per actual cubic foot) or less.

(ii) The bag leak detection system sensor must provide output of relative PM loadings. You must continuously record the output from the bag leak detection system using electronic or other means (e.g., using a strip chart recorder or a data logger).

(iii) The bag leak detection system must be equipped with an alarm system that will sound when the system detects an increase in relative particulate loading over the alarm set point established according to paragraph (c)(1)(iv) of this section, and the alarm must be located such that it can be heard by the appropriate plant personnel.

(iv) In the initial adjustment of the bag leak detection system, you must establish, at a minimum, the baseline output by adjusting the sensitivity (range) and the averaging period of the device, the alarm set points, and the alarm delay time.

(v) Following initial adjustment, you must not adjust the averaging period, alarm set point, or alarm delay time without approval from the Administrator or delegated authority, except as provided in paragraph (c)(1)(vi) of this section.

(vi) Once per quarter, you may adjust the sensitivity of the bag leak detection system to account for seasonal effects, including temperature and humidity, according to the procedures identified in the site-specific monitoring plan required by paragraph (c)(2) of this section.

(vii) You must install the bag leak detection sensor downstream of the fabric filter.

(viii) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(2) You must prepare a site-specific monitoring plan for each bag leak detection system. You must operate and maintain each bag leak detection system according to the plan at all times. Each monitoring plan must describe the items in paragraphs (c)(2)(i) through (vi) of this section.

(i) Installation of the bag leak detection system;

(ii) Initial and periodic adjustment of the bag leak detection system, including how the alarm set-point and alarm delay time will be established;

(iii) Operation of the bag leak detection system, including quality assurance procedures;

(iv) How the bag leak detection system will be maintained, including a routine maintenance schedule and spare parts inventory list;

(v) How the bag leak detection system output will be recorded and stored; and

(vi) Corrective action procedures as specified in paragraph (c)(3) of this section.

(3) Except as provided in paragraph (c)(4) of this section, you must initiate procedures to determine the cause of every alarm from a bag leak detection system within 1 hour of the alarm and alleviate the cause of the alarm within 3 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to, the following:

(i) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions;

(ii) Sealing off defective bags or filter media;

(iii) Replacing defective bags or filter media, or otherwise repairing the control device;

(iv) Sealing off a defective fabric filter compartment;

(v) Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system; or

(4) You may take more than 3 hours to alleviate a specific condition that causes an alarm if you identify in the monitoring plan this specific condition as one that could lead to an alarm, adequately explain why it is not feasible to alleviate this condition within 3 hours of the time the alarm occurs, and demonstrate that the requested time will ensure alleviation of this condition as expeditiously as practicable.

(d) If you use a control device other than a fabric filter for new or existing affected sources subject to § 63.11550(b), you must submit a request to use an alternative monitoring procedure as required in § 63.8(f)(4).

**§ 63.11553 What are my notification, reporting, and recordkeeping requirements?**

(a) You must submit the Initial Notification required by § 63.9(b)(2) no later than 120 calendar days after June 25, 2009 or within 120 days after the source becomes subject to the standard. The Initial Notification must include the information specified in paragraphs (a)(1) through (3) of this section and may be combined with the Notification of Compliance Status required in paragraph (b) of this section.

(1) The name and address of the owner or operator;

(2) The address (i.e., physical location) of the affected source; and

(3) An identification of the relevant standard, or other requirement, that is the basis of the notification and source's compliance date.

(b) You must submit the Notification of Compliance Status required by § 63.9(h) no later than 120 days after the applicable compliance date specified in § 63.11545 unless you must conduct a performance test. If you must conduct a performance test, you must submit the Notification of Compliance Status within 60 days of completing the performance test. Your Notification of Compliance Status must indicate if you are a small or large foundry as defined in § 63.11556, the production amounts as the basis for the determination, and if you are a large foundry, whether you elect to comply with the control efficiency requirement or PM concentration limit in § 63.11550(b). In addition to the information required in § 63.9(h)(2) and § 63.11551, your notification must include the following certification(s) of compliance, as applicable, and signed by a responsible official:

(1) “This facility will operate in a manner that minimizes HAP emissions from the melting operations to the extent possible. This includes at a minimum that the owners and/or operators of the affected source will cover or enclose each melting furnace that is equipped with a cover or enclosure during melting operations to the extent practicable as required in 63.11550(a)(1).”

(2) “This facility agrees to purchase only metal scrap that has been depleted (to the extent practicable) of aluminum foundry HAP, copper foundry HAP, or other nonferrous foundries HAP (as applicable) in the materials charged to the melting furnace, except for metal scrap that is purchased specifically for its HAP metal content for use in alloying or to meet specifications for the casting as required by 63.11550(a)(2).”

(3) “This facility has prepared and will operate by a written management practices plan according to § 63.11550(a)(3).”

(4) If the owner or operator of an existing affected source at a large foundry is certifying compliance based on the results of a previous performance test: “This facility complies with § 63.11550(b) based on a previous performance test in accordance with § 63.11551(b).”

(5) This certification of compliance is required by the owner or operator that installs bag leak detection systems: "This facility has installed a bag leak detection system in accordance with § 63.11552(b)(3) or (c), has prepared a bag leak detection system monitoring plan in accordance with § 63.11552(c), and will operate each bag leak detection system according to the plan."

(c) You must keep the records specified in paragraphs (c)(1) through (5) of this section.

(1) As required in § 63.10(b)(2)(xiv), you must keep a copy of each notification that you submitted to comply with this subpart and all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted.

(2) You must keep records to document conformance with the management practices plan required by § 63.11550 as specified in paragraphs (c)(2)(i) and (ii) of this section.

(i) For melting furnaces equipped with a cover or enclosure, records must identify each melting furnace equipped with a cover or enclosure and document that the procedures in the management practices plan were followed during the monthly inspections. These records may be in the form of a checklist.

(ii) Records documenting that you purchased only metal scrap that has been depleted of HAP metals (to the extent practicable) charged to the melting furnace. If you purchase scrap metal specifically for the HAP metal content for use in alloying or to meet specifications for the casting, you must keep records to document that the HAP metal is included in the material specifications for the cast metal product.

(3) You must keep the records of all performance tests, inspections and monitoring data required by §§ 63.11551 and 63.11552, and the information identified in paragraphs (c)(3)(i) through (vi) of this section for each required inspection or monitoring.

(i) The date, place, and time of the monitoring event;

(ii) Person conducting the monitoring;

(iii) Technique or method used;

(iv) Operating conditions during the activity;

(v) Results, including the date, time, and duration of the period from the time the monitoring indicated a problem (e.g., VE) to the time that monitoring indicated proper operation; and

(vi) Maintenance or corrective action taken (if applicable).

(4) If you own or operate a new or existing affected source at a small foundry that is not subject to § 63.11550(b), you must maintain records to document that your facility melts less than 6,000 tpy total of copper, other nonferrous metal, and all associated alloys (excluding aluminum) in each calendar year.

(5) If you use a bag leak detection system, you must keep the records specified in paragraphs (c)(5)(i) through (iii) of this section.

(i) Records of the bag leak detection system output.

(ii) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings.

(iii) The date and time of all bag leak detection system alarms, and for each valid alarm, the time you initiated corrective action, the corrective action taken, and the date on which corrective action was completed.

(d) Your records must be in a form suitable and readily available for expeditious review, according to § 63.10(b)(1). As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each recorded action. For records of annual metal melt production, you must keep the records for 5 years from the end of the calendar year. You must keep each record onsite for at least 2 years after the date of each recorded action according to § 63.10(b)(1). You may keep the records offsite for the remaining 3 years.

(e) If a deviation occurs during a semiannual reporting period, you must submit a compliance report to your permitting authority according to the requirements in paragraphs (e)(1) and (2) of this section.

(1) The first reporting period covers the period beginning on the compliance date specified in § 63.11545 and ending on June 30 or December 31, whichever date comes first after your compliance date. Each subsequent reporting period covers the semiannual period from January 1 through June 30 or from July 1 through December 31. Your compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after the end of the semiannual reporting period.

(2) A compliance report must include the information in paragraphs (e)(2)(i) through (iv) of this section.

(i) Company name and address.

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

(iii) Date of the report and beginning and ending dates of the reporting period.

(iv) Identification of the affected source, the pollutant being monitored, applicable requirement, description of deviation, and corrective action taken.

[74 FR 30393, June 25, 2009, as amended at 74 FR 46495, Sept. 10, 2009]

**Other Requirements and Information**

**§ 63.11555 What General Provisions apply to this subpart?**

Table 1 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.16 apply to you.

**§ 63.11556 What definitions apply to this subpart?**

Terms used in this subpart are defined in the Clean Air Act, in § 63.2, and in this section as follows:

*Aluminum foundry* means a facility that melts aluminum and pours molten aluminum into molds to manufacture aluminum castings (except die casting) that are complex shapes. For purposes of this subpart, this definition does not include primary or secondary metal producers that cast molten aluminum to produce simple shapes such as sows, ingots, bars, rods, or billets.

*Aluminum foundry HAP* means any compound of the following metals: beryllium, cadmium, lead, manganese, or nickel, or any of these metals in the elemental form.

*Annual copper and other nonferrous foundry metal melt capacity* means, for new affected sources, the lower of the copper and other nonferrous metal melting operation capacity, assuming 8,760 operating hours per year or, if applicable, the maximum permitted copper and other nonferrous metal melting operation production rate for the melting operation calculated on an annual basis. Unless otherwise specified in the permit, permitted copper and other nonferrous metal melting operation rates that are not specified on an annual basis must be annualized assuming 24 hours per day, 365 days per year of operation. If the permit limits the operating hours of the melting operation(s) or foundry, then the permitted operating hours are used to annualize the maximum permitted copper and other nonferrous metal melt production rate. The annual copper and other nonferrous metal melt capacity does not include the melt capacity for ferrous metal melted in iron or steel foundry melting operations that are co-located with copper or other nonferrous melting operations or the nonferrous metal melted in non-foundry melting operations.

*Annual copper and other nonferrous foundry metal melt production* means, for existing affected sources, the quantity of copper and other nonferrous metal melted in melting operations at the foundry in a given calendar year. For the purposes of this subpart, metal melt production is determined on the basis of the quantity of metal charged to the melting operations. The annual copper and nonferrous metal melt production does not include the melt production of ferrous metal melted in iron or steel foundry melting operations that are co-located with copper and other nonferrous melting operations or the nonferrous metal melted in non-foundry melting operations.

*Annual metal melt capacity,* for new affected sources, means the lower of the aluminum, copper, and other nonferrous metal melting operation capacity, assuming 8,760 operating hours per year or, if applicable, the maximum permitted aluminum, copper, and other nonferrous metal melting operation production rate for the melting operation calculated on an annual basis. Unless otherwise specified in the permit, permitted aluminum, copper, and other nonferrous metal melting operation rates that are not specified on an annual basis must be annualized assuming 24 hours per day, 365 days per year of operation. If the permit limits the operating hours of the melting operation(s) or foundry, then the permitted operating hours are used to annualize the maximum permitted aluminum, copper, and other nonferrous metal melt production rate. The annual metal melt capacity does not include the melt capacity for ferrous metal melted in iron or steel foundry melting operations that are co-located with aluminum, copper, or other nonferrous melting operations or the nonferrous metal melted in non-foundry melting operations.

*Annual metal melt production* means, for existing affected sources, the quantity of aluminum, copper, and other nonferrous metal melted in melting operations at the foundry in a given calendar year. For the purposes of this subpart, annual metal melt production is determined on the basis of the quantity of metal charged to the melting operations. The annual metal melt production does not include the melt production of ferrous metal melted in iron or steel foundry melting operations that are co-located with aluminum, copper, or other nonferrous melting operations or the nonferrous metal melted in non-foundry melting operations.

*Bag leak detection system* means a system that is capable of continuously monitoring relative PM ( *i.e.,* dust) loadings in the exhaust of a baghouse to detect bag leaks and other upset conditions. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, light scattering, light transmittance, or other effect to continuously monitor relative PM loadings.

*Copper foundry* means a foundry that melts copper or copper-based alloys and pours molten copper or copper-based alloys into molds to manufacture copper or copper-based alloy castings (excluding die casting) that are complex shapes. For purposes of this subpart, this definition does not include primary or secondary metal producers that cast molten copper to produce simple shapes such as sows, ingots, billets, bars, anode copper, rods, or copper cake.

*Copper foundry HAP* means any compound of any of the following metals: lead, manganese, or nickel, or any of these metals in the elemental form.

*Deviation* means any instance where an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emissions limitation or work practice standard;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emissions limitation in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

*Die casting* means operations classified under the North American Industry Classification System codes 331521 (Aluminum Die-Casting Foundries) and 331522 (Nonferrous (except Aluminum) Die-Casting Foundries) and comprises establishments primarily engaged in introducing molten aluminum, copper, and other nonferrous metal, under high pressure, into molds or dies to make die-castings.

*Large foundry* means, for an existing affected source, a copper or other nonferrous foundry with an annual metal melt production of copper, other nonferrous metals, and all associated alloys (excluding aluminum) of 6,000 tons or greater. For a new affected source, *large foundry* means a copper or other nonferrous foundry with an annual metal melt capacity of copper, other nonferrous metals, and all associated alloys (excluding aluminum) of 6,000 tons or greater.

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

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

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

*Melting operations* (the affected source) means the collection of furnaces ( *e.g.,* induction, reverberatory, crucible, tower, dry hearth) used to melt metal ingot, alloyed ingot and/or metal scrap to produce molten metal that is poured into molds to make castings. Melting operations dedicated to melting ferrous metal at an iron and steel foundry are not included in this definition and are not part of the affected source.

*Other nonferrous foundry* means a facility that melts nonferrous metals other than aluminum, copper, or copper-based alloys and pours the nonferrous metals into molds to manufacture nonferrous metal castings (excluding die casting) that are complex shapes. For purposes of this subpart, this definition does not include primary or secondary metal producers that cast molten nonferrous metals to produce simple shapes such as sows, ingots, bars, rods, or billets.

*Other nonferrous foundry HAP* means any compound of the following metals: chromium, lead, and nickel, or any of these metals in the elemental form.

*Small foundry* means, for an existing affected source, a copper or other nonferrous foundry with an annual metal melt production of copper, other nonferrous metals, and all associated alloys (excluding aluminum) of less than 6,000 tons. For a new affected source, *small foundry* means a copper or other nonferrous foundry with an annual metal melt capacity of copper, other nonferrous metals, and all associated alloys (excluding aluminum) of less than 6,000 tons.

**§ 63.11557 Who implements and enforces this subpart?**

(a) This subpart can be implemented and enforced by the U.S. EPA or a delegated authority, such as your State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or Tribal agency, then that agency has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if this subpart is delegated to your State, local, or Tribal agency.

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

(c) The authorities that will not be delegated to State, local, or Tribal agencies are listed in paragraphs (c)(1) through (4) of this section.

(1) Approval of alternatives to the applicability requirements in § 63.11544, the compliance date requirements in § 63.11545, and the applicable standards in § 63.11550.

(2) Approval of an alternative nonopacity emissions standard under § 63.6(g).

(3) Approval of a major change to a test method under § 63.7(e)(2)(ii) and (f). A “major change to test method” is defined in § 63.90(a).

(4) Approval of a major change to monitoring under § 63.8(f). A “major change to monitoring” is defined in § 63.90(a).

(5) Approval of a waiver of recordkeeping or reporting requirements under § 63.10(f), or another major change to recordkeeping/reporting. A “major change to recordkeeping/reporting” is defined in § 63.90(a).

**§ 63.11558 [Reserved]**

**Table 1 to Subpart ZZZZZZ of Part 63—Applicability of General Provisions to Aluminum, Copper, and Other Nonferrous Foundries Area Sources**

As required in § 63.11555, “What General Provisions apply to this subpart?,” you must comply with each requirement in the following table that applies to you.

| Citation | Subject | Applies to subpart ZZZZZZ? | Explanation |
|---|---|---|---|
| § 63.1(a)(1), (a)(2), (a)(3), (a)(4), (a)(6), (a)(10)-(a)(12), (b)(1), (b)(3), (c)(1), (c)(2), (c)(5), (e) | Applicability | Yes | § 63.11544(f) exempts affected sources from the obligation to obtain a title V operating permit. |
| § 63.1(a)(5), (a)(7)-(a)(9), (b)(2), (c)(3), (c)(4), (d) | Reserved | No | |
| § 63.2 | Definitions | Yes | |
| § 63.3 | Units and Abbreviations | Yes | |
| § 63.4 | Prohibited Activities and Circumvention | Yes | |
| § 63.5 | Preconstruction Review and Notification Requirements | Yes | |
| § 63.6(a), (b)(1)-(b)(5), (b)(7), (c)(1), (c)(2), (c)(5), (e)(1), (e)(3)(i), (e)(3)(iii)-(e)(3)(ix), (f)(2), (f)(3), (g), (i), (j) | Compliance with Standards and Maintenance Requirements | Yes | |
| § 63.6(f)(1) | Compliance with Nonopacity Emission Standards | No | Subpart ZZZZZZ requires continuous compliance with all requirements in this subpart. |
| § 63.6(h)(1), (h)(2), (h)(5)-(h)(9) | Compliance with Opacity and Visible Emission Limits | No | Subpart ZZZZZZ does not contain opacity or visible emission limits. |
| § 63.6(b)(6), (c)(3), (c)(4), (d), | Reserved | No | |

| | | | |
|---|---|---|---|
| (e)(2), (e)(3)(ii), (h)(3), (h)(5)(iv) | | | |
| § 63.7 | Applicability and Performance Test Dates | Yes | |
| § 63.8(a)(1), (b)(1), (f)(1)-(5), (g) | Monitoring Requirements | Yes | |
| § 63.8(a)(2), (a)(4), (b)(2)-(3), (c), (d), (e), (f)(6), (g) | Continuous Monitoring Systems | No | Subpart ZZZZZZ does not require a flare or CPMS, COMS or CEMS. |
| § 63.8(a)(3) | [Reserved] | No | |
| § 63.9(a), (b)(1), (b)(2)(i)-(iii), (b)(5), (c), (d), (e), (h)(1)-(h)(3), (h)(5), (h)(6), (j) | Notification Requirements | Yes | Subpart ZZZZZZ requires submission of Notification of Compliance Status within 120 days of compliance date unless a performance test is required. |
| § 63.9(b)(2)(iv)-(v), (b)(4), (f), (g), (i) | No | | |
| § 63.9(b)(3), (h)(4) | Reserved | No | |
| § 63.10(a), (b)(1), (b)(2)(i)-(v), (vii), (vii)(C), (viii), (ix), (b)(3), (d)(1)-(2), (d)(4), (d)(5), (f) | Recordkeeping and Reporting Requirements | Yes | |
| § 63.10(b)(2)(vi), (b)(2)(vii)(A)-(B), (c), (d)(3), (e) | No | Subpart ZZZZZZ does not require a CPMS, COMS, CEMS, or opacity or visible emissions limit. | |
| § 63.10(c)(2)-(c)(4), (c)(9) | Reserved | No | |
| § 63.11 | Control Device Requirements | No | |
| § 63.12 | State Authority and Delegations | Yes | |
| §§ 63.13-63.16 | Addresses, Incorporations by Reference, Availability of Information, Performance Track Provisions | Yes | |

# Indiana Department of Environmental Management
Office of Air Quality

## Technical Support Document (TSD) for a Federally Enforceable State Operating Permit Renewal

### Source Background and Description

| | |
|---|---|
| **Source Name:** | **Ward Corporation*** |
| **Source Location:** | **642 Growth Avenue, Ft. Wayne, Indiana 46808** |
| **County:** | **Allen** |
| **SIC Code:** | **3365 (Aluminum Foundries) - Primary**<br>**3398 (Metal Heat Treating) - Secondary** |
| **Permit Renewal No.:** | **F003-31506-00198** |
| **Permit Reviewer:** | **Jack Harmon** |

*Note: this source was formerly known as Ward Aluminum Castings, Inc. in FESOP No. F003-17986- 00198, issued November 14, 2007. At the request of the source, the name change has been incorporated in this renewal.

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Ward Corporation relating to the operation of a stationary aluminum foundry producing and heat treating aluminum castings. This source melts only clean charge in its melting operation. On February 16, 2012, Ward Corporation submitted an application to the OAQ requesting to renew its operating permit. Ward Corporation was issued its first FESOP Renewal F003-17986-00198 on November 14, 2007. Additional information was received February 17, August 13, August 17, September 25, September 29, October 29, December 7, December 11, 2012, and March 13 and May 30, 2013.

### Source Definition

IDEM, OAQ has evaluated this stationary aluminum foundry producing and heat treating aluminum castings source to see if it is one major source with a sister source nearby.

(1) Ward Corporation (Plant 1) is located at 642 Growth Avenue, Ft. Wayne, Indiana 46808; and
(2) Ward Pattern and Engineering, Inc. (Plant 2) is located at 7603 Opportunity Drive, Ft. Wayne, Indiana 46808.

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

(1) The plants must have common ownership or common control;
(2) The plants must have the same two digit SIC code or a support relationship; and
(3) The plants must be located on contiguous or adjacent properties.

The foundry is owned by Ward Corporation, formerly Ward Aluminum Casting, Inc. The heat treating plant is owned by Ward Corporation, formerly Ward Pattern & Engineering, Inc. The Ward family owns and controls both corporations. One shareholder, Marion Ward, owns 51% of the stock in each corporation.

IDEM Nonrule Policy Document Air-005 applies to the definition of “major source” in 326 IAC 2-7-1(22). It states that common ownership exists under any of three circumstances. Satisfying any one of the circumstances evidences that common ownership exists. When a third party has ownership 51% or more in each of two or more entities, common ownership exists. Secondly, if two or more entities share common corporate officers, in whole or in substantial part, who are responsible for the day-to-day operations of the entities, then common ownership exists. Finally, if one entity has 51% or greater ownership of another entity, then common ownership exists.

The foundry and the heat treating plant are under common ownership because one person, Marion Ward, owns 51% of the stock of the corporations that own each plant. IDEM Nonrule Policy Document Air-005

also states that if the plants are owned by the same person or entity, common control also exists. Therefore, the two plants are under common ownership and common control, satisfying the first element of the definition of major source.

The SIC Code Manual of 1987 sets out how to determine the proper SIC code for each type of business. More information about SIC codes is available at http://www.osha.gov/pls/imis/sic_manual.html on the Internet. The aluminum foundry belongs to the two-digit Major Group 33, Primary Metal Industries, corresponding to the four-digit SIC Code 3365, Aluminum Foundries. The heat treating plant also belongs to the two-digit Major Group 33 and has the four-digit SIC code of 3398, Metal Heat Treating.

A plant is a support facility to another plant if it dedicates 50% or more of its output to another plant. The foundry supplies about 65% of its output to the heat treating plant. Since the plants have a support relationship and have the same two-digit SIC Code, they meet the second part of the major source definition.

The foundry and the heat treating plant are located on separate properties with no common boundary line. Since they are not on the same or contiguous properties, IDEM examined whether the plants are on adjacent properties.

The term “adjacent” is not defined in Indiana’s air permitting rules. IDEM, OAQ has located a May 21, 1988 letter from U.S. EPA Region 8 to the Utah Division of Air Quality and a U.S. EPA Region 5 letter dated October 18, 2010 to Scott Huber at Summit Petroleum Corporation, that discuss the term “adjacent”. These letters are in no way binding on IDEM, OAQ, but they are persuasive in that they illustrate a longstanding analysis used to determine if two sources are “adjacent”; going as far back as the preamble to the 1980 NSR program definition of a source. U.S. EPA’s consistent approach is that any evaluation of what is “adjacent” must relate to the guiding principal of a common sense notion of “source”. The evaluation should look at whether the distance between the plants is sufficiently small that it enables them to operate as a single source. Some sample questions are:

1. Are materials routinely transferred between the plants?
2. Do managers or other workers frequently shuttle back and forth to be involved actively in the plants?
3. Is the production process itself split in any way between the plants?

The foundry property boundary is about 4.8 miles from the heat treating plant property. Aluminum is frequently transferred from the foundry to the heat treating plant. Nothing is transferred from the heat treating plant to the foundry. There are no conveyors or other direct connections between the plants. The shortest route between the two plants is 7 miles by road. The plants have separate managers and separate production staff. Managers and other workers seldom travel from one plant to be actively involved in the other plant. The production process itself is not split between the two plants since aluminum is marketable without heat treatment. The foundry could be much farther away and still function in the same way in relation to the heat treatment plant. The plants are therefore not adjacent and do not meet the third part of the major source definition.

Since the Ward Aluminum Casting, Inc. foundry and the Ward Pattern & Engineering, Inc. heat treating plant do not meet all three parts of the major source definition, IDEM, OAQ has determined that the two plants are not part of the same major source.

## Permitted Emission Units and Pollution Control Equipment

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

(a) One (1) Melting Operation, melting only clean aluminum charge, consisting of:

(1) Four (4) natural gas-fired reverberatory furnaces, as follows:

(A) Three (3) natural gas fired reverberatory furnaces, identified as GR1 through GR3, constructed in 1964, each with a rated heat input of 2.9 MMBtu per hour, each with a maximum melting capacity of 0.5 tons per hour, using no controls, and exhausting at stacks 6, 8 and 23, respectively.

(B) One (1) natural gas-fired reverberatory furnace, identified as GR4, constructed in 2012, with a maximum heat input capacity of 2.90 MMBtu/hr and a maximum melting capacity of 0.50 tons per hour, using no controls, exhausting to stack 23.

(2) Eight (8) natural gas fired crucibles, identified as CR1 through CR8, each with a rated heat input of 1 MMBtu per hour and a maximum melting capacity of 0.165 tons per hour of aluminum, exhausting at stack 15. These crucibles use no flux.

(3) One Dry Hearth Sow melt furnace (no bath), identified as SOW1, constructed in 2013, with a maximum rated capacity of 1.5 MM Btu per hour and a rated capacity of one (1) ton aluminum per hour, feeds furnace EM2 and uses no flux.

(4) Two (2) glow bar electric melt furnaces, identified as EM1 and EM2, each with a maximum melting capacity of 1 ton of aluminum per hour, using no controls and exhausting through stacks 25 and 27, respectively.

(5) One (1) electric melt furnace, identified as EM3, with a maximum melting capacity of 1 ton of aluminum per hour, using no controls, and exhausting through stacks 25 and 27.

(6) One (1) electric melt furnace (constructed in 2000 and modified in 2012), identified as EM4, with a maximum melting capacity of 2.5 tons of aluminum per hour, using no controls, and exhausting through stacks 25 and 27.

Under 40 CFR 63, Subpart ZZZZZZ, the collection of melting operations is considered an affected source.

Note: the collection of melting operations uses two types of solid flux material in its operation; one is chlorine-based flux and the other is fluorine-based flux.

(b) One (1) Casting, Cleaning, and Finishing Operation, consisting of:

(1) One (1) Sand Handling, Casting Shakeout, and Ancillary Operation, constructed in 1964, and consisting of:

(A) One (1) sand Mullor, identified as MU1, replaced in 2013, with a maximum capacity of 48 tons of sand/hr, with particulate matter emissions controlled by a baghouse (BH6) exhausting inside the building.

(B) One (1) elevator/shake-out screen, identified as EV1, with a maximum capacity of 50 tons/hr, utilizing a baghouse (BH1) for particulate control, and exhausting to stack 3.

(2) Aluminum Casting, cooling, core knockout and casting finishing operations consisting of:

(A) One (1) pouring/casting, and cooling operation, identified as P1/P2, constructed in1964 and acquired in 1978, with a maximum capacity of

8.82 tons per hour of melted aluminum, impacting the 3.332 tons/hr core sand;

(B) One (1) Castings Core Knockout operation, constructed in 1978, and consisting of:

(i) Six (6) knockout machines to separate core sand from castings, identified as KN1 through KN6, with a combined maximum capacity of 3.332 tons per hour, utilizing a baghouse (BH1) for particulate control exhausting at stack 3.

(C) One (1) Wheelabrator shotblaster, identified as SB1, constructed in 1978, with a maximum capacity of 12 tons of steel shot per hour, utilizing a baghouse (BH3) for particulate control, exhausting at stack 2;

(D) One (1) Wheelabrator shotblaster, identified as SB2, constructed in 1978, with a maximum capacity of 8.25 tons of steel shot per hour, utilizing a baghouse (BH3) for particulate control, exhausting at stack 2.

(c) Three (3) aluminum belt grinders, identified as BG1 through BG3, constructed in 1984, with a combined maximum capacity of 8.82 tons per hour, utilizing a baghouse (BH2) for particulate control.

(d) Two (2) disc grinders, identified as DG1 through DG2, constructed in 1984, with a combined maximum capacity of 8.82 tons per hour, utilizing a baghouse (BH2) for particulate control.

**Emission Units and Pollution Control Equipment Constructed and/or Operated without a Permit**

There were no unpermitted emission units operating at this source during this review.

**Emission Units and Pollution Control Equipment Removed From the Source**

The source has removed the following emission units:

(a) One (1) core sand mullor, identified as MU3, with a maximum capacity of 15 tons per hour, utilizing an existing baghouse (BH1) for PM control and exhausting through stack 3.

(b) One (1) Surface Coating Operation, constructed in 1996, consisting of:
One (1) manual paint booth, identified as PB1, using an air atomization application system and coating a maximum of 40 aluminum parts per hour, using dry filters for overspray control, and exhausting at two (2) stacks 38 and 39.

(c) One (1) 1.25 gal/hr waste oil heater, identified as OB1, with a rated heat input of 0.18 MMBtu/hr, burning waste oils consisting of general plant oils and oils recovered from cutting fluids.

(d) One (1) boiler, identified as B1, constructed in 1995, with a rated heat input of 8.368 MMBtu/hr.

**Insignificant Activities**

This stationary source also includes the following insignificant activities:

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour;

(1) Eight (8) core machines, constructed in 1978, each with a maximum throughput of 0.4165 tons per hour (total 3.332 tons/hr), consisting of:

(A) Two (2) core machines, identified as CM1 and CM2, each with a rated heat input of 0.1100 MMBtu per hour,

(B) Two (2) core machines, identified as CM3 and CM4, each with a rated heat input of 0.1972 MMBtu per hour,

(C) Two (2) core machines, identified as CM5 and CM6, each with a rated heat input of 0.3712 MMBtu per hour,

(D) One (1) core machine, identified as CM7, with a rated heat input of 0.5800 MMBtu per hour, and

(E) One (1) core machine, identified as CM8, with a maximum heat input of 0.21 MMBtu per hour.

(2) One (1) heat treat oven, identified as HT1, constructed in 1978, with a rated heat input of 1.5 MMBtu per hour; exhausting at stack 32.

(3) Nine (9) space heaters, identified as SH1 through SH9, each constructed in 1978 with a rated heat input of 0.123 MMBtu per hour.

(4) Thirty-one (31) space heaters, identified as SH10 through SH40, each constructed in 2011 with a rated heat input of 0.123 MMBtu per hour, using no controls, and exhausting to atmosphere.

(5) One (1) radiant gas heater, identified as RGH1, constructed in 2011, with a rated heat input of 0.100 MMBtu per hour, using no controls, and exhausting to atmosphere.

(b) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to 0.003 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations:

(1) Pattern woodshop equipment, utilizing a cyclone on some units for particulate control, and consisting of:

(A) one (1) jointer, identified as J1,
(B) one (1) planer, identified as P1,
(C) two (2) routers, identified as R1 and R2,
(D) one (1) milling machine, identified as M1,
(E) two (2) band saws, identified as BS1 and BS2.
(F) two (2) disc sanders, identified as DS1 and DS2,
(G) one (1) wood lathe, identified as L1,
(H) one (1) table saw, identified as TS1, and
(I) one (1) radial arm saw, identified as RAS 1.

(2) Saws for removing gates and risers from castings.

(3) Five (5) aluminum cut off band saws, identified as CO1 through CO5, with no particulate control.

(4) One (1) carbide tip aluminum chop saw, identified as CS1.

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

(d) Any operation using aqueous solutions containing less than 1% by weight of VOCs excluding HAPs.

(e) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

(f) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone.

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

(h) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

## Existing Approvals

Since the issuance of the FESOP Renewal No.F003-17986-00198 on November 14, 2007, the source has not received any additional approvals.

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

## Enforcement Issue

(a) IDEM is aware that the source is not in compliance with the following permit condition:

(1) Condition D.1.11 of FESOP No. F003-17986-00198 requires the source to demonstrate compliance with the permit terms and conditions by conducting periodic stack testing. The source did not perform this stack testing as required.

(b) IDEM is reviewing this matter and will take appropriate action. The compliance schedule in this proposed permit will satisfy the requirements of the above stated requirement.

## Emission Calculations

See Appendix A of this document for detailed emission calculations.

## County Attainment Status

The source is located in Allen County.

| Pollutant | Designation |
|---|---|
| $SO_2$ | Better than national standards. |
| CO | Unclassifiable or attainment effective November 15, 1990. |
| $O_3$ | Attainment effective February 12, 2007, for the Fort Wayne area, including Allen County, for the 8-hour ozone standard.[1] |

| Pollutant | Designation |
|---|---|
| $PM_{10}$ | Unclassifiable effective November 15, 1990. |
| $NO_2$ | Cannot be classified or better than national standards. |
| Pb | Not designated. |

[1]Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.
Unclassifiable or attainment effective April 5, 2005, for PM2.5.

(a) Ozone Standards
Volatile organic compounds (VOC) and Nitrogen Oxides ($NO_x$) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and $NO_x$ emissions are considered when evaluating the rule applicability relating to ozone. Allen County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and $NO_x$ emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

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

(c) Other Criteria Pollutants
Allen County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutant. 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.

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM10 and PM2.5 is equal to or greater than 100 tons per year. However, the Permittee has agreed to limit the source's PM10 and PM2.5 emissions to less than Title V levels; therefore, the Permittee will be issued a FESOP Renewal.

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all other criteria pollutants are less than 100 tons per year.

(c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of GHGs is less than one hundred thousand (100,000) tons of $CO_2$ equivalent ($CO_2e$) emissions per year.

(d) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year.

**Potential to Emit After Issuance**

The source has opted to remain a FESOP source. The table below summarizes the potential to emit, reflecting all limits of the emission units. Any control equipment is considered enforceable only after issuance of this FESOP and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

| | **Potential To Emit of the Entire Source After Issuance of Renewal (tons/year)** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Process/ Emission Unit | PM | $PM_{10}$* | $PM_{2.5}$** | $SO_2$ | $NO_x$ | VOC | CO | GHGs | Total HAPs | Worst Single HAP |
| Melt Process with Flux Usage | | | | | | | | | | |
| Gas Reverberatory Furnaces<br>Electric Melt Furnaces | 22.93 | 47.32 | 47.32 | 0.00 | 0.00 | 0.00 | 0.11 | 0.00 | 8.96E+00 | 6.18E+00 (HCl) |
| Shakeout | 12.37 | 8.66 | 5.18 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.16E+00 | 4.87E-01 Manganese |
| Core Sand Pour, Cast, Cool, and Knockout | 4.67 | 3.27 | 1.96 | 0.06 | 0.03 | 1.81 | 8.76 | 0.00 | 5.55E-01 | 2.34E-01 Manganese |
| Sand Mullor | 75.69 | 11.35 | 11.35 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00E+00 | 0.00E+00 |
| Core Machines | 16.05 | 16.05 | 16.05 | 4.67 | 7.30 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Grinding Operations | 0.39 | 0.17 | 0.17 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.59E-03 | 1.93E-03 Manganese |
| Combustion | 0.24 | 0.97 | 0.97 | 0.08 | 12.78 | 0.70 | 10.74 | 15432.01 | 2.41E-01 | 2.30E-01 Hexane |
| Shotblast Operation | 0.18 | 0.02 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.42E-07 | 1.02E-07 Manganese |
| Insignificant Activities | 4.51 | 4.51 | 4.51 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Fugitive Emissions | 1.19 | 0.24 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total PTE of Entire Source** | **138.22** | **92.57** | **87.60** | **4.81** | **20.11** | **2.51** | **19.60** | **15432.01** | **10.92** | **6.18 (HCl)** |
| Title V Major Source Thresholds | NA | 100 | 100 | 100 | 100 | 100 | 100 | 100,000 $CO_2e$ | 25 | 10 |
| PSD Major Source Thresholds | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 100,000 $CO_2e$ | NA | NA |

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

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 ($CO_2e$) emissions per year, and it is not in one of the twenty-eight (28) listed source categories.

## Federal Rule Applicability

Compliance Assurance Monitoring (CAM)

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

New Source Performance Standards (NSPS)

(b) The requirements of the New Source Performance Standard for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc, are not included in the permit for the boiler unit at this source because the boiler has been removed from the source in this renewal.

(c) The requirements of the New Source Performance Standard for Primary Aluminum Reduction Plants, 40 CFR 60, Subpart S, are not included in the permit because this source is not a primary aluminum reduction plant, as defined in this rule. Therefore, the requirements of 40 CFR 60, Subpart S do not apply.

(d) The requirements of the New Source Performance Standard for Calciners and Dryers in Mineral Industries, 40 CFR 60, Subpart UUU, are not included in the permit because this aluminum foundry does not have a sand reclamation system. Therefore, the requirements of 40 CFR 60, Subpart UUU do not apply.

(e) There are no other New Source Performance Standards (NSPS) included in the permit.

National Emissions Standards for Hazardous Air Pollutants (NESHAP)

(f) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Group I Polymers and Resins, 40 CFR 63, Subpart U, are not included in the permit for the core machines because the resins used with the sand are not elastomer product process units, as defined in the rule. Therefore, the requirements of 40 CFR 63, Subpart U do not apply.

(g) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Primary Aluminum Reduction Plants, 40 CFR 63, Subpart LL, are not included in the permit because this source is not a primary aluminum reduction plant, as defined in this rule. Therefore, the requirements of 40 CFR 63, Subpart LL do not apply.

(h) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Group 4 Polymers and Resins, 40 CFR 63, Subpart JJJ, are not included in the permit for the core machines because the resins used with the sand are not thermoplastic product process units, as defined in the rule. Therefore, the requirements of 40 CFR 63, Subpart JJJ do not apply.

(i) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Secondary Aluminum Reduction Plants, 40 CFR 63, Subpart RRR, are still not included in the permit for the foundry because this source is not a major source for HAPs and the source melts only clean charge, as defined in 63.1503. In order to render

this NESHAP not applicable, the source will be required to meet the definition of clean charge, as a condition in its renewal permit.

(j) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Ferroalloys Production: Ferromanganese and Silicomanganese, 40 CFR 63, Subpart XXX, are not included in the permit because this aluminum foundry does not manufacture ferromanganese or silicomanganese. Therefore, the requirements of 40 CFR 63, Subpart XXX do not apply.

(k) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD (5D) are not included in the permit because the boiler at this source has been removed in this renewal.

(l) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Iron and Steel Foundries, 40 CFR 63, Subpart EEEEE (5E) are not included in this permit because this source is an aluminum foundry and does not produce iron or steel. Therefore, the requirements of 40 CFR 63, Subpart 5E do not apply.

(m) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Integrated Iron and Steel Manufacturing Facilities, 40 CFR 63, Subpart FFFFF (5F) are not included in this permit because this source is an aluminum foundry and is not an integrated iron or steel manufacturing facility, as defined in the rule. Therefore, the requirements of 40 CFR 63, Subpart 5F do not apply.

(n) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Electric Arc Furnace Steelmaking Facilities, 40 CFR 63, Subpart YYYYY (5Y) are not included in this permit because this source does not use arc furnaces and is not a steelmaking facility. Therefore, the requirements of 40 CFR 63, Subpart 5Y do not apply.

(o) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Iron and Steel Foundries Area Sources, 40 CFR 63, Subpart ZZZZZ (5Z) are not included in this permit because this source is an aluminum foundry and is not an iron or steel foundry. Therefore, the requirements of 40 CFR 63, Subpart 5Z do not apply.

(p) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Primary Nonferrous Metals Area Sources - for Zinc, Cadmium, and Beryllium, 40 CFR 63, Subpart GGGGGG (6G) are not included in the permit because for the source is not a manufacturer of zinc, cadmium, or beryllium. Therefore, the requirements of 40 CFR 63, Subpart 6G do not apply.

(q) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers at Area Sources, 40 CFR 63, Subpart JJJJJJ (6J) are not included in the permit because the boiler at this source has been removed in this renewal.

(r) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Secondary Nonferrous Metals Processing Area Sources, 40 CFR 63, Subpart TTTTTT (6T), are not included in the permit because this aluminum foundry does not process brass, bronze, magnesium, of zinc. Therefore, the requirements of 40 CFR 63, Subpart 6T do not apply.

(s) This aluminum foundry is subject to the National Emission Standards for Hazardous Air Pollutants for Aluminum, Copper, and Other Nonferrous Foundries, 40 CFR 63, Subpart ZZZZZZ (6Z) because it meets the definition of a large foundry, as defined in 63.11556,

uses material containing foundry HAP, as defined in 63.11556, has an annual production throughput of at least 600 tons per year, and was constructed prior to February 9, 2009. Therefore, the source is subject to this Subpart. The entire foundry is subject to this rule.

Non applicable portions of the NESHAP will not be included in the permit; however, the NESHAP will be shown in its entirety in Appendix A of the permit. This source is subject to the following portions of Subpart 6Z:

(1) 40 CFR 63.11554(a)(1), (a)(2), (a)(4), (b), and (c)
(2) 40 CFR 63.11545(b)
(3) 40 CFR 63.11550(a)(1), (a)(2), (a)(3), (b)(1), (b)(2), and (d)
(4) 40 CFR 63.11551(b)(1), (b)(2) (testing)
(5) 40 CFR 63.11552(a), (b)(1), (b)(2), (b)(3), (c)(1), (c)(2), (c)(3), and (c)(4)
(6) 40 CFR 63.11553(a), (b), (c), (d), and (e)
(7) 40 CFR 63.11556

The provisions of 40 CFR 63 Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63 Subpart ZZZZZZ (6Z).

(t) There are no other National Emissions Standards for Hazardous Air Pollutants (NESHAP) included in this permit.

**State Rule Applicability - Entire Source**

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

(a) The total core sand throughput to the core knockout furnaces shall not exceed 27,728.9 tons of core sand per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The source shall use only clean charge in the melting furnaces at all times that the melting furnaces are in operation. Clean charge shall be defined as furnace charge materials, including molten aluminum consisting of T-bar; sow; ingot, billet, pig, alloying elements, or aluminum scrap known by the owner or operator to be entirely free of paints, coatings, and lubricants; uncoated/unpainted aluminum chips that have been thermally dried or treated by a centrifugal cleaner; aluminum scrap dried at 343°C (650°F) or higher; aluminum scrap delacquered/decoated at 482°C (900°F) or higher, and runaround scrap.

(c) The PM emissions from melting furnaces (GR1 through GR4, CR1 through CR8, SOW1, and EM1 through EM4) shall not exceed 0.533 pounds per ton of metal.

(d) The PM emissions from Pouring/Casting, Cooling, Knockout operation shall not exceed 3.2 pounds per ton of cores.

(e) The PM emissions from Shakeout operation shall not exceed 3.2 pounds per ton of metal. The baghouse BH1 shall operate at all times that the Shakeout process is operating.

(f) The PM emissions from Wheelabrator Shotblasters (SB1 and SB2) shall not exceed 2.0 pounds per hour. The baghouse BH3 shall operate at all times that the shotblasters SB1 and SB2 are operating.

(g) The PM emissions from Sand Muller (MU1) shall not exceed 5.0 pounds per hour. The baghouse BH1 shall operate at all times that the sand muller MU1 is operating.

Compliance with above emission limits in combination with potential emissions of PM emissions from the entire source shall limit PM emissions from the entire source to less than 250 tons per twelve consecutive month period, and shall render 326 IAC 2-2 (PSD) not applicable.

326 IAC 2-4.1-1 (New Source Toxics Control)

This source is not subject to 326 IAC 2-4.1-1 (New Source Toxics Control) because the source has the potential to emit less than 10 tons per year of any single HAP. The PTE is greater than 25 tons per year of combined HAPs; however, this source is limiting combined HAPs below the threshold level of 25 tons per year. Therefore, 326 IAC 2-4.1-1 does not apply.

326 IAC 2-6 (Emission Reporting)

This source is not subject to 326 IAC 2-6 (Emission Reporting) because it is not required to have an operating permit pursuant to 326 IAC 2-7 (Part 70); it is not located in Lake, Porter, or LaPorte County, and its potential to emit lead is less than 5 tons per year. Therefore, this rule does not apply.

326 IAC 2-8-4 (FESOP)

This source is subject to the provisions of 326 IAC 2-8-4. Pursuant to 326 IAC 2-8-4, the following shall apply:

(a) The total core sand throughput to the core knockout furnaces shall not exceed 27,728.9 tons of core sand per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The source shall use only clean charge in the melting furnaces at all times that the melting furnaces are in operation. Clean charge shall be defined as furnace charge materials, including molten aluminum consisting of T-bar; sow; ingot, billet, pig, alloying elements, or aluminum scrap known by the owner or operator to be entirely free of paints, coatings, and lubricants; uncoated/unpainted aluminum chips that have been thermally dried or treated by a centrifugal cleaner; aluminum scrap dried at 343°C (650°F) or higher; aluminum scrap delacquered/decoated at 482°C (900°F) or higher, and runaround scrap.

(c) The source shall use only solid flux in the Group 1 melting furnaces (GR1 through GR4, SOW1, and EM1 through EM4).

(d) HCl emissions from solid flux addition to the melt process shall not exceed 6.18 tons per twelve (12) consecutive month period, with compliance shown at the end of each month.

(e) HF emissions from solid flux addition to the melt process shall not exceed 2.27 tons per twelve (12) consecutive month period, with compliance shown at the end of each month.

(f) The PM10 emissions from melting furnaces (GR1 through GR4, CR1 through CR8, SOW1, and EM1 through EM4) shall not exceed 1.1 pounds per ton of metal.

(g) The PM10 emissions from melting furnaces (GR1 through GR4, CR1 through CR8, SOW1, and EM1 through EM4) shall not exceed 1.1 pounds per ton of metal.

(h) The PM10 emissions from Pouring/Casting, Cooling, Knockout operation shall not exceed 2.24 pounds per ton of cores.

(i) The PM2.5 emissions from Pouring/Casting, Cooling, Knockout operation shall not exceed 1.34 pounds per ton of cores.

(j) The PM10 emissions from Shakeout operation shall not exceed 2.24 pounds per ton of metal. The baghouse BH1 shall operate at all times that the Shakeout process is operating.

(k) The PM2.5 emissions from Shakeout operation shall not exceed 2.24 pounds per ton of metal. The baghouse BH1 shall operate at all times that the Shakeout process is operating.

(l) The PM10 emissions from Wheelabrator Shotblasters (SB1 and SB2) shall not exceed 2.0 pounds per hour. The baghouse BH3 shall operate at all times that the shotblasters SB1 and SB2 are operating.

(m) The PM2.5 emissions from Wheelabrator Shotblasters (SB1 and SB2) shall not exceed 2.0 pounds per hour. The baghouse BH3 shall operate at all times that the shotblasters SB1 and SB2 are operating.

(n) The PM10 emissions from Sand Muller (MU1) shall not exceed 1.0 pound per hour. The baghouse BH1 shall operate at all times that the sand muller MU1 is operating.

(o) The PM10 emissions from Sand Muller (MU1) shall not exceed 1.0 pound per hour. The baghouse BH1 shall operate at all times that the sand muller MU1 is operating.

(p) The CO emissions from the Pouring/Casting (P1/P2), Cooling and Castings Knockout operations for sand molds shall not exceed 6.0 pounds per ton of core sand.

Compliance with above emission limits in combination with potential emissions of PM10, PM2.5, single HAP, and total HAPs from insignificant activities shall limit the source-wide PM10, and PM2.5 emissions to less than 100 tons per twelve consecutive month period, each, and single HAP and total HAPs emissions to less than 10 and 25 tons per twelve consecutive month period, respectively. Therefore, the requirements of 326 IAC 2-7 (Part 70) do not apply. The above limits for PM10 and PM2.5 will also render 326 IAC 2-2 (PSD) and 326 IAC 2-4.1 (New Source Toxics Control) not applicable.

326 IAC 5-1 (Opacity Limitations)

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

326 IAC 6.5 PM Limitations Except Lake County

This source is not subject to 326 IAC 6.5 because it is not located in one of the following counties: Clark, Dearborn, Dubois, Howard, Marion, St. Joseph, Vanderburgh, Vigo, or Wayne.

326 IAC 6.8 PM Limitations for Lake County

This source is not subject to 326 IAC 6.8 because it is not located in Lake County.

326 IAC 6-4 (Fugitive Dust Emissions)

This source is subject to 326 IAC 6-4 because this source has the potential to emit fugitive dust. Pursuant to 326 IAC 6-4, the source shall not allow and fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located.

326 IAC 7-1.1 (Sulfur Dioxide Emissions)

This source is not subject to 326 IAC 7-1, because there are no facilities within this source that have the potential to emit $SO_2$ at a rate equal to or greater than 25 tons per year or 10 pounds per hour.

326 IAC 8-1-6 (Volatile Organic Compounds (VOC))

This source is not subject to 326 IAC 8-1-6 (VOC Rules) because there are no facilities within the source with the potential to emit VOC of greater than 25 tons per year. Therefore, the requirements of 326 IAC 8-1-6 do not apply.

326 IAC 8-2-9 (VOC Surface Coating Emissions Limitations)

The source is no longer subject to the provisions of 326 IAC 8-2-9 with this renewal because the source has removed its surface coating emission units.

There are no other Article 8 Rules included in this permit.

**State Rule Applicability – Individual Facilities**

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

(a) Pursuant to 326 IAC 6-3-2, the particulate from the following emission units shall be limited by the following:

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

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

or

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

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

This equation was used for the Sand Muller (MU1), since the Process Weight Rate is 48 tons (96,000 pounds) per hour.

| Emission Unit | Process Weight Rate (tons/hr) | Controlled / Limited PM Emissions (lb/hr) | Allowable Particulate Emissions (326 IAC 6-3-2) (lb/hr) |
|---|---|---|---|
| Gas Reverberatory Furnaces (GR1-GR4) | 0.501 ea | 0.53* (Unlimited) | 2.58 ea |
| Crucibles (CR1-CR8) | 0.165 ea | | 1.22 ea |
| Electric Melt Furnace (EM1) | 1.0 | | 4.10 |
| Electric Melt Furnace (EM2) | 1.0 | | 4.10 |
| Electric Melt Furnace (EM3) | 1.0 | | 4.10 |
| Electric Melt Furnace (EM4) | 2.5 | | 7.57 |
| Dry Hearth Sow Melt Furnace (SOW1) | 1.0 | | 4.10 |
| Sand Muller Units (MU 1) | 48.00 | 17.28 | 44.19 |
| Shakeout | 8.83 | 2.82 | 17.64 |
| Pouring/Casting/Cooling Knockout Machines (6), (KN1-KN6) | 0.55 ea | 1.07 | 2.74 ea |

| | | | |
|---|---|---|---|
| Shot Blasting (SB1) | 12.0 | 0.04 (BH3) | 21.67 |
| Shot Blasting (SB2) | 8.25 | 0.02 (BH3) | 16.85 |
| Belt Grinders (BG1 through BG3) | 2.94 ea | 0.03 ea (BH1) | 8.44 ea |
| Disc Grinders (DG1 and DG2) | 4.41 ea | 0.03 ea (BH1) | 11.08 ea |

* The melt furnace unlimited PTE is based on the worst-case scenario for emissions, since it is based on the furnace with the highest throughput capacity.

The melting furnaces can comply with its limits without the use of a control device because the unlimited potential to emit for the highest capacity furnace, and, therefore, the worst-case scenario, is less than the limits under 326 IAC 6-3-2.

The other facilities can comply with the allowable particulate emission limits since their emissions after control are less than the allowable particulate emissions. The baghouses shall be in operation at all times the foundry equipment is in operation, in order to comply with these limits.

326 IAC 11-1 (Emission Limitations for Specific Types of Operation)

The melting furnaces for this source are not subject to the requirements of 326 IAC 11-1 because this rule is specific for the cupola equipment used for melting. This source uses gas-fired reverberatory furnaces and electric melting furnaces for its melting, and does not have cupolas. Therefore, the requirements of 326 IAC 11-1 do not apply.

Note: This is a change from the existing permit, where this rule was inadvertently applied. This is a Title I change.

## Compliance Determination and Monitoring Requirements

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

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

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

(a) In order to demonstrate compliance with the HCl emissions and the HF emissions limits under 326 IAC 2-8 discussed in the State Rule Applicability Section, the source shall use the following equation to calculate monthly emissions for each HAP from each of the solid flux materials used in the melting process:

$$E_{HAP} = \sum \frac{(U_a \times HAP_a)}{2000 \text{ lb/ton}}$$

Where:

$E_{HAP}$ = HAP emissions (tons for the month)
$U_a$ = solid flux material usage, in pounds per month, for each flux used
$HAP_a$ = weight percentage of HAP for each HAP used in each flux used

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

| Control | Parameter | Frequency | Range | Excursions and Exceedances |
|---|---|---|---|---|
| Baghouse BH1 (Stack 3) | Water Pressure Drop | Daily | 2 to 6 inches | Response Steps |
| | Visible Emissions | | Normal-Abnormal | |
| Baghouses BH2, BH6 | Water Pressure Drop | Daily | 4 to 6 inches | Response Steps |
| | Visible Emissions | | Normal-Abnormal | |
| Baghouse BH3 (Stack 2) | Water Pressure Drop | Daily | 1 to 5 inches | Response Steps |
| | Visible emissions | | Normal-Abnormal | |

These monitoring conditions are necessary because Baghouse 1, 2, 3 and 6 for the foundry process equipment must operate properly to ensure compliance with 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) and 326 IAC 2-8 (FESOP).

## Recommendation

The staff recommends to the Commissioner that the FESOP 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 February 16, 2012. Additional information was received February 17, August 13, August 17, September 25, September 29, October 29, December 7, December 11, 2012, and March 13 and May 30, 2013.

## Conclusion

The operation of this stationary aluminum foundry producing and heat treating aluminum castings shall be subject to the conditions of the attached FESOP Renewal No. F003-31506-00198.

## IDEM Contact

(a) Questions regarding this proposed permit can be directed to Jack Harmon 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) 233-4228 or toll free at 1-800-451-6027 extension 3-4228.

(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: Emissions Calculations**
**Summary of Entire Source Emissions**

**Company Name:** Ward Corporation
**Address City IN Zip:** 642 Growth Ave., Fort Wayne, IN 46808
**FESOP No.:** F003-31506-00198
**Reviewer:** Jack Harmon
**Date:** April, 2013

| | Uncontrolled Potential to Emit (tons per year) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Emission Units / Process** | **PM** | **PM10** | **PM2.5** | **SO2** | **NOx** | **VOC** | **CO** | **CO2e** | **Total HAPs** | **Worst HAP** | **Worst HAP** |
| Melt Process with Flux Usage | | | | | | | | | | | |
| Gas Reverberatory Furnaces | 7.01 | 14.47 | 14.47 | 0.00 | 0.00 | 0.00 | 0.11 | 0.00 | 8.96E+00 | 6.18E+00 | HCl |
| Electric Melt Furnaces | 15.92 | 32.86 | 32.86 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| Shakeout | 123.73 | 86.61 | 51.81 | 0.00 | 0.00 | 5.41 | 0.00 | 0.00 | 1.93E+00 | 8.12E-01 | Manganese |
| Core Sand Pour, Cast, Cool & Knockout | 46.70 | 32.69 | 19.56 | 0.58 | 0.29 | 18.10 | 87.56 | 0.00 | 5.55E-01 | 2.34E-01 | Manganese |
| Sand Mullor | 756.86 | 113.53 | 113.53 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00E+00 | 0.00E+00 | N/A |
| Core Machines | 16.05 | 16.05 | 16.05 | 4.67 | 7.30 | 0.01 | 0.00 | 0.00 | 0.00E+00 | 0.00E+00 | N/A |
| Grinding Operations | 0.39 | 0.17 | 0.17 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.59E-03 | 1.93E-03 | Manganese |
| Combustion | 0.24 | 0.97 | 0.97 | 0.08 | 12.78 | 0.70 | 10.74 | 15432.01 | 2.41E-01 | 2.30E-01 | Hexane |
| Shotblast Operation | 89.35 | 8.94 | 8.94 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 7.81E+00 | 3.29E+00 | Manganese |
| Insignificant Activities | 4.51 | 4.51 | 4.51 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00E+00 | 0.00E+00 | N/A |
| Fugitive Paved Roads | 1.19 | 0.24 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00E+00 | 0.00E+00 | N/A |
| **Total Potential to Emit** | **1060.77** | **310.80** | **262.86** | **5.33** | **20.37** | **24.22** | **98.41** | **15432.01** | **19.50** | **6.18** | **HF** |
| | | | | | | | | | | **3.52** | **Manganese** |

| | Controlled or Limited Potential to Emit (tons per year) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Emission Units / Process** | **PM** | **PM10** | **PM2.5** | **SO2** | **NOx** | **VOC** | **CO** | **CO2e** | **Total HAPs** | **Worst HAP** | **Worst HAP** |
| Melt Process with Flux Usage | | | | | | | | | | | |
| Gas Reverberatory Furnaces | 22.93 | 47.32 | 47.32 | 0.00 | 0.00 | 0.00 | 0.11 | 0.00 | 8.96E+00 | 6.18E+00 | HCl |
| Electric Melt Furnaces | | | | | | | | | | | |
| Shakeout | 12.37 | 8.66 | 5.18 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.16E+00 | 4.87E-01 | Manganese |
| Core Sand Pour, Cast, Cool & Knockout | 4.67 | 3.27 | 1.96 | 0.06 | 0.03 | 1.81 | 8.76 | 0.00 | 5.55E-01 | 2.34E-01 | Manganese |
| Sand Mullor | 75.69 | 11.35 | 11.35 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00E+00 | 0.00E+00 | N/A |
| Core Machines | 16.05 | 16.05 | 16.05 | 4.67 | 7.30 | 0.00 | 0.00 | 0.00 | 0.00E+00 | 0.00E+00 | N/A |
| Grinding Operations | 0.39 | 0.17 | 0.17 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.59E-03 | 1.93E-03 | Manganese |
| Combustion | 0.24 | 0.97 | 0.97 | 0.08 | 12.78 | 0.70 | 10.74 | 15432.01 | 2.41E-01 | 2.30E-01 | Hexane |
| Shotblast Operation | 0.18 | 0.02 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.42E-07 | 1.02E-07 | Manganese |
| Insignificant Activities | 4.51 | 4.51 | 4.51 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00E+00 | N/A |
| Fugitive Paved Roads | 1.19 | 0.24 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00E+00 | N/A |
| **Total Potential to Emit** | **138.22** | **92.57** | **87.60** | **4.81** | **20.11** | **2.51** | **19.60** | **15432.01** | **10.92** | **6.18E+00** | **HCl** |
| | | | | | | | | | | 7.23E-01 | Manganese |

Notes: The pouring/casting/cooling/knockout and the shakeout process emissions in the above table are after baghouse control with a conservative control efficiency assumption of 90%.
The emissions from the sand mullor process are based on a conservative control efficiency assumption of 90.0%.
The emissions from the shotblast process are based on a control efficiency assumption of 99.8%.
All other emissions in the above table reflect no controls or limits, and are the full potential to emit for each pollutant.

**Appendix A: Emission Calculations**
**Melting Operations and Holding Furnaces**
**Company Name:** Ward Corporation
**Address City IN Zip:** 642 Growth Ave., Fort Wayne, IN 46808
**FESOP No.:** F003-31506-00198
**Reviewer:** Jack Harmon
**Date: April, 2013**

**TABLE 1**

SCC# 3-04-001-03
Four (4) Gas Reverberatory Furnaces (GR1 through GR4)

| | Maximum Throughput LBS/HR | Maximum Throughput TON/HR |
|---|---|---|
| TYPE OF MATERIAL | 6005.00 | 3.003 |

No Controls

Aluminum and Flux

| Furnace | Maximum Throughput (lb/hr) MMBtu/hr | Alum (lb/hr) | Flux (lb/hr) | Total (lb/hr) |
|---|---|---|---|---|
| GR1 | 2.90 | 1000.00 | | 1000.00 |
| GR2 | 2.90 | 1000.00 | | 1000.00 |
| GR3 | 2.90 | 1000.00 | | 1000.00 |
| GR4 | 2.90 | 1000.00 | | 1000.00 |
| SOW1 | 10.20 | 2000.00 | | 2000.00 |
| Totals | 21.80 | 6000.00 | 5.00 | 6005.00 |

Flux (lb/hr) = 120 lb/day/24 hr/day = 5.0 lb/hr avg.
Alum (lb/hr) = ton/hr x 2000 lb/ton

| | PM lbs/ton metal charged | PM10 lbs/ton metal charged | PM2.5 lbs/ton metal charged | SO2 lbs/MMBtu/hr | NOx lbs/MMBtu/hr | VOC lbs/ton metal charged | CO lbs/MMBtu/hr | GHG, as CO2e | Total HAPs | Worst HAP | Worst HAP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0.533 | 1.1 | 1.1 | 1.00E-06 | 1.50E-05 | 0.00 | 4.00E-06 | | | | |
| Potential Uncontrolled Emissions lbs/hr | 1.60 | 3.30 | 3.30 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | |
| **Potential Uncontrolled Emissions tons/year** | **7.01** | **14.47** | **14.47** | **0.00** | **0.00** | **0.00** | **0.11** | 0.00 | 0.00 | 0.00 | |

Note: PM10 and PM2.5 Emission factors from STAPPA/ALAPCO Handbook, Volume 1, Section 11.
Emissions are process emissions only. Combustion emissions for natural gas-fired units are accounted for in the Combustion tab of this Appendix, and include SO2 and NOx.
PM emission factor was used as the result of a source stack test.
Methodology
Potential to Emit PM, PM10, PM2.5 (lb/hr) = Emission Factor (lb/ton) * ton/hr.
Potential to Emit (tons/yr) = Potential to Emit (lbton) * 8760 (hr/yr) / 2000 (hr/yr)
HAPs for flux is shown on HAPs Worksheet
Potential to Emit SO2, Nox, CO (lb/hr) = Emission Factor (lb/MMBtu) * MMBtu/hr)
Potential to Emit SO2, Nox, CO (ton/yr) = Potential to Emit SO2, Nox, CO (lb/hr) * 8760 hr/yr / 2000 (lb/ton)

**TABLE 2**

SCC# 3-04-001-03
Four (4) Electric Melt Furnaces (EM1 through EM4)

| | Maximum Throughput LBS/HR | Maximum Throughput TON/HR |
|---|---|---|
| TYPE OF MATERIAL | 11000.00 | 5.500 |

No Controls

Aluminum and Flux

| Furnace | Maximum Throughput (lb/hr) Alum (lb/hr) | Flux (lb/hr) | Total (lb/hr) |
|---|---|---|---|
| EM1 | 2000.00 | | 2000.00 |
| EM2 | 2000.00 | | 2000.00 |
| EM3 | 2000.00 | | 2000.00 |
| EM4 | 5000.00 | | 5000.00 |
| Totals | 11000.00 | 0.00 | 11000.00 |

Alum (lb/hr) = ton/hr x 2000 lb/ton

| | PM lbs/ton metal charged | PM10 lbs/ton metal charged | PM2.5 lbs/ton metal charged | SO2 lbs/ton metal charged | NOx lbs/ton metal charged | VOC lbs/ton metal charged | CO lbs/ton metal charged | GHG, as CO2e | Total HAPs | Worst HAP | Worst HAP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0.533 | 1.1 | 1.1 | 0.00 | 0.00 | 0.00 | 0.00 | | | | |
| Potential Uncontrolled Emissions lbs/hr | 2.93 | 6.05 | 6.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| **Potential Uncontrolled Emissions tons/year** | **12.84** | **26.50** | **26.50** | **0.00** | **0.00** | **0.00** | **0.00** | 0.00 | 0.00 | 0.00 | |

Emission Factor and Methodology same as above.

**TABLE 3**

SCC# 3-04-001-03
Eight (8) Natural Gas-Fired Crucibles (CR1 through CR8)

| | Maximum Throughput LBS/HR | Maximum Throughput TON/HR |
|---|---|---|
| TYPE OF MATERIAL | 2640.00 | 1.32 |

No Controls

Aluminum (no flux)

| Furnace | Maximum Throughput (lb/hr) Alum (lb/hr) | Flux (lb/hr) | Total (lb/hr) |
|---|---|---|---|
| CR1, CR2 | 660.00 | 0.00 | 660.00 |
| CR3, CR4 | 660.00 | 0.00 | 660.00 |
| CR5,CR6 | 660.00 | 0.00 | 660.00 |
| CR7,CR8 | 660.00 | 0.00 | 660.00 |
| Totals | 2640.00 | 0.00 | 2640.00 |

Alum (lb/hr) = ton/hr x 2000 lb/ton

| | PM lbs/ton metal charged | PM10 lbs/ton metal charged | PM2.5 lbs/ton metal charged | SO2 lbs/ton metal charged | NOx lbs/ton metal charged | VOC lbs/ton metal charged | CO lbs/ton metal charged | GHG, as CO2e | Total HAPs | Worst HAP | Worst HAP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0.533 | 1.1 | 1.1 | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00% | 0.00% | N/A |
| Potential Uncontrolled Emissions lbs/hr | 0.70 | 1.45 | 1.45 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | N/A |
| **Potential Uncontrolled Emissions tons/year** | **3.08** | **6.36** | **6.36** | **0.00** | **0.00** | **0.00** | **0.00** | 0.00 | 0.00 | 0.00 | N/A |

Emission Factor and Methodology same as above.

**Total of Melting Process Emissions (Tables 1, 2, and 3 above)**

| | PM | PM10 | PM2.5 | SO2 | NOx | VOC | CO | GHG, as CO2e | Total HAPs | Worst HAP | Worst HAP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Natural Gas Furnaces | 7.01 | 14.47 | 14.47 | 0.00 | 0.00 | 0.00 | 0.11 | 0.00 | 0.00 | 0.00 | |
| Total Electric Furnaces | 15.92 | 32.86 | 32.86 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| **Potential Uncontrolled Emissions tons/year** | **22.93** | **47.32** | **47.32** | **0.00** | **0.00** | **0.00** | **0.11** | **0.00** | **0.00** | **0.00** | |

**Appendix A: Emission Calculations**

**Company Name:** Ward Corporation
**Address City IN Zip:** 642 Growth Ave., Fort Wayne, IN 46808
**FESOP No.:** F003-31506-00198
**Reviewer:** Jack Harmon
**Date:** April, 2013

SCC# 3-04-003-31 (Gray Metals Cast)
Shakeout Only (P1/P2)

| | Maximum Throughput LBS/HR | Maximum Throughput TONS/YR |
|---|---|---|
| TYPE OF MATERIAL | 17656 | 77333.28 |
| Sand Handling | Limited Throughput | Limited Throughput TONS/YR |
| | 10593.00 | 46397.34 |

Control Device: Baghouse BH1
Control Efficiency: 0.90000

| | PM lbs/ton metal charged 3.2 | PM10 lbs/ton metal charged 2.24 | PM2.5 lbs/ton metal charged 1.34 | SOx lbs/ton metal charged 0.0 | NOx lbs/ton metal charged 0.0 | VOC lbs/ton metal charged 0.14 | CO lbs/ton metal charged see below |
|---|---|---|---|---|---|---|---|
| Potential Uncontrolled Emissions lbs/hr | 28.25 | 19.77 | 11.83 | 0.00 | 0.00 | 1.24 | 0.00 |
| **Potential Uncontrolled Emissions tons/year** | **123.73** | **86.61** | **51.81** | **0.00** | **0.00** | **5.41** | **0.00** |
| Potential Controlled Emissions lbs/hr | 2.82 | 1.98 | 1.18 | 0.00 | 0.00 | 0.12 | 0.00 |
| **Potential Controlled Emissions tons/year** | **12.37** | **8.66** | **5.18** | **0.00** | **0.00** | **0.54** | **0.00** |
| Potential Limited Emissions lbs/hr | 16.95 | 11.86 | 7.10 | **0.00** | **0.00** | **0.00** | **0.00** |
| **Potential Limited Emissions tons/year** | **74.24** | **51.97** | **31.09** | **0.00** | **0.00** | **0.00** | **0.00** |

Note: Emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23 and are carried over from previous renewal No. F003-17986-00198, issued 11/14/2007.
CO emissions included in Castings Knockout and Shakeout operation

SCC# 3-04-003-31

Castings, Cooling, Core Knockout operation (KN1 through KN6)

| | Maximum Throughput LBS/HR | Maximum Throughput TONS/YR |
|---|---|---|
| TYPE OF MATERIAL | 6664.0 | 29188.32 |
| Core Sand | Limited Throughput (5%) | TONS/YR |
| | 6331 | 27728.90 |

Control Device: Baghouse (BH1)
Control Efficiency: 90.00%

| | PM lbs/ton cores 3.2 | PM10/PM2.5 lbs/ton cores 2.24 | PM2.5 lbs/ton cores 1.34 | SOx lbs/ton cores 0.04 | NOx lbs/ton cores 0.02 | VOC ** lbs/ton cores 1.24 | CO * lbs/ton cores 6.0 |
|---|---|---|---|---|---|---|---|
| Potential Uncontrolled Emissions lbs/hr | 10.66 | 7.46 | 4.46 | 0.13 | 0.07 | 4.13 | 19.99 |
| **Potential Uncontrolled Emissions tons/year** | **46.70** | **32.69** | **19.56** | **0.58** | **0.29** | **18.10** | **87.56** |
| Potential Controlled Emissions lbs/hr | **1.07** | **0.75** | **0.45** | **0.01** | **0.01** | **0.41** | **2.00** |
| **Potential Controlled Emissions tons/year** | **4.67** | **3.27** | **1.96** | **0.06** | **0.03** | **1.81** | **8.76** |
| **Limited Emissions (tons/yr)** | **44.37** | **31.06** | **18.58** | **0.55** | **0.28** | **17.19** | **83.19** |

Note: Emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.
* CO emission factor based on best available information for CO emissions from pouring, cooling, and shakeout operations.
** VOC emissions are only from the core sand only, since green sand has no VOCs. Calculations based on 95/5% weighted average of 2.1 & 3.6% Resin Coated Sand. (2011 Worst case) ton/year.

SCC# 3-04-003-50
Sand Muller identified as MU1 (rated at 48 tons per hour maximum capacity)
Max. throughput reflects the maximum sand handling capacity

| | Throughput LBS/HR | Throughput TONS/YR |
|---|---|---|
| TYPE OF MATERIAL | 96000.0 | 420480 |
| Sand | Limited Throughput | TONS/YR |
| | 48000 | 210240 |

Control Device: Baghouse (BH1)
Control Efficiency: 90.00%

| | PM lbs/ton sand handled 3.6 | PM10/PM2.5 lbs/ton sand handled 0.54 | SOx lbs/ton sand handled 0.0 | NOx lbs/ton sand handled 0.0 | VOC lbs/ton sand handled 0.0 | CO lbs/ton sand handled 0.0 |
|---|---|---|---|---|---|---|
| Potential Uncontrolled Emissions lbs/hr | 172.80 | 25.92 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Potential Uncontrolled Emissions tons/year** | **756.86** | **113.53** | **0.00** | **0.00** | **0.00** | **0.00** |
| Potential Controlled Emissions lbs/hr | 17.28 | 2.59 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Potential Controlled Emissions tons/year** | **75.69** | **11.35** | **0.00** | **0.00** | **0.00** | **0.00** |
| Potential Limited Emissions lbs/hr | 5.00 | 1.00 | **5.00** | **0.00** | **0.00** | **0.00** |
| **Potential Limited Emissions tons/yr** | **21.90** | **4.38** | **0.00** | **0.00** | **0.00** | **0.00** |

Note: Emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.

**Appendix A: Emission Calculations**

**Company Name: Ward Corporation**
**Address City IN Zip: 642 Growth Ave., Fort Wayne, IN 46808**
**FESOP No.: F003-31506-00198**
**Reviewer: Jack Harmon**
**April, 2013**

SCC# 3-04-003-40 (Gray Metal Grinding/Cleaning )
Shotblaster identified as SB1 and SB2
Max. throughput reflects the actual historical usage of the blast equipment

| TYPE OF MATERIAL | Maximum Throughput LBS/HR | Maximum Throughput TON/YR |
|---|---|---|
| Aluminum | 2400 | 10512 |

Control Device: Baghouse (BH3)
Control Efficiency: 99.80%

| | Limited Throughput LBS/HR | Limited Throughput TONS/YR |
|---|---|---|
| | 2400 | 10512 |

| | PM lbs/ton metal throughput | PM10/PM2.5 lbs/ton metal throughput | SOx lbs/ton metal throughput | NOx lbs/ton metal throughput | VOC lbs/ton metal throughput | CO lbs/ton metal throughput |
|---|---|---|---|---|---|---|
| | 17 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| Potential Uncontrolled Emissions lbs/hr | 20.40 | 2.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Potential Uncontrolled Emissions tons/year** | **89.35** | **8.94** | **0.00** | **0.00** | **0.00** | **0.00** |
| Potential Controlled Emissions lbs/hr | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Potential Controlled Emissions tons/year** | **0.18** | **0.02** | **0.00** | **0.00** | **0.00** | **0.00** |
| Potential Limited Emissions lbs/hr | 2.00 | 2.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Potential Limited Emissions tons/year** | **8.76** | **8.76** | **0.00** | **0.00** | **0.00** | **0.00** |

Note: Emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.
Note: Only some of its production goes through the heat treat process, and, therefore, the blast process. Based on this limited historical throughput, OAQ accepts this limited throughput for emissions calculations.

SCC# 3-04-003-60
Grinders (BG1 through BG3, DG1 and DG2)
Max. throughput reflects the maximum metal melting capacity

| TYPE OF MATERIAL | Throughput LBS/HR | Throughput TON/YR |
|---|---|---|
| Aluminum | 17656 | 77333.28 |

Control Device: Baghouse (BH1)
Control Efficiency: 99.80%

| | Limited Throughput LBS/HR | Limited Throughput TONS/YR |
|---|---|---|
| | 4500 | 18,396.00 |

| | PM lbs/ton metal charged | PM10/PM2.5 lbs/ton metal charged | SOx lbs/ton metal charged | NOx lbs/ton metal charged | VOC lbs/ton metal charged | CO lbs/ton metal charged |
|---|---|---|---|---|---|---|
| | 0.01 | 0.0045 | 0.0 | 0.0 | 0.0 | 0.0 |
| Potential Uncontrolled Emissions lbs/hr | 0.09 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Potential Uncontrolled Emissions tons/year** | **0.39** | **0.17** | **0.00** | **0.00** | **0.00** | **0.00** |
| Potential Controlled Emissions lbs/hr | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Potential Controlled Emissions tons/year** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

Note: Emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.

**Appendix A: Emission Calculations**
**HAP Emissions from Foundry Operations**

**Company Name:** **Ward Corporation**
**Address City IN Zip:** **642 Growth Ave., Fort Wayne, IN 46808**
**FESOP No.:** **F003-31506-00198**
**Reviewer:** **Jack Harmon**
**April, 2013**

| Process | Maximum Rate (tons/yr) | Limited Rate (tons/yr) | PM emission factor lb/ton | Pollutant | Ef (lb/ton produced) | Uncontrolled Emissions (ton/yr) | Limited Emissions (ton/yr) | Control Device | Control Efficiency (%) |
|---|---|---|---|---|---|---|---|---|---|
| Melting - GR1 through GR4 NG Reverberatory Furnaces<br>Melting - Gas Cruicible CR1 through CR8<br>Melting - Electric Induction Furnace (EM1 and EM2)<br>Melting - Electric Melt Furnace (EM3)<br>Melting - Electric Melt Furnace (EM4) | 77333.28 | 46,397.00 | 1.10<br>FIRE 6.24 | chromium | 0.00042 | 1.62E-02 | 6.46E-03 | N/A | |
| | | | | nickel | 0.00074 | 2.85E-02 | 1.14E-02 | | |
| | | | | arsenic | 0.00014 | 5.53E-03 | 2.21E-03 | | |
| | | | | Lead | 0.00424 | 1.64E-01 | 6.55E-02 | | |
| | | | | Manganese | 0.00550 | 2.13E-01 | 8.50E-02 | | |
| | | | | Antimony | 0.00204 | 7.87E-02 | 3.15E-02 | | |
| | | | | | | | | | |
| | | | | **TOTAL** | **0.01307** | **5.05E-01** | **2.02E-01** | | |
| | | | Flux HAPs | Usage lb/day | Content | PTE ton/yr | | N/A | |
| | | | PF-25 HCl | 120.0 | 0.23760 | 5.189 | | | |
| | | | HF | 120.0 | 0.08020 | 1.752 | | | |
| | | | PF-35 HCl | 15.0 | 0.36360 | 0.993 | Total Melt Process | | |
| | | | HF | 15.0 | 0.19060 | 0.520 | 8.96E+00 | | |
| | | | Total HCL | | | **6.182** | | | |
| | | | Total HF | | | **2.27** | | | |
| Pouring/Casting/Cooling/ Shakeout (P1/P2) | 77333.3 | 46397.00 | 4.20<br>FIRE 6.24 | chromium | 0.00160 | 6.17E-02 | 3.70E-02 | N/A | |
| | | | | nickel | 0.00281 | 1.09E-01 | 6.53E-02 | | |
| | | | | arsenic | 0.00055 | 2.11E-02 | 1.27E-02 | | |
| | | | | Lead | 0.01617 | 6.25E-01 | 3.75E-01 | | |
| | | | | **Manganese** | 0.02100 | **8.12E-01** | 4.87E-01 | | |
| | | | | Antimony | 0.00777 | 3.00E-01 | 1.80E-01 | | |
| | | | | **TOTAL** | **0.04990** | **1.93E+00** | **1.16E+00** | | |
| Castings Knockout KN1 through KN6 | 29188.3 | 27728.90 | 3.20<br>FIRE 6.24 | chromium | 0.00122 | 1.77E-02 | 3.37E-05 | Baghouse (BH1) | 99.8% |
| | | | | nickel | 0.00214 | 3.13E-02 | 5.95E-05 | | |
| | | | | arsenic | 0.00042 | 6.07E-03 | 1.15E-05 | | |
| | | | | Lead | 0.01232 | 1.80E-01 | 3.42E-04 | | |
| | | | | **Manganese** | 0.01600 | **2.34E-01** | 4.44E-04 | | |
| | | | | Antimony | 0.00592 | 8.64E-02 | 1.64E-04 | | |
| | | | | **TOTAL** | **0.03802** | **5.55E-01** | **1.05E-03** | | |

| Process | Maximum Rate (tons/hr) | Limited Rate (tons/hr) | PM emission factor lb/ton | Pollutant | Ef (lb/ton produced) | Uncontrolled Emissions (ton/yr) | Controlled Emissions (ton/yr) | Control Device | Control Efficiency (%) |
|---|---|---|---|---|---|---|---|---|---|
| Shotblasters SB1 and SB2 SCC# 3-04-003-40 AP-42 Ch. 12.10 | 77333.28 | 1.20<br>Maximum Possible Throughput | 17.00 | chromium | 0.00646 | 2.50E-01 | 7.75E-09 | Baghouse | 99.8% |
| | | | | nickel | 0.01139 | 4.40E-01 | 1.37E-08 | BH-3 | |
| | | | | arsenic | 0.00221 | 8.55E-02 | 2.65E-09 | | |
| | | | | Lead | 0.06545 | 2.53E+00 | 7.85E-08 | | |
| | | | | **Manganese** | 0.08500 | **3.29E+00** | 1.02E-07 | | |
| | | | | Antimony | 0.03145 | 1.22E+00 | 3.77E-08 | | |
| | | | | **TOTAL** | **0.20196** | **7.81E+00** | **2.42E-07** | | |
| Belt Grinders (BG1 through BG3) Disc Grinders (DG1 and DG2) SCC# 3-04-003-40 AP-42 Ch. 12.10 | 77333.28 | 18396.00<br>Maximum Possible Throughput | 0.01 | chromium | 0.00000 | 1.47E-04 | 6.99E-08 | Baghouse | 99.8% |
| | | | | nickel | 0.00001 | 2.59E-04 | 1.23E-07 | BH-1 | |
| | | | | arsenic | 0.00000 | 5.03E-05 | 2.39E-08 | | |
| | | | | Lead | 0.00004 | 1.49E-03 | 7.08E-07 | | |
| | | | | **Manganese** | 0.00005 | **1.93E-03** | 9.20E-07 | | |
| | | | | Antimony | 0.00002 | 7.15E-04 | 3.40E-07 | | |
| | | | | **TOTAL** | **0.00012** | **4.59E-03** | **2.19E-06** | | |

Notes:
* HAP emission factors for the are based on the PM emission factor from FIRE 6.24, and percent of PM that is HAP based on information from SPECIATE, v 3.1. Lead emission factor from FIRE version 6.24. The HAP HF is generated from the flux used and is only applicable to the melting process.

| USEPA Speciate v 3.1 Data | |
|---|---|
| Metal | Gen. Foundry |
| Manganese | 0.500% |
| Chromium | 0.038% |
| Nickel | 0.067% |
| Arsenic | 0.013% |
| Antimony | 0.185% |
| Lead | 0.385% |

| | | |
|---|---|---|
| **Total Metal HAPs** | **19.26** | |
| **Worst HAPs** | **4.55** | **Manganese** |
| | **6.18** | **HCl** |
| | **2.27** | **HF** |

**Methodology:**
Ef = Emission factor
Ebc = Potential Emissions before controls = Rate (units/hr) x Ef(lbs/unit) x 8760 hrs/yr / 2000 lbs/hı
Eac = Potential Emissions after controls = (1-effiency/100) x Ebc
1 lb = 2000 tons

**Appendix A: Secondary Metal Production**
**Pouring, Cooling and Shakeout HAP Emissions**

**Company Name:** **Ward Corporation**
**Address City IN Zip:** **642 Growth Ave., Fort Wayne, IN 46808**
**FESOP No.:** **F003-31506-00198**
**Reviewer:** **Jack Harmon**
**April, 2013**

**Organic Hazardous Air Pollution Emission Estimates from Core Sands**

| | | | | |
|---|---|---|---|---|
| **Maximum Rate for Pouring/Cast/Cooling/Knockout** | **29,188.32** | **tons/yr @ 2.1% resin** | | |
| **Limited Rate for Pouring/Cast/Cooling/Knockout*** | **27,728.90** | **tons/yr** | | |
| Analyte | Combined PCS Ef (lbs HAP/lb resin) | Potential to Emit (tons/yr) | Emissions After 5% Limitations (tons/yr) | |
| Acrolein | 0.000047 | 0.0288 | 0.027 | |
| Benzene | 0.006667 | 4.0866 | 3.882 | |
| Formaldehyde | 0.000035 | 0.0215 | 0.020 | |
| Xylene (Total) | 0.000702 | 0.4303 | 0.409 | |
| Naphthalene | 0.000058 | 0.0356 | 0.034 | |
| Phenol | 0.002456 | 1.5054 | 1.430 | |
| Toluene | 0.002807 | 1.7206 | 1.635 | |
| Total Aromatic Amines | 0.002339 | 1.4337 | 1.362 | |
| Total C2 to C5 Aldehydes | 0.000585 | 0.3586 | 0.341 | |
| Total HAPs | **0.0157** | **9.6209** | **9.140** | |
| | | **4.0866** | **3.8822** | **Worst HAP** |

**METHODOLOGY**

HAP Emissions = Usage Rate (tons/hr) * 8760 hrs/yr * EF (lb/ton) * 1 tons/2000 lbs

by the Air Quality Committee (10-E) of the American Foundry Society August 16, 2005 for Calculating Emission Factors for Pouring, Cooling and Shakeout Operation.

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

**Company Name:** Ward Corporation
**Address City IN Zip:** 642 Growth Ave., Fort Wayne, IN 46808
**FESOP No.:** F003-31506-00198
**Reviewer:** Jack Harmon
**Date:** April, 2013

See Last Page of this Appendix for Emisisons Unit Listing

| Heat Input Capacity MMBtu/hr | HHV mmBtu / mmscf | Potential Throughput MMCF/yr |
|---|---|---|
| 29.767 | 1020 | 255.6 |

| | 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 | 0.24 | 0.97 | 0.97 | 0.08 | 12.78 | 0.70 | 10.74 |

*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 Emissions**

| | HAPs - Organics | | | | | Totals |
|---|---|---|---|---|---|---|
| | Benzene | Dichlorobenzene | Formaldehyde | **Hexane** | Toluene | |
| Emission Factor in lb/MMcf | 2.1E-03 | 1.2E-03 | 7.5E-02 | 1.8E+00 | 3.4E-03 | |
| Potential Emission in tons/yr | 2.684E-04 | 1.534E-04 | 9.587E-03 | **2.301E-01** | 4.346E-04 | 2.405E-01 |

| | HAPs - Metals | | | | | Totals |
|---|---|---|---|---|---|---|
| | Lead | Cadmium | Chromium | Manganese | Nickel | |
| Emission Factor in lb/MMcf | 5.0E-04 | 1.1E-03 | 1.4E-03 | 3.8E-04 | 2.1E-03 | |
| Potential Emission in tons/yr | 6.391E-05 | 1.406E-04 | 1.790E-04 | 4.857E-05 | 2.684E-04 | 7.005E-04 |
| | | | | | **Total HAPs** | **2.412E-01** |

Methodology is the same 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.

**Green house Gases**

| | Greenhouse Gas | | |
|---|---|---|---|
| | CO2 | CH4 | N2O |
| Emission Factor in lb/MMcf | 120,000 | 2.3 | 2.2 |
| Potential Emission in tons/yr | 15,339 | 0.3 | 0.3 |
| Summed Potential Emissions in tons/yr | 15,339 | | |
| CO2e Total in tons/yr | 15,432.01 | | |

**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: Emissions Calculations
## Core Machines Emissions

**Company Name:** Ward Corporation
**Address City IN Zip:** 642 Growth Ave., Fort Wayne, IN 46808
**Permit No:** F003-31506-00198
**Reviewer:** Jack Harmon
**Date:** April, 2013

SCC# 3-04-003-19
Core Machine (CM 1-8) (8 machines @ 0.4165 tph = 3.32 tons per hour)

| TYPE OF MATERIAL | | Throughput LBS/HR | 1 TON/2000 lbs | TON/HR | | |
|---|---|---|---|---|---|---|
| Core Making | | 6664 | 2000 | 3.332 | | |
| | Limited Throughput @ 95% | 6331 | 2000 | 3.166 | | |
| | **PM** **lbs/ton Sand Handled** 1.1 | **PM10/PM2.5** **lbs/ton Sand Handled** 1.1 | **SOx** **lbs/ton Sand Handled** 0.32 | **NOx** **lbs/ton Sand Handled** 0.5 | **VOC** **lbs/ton Sand Handled** 0.0008 | **CO** **lbs/ton Sand Handled** -- |
| Potential Emissions lbs/hr | 3.7 | 3.7 | 1.07 | 1.67 | 0.00 | -- |
| | | | | | | |
| Potential Emissions lbs/day | 88.0 | 88.0 | 25.59 | 39.98 | 0.06 | -- |
| | | | | | | |
| Potential Emissions tons/year | 16.05 | 16.05 | 4.67 | 7.30 | 0.01 | -- |
| Limited Emission tons/year | 15.25 | 15.25 | 4.44 | 6.93 | 0.01 | -- |

Emission calculations have been reproduced from CP 003-3374-00198, issued on January 27, 1995 and AP-42 12.10-7

**Appendix A: Emissions Calculations**
**Particulater Matter (PM) Emissions**

**Company Name:** **Ward Corporation**
**Address City IN Zip:** **642 Growth Ave., Fort Wayne, IN 46808**
**Permit No:** **F003-31506-00198**
**Reviewer:** **Jack Harmon**
**Date:** **April, 2013**

**Particulate Emissions from Miscellaneous operations, including pattern shop activities, cutoff saws, band saws, and chop saws, all controlled by this collecotr.**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PM/PM10/PM2.5: | 0.0030 gr/acf outlet x | 4000 acf/min x | 60 min/hr / | 7000 gr/lb x | 4.38 ton/yr / lb/hr / | (1- control effeciency) = | **4.51 tons/yr (uncontrolled)** |
| | where the total control efficiency is listed at | | 90.00% | | | | **0.45 tons/yr (controlled)** |

Methodology

Uncontrolled PM/PM10 = grain loading (gr/acf outlet) * Flow rate (acfm) * (60 min/hr) * (1 lb/7000 gr) * 4.38 (tons/yr / lb/hr) / (1- control effeciency %)
Particulate emissions are controlled by a cyclone with 95% control efficiency

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

**Company Name:** Ward Corporation
**Source Address:** 642 Growth Ave., Fort Wayne, IN 46808
**Permit Number:** F003-31506-00198
**Reviewer:** Jack Harmon
**Date:** April, 2013

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

Vehicle Informtation (provided by source)

| Type | Maximum number of vehicles per day | Number of one-way trips per day per vehicle | Maximum trips per day (trip/day) | Maximum Weight Loaded (tons/trip) | Total Weight driven per day (ton/day) | Maximum one-way distance (feet/trip) | Maximum one way distance (mi/trip) | Maximum one-way miles (miles/day) | Maximum one-way miles (miles/yr) |
|---|---|---|---|---|---|---|---|---|---|
| Vehicle (entering plant) (one-way trip) ** | 20.0 | 1.0 | 20.0 | 65.0 | 1300.0 | 230 | 0.044 | 0.9 | 318.0 |
| Vehicle (leaving plant) (one-way trip) ** | 20.0 | 1.0 | 20.0 | 15.0 | 300.0 | 230 | 0.044 | 0.9 | 318.0 |
| | | | 0.0 | | 0.0 | 0 | 0.000 | 0.0 | 0.0 |
| | | | 0.0 | | 0.0 | 0 | 0.000 | 0.0 | 0.0 |
| | | **Totals** | **40.0** | | **1600.0** | | | **1.7** | **636.0** |

Average Vehicle Weight Per Trip = 40.0 tons/trip
Average Miles Per Trip = 0.04 miles/trip

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

| | PM | PM10 | PM2.5 | |
|---|---|---|---|---|
| where k = | 0.011 | 0.0022 | 0.00054 | lb/VMT = particle size multiplier (AP-42 Table 13.2.1-1) |
| W = | 40.0 | 40.0 | 40.0 | tons = average vehicle weight (provided by source) |
| sL = | 9.7 | 9.7 | 9.7 | g/m^2 = silt loading value for paved roads at iron and steel production facilities - Table 13.2.1-3) |

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

| | PM | PM10 | PM2.5 | |
|---|---|---|---|---|
| Unmitigated Emission Factor, Ef = | 3.745 | 0.749 | 0.1838 | lb/mile |
| Mitigated Emission Factor, Eext = | 3.424 | 0.685 | 0.1681 | lb/mile |
| Dust Control Efficiency = | 0% | 0% | 0% | |

| Process | Unmitigated PTE of PM (tons/yr) | Unmitigated PTE of PM10 (tons/yr) | Unmitigated PTE of PM2.5 (tons/yr) | Mitigated PTE of PM (tons/yr) | Mitigated PTE of PM10 (tons/yr) | Mitigated PTE of PM2.5 (tons/yr) | Controlled PTE of PM (tons/yr) | Controlled PTE of PM10 (tons/yr) | Controlled PTE of PM2.5 (tons/yr) |
|---|---|---|---|---|---|---|---|---|---|
| Vehicle (entering plant) (one-way trip) | 0.60 | 0.12 | 0.03 | 0.54 | 0.11 | 0.03 | 0.54 | 0.11 | 0.03 |
| Vehicle (leaving plant) (one-way trip) | 0.60 | 0.12 | 0.03 | 0.54 | 0.11 | 0.03 | 0.54 | 0.11 | 0.03 |
| | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Totals** | **1.19** | **0.24** | **0.06** | **1.09** | **0.22** | **0.05** | **1.09** | **0.22** | **0.05** |

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

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

**Appendix A: Emissions Calculations**
**Emission Unit Listing**

**Company Name: Ward Corporation**
**Address City IN Zip: 642 Growth Ave., Fort Wayne, IN 46808**
**FESOP No.: F003-31506-00198**
**Reviewer: Jack Harmon**
**Date: April, 2013**

**Natural Gas Combustion Units**

| Emission Unit | | MMBtu/hr | 326 IAC 6-3-2 Process Weight Rate (tph) | 326 IAC 6-3-2 Limit (lb/hr) |
|---|---|---|---|---|
| **Furnaces** | GR1 (1978) | 2.90 | 0.501 | 2.58 |
| | GR2 (1978) | 2.90 | 0.501 | 2.58 |
| | GR3 (1978) | 2.90 | 0.501 | 2.58 |
| | GR4 (2013) | 2.90 | 0.501 | 2.58 |
| | SOW (2013) | 1.50 | 1.000 | 4.10 |
| | **Subtotal** | **13.10** | **3.004** | |
| **Crucibles** | CR1 (1978) | 1.00 | 0.165 | 1.22 |
| | CR2 (1978) | 1.00 | 0.165 | 1.22 |
| | CR3 (1978) | 1.00 | 0.165 | 1.22 |
| | CR4 (1978) | 1.00 | 0.165 | 1.22 |
| | CR5 (1978) | 1.00 | 0.165 | 1.22 |
| | CR61 (1978) | 1.00 | 0.165 | 1.22 |
| | CR7 (1978) | 1.00 | 0.165 | 1.22 |
| | CR8 (1978) | 1.00 | 0.165 | 1.22 |
| | **Subtotal** | **8.00** | **1.320** | |

| Emission Unit | | MMBtu/hr | 326 IAC 6-3-2 Process Weight Rate (tph) | 326 IAC 6-3-2 Limit (lb/hr) |
|---|---|---|---|---|
| **Core Machines** | CM1 (1978) | 0.1100 | 0.4165 | 2.28 |
| | CM2 (1978) | 0.1100 | 0.4165 | 2.28 |
| | CM3 (1978) | 0.1972 | 0.4165 | 2.28 |
| | CM4 (1978) | 0.1972 | 0.4165 | 2.28 |
| | CM5 (1978) | 0.3712 | 0.4165 | 2.28 |
| | CM6 (1978) | 0.3712 | 0.4165 | 2.28 |
| | CM7 (1978) | 0.5800 | 0.4165 | 2.28 |
| | CM8 (1978) | 0.2100 | 0.4165 | 2.28 |
| | **Subtotal** | **2.1468** | 3.33 | |
| **Heat Treat Furn.** | HT1 (1978) | 1.500 | N/A | N/A |
| | **Subtotal** | **1.500** | | |
| **Boiler** | B1 (1978) | (Removed) | N/A | N/A |
| | **Subtotal** | **0** | | |

| Emission Unit | | MMBtu/hr | 326 IAC 6-3-2 Process Weight Rate (tph) | 326 IAC 6-3-2 Limit (lb/hr) |
|---|---|---|---|---|
| **Space Heaters** | SH1 (1978) | 0.123 | N/A; not a | |
| | SH2 (1978) | 0.123 | | |
| | SH3 (1978) | 0.123 | | |
| | SH4 (1978) | 0.123 | | N/A; not a manufacturing process. |
| | SH5 (1978) | 0.123 | | |
| | SH6 (1978) | 0.123 | | |
| | SH7 (1978) | 0.123 | | |
| | SH8 (1978) | 0.123 | | |
| | SH9 (1978) | 0.123 | | |
| | SH10-40 (2011) | 3.813 | | |
| | Rad Gas Furnace (2011) | 0.100 | | |
| | **Subtotal** | **5.02** | | |
| **TOTAL - ALL COMBUSTION UNITS** | | | | |
| | | **29.7668** | **MMBtu/hr** | |

| Electric Melt Units | | 326 IAC 6-3-2 Process Weight Rate (tph) | 326 IAC 6-3-2 Limit (lb/hr) |
|---|---|---|---|
| | EM1 (1984) | 1.001 | 4.10 |
| | EM2 (1984) | 1.001 | 4.10 |
| | EM3 (1998) | 1.001 | 4.10 |
| | EM4 (2000) | 2.501 | 7.57 |
| | | **5.504** | |

| Belt Grinders | | | |
|---|---|---|---|
| | BG1 (1984) | 0.75 | 3.38 |
| | BG2 (1984) | 0.75 | 3.38 |
| | BG3 (1984) | 0.75 | 3.38 |

| Disc Grinders | | | |
|---|---|---|---|
| | DG1 (1984) | 0.75 | 3.38 |
| | DG2 (1984) | 0.75 | 3.38 |

| Shotblast Units | | 326 IAC 6-3-2 Process Weight Rate (tph) | 326 IAC 6-3-2 Limit (lb/hr) |
|---|---|---|---|
| | SB1 (1978) | 12.75 | 22.56 |
| | SB2 (1978) | 7.98 | 16.48 |

| Sand Mullor | | | |
|---|---|---|---|
| | MU1 (2013) | 48.00 | 42.52 |
| | EV1 (1978) | | |

| Knockout Machines | | | 326 IAC 6-3-2 Limit (lb/hr) |
|---|---|---|---|
| | KN1 (1978) | 0.555 | 2.76 |
| | KN2 (1978) | 0.555 | 2.76 |
| | KN3 (1978) | 0.555 | 2.76 |
| | KN4 (1978) | 0.555 | 2.76 |
| | KN5 (1978) | 0.555 | 2.76 |
| | KN6 (2013) | 0.555 | 2.76 |
| | | 3.330 | |

| Pouring/Casting Operation | 326 IAC 6-3-2 Process Weight Rate (tph) | 326 IAC 6-3-2 Limit (lb/hr) |
|---|---|---|
| P1, P2 (1978) (mfg 1964) | 9.83 | 17.64 |

| Cooling Operation | | | |
|---|---|---|---|
| | 1978 (mfg 1964) | 9.83 | 17.64 |

| Hot Oil Heater | | | |
|---|---|---|---|
| | OB1 (Removed) | MMBtu/hr | -- |

Methodology For Calculating Particulate Emissions under 326 IAC 6-3-2:

Particulate Emisisons Limitations for Manufacturing Processes (326 IAC 6-3-2) for processes less than 30 tons per hour use the following equation to determine the limits:

$E = 4.10P^{0.67}$

where E = allowable emissions (lb/hr)

where P = Process Weight Rate (tons/hr)

Notes: - Heat Treat has no expected particulate emissions; therefore, it is not subject to 326 IAC 6-3-2. Boiler has been removed from the source.

Particulate Emisisons Limitations for Manufacturing Processes (326 IAC 6-3-2) for processes over 30 tons per hour use the following equation to determine the limits:

$E = 55.0\ P^{0.11}-40$

where E = allowable emissions (lb/hr)

where P = Process Weight Rate (tons/hr)

Note: The use of the above equation is applicable to the sand mullor because it has a process weight rate of over 30 tons per hour (sixty thousand pounds)

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**
*We Protect Hoosiers and Our Environment.*
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**Michael R. Pence**
*Governor*

**Thomas W. Easterly**
*Commissioner*

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

TO: Kimberley Almeida
Ward Corporation
642 Growth Avenue
Fort Wayne, IN 46808

DATE: August 6, 2013

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

SUBJECT: Final Decision
FESOP Renewal
003-31506-00198

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:
Marion C Ward - President
Bruce Johns – Innovative Environmental Technologies
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.

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**Michael R. Pence**
*Governor*

**Thomas W. Easterly**
*Commissioner*

August 6, 2013

TO: Allen County Public Library

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

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

**Applicant Name: Ward Corporation**
**Permit Number: 003-31506-00198**

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 | GHOTOPP 8/6/2013<br>Ward Corporation 003-31506-00198 Final | | AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING |
| Name and address of Sender | ▶ | Indiana Department of Environmental Management<br>Office of Air Quality – Permits Branch<br>100 N. Senate<br>Indianapolis, IN 46204 | Type of Mail:<br>**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<br>Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | Kimberley Almeida Ward Corporation 642 Growth Ave Fort Wayne IN 46808 (Source CAATS) via confirmed delivery | | | | | | | | | |
| 2 | | Marion C Ward President Ward Corporation 642 Growth Ave Fort Wayne IN 46808 *(RO CAATS)* | | | | | | | | | |
| 3 | | Daniel & Sandy Trimmer 15021 Yellow River Road Columbia City IN 46725 *(Affected Party)* | | | | | | | | | |
| 4 | | Duane & Deborah Clark Clark Farms 6973 E. 500 S. Columbia City IN 46725 *(Affected Party)* | | | | | | | | | |
| 5 | | Allen County Public Library 900 Library Plaza, P.O. Box 2270 Fort Wayne IN 46802 *(Library)* | | | | | | | | | |
| 6 | | Fort Wayne City Council and Mayors Office 200 E Berry Street Ste 120 Fort Wayne IN 46802 *(Local Official)* | | | | | | | | | |
| 7 | | Mr. Jeff Coburn Plumbers & Steamfitters, Local 166 2930 W Ludwig Rd Fort Wayne IN 46818-1328 *(Affected Party)* | | | | | | | | | |
| 8 | | Mr. Bruce Johns Innovative Environmental Technologies P.O. Box 85018 Fort Wayne IN 46885 *(Consultant)* | | | | | | | | | |
| 9 | | Allen Co. Board of Commissioners 200 E Berry Street Ste 410 Fort Wayne IN 46802 *(Local Official)* | | | | | | | | | |
| 10 | | Fort Wayne-Allen County Health Department 200 E Berry St Suite 360 Fort Wayne IN 46802 *(Health Department)* | | | | | | | | | |
| 11 | | | | | | | | | | | |
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