



Indiana Department of Environmental Management

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(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Carol S. Comer
Commissioner

To: Interested Parties

Date: August 17, 2016

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

Source Name: Aluminum Recovery Technologies

Permit Level: Title V - Administrative Amendment

Permit Number: 113 - 37333 - 00071

Source Location: 2170 Production Road, Kendallville, Indiana

Type of Action Taken: Modification at an existing source

Notice of Decision: Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the matter referenced above. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

The final decision is available on the IDEM website at: <http://www.in.gov/apps/idem/caats/>
To view the document, select Search option 3, then enter permit 37333.

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

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

(continues on next page)

If you wish to challenge this decision, IC 4-21.5-3-7 requires 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 from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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



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Mr. Jack Hampton
Aluminum Recovery Technologies, Inc.
2170 Production Road
Kendallville, IN 46755

August 17, 2016

Re:113-37333-00071
Administrative Amendment to
Part 70 Operating Permit Renewal T113-33985-00071

Dear Mr. Hampton:

Aluminum Recovery Technologies, Inc. was issued a Part 70 Permit Renewal No. T113-33985-00071 on September 25, 2014 for a stationary secondary aluminum production source located at 2170 Production Road, Kendallville, IN 46755. On June 30, 2016, the Office of Air Quality (OAQ) received an application from the source requesting to include an insignificant shot machine unit.

Pursuant to the provisions of 326 IAC 2-7-11(a), the permit is hereby administratively amended as described in the attached Technical Support Document.

Please find attached the entire Part 70 Operating Permit as amended. The permit references the below listed attachment. Since this attachment has been provided in previously issued approvals for this source, IDEM OAQ has not included a copy of this attachment with this amendment:

Attachment A: 40 CFR 63, Subpart RRR, National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production

Previously issued approvals for this source containing these attachments are available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>.

Federal rules under Title 40 of United States Code of Federal Regulations may also be found on the U.S. Government Printing Office's Electronic Code of Federal Regulations (eCFR) website, located on the Internet at: http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title40/40tab_02.tpl.

A copy of the permit is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: <http://www.in.gov/idem/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/idem/6900.htm>.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5.

If you have any questions on this matter, please contact Tamera Wessel of my staff, at 317-234-8530 or 1-800-451-6027, and ask for extension 4-8530.

Sincerely,



Jason R. Krawczyk, Section Chief
Permits Branch
Office of Air Quality

Attachment(s): Updated Permit, Technical Support Document and Appendix A

JK/tw

cc: File - Noble County
Noble County Health Department
U.S. EPA, Region 5
Compliance and Enforcement Branch
Billing, Licensing and Training Section
IDEM Northern Regional Office



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Part 70 Operating Permit Renewal OFFICE OF AIR QUALITY

**Aluminum Recovery Technologies, Inc.
2170 Production Road
Kendallville, Indiana 46755**

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

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

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

Operation Permit No.: T113-33985-00071	
Issued by: <i>Original Signed by:</i> Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: September 25, 2014 Expiration Date: September 25, 2019

Administrative Amendment No.: 113-36406-00071, issued January 13, 2016

Administrative Amendment No.: 113-37333-00071	
Issued by:  Jason R. Krawczyk, Section Chief Permits Branch Office of Air Quality	Issuance Date: August 17, 2016 Expiration Date: September 25, 2019

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SECTION A

SOURCE SUMMARY

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

A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(14)][326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary secondary aluminum production source.

Source Address:	2170 Production Road, Kendallville, Indiana 46755
General Source Phone Number:	(260) 349-1590
SIC Code:	3341 (Secondary Nonferrous Metals)
County Location:	Noble
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Minor Source, under PSD and Emission Offset Rules Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

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

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

- (a) One (1) natural gas-fired rotary furnace, identified as RF #1 (furnace #1), which commenced construction prior to February 11, 1999, approved in 2014 for modification, with a maximum heat input capacity of 12.0 million British thermal units (MMBtu) per hour, with a maximum capacity of 20,171 pounds of dross and aluminum scrap per hour and 3,207 pounds of solid reactive flux per hour, with emissions controlled by one (1) lime injected baghouse, identified as Baghouse 1, exhausting through one (1) stack, identified as Vent #1.

Under NESHAP Subpart RRR, this is an existing affected facility, defined as "Group 1 Furnace/SAPU".

- (b) One (1) natural gas-fired rotary furnace, identified as RF #2 (furnace #2), constructed in September 2001, approved in 2014 for modification, with a maximum heat input capacity of 12.0 MMBtu/hr, with a maximum capacity of 16,118 pounds of zinc dross, aluminum dross, or aluminum scrap per hour and 2,563 pounds of solid reactive flux per hour, with emissions controlled by one (1) lime injected baghouse, identified as Baghouse 2, exhausting through one (1) stack, identified as Vent #2.

Under NESHAP Subpart RRR, this is an existing affected facility, defined as "Group 1 Furnace/SAPU".

- (c) One (1) natural gas-fired thermal chip dryer, identified as Chip Dryer #1, which commenced construction prior to February 11, 1999, with a maximum heat input capacity of 4.0 MMBtu/hr, with a maximum capacity of processing 7,035 pounds of aluminum per hour, with emissions controlled by one (1) baghouse, identified as Baghouse 3, and one (1) natural gas-fired afterburner with a maximum heat input capacity of 6.0 MMBtu/hr, identified as Afterburner, exhausting through one (1) stack, identified as Vent #3;

Under NESHAP Subpart RRR, this is an existing affected facility, defined as "thermal chip dryer".

- (d) One (1) saltcake cooling operation, constructed in 2000 and modified in 2004, approved in 2014 for modification, cooling up to 42,059 pounds of furnace saltcake per hour, with emissions exhausting into the building.
- (e) One (1) natural gas-fired reverberatory furnace, identified as RV #1 (furnace #4), permitted in 2010, approved in 2014 for modification, with a maximum heat input capacity of 10.0 MMBtu/hr, with a maximum capacity of 8,404 pounds of dross and aluminum scrap per hour and 1,336 pounds of solid reactive flux per hour, with emissions controlled by one (1) lime injected baghouse, identified as Baghouse 4, exhausting through one (1) stack, identified as Vent #4.

Under NESHAP Subpart RRR, this is an existing affected facility, defined as "Group 1 Furnace/SAPU".

- (f) One (1) natural gas-fired holding furnace, identified as HF #1 (furnace #3), constructed in 2010, with a maximum heat input capacity of 0.25 MMBtu/hr, no control with emissions exhausting into the building.

Under NESHAP Subpart RRR, this is an existing affected facility, defined as "Group 2 Furnace".

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

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

- (a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
- (b) Conveyors as follows:

Covered conveyors for limestone conveying of less than or equal to 7,200 tons per day for sources other than mineral processing plants constructed after August 31, 1983. This includes Baghouse 1, Baghouse 3, and Baghouse 2 lime injection screw conveyors, each conveying up to 100 pounds per hour of lime to the respective baghouse.
- (c) Aluminum scrap handling operations and scrap holding area.
- (d) One (1) shredder, identified as BB#1, used as bale breaker to physically separate baled scrap metal, with uncontrolled particulate emissions less than 5 pounds per hour, constructed in 2008.
- (e) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour, including two (2) space heaters and six (6) torches which are estimated to have a combined maximum heat input of 10 MMBtu/hr.
- (f) Combustion source flame safety purging on startup.
- (g) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.

- (h) The following VOC and HAP storage containers:
 - (A) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.
 - (B) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (i) Refractory storage not requiring air pollution control equipment.
- (j) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.
- (k) Machining where an aqueous cutting coolant continuously floods the machining interface.
- (l) Cleaners and solvents characterized as follows:
 - (A) Having a vapor pressure equal to or less than 2 kPa; 15mm Hg; or 0.3 psi measured at 38 degrees C (100F) or;
 - (B) Having a vapor pressure equal to or less than 0.7 kPa; 5mm Hg; or 0.1 psi measured at 20C (68F); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.
- (m) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (n) Process vessel degassing and cleaning to prepare for internal repairs.
- (o) Paved and unpaved roads and parking lots with public access.
- (p) Purging of gas lines and vessels that is related to routine maintenance and repair of buildings, structures, or vehicles at the source where air emissions from these activities would not be associated with any production process.
- (q) Flue gas conditioning systems and associated chemicals such as the following: sodium sulfate, ammonia; and sulfur trioxide.
- (r) Purge double block and bleed valves.
- (s) Filter or coalescer media changeout.
- (t) One (1) aluminum shot machine unit, identified as SM-01, permitted in 2016, with a maximum throughput rate of 8,000 pounds per hour, containing a natural gas-fired burning dryer with a maximum heat input capacity of 3.0 MMBtu, using no control, and exhausting outdoors.

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

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

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

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

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

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

- (a) This permit, T113-33985-00071, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

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

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

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

B.4 Enforceability [326 IAC 2-7-7][IC 13-17-12]

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

B.5 Severability [326 IAC 2-7-5(5)]

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

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

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

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

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

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

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

- (1) it contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(35), and
 - (2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
 - (c) A "responsible official" is defined at 326 IAC 2-7-1(35).

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

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

and

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

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

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

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

- (a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

The Permittee shall implement the PMPs.

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

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

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

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

The Permittee shall implement the PMPs.

- (c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

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

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

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

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ 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 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

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

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(8) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

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

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

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

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

- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
 - (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
 - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
 - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
 - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

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

- (a) All terms and conditions of permits established prior to T113-33985-00071 and issued pursuant to permitting programs approved into the state implementation plan have been either:
 - (1) incorporated as originally stated,
 - (2) revised under 326 IAC 2-7-10.5, or
 - (3) deleted under 326 IAC 2-7-10.5.
- (b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit.

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

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

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

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-

5(6)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
 - (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

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

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(42). The renewal application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
 - (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if,

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

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

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

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

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

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

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

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

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

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

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

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b) or (c) without a prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
- (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality

100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

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

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

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b)(1) and (c)(1). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-7-20(b)(1) and (c)(1).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(37)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

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

- (c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

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

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

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

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

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

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

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

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

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

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

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

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

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

C.1 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 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.3 Open Burning [326 IAC 4-1][IC 13-17-9]

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

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

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

C.5 Fugitive Dust Emissions [326 IAC 6-4]

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

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

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

- (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
- (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

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

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Licensed Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

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

C.7 Performance Testing [326 IAC 3-6]

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

Indiana Department of Environmental Management

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

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

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

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

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

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

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

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

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

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

C.11 Risk Management Plan [326 IAC 2-7-5(12)][40 CFR 68]

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

C.12 Response to Excursions or Exceedances [40 CFR 64][326 IAC 3-8][326 IAC 2-7-5][326 IAC 2-7-6]

- (l) Upon detecting an excursion where a response step is required by the D Section, or an exceedance of a limitation, not subject to CAM, in this permit:
 - (a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.
 - (b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:
 - (1) initial inspection and evaluation;

- (2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or
 - (3) any necessary follow-up actions to return operation to normal or usual manner of operation.
 - (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
 - (1) monitoring results;
 - (2) review of operation and maintenance procedures and records; and/or
 - (3) inspection of the control device, associated capture system, and the process.
 - (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
 - (e) The Permittee shall record the reasonable response steps taken.
- (II)
 - (a) *CAM Response to excursions or exceedances.*
 - (1) Upon detecting an excursion or exceedance, subject to CAM, the Permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
 - (2) Determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.
 - (b) If the Permittee identifies a failure to achieve compliance with an emission limitation, subject to CAM, or standard, subject to CAM, for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the Permittee shall promptly notify the IDEM, OAQ and, if necessary, submit a proposed significant permit modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the

frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

- (c) Based on the results of a determination made under paragraph (II)(a)(2) of this condition, the EPA or IDEM, OAQ may require the Permittee to develop and implement a QIP. The Permittee shall develop and implement a QIP if notified to in writing by the EPA or IDEM, OAQ.
- (d) Elements of a QIP:
The Permittee shall maintain a written QIP, if required, and have it available for inspection. The plan shall conform to 40 CFR 64.8 b (2).
- (e) If a QIP is required, the Permittee shall develop and implement a QIP as expeditiously as practicable and shall notify the IDEM, OAQ if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.
- (f) Following implementation of a QIP, upon any subsequent determination pursuant to paragraph (II)(a)(2) of this condition the EPA or the IDEM, OAQ may require that the Permittee make reasonable changes to the QIP if the QIP is found to have:
 - (1) Failed to address the cause of the control device performance problems;
or
 - (2) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (g) Implementation of a QIP shall not excuse the Permittee from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.
- (h) *CAM recordkeeping requirements.*
 - (1) The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to paragraph (II)(a)(2) of this condition and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this condition (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.
 - (2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements

C.13 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

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

- (b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

C.14 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

In accordance with the compliance schedule specified in 326 IAC 2-6-3(b)(1), starting in 2004 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

- (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
- (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(33) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

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

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

C.15 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. Support information includes the following, where applicable:
 - (AA) All calibration and maintenance records.
 - (BB) All original strip chart recordings for continuous monitoring instrumentation.
 - (CC) Copies of all reports required by the Part 70 permit.Records of required monitoring information include the following, where applicable:
 - (AA) The date, place, as defined in this permit, and time of sampling or measurements.
 - (BB) The dates analyses were performed.
 - (CC) The company or entity that performed the analyses.
 - (DD) The analytical techniques or methods used.
 - (EE) The results of such analyses.

(FF) The operating conditions as existing at the time of sampling or measurement.

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

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

C.16 General Reporting Requirements [326 IAC 2-7-5(3)(C)][326 IAC 2-1.1-11] [40 CFR 64][326 IAC 3-8]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B -Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

On and after the date by which the Permittee must use monitoring that meets the requirements of 40 CFR Part 64 and 326 IAC 3-8, the Permittee shall submit CAM reports to the IDEM, OAQ.

A report for monitoring under 40 CFR Part 64 and 326 IAC 3-8 shall include, at a minimum, the information required under paragraph (a) of this condition and the following information, as applicable:

- (1) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
- (2) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
- (3) A description of the actions taken to implement a QIP during the reporting period as specified in Section C-Response to Excursions or Exceedances. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

The Permittee may combine the Quarterly Deviation and Compliance Monitoring Report and a report pursuant to 40 CFR 64 and 326 IAC 3-8.

(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.17 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: [326 IAC 2-7-5(15)]:

- (a) One (1) natural gas-fired rotary furnace, identified as RF #1 (furnace #1), which commenced construction prior to February 11, 1999, approved in 2014 for modification, with a maximum heat input capacity of 12.0 million British thermal units (MMBtu) per hour, with a maximum capacity of 20,171 pounds of dross and aluminum scrap per hour and 3,207 pounds of solid reactive flux per hour, with emissions controlled by one (1) lime injected baghouse, identified as Baghouse 1, exhausting through one (1) stack, identified as Vent #1.

Under NESHAP Subpart RRR, this is an existing affected facility, defined as "Group 1 Furnace/SAPU".

- (b) One (1) natural gas-fired rotary furnace, identified as RF #2 (furnace #2), constructed in September 2001, approved in 2014 for modification, with a maximum heat input capacity of 12.0 MMBtu/hr, with a maximum capacity of 16,118 pounds of zinc dross, aluminum dross, or aluminum scrap per hour and 2,563 pounds of solid reactive flux per hour, with emissions controlled by one (1) lime injected baghouse, identified as Baghouse 2, exhausting through one (1) stack, identified as Vent #2.

Under NESHAP Subpart RRR, this is an existing affected facility, defined as "Group 1 Furnace/SAPU".

- (c) One (1) natural gas-fired thermal chip dryer, identified as Chip Dryer #1, which commenced construction prior to February 11, 1999, with a maximum heat input capacity of 4.0 MMBtu/hr, with a maximum capacity of processing 7,035 pounds of aluminum per hour, with emissions controlled by one (1) baghouse, identified as Baghouse 3, and one (1) natural gas-fired afterburner with a maximum heat input capacity of 6.0 MMBtu/hr, identified as Afterburner, exhausting through one (1) stack, identified as Vent #3;

Under NESHAP Subpart RRR, this is an existing affected facility, defined as "thermal chip dryer".

- (d) One (1) saltcake cooling operation, constructed in 2000 and modified in 2004, approved in 2014 for modification, cooling up to 42,059 pounds of furnace saltcake per hour, with emissions exhausting into the building.

- (e) One (1) natural gas-fired reverberatory furnace, identified as RV #1 (furnace #4), permitted in 2010, approved in 2014 for modification, with a maximum heat input capacity of 10.0 MMBtu/hr, with a maximum capacity of 8,404 pounds of dross and aluminum scrap per hour and 1,336 pounds of solid reactive flux per hour, with emissions controlled by one (1) lime injected baghouse, identified as Baghouse 4, exhausting through one (1) stack, identified as Vent #4.

Under NESHAP Subpart RRR, this is an existing affected facility, defined as "Group 1 Furnace/SAPU".

- (f) One (1) natural gas-fired holding furnace, identified as HF #1 (furnace #3), constructed in 2010, with a maximum heat input capacity of 0.25 MMBtu/hr, no control with emissions exhausting into the building.

Under NESHAP Subpart RRR, this is an existing affected facility, defined as "Group 2 Furnace".

Insignificant Activities:

- (a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
- (b) Conveyors as follows:

 Covered conveyors for limestone conveying of less than or equal to 7,200 tons per day for sources other than mineral processing plants constructed after August 31, 1983. This includes Baghouse 1, Baghouse 3, and Baghouse 2 lime injection screw conveyors, each conveying up to 100 pounds per hour of lime to the respective baghouse.
- (c) Aluminum scrap handling operations and scrap holding area.
- (d) One (1) shredder, identified as BB#1, used as bale breaker to physically separate baled scrap metal, with uncontrolled particulate emissions less than 5 pounds per hour, constructed in 2008.

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

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

D.1.1 PSD Minor Limits [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, the PM, PM10 and PM2.5 emissions from the following operations shall not exceed the limits as shows in the table below:

Emission Unit	PM Limit (lb/hr)	PM10 Limit (lb/hr)	PM2.5 Limit (lb/hr)
Rotary Furnace RF#1 (furnace #1)	4.00	4.00	4.00
Rotary Furnace RF#2 (furnace #2)	4.00	4.00	4.00
Chip Dryer #1	4.00	4.00	4.00
Reverberatory Furnace RV#1 (furnace #4)	4.00	4.00	4.00

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

D.1.2 Particulate Matter [326 IAC 6-3-2]

- (a) Pursuant to 326 IAC 6-3-2, the allowable particulate matter (PM) emissions from the following emission units shall not exceed the following pound per hour limits listed in the table below:

Emission Unit(s)	Process Weight Rate (tons per hour)	PM Emission Limit (pounds per hour)
Chip Dryer #1	3.52	9.53
Saltcake Cooling Operation (Dross Cooling)	21.03	31.56
Shredder BB#1	3.52	9.53

These limits were calculated using the following equations:

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

- (b) Pursuant to 326 IAC 6-3-2, the allowable particulate matter (PM) emissions from the insignificant activities including brazing equipment, cutting torches, soldering equipment, welding equipment, and the covered conveyors for limestone conveying shall not exceed 0.551 pounds per hour, each.

D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventative 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 [326 IAC 2-7-5(1)]

D.1.4 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

- (a) Rotary Furnace RF#1 (furnace #1)
In order to determine compliance with Condition D.1.1, within five (5) years of the most recent valid compliance demonstration for Rotary Furnace RF#1 (furnace #1), the Permittee shall perform PM, PM10, and PM2.5 testing on Baghouse 1, controlling Rotary Furnace RF#1 (furnace #1), utilizing methods as approved by the Commissioner.
- PM10 and PM2.5 includes filterable and condensable PM.
- (b) Rotary Furnace RF#2 (furnace #2)
In order to determine compliance with Condition D.1.1, within five (5) years of the most recent valid compliance demonstration for Rotary Furnace RF#2 (furnace #2), the Permittee shall perform PM, PM10, and PM2.5 testing on Baghouse 2, controlling Rotary Furnace RF#2 (furnace #2), utilizing methods as approved by the Commissioner.
- PM10 and PM2.5 includes filterable and condensable PM.
- (c) Chip Dryer #1
In order to determine compliance with Conditions D.1.1 and D.1.2(a), within five (5) years of the most recent valid compliance demonstration for Chip Dryer #1, the Permittee shall perform PM, PM10, and PM2.5 testing on Baghouse 3, controlling Chip Dryer #1, utilizing methods as approved by the Commissioner.
- PM10 and PM2.5 includes filterable and condensable PM.
- (d) Reverberatory Furnace RV#1 (furnace #4)
In order to determine compliance with Condition D.1.1, within five (5) years of the most recent valid compliance demonstration for Reverberatory Furnace RV#1 (furnace #4), the Permittee shall perform PM, PM10, and PM2.5 testing on Baghouse 4, controlling Reverberatory Furnace RV#1 (furnace #4), utilizing methods as approved by the Commissioner.
- PM10 and PM2.5 includes filterable and condensable PM.
- (e) These tests shall be repeated at least once every five (5) years from the date of the most

recent valid compliance demonstration.

- (f) 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 obligations with regard to the performance testing required by this condition.

D.1.5 Particulate Matter Control

- (a) In order to comply with Conditions D.1.1 and D.1.2, Baghouses 1, 2, 3, and 4 for particulate control shall be in operation at all times whenever the Rotary Furnace RF#1 (furnace #1), controlled by Baghouse 1, the Rotary Furnace RF#2 (furnace #2), controlled by Baghouse 2, the Chip Dryer #1, controlled by Baghouse 3, or the Reverberatory Furnace RV#1 (furnace #4), controlled by Baghouse 4, are in operation.
- (b) In the event that a bag or cartridge failure is observed in a multi-compartment bag or cartridge filter, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

D.1.6 Bag Leak Detection System (BLDS) [40 CFR 63][40 CFR 64]

Pursuant to 40 CFR 64, Baghouses 1, 2, and 4 controlling particulate matter emissions from the Rotary Furnace RF#1 (furnace #1), controlled by Baghouse 1, the Rotary Furnace RF#2 (furnace #2), controlled by Baghouse 2, and the Reverberatory Furnace RV#1 (furnace #4), controlled by Baghouse 4, shall each be equipped with a bag leak detection system for each exhaust stack of a fabric filter and shall comply with the requirements as designated in Section E.1.2 (40 CFR 63 Subpart RRR).

D.1.7 Visible Emissions Notations [40 CFR 64]

- (a) Daily visible emission notations of the Baghouse 3 stack exhaust (Vent #3), controlling the Chip Dryer #1, shall be performed during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) Pursuant to 40 CFR 64, whenever the Bag Leak Detection System (BLDS) is malfunctioning or down for repairs or adjustments, visible emission notations of the stack exhaust from:
 - (1) Baghouse 1, controlling emissions from Rotary Furnace RF#1 (furnace #1),
 - (2) Baghouse 2, controlling emissions from Rotary Furnace RF#2 (furnace #2), and
 - (3) Baghouse 4, controlling emissions from Reverberatory Furnace RV#1 (furnace #4),

shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

- (c) 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.

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

D.1.8 Parametric Monitoring [40 CFR 64]

- (a) The Permittee shall record the pressure drop across Baghouse 3, used in conjunction with Chip Dryer #1, at least once per day when Chip Dryer #1 is in operation. When for any one reading, the pressure drop across the dust collector is outside the normal range, the Permittee shall take reasonable response steps. The normal range for this unit is a pressure drop between 3 and 6 inches of water unless a different upper-bound or lower-bound value for this range is determined during the latest stack test.
- (b) Pursuant to 40 CFR 64, whenever the Bag Leak Detection System (BLDS) is malfunctioning or down for repairs or adjustments, The Permittee shall record the pressure drop across the following Baghouses, at least once per shift when the processes controlled by these Baghouses are in operation:
 - (1) Baghouse 1, controlling emissions from Rotary Furnace RF#1 (furnace #1),
 - (2) Baghouse 2, controlling emissions from Rotary Furnace RF#2 (furnace #2), and
 - (3) Baghouse 4, controlling emissions from Reverberatory Furnace RV#1 (furnace #4),

When for any one reading, the pressure drop across each baghouse is outside the normal range of 3 and 6 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response.

- (c) 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.
- (d) 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 [40 CFR 64]

Pursuant to 40 CFR 64, in the event that bag failure has been observed:

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

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

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

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

D.1.10 Record Keeping Requirements

- (a) To document the compliance status with Condition D.1.7(a), the Permittee shall maintain once per day visible emissions notations for Baghouse 3. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation, (e.g. the process did not operate that day).
- (b) To document the compliance status with Condition D.1.7(b), whenever the Bag Leak Detection System (BLDS) is malfunctioning or down for repairs or adjustments, the Permittee shall maintain once per shift visible emissions notations for Baghouses 1, 2, and 4. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation, (e.g. the process did not operate that day).
- (c) To document the compliance status with Condition D.1.8(a), the Permittee shall maintain once per day records of the total static pressure drop for Baghouse 3 during normal operation. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g. the process did not operate that day).
- (d) To document the compliance status with Conditions D.1.8(b), whenever the Bag Leak Detection System (BLDS) is malfunctioning or down for repairs or adjustments, the Permittee shall maintain once per shift records of the total static pressure drop for Baghouses 1, 2, and 4. 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) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

SECTION E.1

NESHAP

Facility Description [326 IAC 2-7-5(15)]:

- (a) One (1) natural gas-fired rotary furnace, identified as RF #1 (furnace #1), which commenced construction prior to February 11, 1999, approved in 2014 for modification, with a maximum heat input capacity of 12.0 million British thermal units (MMBtu) per hour, with a maximum capacity of 20,171 pounds of dross and aluminum scrap per hour and 3,207 pounds of solid reactive flux per hour, with emissions controlled by one (1) lime injected baghouse, identified as Baghouse 1, exhausting through one (1) stack, identified as Vent #1.

Under NESHAP Subpart RRR, this is an existing affected facility, defined as "Group 1 Furnace/SAPU".

- (b) One (1) natural gas-fired rotary furnace, identified as RF #2 (furnace #2), constructed in September 2001, approved in 2014 for modification, with a maximum heat input capacity of 12.0 MMBtu/hr, with a maximum capacity of 16,118 pounds of zinc dross, aluminum dross, or aluminum scrap per hour and 2,563 pounds of solid reactive flux per hour, with emissions controlled by one (1) lime injected baghouse, identified as Baghouse 2, exhausting through one (1) stack, identified as Vent #2.

Under NESHAP Subpart RRR, this is an existing affected facility, defined as "Group 1 Furnace/SAPU".

- (c) One (1) natural gas-fired thermal chip dryer, identified as Chip Dryer #1, which commenced construction prior to February 11, 1999, with a maximum heat input capacity of 4.0 MMBtu/hr, with a maximum capacity of processing 7,035 pounds of aluminum per hour, with emissions controlled by one (1) baghouse, identified as Baghouse 3, and one (1) natural gas-fired afterburner with a maximum heat input capacity of 6.0 MMBtu/hr, identified as Afterburner, exhausting through one (1) stack, identified as Vent #3;

Under NESHAP Subpart RRR, this is an existing affected facility, defined as "thermal chip dryer".

- (e) One (1) natural gas-fired reverberatory furnace, identified as RV #1 (furnace #4), permitted in 2010, approved in 2014 for modification, with a maximum heat input capacity of 10.0 MMBtu/hr, with a maximum capacity of 8,404 pounds of dross and aluminum scrap per hour and 1,336 pounds of solid reactive flux per hour, with emissions controlled by one (1) lime injected baghouse, identified as Baghouse 4, exhausting through one (1) stack, identified as Vent #4.

Under NESHAP Subpart RRR, this is an existing affected facility, defined as "Group 1 Furnace/SAPU".

- (f) One (1) natural gas-fired holding furnace, identified as HF #1 (furnace #3), constructed in 2010, with a maximum heat input capacity of 0.25 MMBtu/hr, no control with emissions exhausting into the building.

Under NESHAP Subpart RRR, this is an existing affected facility, defined as "Group 2 Furnace".

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

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)]

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

- (a) Pursuant to 40 CFR 63.1, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1-1, for the emission unit(s) listed above, except as otherwise specified in 40 CFR Part 63, Subpart RRR.

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

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

E.1.2 Secondary Aluminum Production NESHAP [40 CFR Part 63, Subpart RRR][326 IAC 20-70]

The Permittee shall comply with the provisions of 40 CFR Part 63, Subpart RRR, which are incorporated by reference as 326 IAC 20-70 (included as Attachment A to the operating permit), for the above listed emissions units, as specified as follows:

- (a) Rotary Furnace RF#1 (furnace #1), Rotary Furnace RF#2 (furnace #2), and Reverberatory Furnace RV#1 (furnace #4), each defined as "Group 1 Furnace/SAPU":
 - (1) 63.1500(a) and (b)(8)
 - (2) 63.1501
 - (3) 63.1503
 - (4) 63.1505(a), (i)(2-6), (j), (k)(1-4), and (k)(6)
 - (5) 63.1506(a)(1), (a)(4), (a)(5), (b), (c-d), (k), (m), and (p)
 - (6) 63.1510(a-f), (h-i), and (s-w)
 - (7) 63.1511 (except (h-i))
 - (8) 63.1512(d), (h), (j-k), and (n-s)
 - (9) 63.1513
 - (10) 63.1514
 - (11) 63.1515 (except (a)(1))
 - (12) 63.1516
 - (13) 63.1517
 - (14) 63.1518
 - (15) 63.1519
 - (16) Table 1
 - (17) Table 2
 - (18) Table 3
 - (19) Appendix A

- (b) For Chip Dryer #1, defined as "thermal chip dryer":
 - (1) 63.1500(a) and (b)(2)
 - (2) 63.1501
 - (3) 63.1503
 - (4) 63.1505(a) and (c)
 - (5) 63.1506(a)(4), (a)(5), (c), (d), (f)

- (6) 63.1510
- (7) 63.1511 (except (h-i))
- (8) 63.1512(b), (k), (m), (p)
- (9) 63.1513
- (10) 63.1514
- (11) 63.1515
- (12) 63.1516
- (13) 63.1517
- (14) 63.1518
- (15) 63.1519
- (16) Table 1
- (17) Table 2
- (18) Table 3
- (19) Appendix A

(c) For Holding Furnace HF #1 (furnace #3), defined as "Group 2 Furnace":

- (1) 63.1500(a) and (b)(8)
- (2) 63.1501
- (3) 63.1503
- (4) 63.1506(a)(1), (a)(4), (a)(5), (b), (d) and (o)
- (5) 63.1510(a-c), (e) and (r)
- (6) 63.1512(r)
- (7) 63.1515 (except (a)(1))
- (8) 63.1516
- (9) 63.1517
- (10) 63.1518
- (11) 63.1519
- (12) Table 1
- (13) Table 2
- (14) Table 3
- (15) Appendix A

E.1.3 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

The Permittee shall perform the stack testing as required under NESHAP 40 CFR 63, Subpart RRR, utilizing methods as approved by the Commissioner to document compliance with Condition E.1.2. These tests shall be repeated at least 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
PART 70 OPERATING PERMIT
CERTIFICATION**

Source Name: Aluminum Recovery Technologies, Inc.
Source Address: 2170 Production Road, Kendallville, Indiana 46755
Part 70 Permit No.: T113-33985-00071

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

Please check what document is being certified:

- Annual Compliance Certification Letter
- Test Result (specify)
- Report (specify)
- Notification (specify)
- Affidavit (specify)
- Other (specify)

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

Signature:

Printed Name:

Title/Position:

Phone:

Date:

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

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: Aluminum Recovery Technologies, Inc.
Source Address: 2170 Production Road, Kendallville, Indiana 46755
Part 70 Permit No.: T113-33985-00071

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

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

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

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

Page 2 of 2

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Aluminum Recovery Technologies, Inc.
Source Address: 2170 Production Road, Kendallville, Indiana 46755
Part 70 Permit No.: T113-33985-00071

Months: _____ to _____ Year: _____

Page 1 of 2

<p>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".</p>	
<p><input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.</p>	
<p><input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD</p>	
<p>Permit Requirement (specify permit condition #)</p>	
<p>Date of Deviation:</p>	<p>Duration of Deviation:</p>
<p>Number of Deviations:</p>	
<p>Probable Cause of Deviation:</p>	
<p>Response Steps Taken:</p>	
<p>Permit Requirement (specify permit condition #)</p>	
<p>Date of Deviation:</p>	<p>Duration of Deviation:</p>
<p>Number of Deviations:</p>	
<p>Probable Cause of Deviation:</p>	
<p>Response Steps Taken:</p>	

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

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

**Technical Support Document (TSD) for a
Part 70 Administrative Amendment**

Source Description and Location

Source Name:	Aluminum Recovery Technologies, Inc.
Source Location:	2170 Production Road, Kendallville, Indiana 46755
County:	Noble
SIC Code:	3341 (Secondary Nonferrous Metals)
Operation Permit No.:	T113-33985-00071
Operation Permit Issuance Date:	September 25, 2014
Administrative Amendment No.:	113-37333-00071
Permit Reviewer:	Tamera Wessel

Existing Approvals

The source was issued Part 70 Operating Permit Renewal No. T113-33985-00071 on September 25, 2014. The source has since received the following approvals:

- (a) Administrative Amendment No.: 113-36406-00071, issued on January 12, 2016.

County Attainment Status

The source is located in Noble County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard. ¹
PM _{2.5}	Unclassifiable or attainment effective April 5, 2005, for the annual PM _{2.5} standard.
PM _{2.5}	Unclassifiable or attainment effective December 13, 2009, for the 24-hour PM _{2.5} standard.
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.
Pb	Unclassifiable or attainment effective December 31, 2011.

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

Unclassifiable or attainment effective April 5, 2005, for PM_{2.5}.

- (a) **Ozone Standards**
Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Noble 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}**
Noble County has been classified as attainment for PM_{2.5}. Therefore, direct PM_{2.5}, SO₂, and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

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

Fugitive Emissions

Since this source is classified as a secondary metal production plant, it is considered one (1) of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7. Therefore, fugitive emissions are counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Greenhouse Gas (GHG) Emissions

On June 23, 2014, in the case of *Utility Air Regulatory Group v. EPA*, cause no. 12-1146, (available at http://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf) the United States Supreme Court ruled that the U.S. EPA does not have the authority to treat greenhouse gases (GHGs) as an air pollutant for the purpose of determining operating permit applicability or PSD Major source status. On July 24, 2014, the U.S. EPA issued a memorandum to the Regional Administrators outlining next steps in permitting decisions in light of the Supreme Court's decision. U.S. EPA's guidance states that U.S. EPA will no longer require PSD or Title V permits for sources "previously classified as 'Major' based solely on greenhouse gas emissions."

The Indiana Environmental Rules Board adopted the GHG regulations required by U.S. EPA at 326 IAC 2-2-1(zz), pursuant to Ind. Code § 13-14-9-8(h) (Section 8 rulemaking). A rule, or part of a rule, adopted under Section 8 is automatically invalidated when the corresponding federal rule, or part of the rule, is invalidated. Due to the United States Supreme Court Ruling, IDEM, OAQ cannot consider GHG emissions to determine operating permit applicability or PSD applicability to a source or modification.

Source Status - Existing Source

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

Pollutant	Emissions (ton/yr)
PM	81.24
PM ₁₀	86.53
PM _{2.5}	86.52
SO ₂	8.73
NO _x	38.30
VOC	35.96
CO	19.57
Single HAP	45.38 HCl
Total HAPs	46.67

- (a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no PSD regulated pollutant is emitted at a rate of one hundred (100) tons per year or more and it is one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).
- (b) This existing source is a major source of HAPs, as defined in 40 CFR 63.2, because HAP emissions are equal to or greater than ten (10) tons per year for a single HAP and equal to or greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, this source is a major source under Section 112 of the Clean Air Act (CAA).
- (c) These emissions are based on Appendix A to the Technical Support Document for Significant Source Modification No. 113-34739-00071 and Part 70 Operating Permit Renewal No. T113-33985-00071.

Description of Amendment

The Office of Air Quality (OAQ) has reviewed an application, submitted by Aluminum Recovery Technologies, Inc. on June 30, 2016, relating to the inclusion of an aluminum shot machine unit, an insignificant activity. The following is the new insignificant activity:

- (a) One (1) aluminum shot machine unit, identified as SM-01, permitted in 2016, with a maximum throughput rate of 8,000 pounds per hour, containing a natural gas-fired burning dryer with a maximum heat input capacity of 3.0 MMBtu/hr, using no control, and exhausting outdoors.

Enforcement Issues

There are no pending enforcement actions related to this modification.

Emission Calculations

See Appendix A of this Technical Support Document for detailed emission calculations.

Permit Level Determination – Part 70 Administrative Amendment at an Existing Source

Pursuant to 326 IAC 2-1.1-1(12), Potential to Emit is defined as “the maximum capacity of a stationary source or emission unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, IDEM, or the appropriate local air pollution control agency.”

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5 and 326 IAC 2-7-11. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit. If the control equipment has been determined to be integral, the table reflects the PTE after consideration of the integral control device.

Process / Emission Unit	PTE Before Controls of the New Emission Units (ton/year)								
	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	VOC	CO	Single HAP	Combined HAPs
SM-01 - Combustion	0.02	0.10	0.10	0.01	1.29	0.07	1.08	0.02	0.02
Total:	0.02	0.10	0.10	0.01	1.29	0.07	1.08	0.02	0.02

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

Pursuant to 326 IAC 2-7-11(a)(8)(B), this change to the permit is considered an administrative amendment because the permit is amended to incorporate an insignificant activity as defined in 326 IAC 2-7-1(21) (Part 70 Program, Definitions) that does not otherwise constitute a modification for purposes of 326 IAC 2-7-10.5 (Source Modifications) or 326 IAC 2-7-12 (Permit Modifications).

Permit Level Determination – PSD

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

Process / Emission Unit	Project Emissions (ton/year)						
	PM	PM ₁₀	PM _{2.5} *	SO ₂	NO _x	VOC	CO
SM-01 - Combustion	0.02	0.10	0.10	0.01	1.29	0.07	1.08
Total for Modification	0.02	0.10	0.10	0.01	1.29	0.07	1.08
PSD Major Source Thresholds	100	100	100	100	100	100	100

*PM_{2.5} listed is direct PM_{2.5}.

- (a) This modification to an existing minor PSD stationary source is not major because the emissions increase of each PSD regulated pollutant is less than the PSD major source threshold. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

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

Process / Emission Unit	Source-Wide Emissions after Issuance (ton/year)						
	PM	PM ₁₀	PM _{2.5} *	SO ₂	NO _x	VOC	CO
Rotary Furnace RF#1 (furnace #1)	17.52	17.52	17.52	1.05	5.66	7.45	4.33
Rotary Furnace RF#2 (furnace #2)	17.52	17.52	17.52	0.85	5.56	6.01	4.33
Chip Dryer #1	17.60	17.85	17.85	6.35	18.17	19.03	3.60
Saltcake Cooling Operation	9.30	13.91	13.91	0	0	0	0
Reverberatory Furnace RV#1 (furnace #4)	17.60	17.85	17.85	0.46	4.50	3.23	3.61
Holding Furnace HF #1 (furnace #3)	0	0.01	0.01	0	0.11	0.01	0.09
Insignificant Activities	1.64	1.97	1.97	0.04	5.58	0.31	4.69
Fugitives: Paved and Unpaved Roads	0.07	0.01	0	0	0	0	0
Total for Source	81.26	86.63	86.62	8.73	39.58	36.03	20.65
PSD Major Source Thresholds	100	100	100	100	100	100	100

*PM_{2.5} listed is direct PM_{2.5}.

- (a) This existing minor PSD stationary source will continue to be minor under 326 IAC 2-2 because the emissions of each PSD regulated pollutant will continue to be less than the PSD major source thresholds. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

Federal Rule Applicability Determination

Due to the modification at this source, federal rule applicability has been reviewed as follows:

New Source Performance Standards (NSPS):

- (a) *40 CFR 60, Subpart UUU*
The requirements of the Standards of Performance for Calciners and Dryers in Mineral Industries, 40 CFR 60, Subpart UUU, are not included in the permit for the drying burner, because this source does not meet the definition of a "mineral processing plant" pursuant to 40 CFR 60.731.
- (b) There are no New Source Performance Standards (40 CFR Part 60) and 326 IAC 12 included in the permit for this proposed amendment.

National Emission Standards for Hazardous Air Pollutants (NESHAP):

- (a) *40 CFR 63, Subpart RRR*
The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Secondary Aluminum Production, 40 CFR 63, Subpart RRR and 326 IAC 20-70 are not included in the permit for the shot machine dryer, because the unit removes only water from aluminum shot pieces and therefore does not meet the definition of a thermal chip dryer, as defined in 63.1503, and it is not one of the other remaining units to which this subpart applies, as listed in 40 CFR 63.1500.
- (b) There are no National Emission Standards for Hazardous Air Pollutants under 40 CFR 63, 326 IAC 14 and 326 IAC 20 included for this proposed amendment.

Compliance Assurance Monitoring (CAM):

- (a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to each existing pollutant-specific emission unit that meets the following criteria:
 - (1) has a potential to emit before controls equal to or greater than the major source threshold for the pollutant involved;
 - (2) is subject to an emission limitation or standard for that pollutant; and
 - (3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.
- (b) Pursuant to 40 CFR 64.2(b)(1)(i), emission limitations or standards proposed after November 15, 1990 pursuant to a NSPS or NESHAP under Section 111 or 112 of the Clean Air Act are exempt from the requirements of CAM. Therefore, an evaluation was not conducted for any emission limitations or standards proposed after November 15, 1990 pursuant to a NSPS or NESHAP under Section 111 or 112 of the Clean Air Act.
- (c) Pursuant to 40 CFR 64.2(b)(1)(iii), Acid Rain requirements pursuant to Sections 404, 405, 406, 407(a), 407(b), or 410 of the Clean Air Act are exempt emission limitations or standards. Therefore, CAM was not evaluated for emission limitations or standards for SO₂ and NO_x under the Acid Rain Program.
- (d) Pursuant to 40 CFR 64.3(d), if a continuous emission monitoring system (CEMS) is required pursuant to other federal or state authority, the owner or operator shall use the CEMS to satisfy the requirements of CAM according to the criteria contained in 40 CFR 64.3(d).

The requirements of 40 CFR Part 64, CAM, are not applicable to the aluminum shot machine unit because it does not use a control device and it does not have a potential to emit greater than the major source threshold for any criteria pollutant.

State Rule Applicability Determination

Due to the modification at this source, state rule applicability has been reviewed as follows:

326 IAC 2-2 (PSD)

PSD applicability is discussed under the Permit Level Determination – PSD section.

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

The operation of the aluminum shot machine unit will emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 2-7-6(5) (Annual Compliance Certification)

The U.S. EPA Federal Register 79 FR 54978 notice does not exempt Title V Permittees from the requirements of 40 CFR 70.6(c)(5)(iv) or 326 IAC 2-7-6(5)(D), but the submittal of the Title V annual compliance certification to IDEM satisfies the requirement to submit the Title V annual compliance certifications to EPA. IDEM does not intend to revise any permits since the requirements of 40 CFR 70.6(c)(5)(iv) or 326 IAC 2-7-6(5)(D) still apply, but Permittees can note on their Title V annual compliance certifications that submission to IDEM has satisfied reporting to EPA per Federal Register 79 FR 54978. This only applies to Title V Permittees and Title V compliance certifications.

326 IAC 6-2 (Particulate Emissions from Indirect Heating Units)

The burning dryer is not a source of indirect heating as defined in 326 IAC 1-2-19 "Combustion for Indirect Heating". Therefore, the requirements of 326 IAC 6-2 do not apply for the burning dryer.

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

Pursuant to 326 IAC 6-3-1(b)(14), the aluminum shot machine process is not subject to the requirements of 326 IAC 6-3, since the process has potential particulate emissions of less than five hundred fifty-one thousandths (0.551) pound per hour.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

Pursuant to 326 IAC 7-1.1-1(a), the burning dryer is not subject to the requirements of 326 IAC 7-1.1, since the emission unit has a potential to emit sulfur dioxide less than twenty-five (25) tons per year.

Compliance Determination and Monitoring Requirements

There are no new or modified compliance determination and/or compliance monitoring requirements included with this amendment.

Proposed Changes

The following changes listed below are due to the proposed administrative amendment. Deleted language appears as ~~strike through~~ text and new language appears as **bold** text:

(1) Section A.3 has been revised to include the new aluminum shot machine unit.

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

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

(a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.

...

(t) **One (1) aluminum shot machine unit, identified as SM-01, permitted in 2016, with a maximum throughput rate of 8,000 pounds per hour, containing a natural gas-fired burning dryer with a maximum heat input capacity of 3.0 MMBtu/hr, using no control, and exhausting outdoors.**

...

Additional Changes

IDEM, OAQ made additional changes to the permit as described below in order to update the language to match the most current version of the applicable rule, to eliminate redundancy within the permit, and to provide clarification regarding the requirements of these conditions.

(1) Section E.1 has been revised for clarity.

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

(a) Pursuant to 40 CFR 63.1, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1-1, for the emission unit(s) listed above, except as otherwise specified in 40 CFR Part 63, Subpart RRR.

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

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

and

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

E.1.2 Secondary Aluminum Production NESHAP [40 CFR Part 63, Subpart RRR][326 IAC 20-70]

The Permittee shall comply with the provisions of 40 CFR Part 63, Subpart RRR, which are incorporated by reference as 326 IAC 20-70 (included as Attachment A to ~~this~~ **the operating permit**), for the above listed emissions units, as specified as follows:

...

Conclusion and Recommendation

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on June 30, 2016.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Tamera Wessel at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-8530 or toll free at 1-800-451-6027, extension 4-8530.
- (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 Permit Guide on the Internet at: <http://www.in.gov/idem/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/idem/6900.htm>.

Appendix A: Emissions Calculations Summary

Company Name: Aluminum Recovery Technologies, Inc.
 Source Address: 2170 Production Road, Kendallville, Indiana 46755
 Administrative Amendment No.: 113-37333-00071
 Part 70 Renewal No.: T113-33985-00071
 Reviewer: Tamera Wessel

Emission Unit/Process		Year of Construction	Control (Stack ID)	Unlimited Potential to Emit (tons/year)							Hazardous Air Pollutants		
				Criteria Pollutants							Total HAPs	Worst Single HAP	
				PM	PM10	PM2.5	SO ₂	NOx	VOC	CO			
Rotary Furnace RF#1 (furnace #1)	Metal Production	Prior to 2/11/1999	Lime injected baghouse (Baghouse 1) (Vent #1)	220.15	133.11	133.11	1.02	0.51	7.17	0.00	7,424.44	7,423.66	HCl
	Natural Gas Combustion			0.10	0.39	0.39	0.03	5.15	0.28	4.33	0.10	0.09	Hexane
Rotary Furnace RF#2 (furnace #2)	Metal Production	September 2001	Lime injected baghouse (Baghouse 2) (Vent #2)	175.92	106.37	106.37	0.82	0.41	5.73	0.00	5,933.53	5,932.91	HCl
	Natural Gas Combustion			0.10	0.39	0.39	0.03	5.15	0.28	4.33	0.10	0.09	Hexane
Chip Dryer #1	Metal Production	Prior to 2/11/1999	Baghouse 3 and Afterburner (Vent #3)	41.71	41.71	41.71	6.32	13.87	18.80	0.00	0.00	0.00	
	Natural Gas Combustion			0.03	0.13	0.13	0.01	1.72	0.09	1.44	0.03	0.03	Hexane
	Afterburner		n/a	0.05	0.20	0.20	0.02	2.58	0.14	2.16	0.05	0.05	Hexane
Saltcake Cooling Operation	Dross Cooling	Permitted in 2004	No Control (Indoors)	9.30	13.91	13.91	0.00	0.00	0.00	0.00	0.00	0.00	
Reverberatory Furnace RV#1 (furnace #4)	Metal Production	Permitted in 2010	Lime injected baghouse (Baghouse 4) (Vent #4)	91.72	55.46	55.46	0.43	0.21	2.99	0.00	3,093.35	3,092.61	HCl
	Natural Gas Combustion			0.08	0.33	0.33	0.03	4.29	0.24	3.61	0.08	0.08	Hexane
Holding Furnace HF #1 (furnace #3)*	Natural Gas Combustion	Permitted in 2010	No Control (Indoors)	0.00	0.01	0.01	0.00	0.11	0.01	0.09	2.03E-03	2.10E-03	Hexane
Insignificant Activities	Natural Gas Combustion	n/a	No Control (Indoors)	0.08	0.33	0.33	0.03	4.29	0.24	3.61	0.08	0.08	Hexane
	Shredder BB#1	2008	No Control (Indoors)	1.54	1.54	1.54	0.00	0.00	0.00	0.00	0.00	0.00	
	Scrap Handling	n/a	No Control (Indoors)	negl.	negl.	negl.	0.00	0.00	0.00	0.00	0.00	0.00	
	Natural Gas Combustion Shot Machine Unit**	Permitted in 2016	No Control (Outdoors)	0.02	0.10	0.10	0.01	1.29	0.07	1.08	0.02	0.02	Hexane
Fugitives: Paved & Unpaved Roads		n/a	n/a	0.07	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Total				540.88	353.98	353.97	8.73	39.58	36.03	20.65	16,451.78	16,449.18	HCl

* No process emissions from the Holding Furnace HF #1 (furnace #3).
 ** No process emissions from the Shot Machine Unit, SM-01

Emission Unit/Process		Year of Construction	Control (Stack ID)	Limited Potential to Emit (tons/year)							Hazardous Air Pollutants		
				Criteria Pollutants							Total HAPs	Worst Single HAP	
				PM	PM10	PM2.5	SO ₂	NOx	VOC	CO			
Rotary Furnace RF#1 (furnace #1)	Metal Production	Prior to 2/11/1999	Lime injected baghouse (Baghouse 1) (Vent #1)	17.52	17.52	17.52	1.02	0.51	7.17	0.00	20.64	20.48	HCl ⁽¹⁾
	Natural Gas Combustion						0.03	5.15	0.28	4.33			
Rotary Furnace RF#2 (furnace #2)	Metal Production	September 2001	Lime injected baghouse (Baghouse 2) (Vent #2)	17.52	17.52	17.52	0.82	0.41	5.73	0.00	16.52	16.36	HCl ⁽¹⁾
	Natural Gas Combustion						0.03	5.15	0.28	4.33			
Chip Dryer #1	Metal Production	Prior to 2/11/1999	Baghouse 3 and Afterburner (Vent #3)	17.52	17.52	17.52	6.32	13.87	18.80	0.00	0.00	0.00	
	Natural Gas Combustion						0.03	0.13	0.13	0.01			1.72
	Afterburner		n/a	0.05	0.20	0.20	0.02	2.58	0.14	2.16	0.05	0.05	Hexane
Saltcake Cooling Operation	Dross Cooling	Permitted in 2004	No Control (Indoors)	9.30	13.91	13.91	0.00	0.00	0.00	0.00	0.00	0.00	
Reverberatory Furnace RV#1 (furnace #4)	Metal Production	Permitted in 2010	Lime injected baghouse (Baghouse 4) (Vent #4)	17.52	17.52	17.52	0.43	0.21	2.99	0.00	9.27	8.53	HCl ⁽¹⁾
	Natural Gas Combustion			0.08	0.33	0.33	0.03	4.29	0.24	3.61	0.08	0.08	Hexane
Holding Furnace HF #1 (furnace #3)	Natural Gas Combustion	Permitted in 2010	No Control (Indoors)	0.00	0.01	0.01	0.00	0.11	0.01	0.09	0.00	0.00	Hexane
Insignificant Activities	Natural Gas Combustion	n/a	No Control (Indoors)	0.08	0.33	0.33	0.03	4.29	0.24	3.61	0.08	0.08	Hexane
	Shredder BB#1	2008	No Control (Indoors)	1.54	1.54	1.54	0.00	0.00	0.00	0.00	0.00	0.00	
	Scrap Handling	n/a	No Control (Indoors)	negl.	negl.	negl.	0.00	0.00	0.00	0.00	0.00	0.00	
	Natural Gas Combustion Shot Machine Unit	Permitted in 2016	No Control (Outdoors)	0.02	0.10	0.10	0.01	1.29	0.07	1.08	0.02	0.02	Hexane
Fugitives: Paved & Unpaved Roads		n/a	n/a	0.07	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Total				81.26	86.63	86.62	8.73	39.58	36.03	20.65	46.70	45.38	HCl
PSD Threshold				100	100	100	100	100	100	100			

Notes
 (1) HCl Limited through NESHAP Subpart RRR; there is no PSD Major Source threshold for HAPs
 HCl emissions serve as a surrogate measure of the total hydrogen chloride, hydrogen fluoride and chlorine HAPs

PSD Minor Limits

	PM		PM10		PM2.5	
	lb/hr	ton/yr (equivalent)	lb/hr	ton/yr (equivalent)	lb/hr	ton/yr (equivalent)
Rotary Furnace RF#1 (furnace #1)	4.00	17.52	4.00	17.52	4.00	17.52
Rotary Furnace RF#2 (furnace #2)	4.00	17.52	4.00	17.52	4.00	17.52
Chip Dryer #1	4.00	17.52	4.00	17.52	4.00	17.52
Reverberatory Furnace RV#1 (furnace #4)	4.00	17.52	4.00	17.52	4.00	17.52

Appendix A: Emissions Calculations

**Metal Production
Rotary Furnace RF#1**

Company Name: Aluminum Recovery Technologies, Inc.
Source Address: 2170 Production Road, Kendallville, Indiana 46755
Administrative Amendment No.: 113-37333-00071
Part 70 Renewal No.: T113-33985-00071
Reviewer: Tamera Wessel

Dross and Aluminum Scrap feed (lbs/hr): 20,171
 Solid Reactive Flux (lbs/hr): 3,207
 Maximum Throughput (lbs charge/hr): 23,378
 Maximum Throughput (tons charge/hr): 11.69

Unlimited PTE

Emission Unit	Emission Unit ID(s)	Maximum Throughput (tons/hr)	Uncontrolled Emission Factors*								
			PM	PM10	PM2.5	SO ₂	NO _x	VOC	CO***	GHGs as CO _{2e}	HCl**
Rotary Furnace RF#1 (furnace #1)	RF1	11.69	4.30	2.60	2.60	0.02	0.01	0.14	0.00	0.00	0.5285
			lb/ton	lb/ton	lb/ton	lb/ton	lb/ton	lb/ton	lb/ton	lb/ton	lb/lb of Solid Reactive Flux

Emission Unit/Process		Uncontrolled Potential to Emit (tons/yr)								
		PM	PM10	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO _{2e}	HCl
Rotary Furnace RF#1 (furnace #1)	Metal Production	220.15	133.11	133.11	1.02	0.51	7.17	0.00	0.00	7,423.66

Notes

* Uncontrolled Emission Factors from FIRE v.6.23: SCC 3-04-001-03 (charging/melting) for PM/PM10 & SCC 3-04-001-14 (pouring/casting) for SO₂, NO_x and VOC.
 ** Uncontrolled Emission factor for HCl has been calculated as follows:
 Solid reactive flux consists of 51.4% chloride (Cl). Emission factor assumes 100% conversion to HCl.
 51.4% * (36.5(mw HCl)/35.5(mw Cl)) = 0.5285 lb/lb flux
 ***CO emissions are from natural gas combustion. See next page for emissions estimations from combustion for the furnace.

Methodology

Uncontrolled PTE (tons/yr) = Maximum Throughput (tons/hr) * Emission Factor (lb/ton) * 8,760 hr/yr * 1 ton/2,000 lbs
 Potential Emissions for HCl (tons/yr) = Uncontrolled Emission factor (lb/lb of Solid Reactive Flux) x Solid Reactive Flux (lb of Solid Reactive Flux/hr) x 8760 (hrs/yr) / 2000 (lbs/ton)

Miscellaneous HAP Metal Calculations

Mass fraction of PM HAPs = 0.46
 Uncontrolled PM emission rates= 220.25 tons/yr
 Limited PM Potential to Emit = 17.52 tons/yr

Pollutant	Potential to Emit (PTE) HAPs from RF #1		
	Emission Factor percent (%)	Potential Emissions (tons/year)	Limited Potential to Emit (tons/year)
Antimony	0.002637	0.581	0.0462
Arsenic	0.000046	0.010	0.0008
Cadmium	0.000042	0.009	0.0007
Chromium	0.000148	0.033	0.0026
Lead	0.000375	0.083	0.0066
Manganese	0.000060	0.013	0.0011
Nickel	0.000162	0.036	0.0028
Selenium	0.000074	0.016	0.0013
Total		0.78	0.06

Emission factors from SPECIATE v.3.2 for profile #20102 (secondary aluminum, dross recovery furnace).
 Potential Emissions (tons/yr) = Emission Factor (%) X uncontrolled and controlled PM emission rates (tons/yr)
 Limited Potential to Emit (tons/yr) = Emission Factor (%) X Limited PM Potential to Emit (tons/yr)

Limited PTE

PSD Minor Limits

Emission Unit	Emission Limits (lb/hr)		
	PM	PM10	PM2.5
Rotary Furnace RF#1 (furnace #1)	4.00	4.00	4.00

NESHAP, RRR Limit (lb/tons Charge)	
HCl*	D/F**
0.40	3.00E-08

*Limit, pursuant to 40 CFR 63.1505(i)(4) for Group 1 Furnace
 **Limit, pursuant to 40 CFR 63.1505(i)(3) for Group 1 Furnace = 2.1E-04 gr/ton
 2.1E-04 gr/ton * 1.43E-04 lb/gr = 3.00E-08 lb/ton

Summary of Emissions (Limited)

Emission Unit	Limited Potential to Emit (tons/yr)					
	PM	PM10	PM2.5	Total HAPs	Worst Single HAP (HCl)	D/F
Rotary Furnace RF#1 (furnace #1)	17.52	17.52	17.52	20.54	20.48	1.54E-06

Methodology

Limited PTE (tons/yr) = Limited Throughput (tons/hr) * Emission Factor (lb/ton) * 8,760 hr/yr * 1 ton/2,000 lbs
 Limited Potential to Emit (tons/yr) for HCl are calculated as follows: NESHAP, RRR Limit (lb/tons Charge) x Maximum Capacity (tons charge/hr) x 8760 (hrs/yr) / 2000 (lbs/ton)

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

**Rotary Furnace RF#1
MM BTU/HR <100**

**Company Name: Aluminum Recovery Technologies, Inc.
Source Address: 2170 Production Road, Kendallville, Indiana 46755
Administrative Amendment No.: 113-37333-00071
Part 70 Renewal No.: T113-33985-00071
Reviewer: Tamera Wessel**

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
12.0	1020	103.1

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
	1.9	7.6	7.6	0.6	100	5.5	84
					**see below		
Potential Emission in tons/yr	0.10	0.39	0.39	0.03	5.15	0.28	4.33

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

Methodology

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

HAPS Calculations

Emission Factor in lb/MMCF	HAPs - Organics					Total - Organics
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	1.082E-04	6.184E-05	3.865E-03	9.275E-02	1.752E-04	9.696E-02

Emission Factor in lb/MMCF	HAPs - Metals					Total - Metals
	Lead	Cadmium	Chromium	Manganese	Nickel	
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	2.576E-05	5.668E-05	7.214E-05	1.958E-05	1.082E-04	2.824E-04

Methodology is the same as above.

Total HAPs	9.725E-02
Worst HAP	9.275E-02

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

Greenhouse Gas Calculations

Emission Factor in lb/MMcf	Greenhouse Gas		
	CO2	CH4	N2O
	120,000	2.3	2.2
Potential Emission in tons/yr	6,184	0.1	0.1
Summed Potential Emissions in tons/yr	6,184		
CO2e Total in tons/yr based on 11/29/2013 federal GWPs	6,220		
CO2e Total in tons/yr based on 10/30/2009 federal GWPs	6,221		

Methodology

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

Appendix A: Emissions Calculations

**Metal Production
Rotary Furnace RF#2**

Company Name: Aluminum Recovery Technologies, Inc.
Source Address: 2170 Production Road, Kendallville, Indiana 46755
Administrative Amendment No.: 113-37333-00071
Part 70 Renewal No.: T113-33985-00071
Reviewer: Tamera Wessel

Dross and Aluminum Scrap feed (lbs/hr): 16,118
 Solid Reactive Flux (lbs/hr): 2,563
 Maximum Throughput (lbs charge/hr): 18,681
 Maximum Throughput (tons charge/hr): 9.34

Unlimited PTE

Emission Unit	Emission Unit ID(s)	Maximum Throughput (tons/hr)	Uncontrolled Emission Factors*								
			PM	PM10	PM2.5	SO ₂	NO _x	VOC	CO ^{***}	GHGs as CO _{2e}	HCl**
Rotary Furnace RF#2 (furnace #2)	RF2	9.34	4.30	2.60	2.60	0.02	0.01	0.14	0.00	0.00	0.5285
			lb/ton	lb/ton	lb/ton	lb/ton	lb/ton	lb/ton	lb/ton	lb/ton	lb/lb of Solid Reactive Flux

Emission Unit/Process		Uncontrolled Potential to Emit (tons/yr)								
		PM	PM10	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO _{2e}	HCl
Rotary Furnace RF#2 (furnace #2)	Metal Production	175.92	106.37	106.37	0.82	0.41	5.73	0.00	0.00	5,932.91

Notes

* Uncontrolled Emission Factors from FIRE v.6.23: SCC 3-04-001-03 (charging/melting) for PM/PM10 & SCC 3-04-001-14 (pouring/casting) for SO₂, NO_x and VOC.

** Uncontrolled Emission factor for HCl has been calculated as follows:

Solid reactive flux consists of 51.4% chloride (Cl). Emission factor assumes 100% conversion to HCl.
 51.4% * (36.5(mw HCl)/35.5(mw Cl)) = 0.5285 lb/lb flux

***CO emissions are from natural gas combustion. See next page for emissions estimations from combustion for the furnace.

Methodology

Uncontrolled PTE (tons/yr) = Maximum Throughput (tons/hr) * Emission Factor (lb/ton) * 8,760 hr/yr * 1 ton/2,000 lbs

Potential Emissions for HCl (tons/yr) = Uncontrolled Emission factor (lb/lb of Solid Reactive Flux) x Solid Reactive Flux (lb of Solid Reactive Flux/hr) x 8760 (hrs/yr) / 2000 (lbs/ton)

Miscellaneous HAP Metal Calculations

Mass fraction of PM HAPs = 0.46
 Uncontrolled PM emission rates = 176.02 tons/yr
 Limited PM Potential to Emit = 17.52 tons/yr

Potential to Emit (PTE) HAPs from RF2			
Pollutant	Emission Factor percent (%)	Potential Emissions (tons/year)	Limited Potential to Emit (tons/year)
Antimony	0.002637	0.464	0.0462
Arsenic	0.000046	0.008	0.0008
Cadmium	0.000042	0.007	0.0007
Chromium	0.000148	0.026	0.0026
Lead	0.000375	0.066	0.0066
Manganese	0.000060	0.011	0.0011
Nickel	0.000162	0.029	0.0028
Selenium	0.000074	0.013	0.0013
Total		0.62	0.06

Emission factors from SPECIATE v.3.2 for profile #20102 (secondary aluminum, dross recovery furnace).
 Potential Emissions (tons/yr) = Emission Factor (%) X uncontrolled and controlled PM emission rates (tons/yr)
 Limited Potential to Emit (tons/yr) = Emission Factor (%) X Limited PM Potential to Emit (tons/yr)

Limited PTE

PSD Minor Limits

Emission Unit	Emission Limits (lb/hr)		
	PM	PM10	PM2.5
Rotary Furnace RF#2 (furnace #2)	4.00	4.00	4.00

NESHAP, RRR Limit (lb/tons Charge)	
HCl*	D/F**
0.40	3.00E-08

*Limit, pursuant to 40 CFR 63.1505(i)(4) for Group 1 Furnace

**Limit, pursuant to 40 CFR 63.1505(i)(3) for Group 1 Furnace = 2.1E-04 gr/ton
 2.1E-04 gr/ton * 1.43E-04 lb/gr = 3.00E-08 lb/ton

Summary of Emissions (Limited)

Emission Unit	Limited Potential to Emit (tons/yr)					
	PM	PM10	PM2.5	Total HAPs	Worst Single HAP (HCl)	D/F
Rotary Furnace RF#2 (furnace #2)	17.52	17.52	17.52	16.43	16.36	1.23E-06

Methodology

Limited PTE (tons/yr) = Limited Throughput (tons/hr) * Emission Factor (lb/ton) * 8,760 hr/yr * 1 ton/2,000 lbs

Limited Potential to Emit (tons/yr) for HCl are calculated as follows: NESHAP, RRR Limit (lb/tons Charge) x Maximum Capacity (tons charge/hr) x 8760 (hrs/yr) / 2000 (lbs/ton)

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
Rotary Furnace RF#2
MM BTU/HR <100**

Company Name: Aluminum Recovery Technologies, Inc.
Source Address: 2170 Production Road, Kendallville, Indiana 46755
Administrative Amendment No.: 113-37333-00071
Part 70 Renewal No.: T113-33985-00071
Reviewer: Tamera Wessel

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
12.0	1020	103.1

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
	1.9	7.6	7.6	0.6	100	5.5	84
					**see below		
Potential Emission in tons/yr	0.10	0.39	0.39	0.03	5.15	0.28	4.33

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

Methodology

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

HAPS Calculations

Emission Factor in lb/MMcf	HAPs - Organics					Total - Organics
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	1.082E-04	6.184E-05	3.865E-03	9.275E-02	1.752E-04	9.696E-02

Emission Factor in lb/MMcf	HAPs - Metals					Total - Metals
	Lead	Cadmium	Chromium	Manganese	Nickel	
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	2.576E-05	5.668E-05	7.214E-05	1.958E-05	1.082E-04	2.824E-04

Methodology is the same as above.

Total HAPs	9.725E-02
Worst HAP	9.275E-02

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

Greenhouse Gas Calculations

Emission Factor in lb/MMcf	Greenhouse Gas		
	CO2	CH4	N2O
	120,000	2.3	2.2
Potential Emission in tons/yr	6,184	0.1	0.1
Summed Potential Emissions in tons/yr	6,184		
CO2e Total in tons/yr based on 11/29/2013 federal GWPs	6,220		
CO2e Total in tons/yr based on 10/30/2009 federal GWPs	6,221		

Methodology

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

Appendix A: Emissions Calculations

Metal Production

Chip Dryer #1

Company Name: Aluminum Recovery Technologies, Inc.
Source Address: 2170 Production Road, Kendallville, Indiana 46755
Administrative Amendment No.: 113-37333-00071
Part 70 Renewal No.: T113-33985-00071
Reviewer: Tamera Wessel

Dross and Aluminum Scrap feed (lbs/hr): 7,035
 Maximum Throughput (lbs charge/hr): 7,035
 Maximum Throughput (tons charge/hr): 3.52

Unlimited PTE

Emission Unit	Maximum Throughput (tons/hr)	Uncontrolled Emission Factors (lb/ton)								
		PM	PM10	PM2.5	SO ₂	NOx	VOC	CO***	GHGs as CO ₂ e***	HCl****
Chip Dryer #1	3.52	2.707	2.707	2.707	0.41	0.90	1.22	0.00	0.00	0.000

Emission Unit/Process		Uncontrolled Potential to Emit (tons/yr)								
		PM	PM10	PM2.5	SO ₂	NOx	VOC	CO	GHGs as CO ₂ e	HCl
Chip Dryer #1	Metal	41.71	41.71	41.71	6.32	13.87	18.80	0.00	0.00	0.00

Notes

Uncontrolled PM, PM10, and PM2.5 emission factors are from Part 70 Operating Permit T113-12126-00071 issued on April 7, 2004.
 Uncontrolled Emission Factor for SO₂ reflects 4/03 compliance stack test results; for NOx from FIRE v.6.23, SCC #3-04-001-09.
 Uncontrolled Emission Factor for VOC is calculated as follows: Controlled VOC emission rate from IDEM approved stack testing performed in 2003 (lb THC as propane/ton aluminum) / (1-after burner efficiency (95%)).
 ***CO and GHG emissions are from natural gas combustion. See next page for emissions estimations from combustion for the chip dryer.
 ****A thermal chip dryer is a device that uses heat to evaporate water, oil or oil/water mixtures from unpainted/uncoated aluminum chips. Since the aluminum chips are unpainted/uncoated, there are no HCl emissions from this process.

Methodology

Uncontrolled PTE (tons/yr) = Maximum Throughput (tons/hr) * Emission Factor (lb/ton) * 8,760 hr/yr * 1 ton/2,000 lbs

Limited PTE

PSD Minor Limits

Emission Unit	Emission Limits (lb/hr)		
	PM	PM10	PM2.5
Chip Dryer #1	4.00	4.00	4.00

NESHAP, RRR Limit (lb/tons Charge)
D/F**
5.00E-09

**Limit, pursuant to 40 CFR 63.1505(c)(2) for Thermal Chip Dryer = 3.5E-05 gr/ton
 3.5E-05 gr/ton * 1.43E-04 lb/gr = 5.00E-09 lb/ton

According to the U.S. EPA Background rulemaking for NESHAP Subpart RRR, this NESHAP limits total hydrocarbon (THC) emissions from new and existing thermal chip dryers at secondary aluminum production facilities that are major sources. The THC represents emissions of HAP organics. There is no limit for HCl emissions from thermal chip dryers.

Summary of Emissions (Limited)

Emission Unit	Limited Potential to Emit (tons/yr)			
	PM	PM10	PM2.5	D/F
Chip Dryer #1	17.52	17.52	17.52	7.70E-08

Methodology

Limited PTE (tons/yr) = Limited Throughput (tons/hr) * Emission Factor (lb/ton) * 8,760 hr/yr * 1 ton/2,000 lbs

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

**Chip Dryer #1
MM BTU/HR <100**

**Company Name: Aluminum Recovery Technologies, Inc.
Source Address: 2170 Production Road, Kendallville, Indiana 46755
Administrative Amendment No.: 113-37333-00071
Part 70 Renewal No.: T113-33985-00071
Reviewer: Tamera Wessel**

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
4.0	1020	34.4

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
	1.9	7.6	7.6	0.6	100	5.5	84
					**see below		
Potential Emission in tons/yr	0.03	0.13	0.13	0.01	1.72	0.09	1.44

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

Methodology

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

HAPS Calculations

Emission Factor in lb/MMCF	HAPs - Organics					Total - Organics
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	3.607E-05	2.061E-05	1.288E-03	3.092E-02	5.840E-05	3.232E-02

Emission Factor in lb/MMCF	HAPs - Metals					Total - Metals
	Lead	Cadmium	Chromium	Manganese	Nickel	
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	8.588E-06	1.889E-05	2.405E-05	6.527E-06	3.607E-05	9.413E-05
						Total HAPs 3.242E-02
						Worst HAP 3.092E-02

Methodology is the same as above.

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

Greenhouse Gas Calculations

Emission Factor in lb/MMcf	Greenhouse Gas		
	CO2	CH4	N2O
	120,000	2.3	2.2
Potential Emission in tons/yr	2,061	0.0	0.0
Summed Potential Emissions in tons/yr	2,061		
CO2e Total in tons/yr based on 11/29/2013 federal GWPs	2,073		
CO2e Total in tons/yr based on 10/30/2009 federal GWPs	2,074		

Methodology

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

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
Chip Dryer #1 - Afterburner
MM BTU/HR <100**

Company Name: Aluminum Recovery Technologies, Inc.
Source Address: 2170 Production Road, Kendallville, Indiana 46755
Administrative Amendment No.: 113-37333-00071
Part 70 Renewal No.: T113-33985-00071
Reviewer: Tamera Wessel

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
6.0	1020	51.5

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
	1.9	7.6	7.6	0.6	100	5.5	84
					**see below		
Potential Emission in tons/yr	0.05	0.20	0.20	0.02	2.58	0.14	2.16

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

Methodology

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

HAPS Calculations

Emission Factor in lb/MMcf	HAPs - Organics					Total - Organics
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	5.411E-05	3.092E-05	1.932E-03	4.638E-02	8.760E-05	4.848E-02

Emission Factor in lb/MMcf	HAPs - Metals					Total - Metals
	Lead	Cadmium	Chromium	Manganese	Nickel	
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	1.288E-05	2.834E-05	3.607E-05	9.791E-06	5.411E-05	1.412E-04
						Total HAPs
						Worst HAP

Methodology is the same as above.

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

Greenhouse Gas Calculations

Emission Factor in lb/MMcf	Greenhouse Gas		
	CO2	CH4	N2O
	120,000	2.3	2.2
Potential Emission in tons/yr	3,092	0.1	0.1
Summed Potential Emissions in tons/yr	3,092		
CO2e Total in tons/yr based on 11/29/2013 federal GWPs	3,110		
CO2e Total in tons/yr based on 10/30/2009 federal GWPs	3,111		

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, and 1-03-006-03.
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) based on 11/29/2013 federal GWPs= CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential Emission ton/yr x N2O GWP (298).
CO2e (tons/yr) based on 10/30/2009 federal GWPs = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

Appendix A: Emissions Calculations

Metal Production

Dross Cooling

Company Name: Aluminum Recovery Technologies, Inc.

Source Address: 2170 Production Road, Kendallville, Indiana 46755

Administrative Amendment No.: 113-37333-00071

Part 70 Renewal No.: T113-33985-00071

Reviewer: Tamera Wessel

Maximum Capacity (lbs dross/hr): 42,059 The maximum capacity of the saltcake cooling is the combined maximum capacities of RF #1 and RF #2.
 Maximum Capacity (tons/hr): 21.030
 Maximum Capacity (tons/yr): 184,218

Unlimited PTE

Emission Unit	Maximum Throughput (tons/hr)	Uncontrolled Emission Factors								
		PM	PM10	PM2.5	SO ₂	NOx	VOC	CO	GHGs as CO ₂ e	HCl
Saltcake Cooling Operation	21.030	0.101	0.151	0.151	0.00	0.00	0.00	0.00	0.00	0.0000

Emission Unit/Process	Uncontrolled Potential to Emit (tons/yr)									
	PM	PM10	PM2.5	SO ₂	NOx	VOC	CO	GHGs as CO ₂ e	HCl	
Saltcake Cooling Operation	9.30	13.91	13.91	0.00	0.00	0.00	0.00	0.00	0.00	

Notes

Testing was conducted on the saltcake cooling operation as part of the initial Part 70 Operating Permit issuance in 2004. As described in the TSD for Operation Permit No. T113-12126-00071, testing for particulate emissions from the saltcake cooling operation was conducted on September 25, 2003. The final test report was submitted to, and approved by, IDEM. The IDEM verified test results for the dross cooling process were determined to be 0.101 lb PM per ton dross/saltcake cooled and 0.151 lb PM10 per ton dross/saltcake cooled.

Methodology

Uncontrolled PTE (tons/yr) = Maximum Throughput (tons/hr) * Emission Factor (lb/ton) * 8,760 hr/yr * 1 ton/2,000 lbs

Appendix A: Emissions Calculations

Metal Production

Reverberatory Furnace RV#1 (furnace #4)

Company Name: Aluminum Recovery Technologies, Inc.
Source Address: 2170 Production Road, Kendallville, Indiana 46755
Administrative Amendment No.: 113-37333-00071
Part 70 Renewal No.: T113-33985-00071
Reviewer: Tamera Wessel

Dross and Aluminum Scrap feed (lbs/hr): 8,404
 Solid Reactive Flux (lbs/hr): 1,336
 Maximum Throughput (lbs charge/hr): 9,740
 Maximum Throughput (tons charge/hr): 4.87

Unlimited PTE

Emission Unit	Emission Unit ID(s)	Maximum Throughput (tons/hr)	Uncontrolled Emission Factors*								
			PM	PM10	PM2.5	SO ₂	NOx	VOC	CO***	GHGs as CO _{2e}	HCl**
Reverberatory Furnace RV#1 (furnace #4)	RV1	4.87	4.30	2.60	2.60	0.02	0.01	0.14	0.00	0.00	0.5285
			lb/ton	lb/ton	lb/ton	lb/ton	lb/ton	lb/ton	lb/ton	lb/ton	lb/lb of Solid Reactive Flux

Emission Unit/Process		Uncontrolled Potential to Emit (tons/yr)									
		PM	PM10	PM2.5	SO ₂	NOx	VOC	CO	GHGs as CO _{2e}	HCl	
Reverberatory Furnace RV#1 (furnace #4)	Metal Production	91.72	55.46	55.46	0.43	0.21	2.99	0.00	0.00	3,092.61	

Notes

- * Uncontrolled Emission Factors from FIRE v.6.23: SCC 3-04-001-03 (charging/melting) for PM/PM10 & SCC 3-04-001-14 (pouring/casting) for SO₂, NOx and VOC.
- ** Uncontrolled Emission factor for HCl has been calculated as follows:
 Solid reactive flux consists of 51.4% chloride (Cl). Emission factor assumes 100% conversion to HCl.
 $51.4\% * (36.5(\text{mw HCl})/35.5(\text{mw Cl})) = 0.5285 \text{ lb/lb flux}$
- ***CO emissions are from natural gas combustion. See next page for emissions estimations from combustion for the furnace.

Methodology

Uncontrolled PTE (tons/yr) = Maximum Throughput (tons/hr) * Emission Factor (lb/ton) * 8,760 hr/yr * 1 ton/2,000 lbs
 Potential Emissions for HCl (tons/yr) = Uncontrolled Emission factor (lb/lb of Solid Reactive Flux) x Solid Reactive Flux (lb of Solid Reactive Flux/hr) x 8760 (hrs/yr) / 2000 (lbs/ton)

Miscellaneous HAP Metal Calculations

Mass fraction of PM HAPs = 0.1%

Potential to Emit (PTE) HAPs from RV1			
Pollutant	Emission Factor (lb/ton)	Potential Emissions (tons/year)	Limited Potential to Emit (tons/year)
Antimony	0.004300	0.092	0.092
Arsenic	0.004300	0.092	0.092
Cadmium	0.004300	0.092	0.092
Chromium	0.004300	0.092	0.092
Lead	0.004300	0.092	0.092
Manganese	0.004300	0.092	0.092
Nickel	0.004300	0.092	0.092
Selenium	0.004300	0.092	0.092
Total		0.73	0.73

Emission factors from SPECIATE v.3.2 for profile #20102 (secondary aluminum, dross recovery furnace).
 Potential Emissions (tons/yr) = Emission Factor (lb/ton) X Throughput (ton/hr) * 8,760 hr/yr * 1 ton/2,000 lb
 Limited Potential to Emit (tons/yr) = Unlimited Potential to Emit (tons/yr)

Limited PTE

PSD Minor Limits

Emission Unit	Emission Limits (lb/hr)		
	PM	PM10	PM2.5
Reverberatory Furnace (RV #1)	4.00	4.00	4.00

NESHAP, RRR Limit (lb/tons Charge)	
HCl*	D/F**
0.40	3.00E-08

*Limit, pursuant to 40 CFR 63.1505(i)(4) for Group 1 Furnace
 **Limit, pursuant to 40 CFR 63.1505(i)(3) for Group 1 Furnace = 2.1E-04 gr/ton
 2.1E-04 gr/ton * 1.43E-04 lb/gr = 3.00E-08 lb/ton

Summary of Emissions (Limited)

Emission Unit	Limited Potential to Emit (tons/yr)					
	PM	PM10	PM2.5	Total HAPs	Worst Single HAP (HCl)	D/F
Reverberatory Furnace (RV #1)	17.52	17.52	17.52	9.27	8.53	6.40E-07

Methodology

Limited PTE (tons/yr) = Limited Throughput (tons/hr) * Emission Factor (lb/ton) * 8,760 hr/yr * 1 ton/2,000 lbs
 Limited Potential to Emit (tons/yr) for HCl are calculated as follows: NESHAP, RRR Limit (lb/tons Charge) x Maximum Capacity (tons charge/hr) x 8760 (hrs/yr) / 2000 (lbs/ton)

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
Reverberatory Furnace RV#1 (furnace #4)
MM BTU/HR <100
Company Name: Aluminum Recovery Technologies, Inc.
Source Address: 2170 Production Road, Kendallville, Indiana 46755
Administrative Amendment No.: 113-37333-00071
Part 70 Renewal No.: T113-33985-00071
Reviewer: Tamera Wessel**

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
10.0	1020	85.9

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
	1.9	7.6	7.6	0.6	100	5.5	84
					**see below		
Potential Emission in tons/yr	0.08	0.33	0.33	0.03	4.29	0.24	3.61

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

Methodology

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

HAPS Calculations

Emission Factor in lb/MMcf	HAPs - Organics					Total - Organics
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	9.018E-05	5.153E-05	3.221E-03	7.729E-02	1.460E-04	8.080E-02

Emission Factor in lb/MMcf	HAPs - Metals					Total - Metals
	Lead	Cadmium	Chromium	Manganese	Nickel	
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	2.147E-05	4.724E-05	6.012E-05	1.632E-05	9.018E-05	2.353E-04

Methodology is the same as above.

Total HAPs	8.104E-02
Worst HAP	7.729E-02

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

Greenhouse Gas Calculations

Emission Factor in lb/MMcf	Greenhouse Gas		
	CO2	CH4	N2O
	120,000	2.3	2.2
Potential Emission in tons/yr	5,153	0.1	0.1
Summed Potential Emissions in tons/yr	5,153		
CO2e Total in tons/yr based on 11/29/2013 federal GWPs	5,184		
CO2e Total in tons/yr based on 10/30/2009 federal GWPs	5,184		

Methodology

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

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
Holding Furnace HF #1 (furnace #3)
MM BTU/HR <100**

Company Name: Aluminum Recovery Technologies, Inc.
Source Address: 2170 Production Road, Kendallville, Indiana 46755
Administrative Amendment No.: 113-37333-00071
Part 70 Renewal No.: T113-33985-00071
Reviewer: Tamera Wessel

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
0.3	1020	2.1

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
	1.9	7.6	7.6	0.6	100	5.5	84
					**see below		
Potential Emission in tons/yr	0.00	0.01	0.01	0.00	0.11	0.01	0.09

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

Methodology

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

HAPS Calculations

Emission Factor in lb/MMCF	HAPs - Organics					Total - Organics
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	2.254E-06	1.288E-06	8.051E-05	1.932E-03	3.650E-06	2.020E-03

Emission Factor in lb/MMCF	HAPs - Metals					Total - Metals
	Lead	Cadmium	Chromium	Manganese	Nickel	
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	5.368E-07	1.181E-06	1.503E-06	4.079E-07	2.254E-06	5.883E-06
						Total HAPs
						2.026E-03
						Worst HAP
						2.100E-03

Methodology is the same as above.

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

Greenhouse Gas Calculations

Emission Factor in lb/MMCF	Greenhouse Gas		
	CO2	CH4	N2O
	120,000	2.3	2.2
Potential Emission in tons/yr	129	0.0	0.0
Summed Potential Emissions in tons/yr	129		
CO2e Total in tons/yr based on 11/29/2013 federal GWPs	130		
CO2e Total in tons/yr based on 10/30/2009 federal GWPs	130		

Methodology

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

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

Company Name: Aluminum Recovery Technologies, Inc.
Source Address: 2170 Production Road, Kendallville, Indiana 46755
Administrative Amendment No.: 113-37333-00071
Part 70 Renewal No.: T113-33985-00071
Reviewer: Tamera Wessel

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
10.0	1020	85.9

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
	1.9	7.6	7.6	0.6	100	5.5	84
					**see below		
Potential Emission in tons/yr	0.08	0.33	0.33	0.03	4.29	0.24	3.61

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

Methodology

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

HAPS Calculations

Emission Factor in lb/MMcf	HAPs - Organics					Total - Organics
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	9.018E-05	5.153E-05	3.221E-03	7.729E-02	1.460E-04	8.080E-02

Emission Factor in lb/MMcf	HAPs - Metals					Total - Metals
	Lead	Cadmium	Chromium	Manganese	Nickel	
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	2.147E-05	4.724E-05	6.012E-05	1.632E-05	9.018E-05	2.353E-04

Methodology is the same as above.

Total HAPs	8.104E-02
Worst HAP	7.729E-02

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

Greenhouse Gas Calculations

Emission Factor in lb/MMcf	Greenhouse Gas		
	CO2	CH4	N2O
	120,000	2.3	2.2
Potential Emission in tons/yr	5,153	0.1	0.1
Summed Potential Emissions in tons/yr	5,153		
CO2e Total in tons/yr based on 11/29/2013 federal GWPs	5,184		
CO2e Total in tons/yr based on 10/30/2009 federal GWPs	5,184		

Methodology

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

Appendix A: Emissions Calculations

**Metal Production
Shredder BB#1**

Company Name: Aluminum Recovery Technologies, Inc.
Source Address: 2170 Production Road, Kendallville, Indiana 46755
Administrative Amendment No.: 113-37333-00071
Part 70 Renewal No.: T113-33985-00071
Reviewer: Tamera Wessel

Maximum Capacity (tons of metal bales/hr): 3.517

Unlimited PTE

Emission Unit	Maximum Throughput (tons/hr)	Uncontrolled Emission Factors (lb/ton)								
		PM	PM10	PM2.5	SO ₂	NOx	VOC	CO	GHGs as CO ₂ e	HCl
Shredder BB#1	3.517	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.000

Emission Unit/Process	Uncontrolled Potential to Emit (tons/yr)									
	PM	PM10	PM2.5	SO ₂	NOx	VOC	CO	GHGs as CO ₂ e	HCl	
Shredder BB#1	1.54	1.54	1.54	0.00	0.00	0.00	0.00	0.00	0.00	

Notes

Since the unit operates only to separate metal pieces and not to shred the metal, particulate matter emissions will be negligible. These calculations assume a conservative emission factor of 0.1 pounds of PM per ton of metal bales processed.

Methodology

Uncontrolled PTE (tons/yr) = Maximum Throughput (tons/hr) * Emission Factor (lb/ton) * 8,760 hr/yr * 1 ton/2,000 lbs

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
Insignificant Combustion Unit SM-01**

**Company Name: Aluminum Recovery Technologies, Inc.
Source Address: 2170 Production Road, Kendallville, Indiana 46755
Administrative Amendment No.: 113-37333-00071
Part 70 Renewal No.: T113-33985-00071
Reviewer: Tamera Wessel**

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
3.0	1020	25.8

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.02	0.10	0.10	0.01	1.29	0.07	1.08

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

Methodology

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

HAPS Calculations

Emission Factor in lb/MMcf	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Total - Organics
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	2.705E-05	1.546E-05	9.662E-04	2.319E-02	4.380E-05	2.424E-02

Emission Factor in lb/MMcf	HAPs - Metals						
	Lead	Cadmium	Chromium	Manganese	Nickel	Total - Metals	
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03		
Potential Emission in tons/yr	6.441E-06	1.417E-05	1.804E-05	4.895E-06	2.705E-05	7.060E-05	
						Total HAPs	2.431E-02
						Worst HAP	2.319E-02

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

Appendix A: Emission Calculations
Fugitive Dust Emissions - Paved Roads
Company Name: Aluminum Recovery Technologies, Inc.
Source Address: 2170 Production Road, Kendallville, Indiana 46755
Administrative Amendment No.: 113-37333-00071
Part 70 Renewal No.: T113-33985-00071
Reviewer: Tamera Wessel

Paved Roads at Industrial Site

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

Vehicle Information (provided by source)

Type	Maximum number of vehicles per day	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Vehicle (entering plant) (one-way trip)	8.0	1.0	8.0	9.0	72.0	150	0.028	0.2	83.0
Vehicle (leaving plant) (one-way trip)	8.0	1.0	8.0	9.0	72.0	150	0.028	0.2	83.0
Totals			16.0	Uncontrolled	144.0			0.5	165.9

Average Vehicle Weight Per Trip = tons/trip
 Average Miles Per Trip = 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 =	9.0	9.0	9.0	tons = average vehicle weight (provided by source)
sL =	9.7	9.7	9.7	

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

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	0.818	0.164	0.0401	lb/mile
Mitigated Emission Factor, Eext =	0.748	0.150	0.0367	lb/mile
Dust Control Efficiency =	50%	50%	50%	

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)	0.03	0.01	0.00	0.03	0.01	0.00	0.02	0.00	0.00
Vehicle (leaving plant) (one-way trip)	0.03	0.01	0.00	0.03	0.01	0.00	0.02	0.00	0.00
Totals	0.07	0.01	0.00	0.06	0.01	0.00	0.03	0.01	0.00

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



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

TO: Jack Hampton
Aluminum Recovery Technologies
2170 Production Road
Kendallville, IN 46755

DATE: August 17, 2016

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

SUBJECT: Final Decision
Title V - Administrative Amendment
113 - 37333 - 00071

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:
Joe Kinder DECA Environmental & Associates
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Final Applicant Cover letter.dot 2/17/2016

Mail Code 61-53

IDEM Staff	LPOGOST 8/16/2016 Aluminum Recovery Technologies, Inc. (ART) 113 - 37333 - 00071 final)		AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender	 Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: CERTIFICATE OF MAILING ONLY	

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1		Jack Hampton Aluminum Recovery Technologies, Inc. (ART) 2170 Production Road Kendallville IN 46755 (Source CAATS) Via USPS certified mail										
2		Noble County Board of Commissioners 101 North Orange Street Albion IN 46701 (Local Official)										
3		Noble County Health Department 2090 N. State Rd 9, Suite C Albion IN 46701-9566 (Health Department)										
4		Mr. Steve Roosz NISWMD 2320 W 800 S, P.O. Box 370 Ashley IN 46705 (Affected Party)										
5		Frederick & Iva Moore 6019 W 650 N Ligonier IN 46767 (Affected Party)										
6		Kendallville City Council and Mayors Office 234 S. Main Street Kendallville IN 46755 (Local Official)										
7		Emily Andrews P.O. Box 256 South Milford IN 46786 (Affected Party)										
8		Joe Kinder DECA Environmental & Associates, Inc. 410 1st Avenue NE Carmel IN 46032 (Consultant)										
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