



Joseph E. Kernan  
Governor

Lori F. Kaplan  
Commissioner

April 7, 2004

100 North Senate Avenue  
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Indianapolis, Indiana 46206-6015  
(317) 232-8603  
(800) 451-6027  
[www.in.gov/idem](http://www.in.gov/idem)

TO: Interested Parties / Applicant

RE: Aluminum Recovery Technologies, Inc. / T113-12126-00071

FROM: Paul Dubenetzky  
Chief, Permits Branch  
Office of Air Quality

### Notice of Decision: Approval – Effective Immediately

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

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-6-1(b) or IC 13-15-6-1(a) require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204.

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

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

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

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

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

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and

- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

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

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

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

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



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## PART 70 OPERATING PERMIT 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. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-7-10.5, applicable to those conditions.

Operation Permit No.: T113-12126-00071	
Issued by: Original signed by Paul Dubenetzky Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: April 7, 2004 Expiration Date: April 7, 2009

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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(15)] [326 IAC 2-7-1(22)]

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The Permittee owns and operates stationary secondary aluminum production source.

Responsible Official:	General Manager
Source Address:	2170 Production Road, Kendallville, IN 46755
Mailing Address:	2170 Production Road, Kendallville, IN 46755
General Source Phone Number:	(219) 349-1590
SIC Code:	3365
County Location:	Noble
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Minor Source, under PSD 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(15)]

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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, which commenced construction prior to February 11, 1999, with a maximum heat input capacity of 12.0 million British thermal units (MMBtu) per hour, with a maximum capacity of 13,362 pounds of dross and aluminum scrap per hour and 2,168 pounds of solid reactive flux per hour, with emissions controlled by one (1) lime injected baghouse, identified as Baghouse A, exhausting through one (1) stack, identified as Vent #1;
- (b) One (1) natural gas-fired rotary furnace, identified as RF #2, constructed in September 2001, with a maximum heat input capacity of 12.0 MMBtu/hr, with a maximum capacity of 8,735 pounds of dross and aluminum scrap per hour and 1,674 pounds of solid reactive flux per hour, with emissions controlled by one (1) lime injected baghouse, identified as Baghouse A, exhausting through one (1) stack, identified as Vent #1;
- (c) One (1) natural gas-fired thermal chip dryer, identified as 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 B, 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 #2; and
- (d) One (1) dross cooling operation, cooling up to 15,530 pounds of furnace dross per hour, with emissions exhausting into the building.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

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- (a) This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):
- (1) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment [326 IAC 6-3-2]; and
  - (2) 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 A and Baghouse B lime injection screw conveyors, each conveying up to 100 pounds per hour of lime to the respective baghouse. [326 IAC 6-3-2]
- (b) At the request of the Permittee, the following insignificant activities which are also located at this source, but are not specifically regulated, are listed herein for informational purposes only:
- (1) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour;
  - (2) Combustion source flame safety purging on startup;
  - (3) 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;
  - (4) 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;
  - (5) Refractory storage not requiring air pollution control equipment;
  - (6) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings;
  - (7) Machining where an aqueous cutting coolant continuously floods the machining interface;
  - (8) 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;
- (9) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;
- (10) Process vessel degassing and cleaning to prepare for internal repairs;
- (11) Paved and unpaved roads and parking lots with public access;
- (12) 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;
- (13) Flue gas conditioning systems and associated chemicals such as the following: sodium sulfate, ammonia; and sulfur trioxide;
- (14) Purge double block and bleed valves; and
- (15) Filter or coalescer media changeout.

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

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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); and
- (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]

This permit 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.

### B.3 Enforceability [326 IAC 2-7-7]

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.4 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.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. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). 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) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.

(c) A responsible official is defined at 326 IAC 2-7-1(34).

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. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

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 the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)]  
[326 IAC 1-6-3]

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- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, 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 Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

The PMP extension notification does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall implement the PMPs, including any required record keeping, as necessary to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit.
- (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 or potential to emit. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (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]

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- (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 and the IDEM Northern Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or  
Telephone Number: 317-233-5674 (ask for Compliance Section)  
Facsimile Number: 317-233-5967

IDEM Northern Regional Office:  
Telephone Number: 219-245-4871  
Facsimile Number: 219-245-4877

- (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 Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

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 the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (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) IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) 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.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

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 in 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) In addition to the nonapplicability determinations set forth in Sections D of this permit, the IDEM, OAQ has made the following determinations regarding this source:
  - (1) This source is not subject to the requirements of the New Source Performance Standard (NSPS), 326 IAC 12, 40 CFR 60.191, Subpart S (Primary Aluminum Reduction), because the source does not perform primary aluminum reduction as defined in 40 CFR 60.191. This source is a secondary aluminum production plant, therefore the requirements under 326 IAC 12, (40 CFR 60.191, Subpart S) do not apply.

- (2) The non-specifically regulated insignificant activities identified as “a petroleum fuel, other than gasoline, dispensing facility with storage capacity less than or equal to 10,500 gallons”, and VOC and HAP storage containers with capacities less than or equal to 1,000 gallons, are not subject to the New Source Performance Standards, 326 IAC 12, (40 CFR Parts 60.110, 110a - 115a or 110b - 117b, as Subparts K, Ka, and Kb, respectively). The storage capacities associated with these activities are below the minimum applicable threshold to the three rules (i.e., 40 cubic meters (10,568 gallons)).
- (3) The requirements of Section 112(j) of the Clean Air Act (40 CFR Part 63.50 through 63.56) are not applicable to this source because the source does not include one or more units that belong to one or more source categories affected by the Section 112(j) MACT Hammer date of May 15, 2002.
- (4) The requirements of 40 CFR Part 64, Compliance Assurance Monitoring, are not applicable to this source. Such requirements apply to a pollutant-specific emissions unit (PSEU), as defined in 40 CFR 64.1, at a major source that is required to obtain a Part 70 or 71 permit if the PSEU meets the following criteria:
  - (A) the unit is subject to an emission limitation or standard for an applicable regulated air pollutant,
  - (B) the unit uses a control device as defined in 40 CFR 64.1 to comply with that emission limitation or standard, and
  - (C) the unit has a potential to emit (PTE) before controls equal to or greater than 100 percent of the amount (tons per year) of the pollutant required for a source to classified as a Part 70 major source.

This source is required to obtain a Part 70 permit pursuant to 40 CFR 63.1500(e). The PSEUs as RF#1 or RF#2 (only one furnace operates at a time) have an uncontrolled PTE at greater than 100 percent of the applicable major Part 70 thresholds for PM10 and HAPs (for HCl). However, pursuant to 40 CFR 64.2(b)(i), *Exemptions*, the requirements of Part 64 do not apply to sources subject to Section 112 emission limits or standards published after November 15, 1990. Since these PSEUs are subject to Subpart RRR (i.e., a Section 112 emission limit), the requirements of 40 CFR 64, Compliance Assurance Monitoring, are not applicable.

- (5) Pursuant to 326 IAC 8-4-1 (Applicability) and 326 IAC 8-4-3 (Petroleum Liquid Storage Facilities), all petroleum liquid storage vessels with capacities greater than one hundred fifty thousand (150,000) liters (39,000 gallons) containing VOC whose true vapor pressure is greater than 10.5 kPa (1.52 psi) shall comply with the requirements for external fixed and floating roof tanks and the specified record keeping and reporting requirements. The non-specifically regulated insignificant activities identified as “a petroleum fuel, other than gasoline, dispensing facility with storage capacity less than or equal to 10,500 gallons” and VOC and HAP storage containers with capacities less than or equal to 1,000 gallons, are not subject to the requirements of 326 IAC 8-4-3 since the storage tanks are below the 39,000 gallon threshold for rule applicability.

- (6) Pursuant to 326 IAC 8-9-1, on and after October 1, 1995 stationary vessels used to store volatile organic liquids (VOL) must comply with the requirement of the rule if located in Clark, Floyd, Lake or Porter Counties. This rule is not applicable to this source since it is located in Noble County.
- (7) Pursuant to 326 IAC 11-1-1, particulate matter emission limitations for foundries established in 326 IAC 11-1-2 are not applicable to this source because the source does not operate a cupola.
- (c) 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.
- (d) 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.
- (e) 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.
- (f) 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).
- (g) 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)]
- (h) 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]**

- (a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either
  - (1) incorporated as originally stated,

(2) revised, or

(3) deleted

by this permit.

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

B.14 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. 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.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

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 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 the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(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 2-7-4]**

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- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) Timely Submittal of Permit Renewal [326 IAC 2-7-4(a)(1)(D)]
  - (1) A timely renewal application is one that is:
    - (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
    - (B) 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.
  - (2) If IDEM, OAQ upon receiving a timely and complete 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.
- (c) Right to Operate After Application for Renewal [326 IAC 2-7-3]  
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 in writing by IDEM, OAQ any additional information identified as being needed to process the application.

- (d) United States Environmental Protection Agency Authority [326 IAC 2-7-8(e)]  
If IDEM, OAQ fails to act in a timely way on a Part 70 permit renewal, the U.S. EPA may invoke its authority under Section 505(e) of the Clean Air Act to terminate or revoke and reissue a Part 70 permit.

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  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (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)]
- (d) No permit amendment or modification is required for the addition, operation or removal of a nonroad engine, as defined in 40 CFR 89.2.

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 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), (c), or (e), 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 emissions allowable under 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  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

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 which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-7-20(b), (c), or (e) and makes 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), (c)(1), and (e)(2).

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

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

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) Emission Trades [326 IAC 2-7-20(c)]  
The Permittee may trade increases and decreases in emissions in 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.

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 and 326 IAC 2-7-10.5.

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  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (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, I/M & Billing Section), to determine the appropriate permit fee.

## 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 [40 CFR 52 Subpart P][326 IAC 6-3-2]
- (a) Pursuant to 40 CFR 52 Subpart P, particulate emissions from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.
- (b) Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour. This condition is not federally enforceable.
- C.2 Opacity [326 IAC 5-1]
- Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
- (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 or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2. 326 IAC 9-1-2 is not federally enforceable.
- 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).
- C.6 Operation of Equipment [326 IAC 2-7-6(6)]
- Except as otherwise provided by statute or rule, or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

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

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

**C.8 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  
Asbestos Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

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 by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (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 Accredited 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 Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

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

#### **C.9 Performance Testing [326 IAC 3-6]**

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- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.  
  
A test protocol, except as provided elsewhere in this permit, shall be submitted to:  
  
Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015  
  
no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (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 certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (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.10 Compliance Requirements [326 IAC 2-1.1-11]**

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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.11 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]**

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Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, 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 Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

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 the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

#### **C.12 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]**

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Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

#### **C.13 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]**

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- (a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ( $\pm 2\%$ ) of full scale reading.
- (b) Whenever a condition in this permit requires the measurement of a temperature or flow rate, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ( $\pm 2\%$ ) of full scale reading.

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

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

**C.14 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]**

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

**C.15 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-7-5] [326 IAC 2-7-6]**

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- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. If a Permittee is required to have an Operation, Maintenance and Monitoring (OM&M) Plan or a Start-up, Shutdown, and Malfunction (SSM) Plan under 40 CFR Parts 60/63, such plans shall be deemed to satisfy the requirements for a CRP for those compliance monitoring conditions. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:
  - (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.
  - (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan, or Operation, Maintenance and Monitoring (OM&M) Plan or Start-up, Shutdown, and Malfunction (SSM) Plan, and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan, or OM&M Plan or SSM Plan, to include such response steps taken.

The OM&M Plan and SSM Plan shall be submitted within the time frames specified by 40 CFR Part 63, Subpart RRR.

- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
  - (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan, or Operation, Maintenance and Monitoring (OM&M) Plan or Start-up, Shutdown, and Malfunction (SSM) Plan; or

- (2) If none of the reasonable response steps listed in the Compliance Response Plan, or Operation, Maintenance and Monitoring (OM&M) Plan or Start-up, Shutdown, and Malfunction (SSM) Plan, is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
  - (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, and it will be ten (10) days or more until the unit or device will be shut down, then the Permittee shall promptly notify the IDEM, OAQ of the expected date of the shut down. The notification shall also include the status of the applicable compliance monitoring parameter with respect to normal, and the results of the response actions taken up to the time of notification.
  - (4) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
- (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
  - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for a minor permit modification to the permit, and such request has not been denied.
  - (3) An automatic measurement was taken when the process was not operating.
  - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.
- (e) The Permittee shall record all instances when, in accordance with Section D, response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

**C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5]  
[326 IAC 2-7-6]**

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- (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 take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) 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 the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

**C.17 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]**

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- (a) The Permittee shall submit an emission statement certified pursuant to the requirements of 326 IAC 2-6. This statement must be received in accordance with the compliance schedule specified in 326 IAC 2-6-3 and must comply with the minimum requirements specified in 326 IAC 2-6-4. The submittal should cover the period identified in 326 IAC 2-6. The emission statement shall meet the following requirements:
  - (1) Indicate estimated actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);
  - (2) Indicate estimated actual emissions of other regulated pollutants (as defined by 326 IAC 2-7-1(32) ("Regulated pollutant which is used only for purposes of Section 19 of this rule") from the source, for purposes of Part 70 fee assessment.
- (b) The statement must be submitted to:

Indiana Department of Environmental Management  
Technical Support and Modeling Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The emission statement 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.18 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. 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, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.19 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:  
  
Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015
- (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) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

### **Stratospheric Ozone Protection**

#### **C.20 Compliance with 40 CFR 82 and 326 IAC 22-1**

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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 the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

## SECTION D.1 FACILITY OPERATION CONDITIONS

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

- (a) One (1) natural gas-fired rotary furnace, identified as RF #1, which commenced construction prior to February 11, 1999, with a maximum heat input capacity of 12.0 million British thermal units (MMBtu) per hour, with a maximum capacity of 13,362 pounds of dross and aluminum scrap per hour and 2,168 pounds of solid reactive flux per hour, with emissions controlled by one (1) lime injected baghouse, identified as Baghouse A, exhausting through one (1) stack, identified as Vent #1;
- (b) One (1) natural gas-fired rotary furnace, identified as RF #2, constructed in September 2001, with a maximum heat input capacity of 12.0 MMBtu/hr, with a maximum capacity of 8,735 pounds of dross and aluminum scrap per hour and 1,674 pounds of solid reactive flux per hour, with emissions controlled by one (1) lime injected baghouse, identified as Baghouse A, exhausting through one (1) stack, identified as Vent #1;
- (c) One (1) natural gas-fired thermal chip dryer, identified as 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 B, 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 #2; and
- (d) One (1) dross cooling operation, cooling up to 15,530 pounds of furnace dross per hour, with emissions exhausting into the building.

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

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

#### D.1.1 PSD Minor Limit [326 IAC 2-2]

Pursuant to Significant Source Modification 113-11409-00071, issued on March 29, 2000, and revised by this Title V permit, the Permittee shall comply as follows:

- (a) Rotary Furnaces RF#1 and RF#2:
  - (1) PM emissions shall be limited to 8.00 pounds per hour from the baghouse controlling the furnaces.
  - (2) PM10 emissions shall be limited to 8.00 pounds per hour from the baghouse controlling the furnaces.
  - (3) Rotary furnaces RF#1 and RF#2 shall not operate at the same time.
- (b) Thermal Chip Dryer #1:
  - (1) PM emissions shall be limited to 4.00 pounds per hour.
  - (2) PM10 emissions shall be limited to 4.00 pounds per hour.

- (c) Dross Cooling Operation:
  - (1) PM emissions shall be limited to 2.50 pounds per hour.
  - (2) PM10 emissions shall be limited to 2.50 pounds per hour.
- (d) There shall be no visible emissions from any ductwork related to the two (2) natural gas-fired rotary furnaces, RF #1 and RF #2, the one (1) natural gas-fired thermal chip dryer, Dryer #1, Baghouse A (which controls emissions from RF #1 and RF #2) and Baghouse B (which controls emissions from Dryer #1).

Compliance with this condition shall limit the potential to emit of PM and PM10 of the source to less than 100 tons per twelve (12) consecutive month period. Therefore, compliance with this condition shall make the requirements of 326 IAC 2-2 (PSD) not applicable to the source.

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

- (a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the facilities listed below shall be limited as stated:
  - (1) Rotary furnace RF #1 shall not exceed 16.18 pounds per hour when operating at a process weight rate of 15,530 pounds of feed (i.e., metal, dross and solid reactive flux) per hour.
  - (2) Rotary furnace RF #2 shall not exceed 12.38 pounds per hour when operating at a process weight rate of 10,410 pounds of feed (i.e., metal, dross and solid reactive flux) per hour.
  - (3) Thermal chip dryer, Dryer #1, shall not exceed 9.52 pounds per hour when operating at a process weight rate of 7,035 pounds of metal per hour.
  - (4) The dross cooling operation shall not exceed 16.18 pounds per hour when operating at a process weight rate of 15,530 pounds of furnace dross cooled per hour.
- (b) These limits are based on the following equation:

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

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

D.1.3 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR Part 63, Subpart A]

The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-1, apply to the two (2) natural gas-fired rotary furnaces (identified as RF #1 and RF #2), and the one (1) natural gas-fired thermal chip dryer (identified as Dryer #1) except when otherwise specified in 40 CFR Part 63, Subpart RRR.

D.1.4 Secondary Aluminum Production Facility Limits [40 CFR Part 63, Subpart RRR][326 IAC 8-1-6]

- (a) Pursuant to 40 CFR Part 63.1505, the following conditions shall apply to the two (2) natural gas-fired rotary furnaces, RF #1 and RF #2. Furnace RF #1 is an existing secondary aluminum processing unit (SAPU), and furnace RF #2 is a new SAPU, pursuant to 40 CFR Part 63.1503.

- (1) The Permittee shall not discharge or allow to be discharged to the atmosphere any 3-day, 24-hour rolling average emissions of PM in excess of:

$$L_{cPM} = \frac{\sum_{i=1}^n (L_{iPM} \times T_{ii})}{\sum_{i=1}^n T_{ii}}$$

where  $L_{iPM}$  = the PM emission limit for an individual Group 1 furnace in the SAPU. This limit shall be 0.40 pounds of PM per ton of feed/charge or per ton of aluminum produced for each Group 1 furnace, RF#1 and RF#2 [40 CFR 63.1505(i)][40 CFR 63.1505(k)];

$T_{ii}$  = the feed/charge rate for the individual emission unit; and

$L_{cPM}$  = The PM emission limit for a SAPU.

[40 CFR 63.1505(k)(1)]

- (2) The Permittee shall not discharge or allow to be discharged to the atmosphere any 3-day, 24-hour rolling average emissions of HCl in excess of:

$$L_{cHCl} = \frac{\sum_{i=1}^n (L_{iHCl} \times T_{ii})}{\sum_{i=1}^n T_{ii}}$$

where  $L_{iHCl}$  = the HCl emission limit for an individual Group 1 furnace in the SAPU. This limit shall be 0.40 pounds of HCl per ton of feed/charge or per ton of aluminum produced, or 10 percent of the uncontrolled HCl emissions, by weight, for each Group 1 furnace, RF#1 and RF#2 [40 CFR 63.1505(i)][40 CFR 63.1505(k)];

$T_{ii}$  = the feed/charge rate for the individual emission unit; and

$L_{cHCl}$  = The HCl emission limit for a SAPU.

[40 CFR 63.1505(k)(2)]

- (3) The Permittee shall not discharge or allow to be discharged to the atmosphere any 3-day, 24-hour rolling average emissions of total tetra-, penta-, hexa-, and octachlorinated dibenzo dioxins and furans (D/F) in excess of:

$$L_{cDF} = \frac{\sum_{i=1}^n (L_{iDF} \times T_{ii})}{\sum_{i=1}^n T_{ii}}$$

where  $L_{iDF}$  = The D/F emission limit for an individual Group 1 furnace in the SAPU. This limit shall be 15 micrograms (Fg) of D/F TEQ per Mg ( $2.1 \times 10^{-4}$  gr of D/F TEQ per ton) of feed/charge or per ton of aluminum produced for each Group 1 furnace, RF#1 and RF#2, where TEQ is the toxicity equivalents for dioxins and furans as defined in "Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs) and 1989 Update" [40 CFR 63.1503][40 CFR 63.1505(i)][40 CFR 63.1505(k)];

$T_{ii}$  = the feed/charge rate for the individual emission unit; and

$L_{cDF}$  = The D/F emission limit for a SAPU.

[40 CFR 63.1505(k)(3)]

- (4) The Permittee may demonstrate compliance with the emission limits of paragraphs (a)(1) through (a)(3) by demonstrating that each of RF#1 and RF#2 is in compliance with the applicable emission limit for an individual Group 1 furnace respectively specified as  $L_{iPM}$ ,  $L_{iHCl}$ , and  $L_{iDF}$  in paragraphs (a)(1) through (a)(3).
- (5) The Permittee may determine the emission standards for a SAPU by applying the group 1 furnace limits on the basis of the aluminum production weight in each group 1 furnace, rather than on the basis of feed/charge.
- (6) With the prior approval of the responsible permitting authority, Permittee may redesignate any existing group 1 furnace at a secondary aluminum production facility as a new emission unit. Any emission unit so redesignated may thereafter be included in a new SAPU at that facility. Any such redesignation will be solely for the purpose of 40 CFR Part 63, Subpart RRR and will be irreversible.
- (b) Pursuant to 40 CFR Part 63.1505, the following conditions shall apply to the one (1) natural gas-fired thermal chip dryer, Dryer #1:
- (1) The total hydrocarbon (THC), as propane, emissions from the one (1) natural gas-fired thermal chip dryer, Dryer #1, shall not exceed 0.80 pounds per ton of feed/charge.

- (2) Dryer #1, shall not exceed 2.50 micrograms (F g) of D/F TEQ per Mg ( $3.5 \times 10^{-5}$  grain per ton) of feed/charge.

Compliance with (b)(1) shall also render the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) not applicable to Dryer #1.

- (c) IDEM has information that indicates that the Permittee is not in compliance with the D/F limit of this condition for Dryer #1 and the HCl limit of this condition for rotary furnace RF#2. IDEM is reviewing this matter as Enforcement Case No. 2002-11680-A and will take the appropriate action at the conclusion of this review. The OAQ will promptly reopen this permit as necessary using the provisions of 326 IAC 2-7-9 (Permit Reopening) to include detailed requirements necessary to comply with 40 CFR Part 63, Subpart RRR, including a schedule for achieving compliance with such requirements.

#### D.1.5 Labeling [40 CFR Part 63.1506(b)]

The Permittee shall provide and maintain easily visible labels that shall be posted at the furnaces. Said labels shall identify the applicable emission limits and means of compliance, including:

- (a) the type of affected source or emission unit (e.g., scrap dryer/delacquering kiln/decoating kiln, group 1 furnace, group 2 furnace, in-line fluxer); and
- (b) the applicable operational standard(s) and control method(s) (work practice or control device). This includes, but is not limited to, the type of charge to be used for a furnace (e.g., clean scrap only, all scrap, etc.), flux materials and addition practices, and the applicable operating parameter ranges and requirements as incorporated in the OM&M plan.

#### D.1.6 Capture and Control Systems [40 CFR Part 63.1506(c)][40 CFR Part 63.1510(d)(1)]

Pursuant to 40 CFR Part 63.1506(c) and 40 CFR Part 63.1510(d)(1), for RF#1, RF#2 and Dryer #1, each as an affected emission unit equipped with an add-on air pollution control device, the Permittee must:

- (a) Design and install a system for the capture and collection of emissions to meet the engineering standards for minimum exhaust rates as published by the American Conference of Governmental Industrial Hygienists in chapters 3 and 5 of "Industrial Ventilation: A Manual of Recommended Practice" (incorporated by reference: 40 CFR Part 63.1502).
- (b) Vent captured emissions through a closed system, except that dilution air may be added to emission streams for the purpose of controlling temperature at the inlet to a fabric filter; and
- (c) Operate and maintain each capture/collection system according to the procedures and requirements in the OM&M plan.

#### D.1.7 Thermal Chip Dryer Afterburner Compliance Requirements [40 CFR Part 63.1506(f)]

For Dryer #1, as a thermal chip dryer with emissions controlled by an afterburner, the Permittee must:

- (a) Maintain the 3-hour block average operating temperature of the afterburner at or above the average temperature established during the performance test.
- (b) Operate the afterburner in accordance with the OM&M plan.
- (c) Operate the thermal chip dryer using only unpainted aluminum chips as feedstock.

D.1.8 Operation, Maintenance, and Monitoring (OM&M) Plan [40 CFR Part 63.1510(b)]

The Permittee must prepare and implement for each of the two (2) natural gas-fired rotary furnaces (identified as RF #1 and RF #2) and the one (1) natural gas-fired thermal chip dryer (identified as Dryer #1), a written operation, maintenance, and monitoring (OM&M) plan. The plan must be accompanied by a written certification by the Permittee that the OM&M plan satisfies all requirements of 40 CFR Part 63.1510 and is otherwise consistent with the requirements of 40 CFR Part 63, Subpart RRR. The Permittee must comply with all of the provisions of the OM&M plan as submitted to IDEM, unless and until the plan is revised in accordance with the following procedures. If IDEM determines at any time after receipt of the OM&M plan that any revisions of the plan are necessary to satisfy the requirements of 40 CFR Part 63.1510 or Subpart RRR, the Permittee must promptly make all necessary revisions and resubmit the revised plan. If the Permittee determines that any other revisions of the OM&M plan are necessary, such revisions will not become effective until the Permittee submits a description of the changes and a revised plan incorporating them to IDEM. Each plan must contain the following information:

- (a) Process and control device parameters to be monitored to determine compliance, along with established operating levels or ranges, as applicable, for each process and control device.
- (b) A monitoring schedule for each affected source and emission unit.
- (c) Procedures for the proper operation and maintenance of each of the two (2) natural gas-fired rotary furnaces (identified as RF #1 and RF #2), the one (1) natural gas-fired thermal chip dryer (identified as Dryer #1); and Baghouse A and the Dryer #1 afterburner, each as an add-on control device used to meet the applicable emission limits or standards in 40 CFR Part 63.1505.
- (d) Procedures for the proper operation and maintenance of monitoring devices or systems used to determine compliance, including:
  - (1) Calibration and certification of accuracy of each monitoring device, at least once every 6 months, according to the manufacturer's instructions; and
  - (2) Procedures for the quality control and quality assurance of continuous emission systems (bag leak detection) as required by the general provisions in subpart A of this part.
- (e) Procedures for monitoring process and control device parameters, including procedures for annual inspections of afterburners, and the procedures to be used for determining charge/feed (or throughput) weight if a measurement device is not used.
- (f) Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the value or range established, including:
  - (1) Procedures to determine and record the cause of a deviation or excursion, and the time the deviation or excursion began and ended; and
  - (2) Procedures for recording the corrective action taken, the time corrective action was initiated, and the time/date corrective action was completed.

- (g) A maintenance schedule for the two (2) natural gas-fired rotary furnaces (identified as RF #1 and RF #2) and the one (1) natural gas-fired thermal chip dryer (identified as Dryer #1) that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance.

**D.1.9 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for:

- (a) the two (2) natural gas-fired rotary furnaces, identified as RF #1 and RF #2;
- (b) the one (1) natural gas-fired thermal chip dryer, identified as Dryer #1;
- (c) Baghouse A and its continuous lime injection system (which controls emissions from RF #1 and RF #2)
- (d) Baghouse B (which controls emissions from Dryer #1); and
- (e) all associated ductwork related to RF #1 and RF #2, Dryer #1, Baghouse A, and Baghouse B.

**Compliance Determination Requirements**

**D.1.10 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11][40 CFR 63, Subpart RRR]**

- (a) During the period from August 2005 to January 2006, the Permittee shall perform a PM and a PM10 performance test on each of the rotary furnaces RF #1 and RF #2 and the thermal chip dryer, Dryer #1, using methods as approved by the Commissioner. Thereafter, pursuant to 326 IAC 2-7-6(1) and (6) and 326 IAC 2-1.1-11, these tests shall be repeated at least once every two and one-half (2.5) years from the date of this valid compliance demonstration.

PM10 includes filterable and condensable PM10. Testing shall be conducted in accordance with Section C - Performance Testing.

- (b) In order to demonstrate compliance with Condition D.1.4 and Subpart RRR, the Permittee shall comply as follows:
  - (1) During the period from August 2005 to January 2006, the Permittee shall perform a PM, a HCl, and a D/F performance test on each of the rotary furnaces RF #1 and RF #2, in accordance with the requirements in 40 CFR 63, Subpart A and 40 CFR 63, Subpart RRR, and using methods as approved by the Commissioner. Thereafter, these tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Compliance with D.1.10(a) shall satisfy this requirement for PM testing.
  - (2) During the period from August 2005 to January 2006, the Permittee shall perform a total hydrocarbon (THC, measured as propane), and a D/F performance test on the thermal chip dryer, Dryer #1, while processing only unpainted aluminum chips, in accordance with the requirements in 40 CFR 63, Subpart A and 40 CFR 63, Subpart RRR, and using methods as approved by the Commissioner. Thereafter, these tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration.

- (3) Pursuant to 40 CFR Part 63.1511(g), the Permittee shall establish a minimum or maximum operating parameter value, or an operating parameter range for each parameter to be monitored as required by 40 CFR 63.1510 that ensures compliance with the applicable 40 CFR, Subpart RRR pollutant emission limit. To establish the minimum or maximum value or range, the Permittee shall use the appropriate procedures in 40 CFR Part 63.1511(g) and submit the information required by 40 CFR Part 63.1515(b)(4) in the notification of compliance status report. The Permittee may use existing data in addition to the results of the performance test to establish operating parameter values for compliance monitoring provided the requirements of 40 CFR 63.1511(g) are met.
- (4) Pursuant to paragraphs (k), (m), (n), (o), and (p) of 40 CFR Part 63.1512, and to demonstrate compliance with paragraph (b)(3) of this condition, during the performance tests the Permittee shall comply with the requirements and use the procedures in these sections respectively for:
  - (A) Measuring or otherwise determining feed/charge weight to the rotary furnaces RF #1 and RF #2 and the thermal chip dryer, Dryer #1;
  - (B) Establishing an operating parameter value or range for the afterburner operating temperature at the end of the combustion zone for the afterburner controlling thermal chip dryer, Dryer #1;
  - (C) Establishing an operating parameter value or range for the inlet gas temperature at the inlet to the baghouse controlling the rotary furnaces RF #1 and RF #2;
  - (D) Establishing an operating parameter value or range for the total reactive chlorine flux injection rate to each of rotary furnaces RF #1 and RF #2; and
  - (E) Establishing an operating parameter value for the Baghouse A lime injection system feeder settings for each operating cycle or time period used in the performance test.
- (5) Pursuant to paragraphs (a), (b), (d), and (e) of 40 CFR Part 63.1513, the Permittee shall comply with the requirements and use the applicable equations, references, and/or procedures in these sections respectively for:
  - (A) Determining compliance with an emission limit for THC;
  - (B) Determining compliance with an emission limit for PM, HCl, and D/F;
  - (C) Determining compliance with an HCl percent reduction standard;
  - (D) Conversion of D/F measurements to TEQ units; and
  - (E) Determining compliance with emission limits for a secondary aluminum processing unit.

D.1.11 Particulate Matter (PM and PM10), Hydrogen Chloride (HCl), Total Hydrocarbons (THC), and Dioxins and Furans (D/F)

- (a) In order to comply with D.1.1, D.1.2, D.1.4, and D.1.6, Baghouse A with lime injection for PM, PM10 and HCl control shall be in operation at all times that furnaces RF #1 and RF #2 are in operation according to the procedures and requirements of the OM&M plan.
- (b) In order to comply with D.1.1 and D.1.2, Baghouse B for PM and PM10 control shall be in operation and control emissions from the thermal chip dryer, Dryer #1, at all times that Dryer #1 is in operation.
- (c) In order to comply with D.1.4 and D.1.6, the afterburner for THC and D/F emissions control shall be in operation at all times that the thermal chip dryer, Dryer #1, is in operation according to the procedures and requirements of the OM&M plan.

D.1.12 Feed/Charge Determination [40 CFR Part 63.1506(d)][40 CFR Part 63.1510(e)]

Pursuant to 40 CFR Part 63.1506(d) and 40 CFR Part 63.1510(e), for each affected emission unit subject to an emission limit in kg/Mg (lb/ton) or g/Mg (gr/ton) of feed/charge (RF#1, RF#2, and Dryer #1), the Permittee shall:

- (a) Install, calibrate, operate and maintain a device that measures and records, or otherwise determine, the weight of feed/charge (or throughput) for each operating cycle or time period used in the performance test.
- (b) Pursuant to 40 CFR 63.1510(e), in lieu of paragraph (a) of this condition, IDEM hereby approves the use of an alternate measurement procedure to determine the total weight of feed/charge to RF#1, RF#2, and Dryer #1, each as an affected emission unit. The Permittee shall comply with this alternate measurement procedure as follows:
  - (1) Rotary furnace (RF#1 and RF#2) Alternate Feed/Charge Weight Procedure:
    - (A) For each truckload of metal/dross delivered to the plant, weigh:
      - (i) truck at the outdoor truck scale prior to unloading to determine gross weight;
      - (ii) truck at the outdoor truck scale after unloading to determine tare weight; and
      - (iii) metal/dross load at the small production scale, if the weight of the metal/dross delivery is determined to be less than 4,000 pounds.
    - (B) Assign a unique lot number to each truckload of metal/dross delivered to the plant.
    - (C) For each truckload of metal/dross delivered to the plant, record:
      - (i) the gross and tare truckload weights, and the net weight of the metal/dross delivery (i.e., lot);
      - (ii) the unique lot number assigned to the delivery,
      - (iii) the source (i.e., supplier) of the raw metal/dross delivery; and

- (iv) the identification (ID) of the storage bin holding each lot (i.e., load of metal/dross).
- (D) The metal/dross from one bin shall be processed in only one furnace, either RF#1 or RF#2, until all the metal/dross from that bin has been processed. If the amount of metal/dross in the bin is more than can be processed in one furnace charge, the Permittee shall limit the number of charges to the furnace as follows:
- (i) RF#1: The total weight (pounds) of metal/dross in the bin shall be divided by the maximum furnace operating cycle charge amount of 23,000 pounds, rounding any fraction up to the next whole number, to obtain the number of allowed charges, N. The metal/dross in the bin shall be partitioned into N number of approximately equal portions and processed one portion per charge (e.g., if the material in the bin weighs 47,000 lbs, dividing 47,000 by 23,000 equals 2.08. Round 2.08 up to N=3. The material is then processed in 3 approximately equal charges.).
  - (ii) RF#2: The total weight (pounds) of metal/dross in the bin shall be divided by the maximum furnace operating cycle charge amount of 9,000 pounds, rounding any fraction up to the next whole number, to obtain the number of allowed charges, N. The metal/dross in the bin shall be partitioned into N number of approximately equal portions and processed one portion per charge.
- (E) For each furnace, the hourly feed/charge rate shall be calculated by dividing the total weight of metal/dross in the respective bin (pounds) by the total amount of furnace operating time (hours) used to process the metal/dross in that bin.
- (F) For each bin of metal/dross processed, record:
- (i) date and time the metal/dross is processed through the furnace;
  - (ii) identification number of the furnace in which the metal/dross is processed;
  - (iii) total weight of the metal/dross charged to the furnace from the bin, the number (N) of allowed charges, the total furnace operating time to process the metal/dross in the bin, and the computed hourly feed/charge rate; and
  - (iv) identification number of the storage bin holding the recovered metal.
- (2) Thermal Chip Dryer (Dryer #1) Alternate Feed/Charge Weight Procedure:
- (A) For each truckload of scrap metal delivered to the plant, weigh:
- (i) truck at the outdoor truck scale prior to unloading to determine gross weight;

- (ii) truck at the outdoor truck scale after unloading to determine tare weight; and
  - (iii) scrap metal load at the small production scale, if the weight of the metal delivery is determined to be less than 4,000 pounds.
- (B) Assign a unique lot number to each truckload of scrap metal delivered to the plant.
- (C) For each truckload of scrap metal delivered to the plant, record:
  - (i) the gross and tare truckload weights, and the net weight of the metal delivery;
  - (ii) the unique lot number assigned to the delivery,
  - (iii) the source (i.e., supplier) of the scrap metal delivery; and
  - (iv) the identification (ID) of the storage bin holding each lot (i.e., load of scrap metal).
- (D) The scrap metal from one bin shall be processed continuously in the dryer until all the metal from that bin has been processed.
- (E) The dryer shall be operated at a constant rate for each bin lot, at or below the maximum feed/charge rate of 7,035 pounds per hour. The Permittee shall verify the rate of feed through the dryer as follows:
  - (i) record the net weight of the first material placed into the empty feed hopper from the bin and the time it takes to empty the first material from the feed hopper;
  - (ii) divide the net weight of the first material placed in the feed hopper by the time to empty the feed hopper to compute the hourly feed rate;
  - (iii) re-set the vibrating and timer settings at the feed hopper, if the the computed hourly feed rate is greater than the maximum feed/charge rate of 7,035 pounds per hour; and
  - (iv) repeat (i) through (iii) of this condition after any adjustment is made to the feeder settings.
- (F) For each bin of scrap metal processed, record:
  - (i) date and time the metal is processed through the dryer;
  - (ii) dryer rate of feed verification calculation;
  - (iii) total weight of the metal charged to the dryer from the bin, the total dryer operating time to process the material in the bin, and the computed hourly feed rate; and

- (iv) identification number of the storage bin holding the recovered metal.
- (3) The accuracy of the weight measurement devices used in the alternate measurement procedure must be  $\pm 1$  percent of the weight being measured. This requirement shall apply to the Toledo Model 8530 Cougar outdoor truck weigh scale, and any other weight measurement device used to comply with the alternate measurement procedure.
- (4) The Permittee must verify the calibration of the weight measurement devices used in the alternate measurement procedure in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every 6 months.
- (c) Operate the alternate weight determination procedure in accordance with the OM&M plan.
- (d) The Permittee may choose to measure and record aluminum production weight from an affected emission unit rather than feed/charge weight provided that:
  - (1) the aluminum production weight is measured for all emission units within a secondary aluminum processing unit; and
  - (2) all calculations to demonstrate compliance with the emission limits for secondary aluminum processing units (SAPUs) are based on aluminum production weight rather than feed/charge weight.
- (e) Feed/charge or aluminum production within SAPUs must be measured and recorded on an emission unit-by-emission unit basis.

D.1.13 Secondary Aluminum Production Compliance Determination [40 CFR Part 63, Subpart RRR]

Pursuant to 40 CFR Part 63.1510, the following conditions shall apply to the two (2) natural gas-fired rotary furnaces (identified as RF #1 and RF #2) and the one (1) natural gas-fired thermal chip dryer (identified as Dryer #1):

- (a) For RF#1 and RF#2, each as an affected source or emission unit using a lime-injected fabric filter to comply with the requirements of 40 CFR Part 63, Subpart RRR, the Permittee must install, calibrate, maintain, and continuously operate a bag leak detection system at the RF#1 and RF#2 fabric filters. [40 CFR Part 63.1510(f)(1)]
  - (1) The Permittee must install and operate a bag leak detection system for each exhaust stack of a fabric filter.
  - (2) Each triboelectric bag leak detection system must be installed, calibrated, operated, and maintained according to the "Fabric Filter Bag Leak Detection Guidance," (September 1997). Other bag leak detection systems must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations.
  - (3) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.

- (4) The bag leak detection system sensor must provide output of relative or absolute PM loadings.
  - (5) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.
  - (6) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel.
  - (7) For positive pressure fabric filter systems, a bag leak detection system must be installed in each baghouse compartment or cell. For negative pressure or induced air fabric filters, the bag leak detector must be installed downstream of the fabric filter.
  - (8) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.
  - (9) The baseline output must be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time.
  - (10) Following initial adjustment of the system, the Permittee must not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time except as detailed in the OM&M plan. In no case may the sensitivity be increased by more than 100 percent or decreased more than 50 percent over a 365-day period unless such adjustment follows a complete fabric filter inspection which demonstrates that the fabric filter is in good operating condition.
- (b) For Dryer #1, as an affected source using an afterburner to comply with the requirements of 40 CFR Part 63, Subpart RRR, the Permittee must install, calibrate, maintain, and operate a device to continuously monitor and record the operating temperature of the Dryer #1 afterburner consistent with the requirements for continuous monitoring systems in 40 CFR 63 Subpart A. The temperature monitoring device must: [40 CFR Part 63.1510(g)]
- (1) Be installed at the end of the combustion zone of each afterburner.
  - (2) Must record the temperature in 15-minute block averages and determine and record the average temperature for each 3-hour block period.
  - (3) The recorder response range must include zero and 1.5 times the average temperature established according to the requirements in 40 CFR Part 63.1512(m).
  - (4) The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Administrator.

- (c) For RF#1 and RF#2, each as a Group 1 furnace using a lime-injected fabric filter to comply with the requirements of 40 CFR Part 63, Subpart RRR, the Permittee must install, calibrate, maintain, and operate a device to continuously monitor and record the temperature of the fabric filter inlet gases consistent with the requirements for continuous monitoring systems in 40 CFR 63, Subpart A. The temperature monitoring device must meet each of these performance and equipment specifications: [40 CFR Part 63.1510(h)]
- (1) The monitoring system must record the temperature in 15-minute block averages and calculate and record the average temperature for each 3-hour block period.
  - (2) The recorder response range must include zero and 1.5 times the average temperature established according to the requirements in 40 CFR Part 63.1512(n).
  - (3) The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Administrator.
- (d) For RF#1 and RF#2, each as an affected source or emission unit using a lime-injected fabric filter to comply with the requirements of 40 CFR Part 63, Subpart RRR, the Permittee shall comply as follows: [40 CFR Part 63.1510(i)]
- (1) For the continuous lime injection system, verify that lime is always free-flowing by:
    - (A) Inspecting each feed hopper or silo at least once each 8-hour period and recording the results of each inspection. If lime is found not to be free-flowing during any of the 8-hour periods, the Permittee must increase the frequency of inspections to at least once every 4-hour period for the next 3 days. The Permittee may return to inspections at least once every 8 hour period if corrective action results in no further blockages of lime during the 3-day period; or
    - (B) Subject to the approval of IDEM, installing, operating and maintaining a load cell, carrier gas/lime flow indicator, carrier gas pressure drop measurement system or other system to confirm that lime is free-flowing. If lime is found not to be free-flowing, the Permittee must promptly initiate and complete corrective action, or
    - (C) Subject to the approval of IDEM, installing, operating and maintaining a device to monitor the concentration of HCl at the outlet of the fabric filter. If an increase in the concentration of HCl indicates that the lime is not free-flowing, the Permittee must promptly initiate and complete corrective action.
  - (2) The Permittee shall also record the feeder setting once each day of operation.

- (e) For each of the two (2) natural gas-fired rotary furnaces RF #1 and RF #2 that use only solid reactive flux, the Permittee must: [40 CFR Part 63.1510(j)]
- (1) Record, for each 15-minute block period during each operating cycle or time period used in the performance test during which reactive fluxing occurs, the time, weight, and type of flux for each addition of solid reactive flux.
  - (2) Calculate and record the total reactive flux injection rate for each operating cycle or time period used in the performance test using the procedure in 40 CFR Part 63.1512(o).
  - (3) Pursuant to 40 CFR 63.1510(j), in lieu of paragraphs (e)(1) and (e)(2) of this condition, IDEM hereby approves the use of an alternate method for monitoring and recording the total reactive flux, which shall be based on monitoring the weight and quantity of reactive flux per ton of feed/charge for each operating cycle and time period used in the performance test. The Permittee shall comply with this alternate procedure as follows:
    - (A) Compute the maximum amount of flux needed per charge, based on the metal/dross charge weight and the maximum flux injection rate specified at Sections A.2 (a) and (b) for furnaces RF#1 and RF#2, respectively.
    - (B) Weigh the amount of solid flux to be injected (i.e., dumped) into each furnace charge using a tared, portable hopper.
    - (C) Record:
      - (i) date and time, and weight, of the flux injected into the furnace;
      - (ii) identification number of the furnace in which the flux is processed; and
      - (iii) total reactive flux injection rate and type of flux used.
    - (D) The accuracy of the weight measurement device used in this alternate procedure must be  $\pm 1$  percent of the weight being measured. This requirement shall apply to the WTX Model W1125 flux weigh scale, and any other weight measurement device used to comply with the alternate procedure.
    - (E) The Permittee must verify the calibration of the weight measurement devices used in this alternate procedure in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every 6 months.
- (f) For Dryer #1, as a thermal chip dryer with emissions controlled by an afterburner, the Permittee must: [40 CFR Part 63.1510(k)]
- (1) Record the type of materials charged to the unit for each operating cycle or time period used in the performance test.

- (2) Submit a certification of compliance with the applicable operational standard for charge materials in 40 CFR Part 63.1506(f)(3) for each 6-month reporting period. Each certification must contain the information in 40 CFR Part 63.1516(b)(2)(i).
- (g) For RF#1 and RF #2, each as a secondary aluminum processing unit at this source, the Permittee must include, within the OM&M plan prepared in accordance with 40 CFR Part 63.1510(b), the following information: [40 CFR Part 63.1510(s)(1)]
  - (1) The identification of each emission unit in the secondary aluminum processing unit;
  - (2) The specific control technology or pollution prevention measure to be used for each emission unit in the secondary aluminum processing unit and the date of its installation or application;
  - (3) The emission limit calculated for each secondary aluminum processing unit and performance test result with supporting calculations demonstrating initial compliance with each applicable emission limit;
  - (4) Information and data demonstrating compliance for each emission unit with all applicable design equipment work practice or operational standards of Subpart RRR; and
  - (5) The monitoring requirements applicable to each emission unit in a secondary aluminum processing unit and the monitoring procedures for daily calculation of the 3-day, 24-hour rolling average using the procedure in 40 CFR Part 63.1510(t).
- (h) The SAPU compliance procedures within the OM&M plan may not contain any of the following provisions: [40 CFR Part 63.1510(s)(2)]
  - (1) Any averaging among emissions of differing pollutants;
  - (2) The inclusion of any affected sources other than emission units in a secondary aluminum processing unit;
  - (3) The inclusion of any emission unit while it is shutdown; or
  - (4) The inclusion of any periods of startup, shutdown, or malfunction in emission calculations.
- (i) To revise the SAPU compliance provisions within the OM&M plan prior to the end of the permit term, the Permittee must submit a request to IDEM containing the information required by 40 CFR Part 63.1510(s)(1) and obtain approval from IDEM prior to implementing any revisions. [40 CFR Part 63.1510(s)(3)]
- (j) If the Permittee wishes to use an alternative monitoring method to demonstrate compliance with any emission standard in 40 CFR Part 63, Subpart RRR, other than those alternative monitoring methods which may be authorized pursuant to 40 CFR Part 63.1510(j)(5) and 40 CFR Part 63.1510(v), the Permittee may submit an application to the IDEM. Any such application will be processed according to the criteria and procedures set forth in 40 CFR Part 63.1510(w)(1) through (6).

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

### **D.1.14 Visible Emissions Notations**

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- (a) Visible emission notations of the stack exhaust from Baghouse B controlling emissions from Dryer #1 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.
- (b) Visible emission notations of the stack exhaust from Baghouse A controlling emissions from RF #1 and RF #2 shall be performed at least once per month 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) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

### **D.1.15 Labeling [40 CFR Part 63.1510(c)]**

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Pursuant to 40 CFR Part 63.1510, the Permittee must inspect the labels for each furnace required by Condition D.1.5 at least once per calendar month to confirm that posted labels as required by the operational standard in 40 CFR Part 63.1506(b) are intact and legible.

### **D.1.16 Capture/Collection System [40 CFR Part 63.1510(d)]**

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The Permittee must inspect each capture/collection and closed vent system required by Condition D.1.6 at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in 40 CFR Part 63.1506(c) and record the results of each inspection.

### **D.1.17 Lime-Injected Fabric Filter [40 CFR Part 63.1506(m)]**

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Pursuant to 40 CFR Part 63.1506(m) for Group 1 furnaces RF#1 and RF#2 which use a lime-injected fabric filter for emissions control (Baghouse A), the Permittee shall comply as follows:

- (a) For the bag leak detection system used to meet the monitoring requirements in 40 CFR Part 63.1510, the Permittee shall:
  - (1) Initiate corrective action within one (1) hour of a bag leak detection system alarm.
  - (2) Complete the corrective action procedures in accordance with the OM&M plan.

- (3) Operate the fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If the Permittee takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the Permittee to initiate corrective action.
- (b) Maintain the 3-hour block average inlet temperature for the fabric filter at or below the average temperature established during the performance test, plus 14 °C (plus 25 °F).
- (c) For the continuous-lime injection system, the Permittee shall maintain free-flowing alkaline agent in the hopper to the feed device at all times and maintain the alkaline agent feeder setting at the same level established during the performance test. For the purposes of this rule lime means calcium oxide or other alkaline reagent; and lime-injection means the continuous addition of lime upstream of the fabric filter.
- (d) Maintain the total reactive chlorine flux injection rate for each operating cycle or time period used in the performance test at or below the average rate established during the performance test.

#### D.1.18 Corrective Action [40 CFR Part 63.1506(p)]

The Permittee must initiate corrective action when a process parameter or add-on air pollution control device operating parameter deviates from the value or range established during the performance test and incorporated in the OM&M plan. Corrective action must restore operation of the affected source or emission unit (including the process or control device) to its normal or usual mode of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. Corrective actions taken must include follow-up actions necessary to return the process or control device parameter level(s) to the value or range of values established during the performance test and steps to prevent the likely recurrence of the cause of a deviation.

#### D.1.19 Compliance Monitoring Requirements [40 CFR Part 63.1510(t)] [40 CFR Part 63.1510(u)]

Pursuant to 40 CFR Part 63, Subpart RRR, on and after the compliance date, the Permittee shall monitor all new and existing affected sources or emission units and control equipment according to the following requirements [40 CFR Part 63.1510(a)]:

- (a) The Permittee shall calculate and record the 3-day, 24-hour rolling average emissions of PM, HCl, and D/F for each furnace on a daily basis. To calculate the 3-day, 24-hour rolling average, the Permittee shall [40 CFR Part 63.1510(t)]:
  - (1) Calculate and record the total weight of material charged to each furnace for each twenty-four- (24-) hour day of operation using the feed/charge weight data collected as required under Subpart RRR. If the Permittee chooses to comply on the basis of weight of aluminum produced by the emission unit, rather than weight of material charged to the emission unit, all performance test emissions results and all calculations must be conducted on the aluminum production weight basis.
  - (2) To provide emissions for each furnace for the twenty-four- (24-) hour period, in pounds: multiply the total feed/charge weight to the furnace or the weight of aluminum produced by the furnace for the twenty-four- (24-) hour period, by the emission rate (in lb/ton of feed/charge) for that furnace (as determined during the emission test).

- (3) Calculate and record the three- (3-) day, twenty-four- (24-) hour rolling average for each pollutant each day by summing the daily emission rates for each pollutant over the three (3) most recent consecutive days and dividing by three (3).
- (b) As an alternative to the procedures in (a) above, the Permittee may demonstrate, through performance tests, that each individual emission unit within a secondary aluminum production unit (RF#1 and RF#2) is in compliance with the applicable emission limits for the emission unit. [40 CFR Part 63.1510(u)]

D.1.20 Thermal Chip Dryer Afterburner Compliance Requirements [40 CFR Part 63.1510(g)]

Pursuant to 40 CFR 63.1510(g), for the thermal chip dryer, Dryer #1, using an afterburner for control, the Permittee shall conduct an inspection of each afterburner at least once a year and record the results. At a minimum, an inspection must include:

- (a) Inspection of all burners, pilot assemblies, and pilot sensing devices for proper operation and clean pilot sensor;
- (b) Inspection for proper adjustment of combustion air;
- (c) Inspection of internal structures (e.g., baffles) to ensure structural integrity;
- (d) Inspection of dampers, fans, and blowers for proper operation;
- (e) Inspection for proper sealing;
- (f) Inspection of motors for proper operation;
- (g) Inspection of combustion chamber refractory lining and clean and replace lining as necessary;
- (h) Inspection of afterburner shell for corrosion and/or hot spots;
- (i) Documentation, for the burn cycle that follows the inspection, that the afterburner is operating properly and any necessary adjustments have been made;
- (j) Verification that the equipment is maintained in good operating condition; and
- (k) Following an equipment inspection, all necessary repairs must be completed in accordance with the requirements of the OM&M plan.

D.1.21 Parametric Monitoring

The Permittee shall record the total static pressure drop across Baghouse B, used in conjunction with Dryer #1, at least once per shift, when Dryer #1 is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other 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.1.22 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the rotary furnaces RF #1 and RF #2 and the thermal chip dryer, Dryer #1, when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections required by this condition shall not be performed in consecutive months. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

#### D.1.23 Broken or Failed Bag Detection

For Baghouses A and B, in the event that bag failure has been observed or has been determined to occur by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, or bag leak detection system alarm, the affected compartments for these multi-compartments unit will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be 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.

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

#### D.1.24 Record Keeping Requirements

- (a) To document compliance with Condition D.1.14, the Permittee shall maintain once per shift and once per month visible emissions notations for Baghouses B and A, respectively.
- (b) To document compliance with Condition D.1.21, the Permittee shall maintain once per shift records of the total static pressure drop for Baghouse B during normal operation when venting to the atmosphere.
- (c) To document compliance with Condition D.1.22, the Permittee shall maintain records of the results of the inspections required under Condition D.1.22 and the dates the vents are redirected.
- (d) To document compliance with Condition D.1.9, the Permittee shall maintain of records any additional inspections prescribed by the Preventive Maintenance Plan.

#### D.1.25 Secondary Aluminum Production Record Keeping Requirements [40 CFR Part 63, Subpart RRR] Pursuant to 40 CFR Part 63.1517, the Permittee shall comply with the following:

- (a) As required by 40 CFR Part 63.10(b), the Permittee shall maintain files of all information (including all reports and notifications) required by the general provisions and 40 CFR 63, Subpart RRR.

- (1) The Permittee must retain each record for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records must be retained at the facility. The remaining 3 years of records may be retained off site.
  - (2) The Permittee may retain records on microfilm, computer disks, magnetic tape, or microfiche; and
  - (3) The Permittee may report required information on paper or on a labeled computer disk using commonly available and EPA-compatible computer software.
- (b) In addition to the general records required by 40 CFR Part 63.10(b), the Permittee of a new or existing affected source (including an emission unit in a secondary aluminum processing unit) must maintain records of:
- (1) For RF#1 and RF#2, each as an affected source and emission unit with emissions controlled by a lime-injected fabric filter:

If a bag leak detection system is used, the number of total operating hours for the affected source or emission unit during each 6-month reporting period, records of each alarm, the time of the alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action(s) taken.
  - (2) For Dryer #1, as an affected source with emissions controlled by an afterburner:
    - (A) Records of 15-minute block average afterburner operating temperature, including any period when the average temperature in any 3-hour block period falls below the compliant operating parameter value with a brief explanation of the cause of the excursion and the corrective action taken; and
    - (B) Records of annual afterburner inspections.
  - (3) For furnace #1 and #2, each as a group 1 furnace subject to D/F and HCl emission standards with emissions controlled by a lime-injected fabric filter, records of 15-minute block average inlet temperatures for each lime-injected fabric filter, including any period when the 3-hour block average temperature exceeds the compliant operating parameter value +14 °C (+25 °F), with a brief explanation of the cause of the excursion and the corrective action taken.
  - (4) For RF #1 and RF #2, each with emissions controlled by a lime-injected fabric filter:
    - (A) Records of inspections at least once every 8-hour period verifying that lime is present in the feeder hopper or silo and flowing, including any inspection where blockage is found, with a brief explanation of the cause of the blockage and the corrective action taken, and records of inspections at least once every 4-hour period for the subsequent 3 days. If flow monitors, pressure drop sensors or load cells are used to verify that lime is present in the hopper and flowing, records of all monitor or sensor output including any event where blockage was found, with a brief explanation of the cause of the blockage and the corrective action taken;
    - (B) If lime feeder setting is monitored, records of daily inspections of feeder

setting, including records of any deviation of the feeder setting from the setting used in the performance test, with a brief explanation of the cause of the deviation and the corrective action taken.

- (5) For each furnace, records of 15-minute block average weights of solid reactive flux injection during each operating cycle or time period used in the performance test during which reactive fluxing occurs. Records are to include time, weight, type of flux and calculations of the total reactive flux injection rate for each operating cycle or time period used in the performance test using the procedure in 40 CFR Part 63.1512(o).
- (6) For each continuous monitoring system, records required by 40 CFR Part 63.10(c).
- (7) For each of rotary furnaces RF #1 and RF #2 and thermal chip dryer, Dryer #1 subject to an emission standard in kg/Mg (lb/ton) of feed/charge, records of feed/charge (or throughput) weights for each operating cycle or time period used in the performance test.
- (8) Records of monthly inspections for proper unit labeling for each affected source and emission unit subject to labeling requirements.
- (9) Records of annual inspections of emission capture/collection and closed vent systems.
- (10) Records for any approved alternative monitoring or test procedure, including Conditions D.1.12(b) and D.1.13(e)(3).
- (11) Current copy of all required plans, including any revisions, with records documenting conformance with the applicable plan, including:
  - (A) Startup, shutdown, and malfunction plan;
  - (B) For major sources, OM&M plan; and
  - (C) Site-specific secondary aluminum processing unit emission plan (if applicable).
- (12) For each of rotary furnaces RF #1 and RF #2 and thermal chip dryer, Dryer #1, records of total charge weight, or if the Permittee chooses to comply on the basis of aluminum production, total aluminum produced for each 24-hour period and calculations of 3-day, 24-hour rolling average emissions.

D.1.26 Secondary Aluminum Production Reporting Requirements [40 CFR Part 63, Subpart RRR]

Pursuant to 40 CFR Parts 63.1515 and 63.1516, the Permittee shall comply with the following:

- (a) The Permittee must submit initial notifications to IDEM as described below:

The Permittee must provide notification of the anticipated date for conducting performance tests and visible emission observations. The Permittee must notify IDEM of the intent to conduct a performance test at least 60 days before the performance test is scheduled; notification of opacity or visible emission observations for a performance test must be provided at least 30 days before the observations are scheduled to take place.

- (b) The Permittee must submit a notification of compliance status report within 60 days after the compliance dates specified in 40 CFR Part 63.1501. The notification must be signed by the responsible official who must certify its accuracy. A complete notification of compliance status report must include the information specified in paragraphs (1) through (8). The required information may be submitted in an operating permit application, in an amendment to an operating permit application, in a separate submittal, or in any combination. The Permittee must provide duplicate notification to the U.S. EPA Region V, Regional Administrator. If the Permittee submits the information specified in this section at different times or in different submittals, later submittals may refer to earlier submittals instead of duplicating and resubmitting the information previously submitted. A complete notification of compliance status report must include:
- (1) All information required in 40 CFR Part 63.9(h). The Permittee must provide a complete performance test report for each affected source and emission unit for which a performance test is required. A complete performance test report includes all data, associated measurements, and calculations (including visible emission and opacity tests).
  - (2) The approved site-specific test plan and performance evaluation test results for each continuous monitoring system (including a continuous emission or opacity monitoring system).
  - (3) Unit labeling as described in 40 CFR Part 63.1506(b), including process type or furnace classification and operating requirements.
  - (4) The compliant operating parameter value or range established for each affected source or emission unit, as listed at Condition D.1.10(b)(4), with supporting documentation and a description of the procedure used to establish the value, including the operating cycle or time period used in the performance test.
  - (5) Design information and analysis, with supporting documentation, demonstrating conformance with the requirements for capture/collection systems in 40 CFR Part 63.1506(c).
  - (6) If applicable, analysis and supporting documentation demonstrating conformance with EPA guidance and specifications for bag leak detection systems in 40 CFR Part 63.1510(f).
  - (7) The OM&M plan.
  - (8) Startup, shutdown, and malfunction plan, with revisions.
- (c) The Permittee must develop and implement a written plan that contains specific procedures to be followed for operating and maintaining the source during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the standard. The Permittee shall also keep records of each event as required by 40 CFR Part 63.10(b) and record and report if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the plan as described in 40 CFR Part 63.6(e)(3). In addition to the information required in 40 CFR Part 63.6(e)(3), the plan must include:

- (1) Procedures to determine and record the cause of the malfunction and the time the malfunction began and ended; and
  - (2) Corrective actions to be taken in the event of a malfunction of a process or control device, including procedures for recording the actions taken to correct the malfunction or minimize emissions.
- (d) As required by 40 CFR Part 63.10(e)(3), the Permittee must submit semiannual reports within 60 days after the end of each 6-month period. Each report must contain the information specified in 40 CFR Part 63.10(c). When no deviations of parameters have occurred, the Permittee must submit a report stating that no excess emissions occurred during the reporting period.
- (1) A report must be submitted if any of these conditions occur during a 6-month reporting period:
    - (A) The corrective action specified in the OM&M plan for a bag leak detection system alarm was not initiated within 1 hour.
    - (B) An excursion of a compliant process or operating parameter value or range, as listed at Condition D.1.10(b)(4), or other approved operating parameter.
    - (C) An action taken during a startup, shutdown, or malfunction was not consistent with the procedures in the plan as described in 40 CFR Part 63.6(e)(3).
    - (D) An affected source (including an emission unit in a secondary aluminum processing unit) was not operated according to the requirements of 40 CFR Part 63, Subpart RRR.
    - (E) A deviation from the 3-day, 24-hour rolling average emission limit for a secondary aluminum processing unit.
  - (2) Each semi-annual report must include a certification for the thermal chip dryer, Dryer #1, stating that "Only unpainted aluminum chips were used as feedstock in the thermal chip dryer during this reporting period."
  - (3) The Permittee must submit the results of any performance test conducted during the reporting period, including one complete report documenting test methods and procedures, process operation, and monitoring parameter ranges or values for each test method used for a particular type of emission point tested.
- (e) For the purpose of annual certifications of compliance required by 40 CFR Part 70 or 71, the Permittee must certify continuing compliance based upon, but not limited to, the following conditions:
- (1) Any period of excess emissions, as defined in 40 CFR 63.1516(b), that occurred during the year were reported as required by this subpart; and
  - (2) All monitoring, record keeping, and reporting requirements were met during the year.

## SECTION D.2 FACILITY OPERATION CONDITIONS

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

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; [326 IAC 6-3-2] and
- (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 A and Baghouse B lime injection screw conveyors, each conveying up to 100 pounds per hour of lime to the respective baghouse. [326 IAC 6-3-2]

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

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

#### D.2.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the particulate from the cutting and welding, and the Baghouse A and Baghouse B lime injection screw conveyors, shall each not exceed the pound per hour emission rate established as E in the following formula:

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

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

### Compliance Determination Requirements

There are no specific compliance determination requirements applicable to these facilities.

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

There are no specific compliance monitoring requirements applicable to these facilities.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY**

**PART 70 OPERATING PERMIT  
CERTIFICATION**

Source Name: Aluminum Recovery Technologies, Inc.  
Source Address: 2170 Production Road, Kendallville, IN 46755  
Mailing Address: 2170 Production Road, Kendallville, IN 46755  
Part 70 Permit No.: T113-12126-00071

**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 BRANCH  
100 North Senate Avenue  
P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
Phone: 317-233-5674  
Fax: 317-233-5967**

**PART 70 OPERATING PERMIT  
EMERGENCY OCCURRENCE REPORT**

Source Name: Aluminum Recovery Technologies, Inc.  
Source Address: 2170 Production Road, Kendallville, IN 46755  
Mailing Address: 2170 Production Road, Kendallville, IN 46755  
Part 70 Permit No.: T113-12126-00071

**This form consists of 2 pages**

**Page 1 of 2**

- 9** This is an emergency as defined in 326 IAC 2-7-1(12)
- C The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
  - C The Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16.

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

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

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

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency?    Y    N Describe:
Type of Pollutants Emitted: TSP, PM10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , 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: \_\_\_\_\_

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**PART 70 OPERATING PERMIT  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Aluminum Recovery Technologies, Inc.  
Source Address: 2170 Production Road, Kendallville, IN 46755  
Mailing Address: 2170 Production Road, Kendallville, IN 46755  
Part 70 Permit No.: T113-12126-00071

Months: \_\_\_\_\_ to \_\_\_\_\_ Year: \_\_\_\_\_

Page 1 of 2

This report is an affirmation that the source has met all the requirements stated in this permit. This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

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

Form Completed By: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

## Indiana Department of Environmental Management Office of Air Quality

### Addendum to the Technical Support Document (TSD) for a Part 70 Operating Permit

#### Source Background and Description

**Source Name:** Aluminum Recovery Technologies, Inc.  
**Source Location:** 2170 Production Road, Kendallville, IN 46755  
**County:** Noble  
**SIC Code:** 3365, 3341  
**Operation Permit No.:** T113-12126-00071  
**Permit Reviewer:** Michael Hirtler / EVP

On October 2, 2003, the Office of Air Quality (OAQ) had a notice published in the News-Sun, Kendallville, Indiana, stating that Aluminum Recovery Technologies, Inc. (ART) had applied for a Part 70 operating permit to operate a stationary secondary aluminum production source. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On October 23, 2003 and November 3, 2003, OAQ received comments from ART through their environmental consultant and legal representative, respectively. OAQ also received public comments during this period. Additionally, public comments were received during the first 30-day public notice period for this draft permit, which occurred during the period January 7 through February 6, 2002. Both the current and prior sets of public comments are presented herein. All comments received are in relation to the proposed Part 70 permit.

On January 15, 2004, the proposed Part 70 permit for this source was electronically uploaded by IDEM to U.S. EPA. This upload is required pursuant to the Part 70 permitting program to provide EPA with a 45-day period of permit review and comment. On March 1, 2004, after the 45-day review period for this permit, additional comments were received from ART through their environmental consultant.

The summary of the comments and related responses follows. Those comments received on March 1, 2004, after EPA upload, are specifically identified by that date of receipt. Changes made to the permit as a result of the comments are shown in bold and deleted permit language is shown with a line through it. Permit changes affecting the permit's Table of Contents are also revised without replication herein.

#### Comments Received from ART:

##### **Comment 1:**

The cover page of the draft permit should include the name of the Governor, Joseph E. Kernan.

##### **Comment 2:**

Several of the page numbers listed in the Table of Contents are incorrect and presumably will be revised as the permit is finalized.

**Response to Comments 1 and 2:**

The final permit document will be formatted as requested.

**Comment 3:**

Section A.1 of the draft permit should only list SIC Codes 3341 and 3365. SIC Code 3363, which applies to aluminum die castings (establishments primarily engaged in introducing molten aluminum, under high pressure, into molds or dies to make aluminum die-castings), does not apply to ART.

A similar comment was again submitted to IDEM on March 1, 2004.

**Response to Comment 3:**

Section A.1 of the permit is revised as follows:

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

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The Permittee owns and operates stationary secondary aluminum production source.

Responsible Official:	General Manager
Source Address:	2170 Production Road, Kendallville, IN 46755
Mailing Address:	2170 Production Road, Kendallville, IN 46755
General Source Phone Number:	(219) 349-1590
SIC Code:	3365, <del>3363</del> ,3341
County Location:	Noble
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Minor Source, under PSD Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

**Comment 4:**

Please modify the facility description for Rotary Furnace #1 (RF #1) in Sections A.2(a) and D.1(a) to reflect that construction of RF #1 commenced for purposes of 40 CFR Part 63, Subpart RRR, prior to February 11, 1999. Contracts to purchase the smelting operation equipment were entered into in July 1998. RF #1 and Baghouse A were delivered to the site in February 1999. Installation of RF # 1 and Baghouse A began in mid-March 1999. Installation was completed in April 1999.

**Comment 5:**

Please modify the facility description for the natural gas-fired thermal chip dryer (Dryer #1) in Sections A.2(c) and D.1(c) to reflect that construction of Dryer #1 commenced for purposes of 40 CFR Part 63, Subpart RRR, prior to February 11, 1999. Contracts to purchase the smelting operation equipment were entered into in July 1998. Dryer # 1 was delivered to the site in February 1999. Installation of Dryer # 1 began in mid-March 1999 and was completed in April 1999.

*Additional ART Comments Received on March 1, 2004:*

As discussed in our telephone conversation on February 17, 2004, ART conducted compliance stack testing for dioxin/furans from the dryer on November 20 and 21, 2003. The average feed rate during the three test runs was 6,700 pounds per hour. As discussed, please increase the dryer maximum capacity to 7,035 (6,700 plus 5%) pounds per hour.

At Condition A.3(a)(2), please insert the words "lime injection" after "...Baghouse B" to more

accurately describe the screw conveyors being regulated.

#### Response to Comments 4 and 5:

40 CFR Part 63.2 defines certain terms used throughout the rule. *Commenced* is defined therein with respect to construction and reconstruction of a stationary source (i.e., ART), and such term means "...that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or reconstruction." Since the contract to purchase the affected equipment did occur prior to the 40 CFR Part 63, Subpart RRR new affected source date of February 11, 1999, and installation occurred upon delivery of the equipment (i.e., *a reasonable time*), Sections A.2(a) and (c) are changed as requested. The same changes are made to the equipment description box of Section D.1 without replication herein. Prior determinations on rule applicability, as discussed in the Technical Support Document and reflected in the draft permit, are unaffected by this change. For purposes of 40 CFR Part 63, Subpart RRR, furnace RF #1 continues to be considered an existing secondary aluminum processing unit (SAPU), and the source remains an existing affected source.

Regarding the capacity of the dryer, such is revised as requested based on the November 2003 test results. The equipment description box of Section D.1 is similarly changed without replication herein. The related allowable particulate emission rate of Condition D.1.2(a)(3) is revised accordingly.

Regarding the description at Condition A.3(a)(2), the wording is revised to provide greater clarity as requested. The equipment description box of Section D.2 is similarly changed without replication herein.

#### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

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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, **which commenced construction in prior to February 11, 1999**, with a maximum heat input capacity of 12.0 million British thermal units (MMBtu) per hour, with a maximum capacity of 13,362 pounds of dross and aluminum scrap per hour and 2,168 pounds of solid reactive flux per hour, with emissions controlled by one (1) lime injected baghouse, identified as Baghouse A, exhausting through one (1) stack, identified as Vent #1;
- (c) One (1) natural gas-fired thermal chip dryer, identified as Dryer #1, **which commenced construction in prior to February 11, 1999**, with a maximum heat input capacity of 4.0 MMBtu/hr, with a maximum capacity of processing ~~6,090~~ **7,035** pounds of aluminum per hour, with emissions controlled by one (1) baghouse, identified as Baghouse B, 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 #2; and

#### A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

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

- (2) 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 A and Baghouse B **lime injection** screw conveyors, each conveying up to 100 pounds per hour of lime to the respective baghouse. ~~[326 IAC 2-7-1(21)(C)(xiv)(AA)(bb)]~~ **[326 IAC 6-3-2]**

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

- (a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the facilities listed below shall be limited as stated:
- (3) Thermal chip dryer, Dryer #1, shall not exceed ~~8.64~~ **9.52** pounds per hour when operating at a process weight rate of ~~6,000~~ **7,035** pounds of metal per hour.

**Comment 6:**

Please note that the dross cooling operation description contained in the Emission Unit and Pollution Control Equipment Summary in Section A.2(d) and in the Facility Description in Section D.1(d) of the draft permit may need to be revised, depending on the results of the testing of the dross cooling emissions, to describe the utilization of movable pans for dross cooling. Presently, the pans are located in the main building and the attached warehouse. Upon receipt of confirmatory test results, ART would also like to keep pans in the partially enclosed dross storage building which was recently completed.

**Response to Comment 6:**

As explained in detail beginning on page 52 of this document, the source demonstrated compliance with the emission limits of Condition D.1.1 by conducting emissions testing on September 25, 2003. IDEM acknowledges ART's plan to change the on-site placement of its dross cooling pans. Since the permit does not specify by condition where the pans can be placed at the plant, there is no change to the permit due to this comment.

**Comment 7:**

Consistent with the Technical Support Document ("TSD"), Condition B.12(b) should include a new subsection (b)(8) which states: "There are no New Source Performance Standards applicable to this source."

**Comment 8:**

Condition B.12(b)(7) should be rewritten as follows so as not to include a requirement within the nonapplicability statement.

*Pursuant to 326 IAC 11-1-1, emission limitations established in 326 IAC 11-1-2 are not applicable to this source because the source commenced operations after December 6, 1968.*

*Additional ART Comments Received on March 1, 2004:*

At the last sentence of Condition B.12(b)(1), please change the word "foundry" to "production" to be consistent with the description in A.1

**Response to Comments 7 and 8:**

Regarding Comment 7, those specific New Source Performance Standards (NSPS) with current potential applicability to this source were discussed in the TSD. The TSD provided a discussion on each NSPS and why such rules were determined to not apply. These specific non-applicability determinations have been included in Condition B.12(b) of this permit. The statement made in the TSD, as referred to in Comment 7, is informational only and is too broad to be included as a condition of this permit. There is no change to this condition due to Comment 7. However, Condition B.12(b) is revised per Comment 8 to be consistent with A.1; to more accurately reflect the rule non-applicability determination at paragraph (b)(7); and to make a minor correction at (b)(4), as follows:

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

- (b) In addition to the nonapplicability determinations set forth in Sections D of this permit, the IDEM, OAQ has made the following determinations regarding this source:
- (1) This source is not subject to the requirements of the New Source Performance Standard (NSPS), 326 IAC 12, 40 CFR 60.191, Subpart S (Primary Aluminum Reduction), because the source does not perform primary aluminum reduction as defined in 40 CFR 60.191. This source is a secondary aluminum ~~foundry~~ **production** plant, therefore the requirements under 326 IAC 12, (40 CFR 60.191, Subpart S) do not apply.
  - (4) The requirements of 40 CFR Part 64, Compliance Assurance Monitoring, are not applicable to this source. Such requirements apply to a pollutant-specific emissions unit (PSEU), as defined in 40 CFR 64.1, at a major source that is required to obtain a Part 70 or 71 permit if the PSEU meets the following criteria:
    - (A) the unit is subject to an emission limitation or standard for an applicable regulated air pollutant,
    - (B) the unit uses a control device as defined in 40 CFR 64.1 to comply with that emission limitation or standard, and
    - (C) the unit has a potential to emit (PTE) before controls equal to or greater than 100 percent of the amount (tons per year) of the pollutant required for a source to classified as a Part 70 major source.

This source is required to obtain a Part 70 permit pursuant to 40 CFR 63.1500(e). The PSEUs as ~~RDRF#1~~ or ~~RDRF#2~~ (only one furnace operates at a time) have an uncontrolled PTE at greater than 100 percent of the applicable major Part 70 thresholds for PM10 and HAPs (for HCl). However, pursuant to 40 CFR 64.2(b)(i), *Exemptions*, the requirements of Part 64 do not apply to sources subject to Section 112 emission limits or standards published after November 15, 1990. Since these PSEUs are subject to Subpart RRR (i.e., a Section 112 emission limit), the requirements of 40 CFR 64, Compliance Assurance Monitoring, are not applicable.

- (7) Pursuant to 326 IAC 11-1-1, **particulate matter** emission limitations ~~are established for particulate matter from foundries. Particulate emissions from all foundries in operation on or before December 6, 1968 shall comply with the requirements set forth established~~ in 326 IAC 11-1-2 of this rule and all foundries in operation after December 6, 1968, shall comply with 326 IAC 6-3-~~3~~. ~~Since this source began~~ **are not applicable to this source because the source does not operate a cupola operation after December 6, 1968, it must comply with 326 IAC 6-3-2 and the limitations of 326 IAC 11-1 are not applicable.**

**Comment 9:**

Please include the following at the end of Condition C.3: "326 IAC 4-1-3(a)(2)(A) and (B) are not federally enforceable."

**Comment 10:**

Please include the following at the end of Condition C.5: "326 IAC 6-4-2(4) is not federally enforceable."

**Comment 11:**

Please include the following at the end of Condition C.7: "The provisions of 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4(d), (e) and (f) and 326 IAC 1-7-5(d) are not federally enforceable."

**Response to Comments 9, 10 and 11:**

The quoted statements requested for addition to Conditions C.3, C.5 and C.7 do not apply to this Part 70 permit. If a requirement or condition is part of a permit program that is federally enforceable because it is approved into the Indiana State Implementation Plan (SIP), then such requirements are enforceable. The requirements of 326 IAC 4-1 and 326 IAC 6-4 were included in Construction Permit No. CP-113-10429-00071, issued on March 5, 1999, respectively as Operation Conditions 14 and 15. The requirements of 326 IAC 1-7 were included as Condition C.6 in Significant Source Modification No. 113-11409-00071, issued on March 29, 2000. Both of these 326 IAC Article 2 permitting programs are SIP approved programs. Therefore, the requested language is not applicable to this Part 70 permit. There are no changes to these conditions due to these comments.

**Comment 12:**

40 CFR Part 63, Subpart RRR does not require ART to install and/or utilize continuous emission monitoring equipment. As such, please delete Condition C.12 regarding the maintenance of same.

**Response to Comment 12:**

IDEM, OAQ agrees that the condition is not applicable and is deleted as shown below. Subsequent Section C conditions are renumbered accordingly.

~~C.12 Maintenance of Continuous Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]~~

~~(a) The Permittee shall install, calibrate, maintain, and operate all necessary continuous emission monitoring systems (CEMS) and related equipment.~~

~~(b) In the event that a breakdown of a continuous emission monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.~~

~~(c) Whenever a continuous emission monitor other than an opacity monitor is malfunctioning or will be down for calibration, maintenance, or repairs for a period of four (4) hours or more, a calibrated backup CEMS shall be brought online within four (4) hours of shutdown of the primary CEMS, and shall be operated until such time as the primary CEMS is back in operation.~~

~~(d) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 40 CFR 63, Subpart RRR.~~

**Comment 13:**

ART does not operate a pH meter. Please delete Condition C.14(c).

**Response to Comment 13:**

IDEM, OAQ agrees that Condition C.14(c) (now C.13(c)) is not applicable and is deleted as shown below.

C.4413 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)]  
[326 IAC 2-7-6(1)]

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~~(c) The Preventive Maintenance Plan for the pH meter shall include calibration using known standards. The frequency of calibration shall be adjusted such that the typical error found at calibration is less than one pH point.~~

**Comment 14:**

Please explain why the Emergency Reduction Plan language included in the prior version of the permit is no longer in the draft permit.

**Response to Comment 14:**

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission), the requirements to submit an emergency reduction plan pertain to sources that have the potential to emit one hundred (100) tons per year, or more, of any pollutant. Based on the enforceable controls and limits reflected in the operating conditions of Section D.1 of the Part 70 permit, and as shown in the *Potential to Emit After Issuance Table* of the TSD, this source does not have the potential to emit a pollutant at or greater than 100 tons per year.

**Comment 15:**

To reduce administrative burdens, ART requests that the quarterly deviation reporting in Condition B.14 and Condition C.20 be reduced to semi-annual reporting.

**Response to Comment 15:**

Reporting is required to document compliance with the conditions and requirements listed in this permit. 326 IAC 2-7-5(3)(C)(i) gives IDEM the authority to require reports "at least" every six months. The OAQ has determined that if reporting of deviations was submitted annually or semi-annually, the possibility for a malfunction of an affected facility would not be detected soon enough and could lead to a deviation from the permit requirements. Since the primary goal of the Part 70 permit is to ensure current and continuing compliance with all applicable requirements, there is no change to the reporting frequency based on this comment.

**Comment 16:**

Five (5) separate comments were made in relation to Condition D.1.1 (PSD Minor Limit), as follows:

(a) Conditions D.1.1(a)(1)(A) and (B) should reference "RF" rather than "RD."

- (b) Please reword Condition D.1.1(a)(2) as follows: "Thermal Chip Dryer #1 PM emissions shall be limited to 4.00 pounds per hour and PM<sub>10</sub> emissions shall be limited to 4.00 pounds per hour."
- (c) Please delete Condition D.1.1(a)(4). Pursuant to Condition D.1.7 and 40 CFR § 63.1510(b)(3) and (7), ART's OM & M Plan must include: the procedures for the proper operation and maintenance of each process unit and add-on control device used to meet the applicable emission limits or standard, as well as a maintenance schedule for each process and control device that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance. These provisions adequately address the condition of the ductwork.

If the IDEM intends to keep Condition D.1.1(a)(4), please provide the authority and rationale for Condition D.1.1(a)(4) requiring that there be no visible fugitive emissions from any ductwork related to ART's furnaces, thermal chip dryer, Baghouse A and/or Baghouse B in order to remain a PSD Minor Source. We understand that the IDEM has a policy of not requiring visible emission notations from baghouses which vent inside of a building, due to the complications or impossibility of completing same. Please also reconcile the requirement that there be no visible emissions from any ductwork in Condition D.1.1(a)(4) with the 40% opacity limitation contained in Condition C.2. Additionally, ART is not aware of any other Title V permits which include a PSD Minor limit similar to the ductwork requirement in Condition D.1.1(a)(4).

- (d) Please insert "arising from the dross cooling operation" after "(PSD)" in the second sentence of Condition D.1.1(b). Additionally, please add "pursuant to 326 IAC 2-2 (PSD) arising from the dross cooling operation" to the end of the second sentence of Condition D.1.1(b). As written the exception to the permit shield is broader than warranted.

Please also insert a sentence stating: "The permit will be modified to remove Condition D.1.1(b) upon the submittal of the demonstration of compliance required by Condition D.1.9(a)(1)."

- (e) As you are aware, ART anticipates receiving in the next few days the test report for the performance testing conducted on its dross cooling operation on September 25, 2003 pursuant to Condition D.1.9(a)(1) of the draft permit and as requested by the IDEM. ART will be providing additional information for incorporation into the Part 70 Operating Permit regarding same. Preliminarily, it appears that particulate emissions from the dross cooling operation are nominal and should enable the IDEM to remove Condition D.1.1(b) and revise the emission calculations in Appendix A. ART also intends to propose revision of the limits in Condition D.1.1(a) to reflect the actual emissions from the dross cooling operation. Upon receipt of the report, ART will forward a copy to you.

*Additional ART Comments Received on March 1, 2004:*

As discussed in our telephone conversation on February 17, 2004, ART is in the process of preparing a permit application to construct a third baghouse to control emissions from furnace RF#2 and to operate both furnaces RF#1 and RF#2, simultaneously. For your information, it is not anticipated the PM and PM10 emission limits in this condition will increase. The current PSD limits were requested by ART in anticipation of the proposed construction application and were based on the assumption that both furnaces would be operating simultaneously.

Compliance with the MACT standard will effectively limit PM emissions from each furnace to less than 4.00 pounds per hour. Therefore, ART will be requesting both PM and PM10 PSD limits to be 4.00 pounds per hour from the baghouse controlling emissions from furnace RF#1 and both PM and PM10 PSD limits to be 4.00 pounds per hour from the baghouse controlling emissions from furnace RF#2.

**Response to Comment 16:**

Condition D.1.1(a) is revised based on the requested changes per paragraphs (a) and (b) above. Paragraph (e) is informational in nature and requires no change to the permit at this time.

The comment of paragraph (c) requests that the Baghouse A and B ductwork visible emissions requirement (Condition, D.1.1(a)(4)) be removed from the permit; instead, the operation and maintenance practices for the control equipment, including the ductwork, is proposed to be incorporated into the source's requisite OM&M plan (see Condition D.1.8). The requirement for D.1.1(a)(4) is based on past structural deficiencies with the ductwork, as confirmed by IDEM, that caused captured particulate emissions to escape to the atmosphere rather than being exhausted to the baghouse. While recent visits to the plant by IDEM have confirmed that the ductwork has been repaired and is in proper working condition, the request to use the OM&M plan in place of this specific requirement cannot be accepted. Condition D.1.1(a)(4) must remain in the permit to ensure continuous compliance with the underlying PM and PM10 limits of D.1.1. Although the source must develop an approved OM&M plan that will contain, among other information, operating and maintenance practices for the capture and control systems affected by Subpart RRR, such cannot replace D.1.1(a)(4) for two reasons. First, given prior documented problems with this equipment, reference to operating and maintenance practices contained in an "off-permit" document (i.e., OM&M plan) cannot take the place of specific enforceable requirements for emission limit compliance. Second, as explained later in this document, operation of Baghouse B is not required by 40 CFR Part 63, Subpart RRR, and therefore is not required to be contained in the OM&M plan. This notwithstanding, the Permittee may request to modify the permit to incorporate detailed requirements similar to the OM&M plan that will ensure proper operation and maintenance of the Baghouses A and B and ductwork to replace D.1.1(a)(4). However, for purposes of this permit, Condition D.1.1(a)(4) will remain unchanged. The authority for D.1.1(a)(4) is reflected in the citation of the section heading, **Emission Limitations and Standards[326 IAC 2-7-5(1)]**, which includes those operational requirements and limitations that assure compliance with all applicable requirements.

Regarding the comment of paragraph (d), the source demonstrated compliance with the emission limits of Condition D.1.1 by conducting required emissions testing on September 25, 2003. A more detailed discussion on this issue is presented starting on page 52 of this document. Condition D.1.1, as revised below, incorporates both those changes discussed on page 52, along with the changes discussed at this Response to Comment 16.

Regarding the comment made on March 1, 2004, this is informational in nature and there is no change to this condition due to this comment. Any application submitted by the Permittee separate from this approval will be evaluated by IDEM based on the information contained therein.

Including those additional revisions discussed on page 52 herein, Condition D.1.1 is revised as follows:

D.1.1 PSD Minor Limit ~~[326 IAC 2-2]~~~~[326 IAC 2-7-6(3)]~~~~[326 IAC 2-7-15]~~

~~(a)~~ Pursuant to Significant Source Modification 113-11409-00071, issued on March 29, 2000, and revised by this Title V permit, the Permittee shall comply as follows:

~~(+)(a)~~ Rotary Furnaces RDRF#1 and RDRF#2:

~~(A)(1)~~ PM and PM10 emissions shall be limited to 8.00 pounds per hour from the baghouse controlling the furnaces.

~~(B)(2)~~ **PM10 emissions shall be limited to 8.00 pounds per hour from the baghouse controlling the furnaces.**

~~(B)~~**(3)** Rotary furnaces ~~RDRF~~**RF**#1 and ~~RDRF~~**RF**#2 shall not operate at the same time.

~~(2)~~**(b)** Thermal Chip Dryer #1:

**(1)** PM ~~and PM10~~ emissions shall be limited to 4.00 pounds per hour.

**(2)** **PM10 emissions shall be limited to 4.00 pounds per hour.**

~~(3)~~**(c)** Dross Cooling Operation:

~~(A)~~**(1)** PM ~~and PM10~~ emissions shall be limited to ~~40.66~~**2.50** pounds per hour.

~~(B)~~**(2)** **PM10 emissions shall be limited to 2.50 pounds per hour.**

~~(4)~~**(d)** There shall be no visible emissions from any ductwork related to the two (2) natural gas-fired rotary furnaces, RF #1 and RF #2, the one (1) natural gas-fired thermal chip dryer, Dryer #1, Baghouse A (which controls emissions from RF #1 and RF #2) and Baghouse B (which controls emissions from Dryer #1).

Compliance with this condition shall limit the potential to emit of PM and PM10 of the source to less than 100 tons per twelve (12) consecutive month period. Therefore, compliance with this condition shall make the requirements of 326 IAC 2-2 (PSD) not applicable to the source.

~~(b)~~ — IDEM has insufficient data to demonstrate that the dross cooling operation is in compliance with the PM and PM10 limits of this condition, and the source shall demonstrate compliance with these limits pursuant to Condition D.1.9(a). Therefore, the permit shield authorized by the B section of this permit in the condition titled Permit Shield, and set out in 326 IAC 2-7-15, does not apply with regard to 326 IAC 2-2 (PSD); nor does it shield the Permittee from possible enforcement actions initiated by either the U.S. EPA or the Indiana Department of Environmental Management (IDEM) pursuant to 326 IAC 2-2 (PSD). Compliance with the terms of this permit does not serve as proof of compliance for the dross cooling operation. The Permittee shall apply for revision of this permit to address the resolution of any such outstanding issue, including revision to remove this Condition D.1.1(b) if compliance is demonstrated pursuant to Condition D.1.9(a). ~~[326 IAC 2-7-6(3)] [326 IAC 2-7-15]~~

#### Comment 17:

Four (4) separate comments were made on Condition D.1.4 (Secondary Aluminum Smelting Limits), as follows:

- (a) Consistent with 40 CFR Part 63, Subpart RRR, the title of Condition D.1.4 should be changed to "Secondary Aluminum Production Facility Limits."
- (b) The duplicative requirements of Condition D.1.4(a)(1) are confusing and are inconsistent with the rationale for requiring the Annual Compliance Certification in Condition B.9. The labeling requirements contained in Condition D.1.4(a)(1) are duplicative of the requirements found in Condition D.1.5. Since Condition D.1.5 relates entirely to labeling requirements, please delete the duplicative labeling requirements in Condition D.1.4(a)(1).

- (c) Conditions D.1.4(a)(2) through (a)(5) are confusing as written. Please amend Condition D.1.4(a)(2) through (a)(5) to clarify that ART may demonstrate compliance with the SAPU emission limitations by complying with the individual Group 1 furnace emission limitations specified in 40 CFR § 63.1505(i) and relabel existing Conditions D.1.4(a)(6) and (7), as Conditions D.1.4(a)(3) and (4), respectively.

Additionally, the phrase "this MACT standard" in existing Condition D.1.4(a)(7) should be replaced with "40 CFR Part 63, Subpart RRR."

- (d) The information contained in Condition D.1.4(c) should be moved to the TSD.

*Additional ART Comment Received March 1, 2004:*

To be consistent with 40 CFR 63.1505(i)(3), please change Condition D.1.4(a)(3), as re-numbered in the response below, from "...limit shall be 15 Fg of D/F TEQ..." to "...limit shall be 15 micrograms (Fg) of D/F TEQ..."

To be consistent with 40 CFR 63.1505(c)(2), please change the last sentence of Condition D.1.4(b)(2), as re-numbered in the response below, to read as follows: "Dryer #1, shall not exceed 2.50 micrograms (Fg) of D/F TEQ per Mg ( $3.5 \times 10^5$  grain per ton) of feed."

**Response to Comment 17:**

Pursuant to the comment made at paragraph (a), the title to Condition D.1.4 is revised for purposes of clarity.

IDEM, OAQ agrees with the paragraph (b) comment and the requirement of D.1.4(a)(1) partially duplicates the 40 CFR Part 63, Subpart RRR labeling requirement currently found in its entirety at D.1.5; therefore, D.1.4(a)(1) is eliminated.

With regard to paragraph (c), the requirement to allow compliance with the individual Group 1 furnace emission limitations specified at 40 CFR § 63.1505(i) is already contained at existing D.1.4(a)(5). This notwithstanding, the requirements of existing D.1.4(a)(2) through (a)(5) are revised to correct and clarify the emission limits. Additionally, the requested language change from "this MACT standard" to "40 CFR Part 63, Subpart RRR" is made at existing Condition D.1.4(a)(7).

The comment at paragraph (d) requests that Condition D.1.4(c), pertaining to the status of non-compliance as specifically indicated, be removed to the Technical Support Document (TSD) alone. The TSD is not an enforceable document. IDEM, OAQ has placed this condition into the permit to account for the fact that this source does not currently have a method of compliance nor a corresponding schedule established that would otherwise be included in place of this condition. This condition establishes that IDEM, OAQ is aware of the compliance issue; is working towards resolution on this compliance issue; and will require that the permit be re-opened as needed when such is completed. There is no change to this condition due to this comment at paragraph (d).

Condition D.1.4 is revised as follows, including the requested change of March 1, 2004:

**D.1.4 Secondary Aluminum Smelting Production Facility Limits [40 CFR Part 63, Subpart RRR] [326 IAC 8-1-6]**

- (a) Pursuant to 40 CFR Part 63.1505, the following conditions shall apply to the two (2) natural gas-fired rotary furnaces, RF #1 and RF #2. Furnace RF #1 is an existing secondary aluminum processing unit (SAPU), and furnace RF #2 is a new SAPU, pursuant to **40 CFR Part §63.1503:**

- (1) ~~Identification, emission limits and means of compliance shall be posted on the two (2) natural gas-fired rotary furnaces (identified as RF #1 and RF #2).~~
- (2) The Permittee shall not discharge or allow to be discharged to the atmosphere any 3-day, 24-hour rolling average emissions of PM in excess of:

$$L_{cPM} = \frac{\sum_{i=1}^n (L_{iiPM} \times T_{ii})}{\sum_{i=1}^n T_{ii}}$$

where  $L_{iiPM}$  = the PM emission limit for an individual emission unit **Group 1 furnace** in the secondary aluminum processing unit (SAPU). **This limit shall be 0.40 pounds of PM per ton of feed/charge or per ton of aluminum produced for each Group 1 furnace, RF#1 and RF#2 [40 CFR 63.1505(i)][40 CFR 63.1505(k)];**

$T_{ii}$  = the feed/charge rate for the individual emission unit; and

$L_{cPM}$  = The PM emission limit for a secondary aluminum processing unit (SAPU).

The PM emission limit ( $L_{cPM}$ ) for a Group 1 furnace without an in-line fluxer (furnace #1 and #2) at a secondary aluminum production facility shall be 0.40 pounds per ton of feed/charge or per ton of aluminum produced. [40 CFR 63.1505(i)][40 CFR 63.1505(k)]  
**[40 CFR 63.1505(k)(1)]**

- (3)(2) The Permittee shall not discharge or allow to be discharged to the atmosphere any 3-day, 24-hour rolling average emissions of HCl in excess of:

$$L_{cHCl} = \frac{\sum_{i=1}^n (L_{iiHCl} \times T_{ii})}{\sum_{i=1}^n T_{ii}}$$

where  $L_{iiHCl}$  = the HCl emission limit for an individual emission unit **Group 1 furnace** in the secondary aluminum processing unit (SAPU). **This limit shall be 0.40 pounds of HCl per ton of feed/charge or per ton of aluminum produced, or 10 percent of the uncontrolled HCl emissions, by weight, for each Group 1 furnace, RF#1 and RF#2 [40 CFR 63.1505(i)][40 CFR 63.1505(k)];**

$T_{ii}$  = the feed/charge rate for the individual emission unit; and

$L_{cHCl}$  = The HCl emission limit for a secondary aluminum processing unit (SAPU).

The HCl emission limit ( $L_{cHCl}$ ) for a Group 1 furnace without an in-line fluxer

~~(furnace #1 and #2) at a secondary aluminum production facility shall be 0.40 pounds per ton of feed/charge or per ton of aluminum produced. [40 CFR 63.1505(i)][40 CFR 63.1505(k)]~~  
**[40 CFR 63.1505(k)(2)]**

- ~~(4)(3)~~ The Permittee shall not discharge or allow to be discharged to the atmosphere any 3-day, 24-hour rolling average emissions of total tetra-, penta-, hexa-, and octachlorinated dibenzo dioxins and furans (D/F) in excess of:

$$L_{cDF} = \frac{\sum_{i=1}^n (L_{iDF} \times T_{ii})}{\sum_{i=1}^n T_{ii}}$$

where  $L_{iDF}$  = The D/F emission limit for **an individual emission unit Group 1 furnace in the secondary aluminum processing unit (SAPU). This limit shall be 15 micrograms (Fg) of D/F TEQ per Mg (2.1 x 10<sup>-4</sup> gr of D/F TEQ per ton) of feed/charge or per ton of aluminum produced for each Group 1 furnace, RF#1 and RF#2, where TEQ is the toxicity equivalents for dioxins and furans as defined in "Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs) and 1989 Update" [40 CFR 63.1503][40 CFR 63.1505(i)][40 CFR 63.1505(k)]**;

$T_{ii}$  = the feed/charge rate for the individual emission unit; and

$L_{cDF}$  = The D/F emission limit for **a secondary aluminum processing unit (SAPU).**

~~The D/F emission limit ( $L_{cDF}$ ) for a Group 1 furnace without an in-line fluxer (furnace #1 and #2) at a secondary aluminum production facility shall be 15 Fg of D/F TEQ per Mg (2.1 x 10<sup>-4</sup> gr of D/F TEQ per ton) per ton of feed/charge or per ton of aluminum produced. Where TEQ is the toxicity equivalents for dioxins and furans as defined in "Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs) and 1989 Update". [40 CFR 63.1503][40 CFR 63.1505(i)][40 CFR 63.1505(k)]~~  
**[40 CFR 63.1505(k)(3)]**

- ~~(5)(4)~~ The owner or operator of a SAPU at a secondary aluminum production facility that is a major source **Permittee** may demonstrate compliance with the emission limits of paragraphs (a)(2)(1) through (a)(4)(3) by demonstrating that each emission unit within the SAPU of **RF#1 and RF#2** is in compliance with the applicable emission limit for an individual Group 1 furnace **respectively** specified as  $L_{iPM}$ ,  $L_{iHCl}$ , and  $L_{iDF}$  in paragraphs (a)(2)(1) through (a)(4)(3).
- ~~(6)(5)~~ The owner or operator **Permittee** may determine the emission standards for a SAPU by applying the group 1 furnace limits on the basis of the aluminum production weight in each group 1 furnace, rather than on the basis of feed/charge.
- ~~(7)(6)~~ With the prior approval of the responsible permitting authority, ~~an owner or~~

~~operator~~ **Permittee** may redesignate any existing group 1 furnace at a secondary aluminum production facility as a new emission unit. Any emission unit so redesignated may thereafter be included in a new SAPU at that facility. Any such redesignation will be solely for the purpose of ~~this MACT standard~~ **40 CFR Part 63, Subpart RRR** and will be irreversible.

- (b) Pursuant to 40 CFR Part 63.1505, the following conditions shall apply to the one (1) natural gas-fired thermal chip dryer, Dryer #1:
- (1) The total hydrocarbon (THC), as propane, emissions from the one (1) natural gas-fired thermal chip dryer, Dryer #1, shall not exceed 0.80 pounds per ton of feed/charge.
  - (2) ~~The total tetra-, penta-, hexa-, and octachlorinated dibenzo dioxins and furans (D/F, TEQ) emissions from the one (1) natural gas-fired thermal chip dryer, Dryer #1, shall not exceed 2.50 micrograms (Fg) of D/F TEQ per megagram Mg (Fg/Mg)~~ **(3.5 x 10<sup>-5</sup> grain per ton) of feed/charge.**

Compliance with (b)(1) shall also render the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) not applicable to Dryer #1.

- (c) IDEM has information that indicates that the Permittee is not in compliance with the D/F limit of this condition for Dryer #1 and the HCl limit of this condition for rotary furnace ~~RDRF#2~~. IDEM is reviewing this matter as Enforcement Case No. 2002-11680-A and will take the appropriate action at the conclusion of this review. The OAQ will promptly reopen this permit as necessary using the provisions of 326 IAC 2-7-9 (Permit Reopening) to include detailed requirements necessary to comply with 40 CFR Part 63, Subpart RRR, including a schedule for achieving compliance with such requirements.

**Comment 18:**

As written, Condition D.1.6 is overly broad and does not accurately describe the requirements of 40 CFR § 63.1506(c). As such, please modify the first paragraph of Condition D.1.6 as follows:

*Pursuant to 40 CFR § 63.1506(c), the owner or operator of each affected source or emission unit equipped with an add-on air pollution control device (RF #1, RF #2 and Dryer #1) must:*

**Response to Comment 18:**

The first paragraph of Condition D.1.6 is revised to provide for greater clarity. Please see the Response to Comments 22 and 23 for the revised version of this condition.

**Comment 19:**

For easier reference, the requirements included in Condition D.1.7 should be grouped with the other OM & M Plan requirements contained in D.1.12(i), (j) and (k).

Additionally, the OM & M Plan requirements included in Condition D.1.7 need to be revised consistent with the September 24, 2002 and the December 30, 2002 amendments to 40 CFR Part 63, Subpart RRR, and should include any applicable certification requirements. See 40 CFR § 63.1510(b).

#### **Response to Comment 19:**

Condition D.1.7 (now renumbered as D.1.8, per Response to Comment 25) applies specifically to the requirements of 40 CFR Part 63.1510(b) and the requirements of D.1.12(i), (j) and (k) pertain to other requirements of 40 CFR Part 63.1510. These conditions shall remain as separate conditions in this permit. This notwithstanding, additional language is added to the first paragraph of D.1.7 (now D.1.8) to more completely reflect the current rule requirements as follows:

#### **D.1.78 Operation, Maintenance, and Monitoring (OM&M) Plan [40 CFR Part 63.1510(b)]**

~~The owner or operator Permittee must prepare and implement for each of the two (2) natural gas-fired rotary furnaces (identified as RF #1 and RF #2) and the one (1) natural gas-fired thermal chip dryer (identified as Dryer #1), a written operation, maintenance, and monitoring (OM&M) plan. The owner or operator must submit the plan to the applicable permitting authority for review and approval as part of the application for a part 70 or part 71 permit. Any subsequent changes to the plan must be submitted to the applicable permitting authority for review and approval. Pending approval by the applicable permitting authority of an initial or amended plan, the owner or operator must comply with the provisions of the submitted plan. Each plan must contain the following information:~~ **The plan must be accompanied by a written certification by the Permittee that the OM&M plan satisfies all requirements of 40 CFR Part 63.1510 and is otherwise consistent with the requirements of 40 CFR Part 63, Subpart RRR. The Permittee must comply with all of the provisions of the OM&M plan as submitted to IDEM, unless and until the plan is revised in accordance with the following procedures. If IDEM determines at any time after receipt of the OM&M plan that any revisions of the plan are necessary to satisfy the requirements of 40 CFR Part 63.1510 or Subpart RRR, the Permittee must promptly make all necessary revisions and resubmit the revised plan. If the Permittee determines that any other revisions of the OM&M plan are necessary, such revisions will not become effective until the Permittee submits a description of the changes and a revised plan incorporating them to IDEM. Each plan must contain the following information:**

#### **Comment 20:**

Four (4) separate comments were made on draft Condition D.1.9 (Testing Requirements), and they are as follows:

- (a) The first phrase of Condition D.1.9(a)(2) should be modified as follows to clarify that only one performance test for each emission unit pollutant is required to demonstrate compliance with the PM and PM<sub>10</sub> emission limitations in Condition D.1.1 during the period from September 2005 to February 2006: "During the period from September 2005 to February 2006, the Permittee shall perform a PM and a PM10 performance test on each of the rotary furnaces RF #1 and RF #2 and the thermal chip dryer, Dryer #1, using methods as approved by the Commissioner."
- (b) Similarly, the first phrase of Condition D.1.9(b)(1) should be modified to state: "During the period from September 2005 to February 2006, the Permittee shall perform a PM, a PM10, a HCl and a D/F performance test on each of the rotary furnaces (RF #1 and RF #2), in accordance with the requirements of 40 CFR Part 63, Subpart RRR, using methods as approved by the Commissioner."

- (c) Please delete the requirement to perform PM and PM<sub>10</sub> testing in accordance with 40 CFR Part 63, Subpart RRR, in Condition D.1.9(b)(2) because no such requirement exists, and clarify the remaining requirements in the same sentence as follows: "During the period from September 2005 to February 2006, the Permittee shall perform a total hydrocarbon (THC, measured as propane), and a D/F performance test on the thermal chip dryer, Dryer #1, while processing only unpainted aluminum chips, in accordance with the requirements of 40 CFR Part 63, Subpart RRR, using methods as approved by the Commissioner."
- (d) Condition D.1.9(b)(3) briefly cites 40 CFR § 63.1511(g) in regards to the requirement to establish a minimum or maximum operating parameter value or an operating parameter range for each parameter to be monitored and Condition D.1.17 sets forth the corrective action requirements found in 40 CFR § 63.1506(p); however, neither condition specifically lists the provisions for which operating parameter ranges and/or values must be established or cites the regulations specific to said requirements. Please include a list of the specific provisions for which operating parameter values and/or ranges must be established and the citation of authority for same. (i.e. 40 CFR § 63.1512(k), (m), (n), (o), and (p)).

*Additional ART Comment Received on March 1, 2004:*

For Conditions D.1.10(a),(b)(1) and (b)(2), as re-numbered in the response below, ART requests the testing period specified in these conditions be extended to the six month period, August 2005 to February 2006, to give them more operational and scheduling flexibility. Also, please delete the words "each of the rotary furnaces RF#1 and RF#2 and" from re-numbered Condition D.1.10(a). Including these furnaces in this condition is in conflict with re-numbered Condition D.1.10(b)(1), which requires PM and PM10 performance testing on RF#1 and RF#2 be repeated at least once every five (5) years.

For re-numbered Condition D.1.10(b)(4)(E), please delete the words "and Baghouse B" from this condition. The descriptions of the thermal chip dryer contained in Sections A.2 and D.1 do not include lime injection and the MACT standard does not require lime injection for a thermal chip dryer.

**Response to Comment 20:**

With respect to the comments of paragraphs (a) and (b), the language of D.1.9 (now renumbered as D.1.10, per Response to Comment 25) is revised as requested. To date, the Permittee has conducted compliance stack testing and understands that a performance test is comprised of three (3) separate test runs, whose results are averaged for compliance determination purposes. This procedure will not change due to the language revision. Further, this condition provides the minimum test requirements deemed by IDEM as necessary to demonstrate compliance with the underlying emission limits for the indicated facilities. Therefore, this condition notwithstanding, IDEM may require additional compliance testing at any time to ensure the source is in compliance with an applicable limit or standard, pursuant to Condition C.10.

Condition D.1.9(b)(2) (now D.1.10(b)(2)) is revised pursuant to the comment at paragraph (c), as the existing condition is not completely supported by Subpart RRR. The condition is also revised consistent with the requested changes at paragraphs (a) and (b).

In order to provide for a more comprehensive and clear delineation of the requirements associated with Condition D.1.9(b)(3) (now D.1.10(b)(3)), additional relevant requirements are added after this condition as requested.

Regarding the March 1, 2004 comments, the test schedule is revised such that the month of August is now reflected in the six (6) month period for testing (i.e., August 2005 to January 2006). Also, IDEM agrees that the PM and PM10 testing requirement of re-numbered D.1.10(a) is duplicative of

D.1.10(b)(1). Since the more frequent PM testing requirement of D.1.10(a) shall simultaneously satisfy the requirement of D.1.10(b)(1), language is added to D.1.10(b)(1) to reflect this fact. Also, it has been determined that the initial inclusion of PM10 in D.1.10(b)(1) is incorrect since Subpart RRR only applies to PM. This is now corrected herein. Finally, as discussed in more detail at Response to Comment 21, IDEM agrees that Baghouse B is not subject to re-numbered D.1.10(b)(4)(E), and the condition is revised as requested.

Condition D.1.9 (now D.1.10) is revised based on the above discussion. In addition, this condition also contains those revisions made pursuant to the separate issue that is discussed beginning on page 52 of this document.

D.1.910 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11][40 CFR 63, Subpart RRR]

- (a) ~~In order to demonstrate compliance with Condition D.1.1, the Permittee shall comply as follows:~~
- ~~(1) Within 90 days after issuance of this permit, the Permittee shall perform PM and PM10 testing on the one (1) cross-cooling operation, using methods as approved by the Commissioner.~~
  - ~~(2) During the period from September August 2005 to February January 2006, the Permittee shall perform a PM and a PM10 performance testing on each of the rotary furnaces RF #1 and RF #2 and the thermal chip dryer, Dryer #1, using methods as approved by the Commissioner. Thereafter, pursuant to 326 IAC 2-7-6(1) and (6) and 326 IAC 2-1.1-11, this these tests shall be repeated at least once every two and one-half (2.5) years from the date of this valid compliance demonstration.~~

~~PM10 includes filterable and condensible PM10. Testing shall be conducted in accordance with Section C - Performance Testing.~~

- (b) In order to demonstrate compliance with Condition D.1.4 and Subpart RRR, the Permittee shall comply as follows:
- (1) During the period from ~~September~~ **August** 2005 to ~~February~~ **January** 2006, the Permittee shall perform **a PM, and PM10, a HCl, and a D/F performance testing** on each of **the** rotary furnaces RF #1 and RF #2, in accordance with the requirements in 40 CFR 63, Subpart A and 40 CFR 63, Subpart RRR, and using methods as approved by the Commissioner. Thereafter, ~~this these tests~~ shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. **Compliance with D.1.10(a) shall satisfy this requirement for PM testing.**
  - (2) During the period from ~~September~~ **August** 2005 to ~~February~~ **January** 2006, the Permittee shall perform ~~PM and PM10,~~ total hydrocarbon (THC, measured as propane), and **a D/F performance testing** on the thermal chip dryer, Dryer #1, **while processing only unpainted aluminum chips**, in accordance with the requirements in 40 CFR 63, Subpart A and 40 CFR 63, Subpart RRR, and using methods as approved by the Commissioner. Thereafter, ~~this these tests~~ shall be repeated at least once every five (5) years from the date of this valid compliance demonstration.

~~PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C - Performance Testing.~~

- (3) **Pursuant to 40 CFR Part 63.1511(g)**, the Permittee shall establish a minimum

or maximum operating parameter value, or an operating parameter range for each parameter to be monitored as required by 40 CFR 63.1510 that ensures compliance with the applicable 40 CFR, Subpart RRR pollutant emission limit. **To establish the minimum or maximum value or range, the Permittee shall use the appropriate procedures in 40 CFR Part 63.1511(g) and submit the information required by 40 CFR Part 63.1515(b)(4) in the notification of compliance status report.** The Permittee may use existing data in addition to the results of the performance test to establish operating parameter values for compliance monitoring provided the requirements of 40 CFR 63.1511(g) are met.

- (4) Pursuant to paragraphs (k), (m), (n), (o), and (p) of 40 CFR Part 63.1512, and to demonstrate compliance with paragraph (b)(3) of this condition, during the performance tests the Permittee shall comply with the requirements and use the procedures in these sections respectively for:
- (A) Measuring or otherwise determining feed/charge weight to the rotary furnaces RF #1 and RF #2 and the thermal chip dryer, Dryer #1;
  - (B) Establishing an operating parameter value or range for the afterburner operating temperature at the end of the combustion zone for the afterburner controlling thermal chip dryer, Dryer #1;
  - (C) Establishing an operating parameter value or range for the inlet gas temperature at the inlet to the baghouse controlling the rotary furnaces RF #1 and RF #2;
  - (D) Establishing an operating parameter value or range for the total reactive chlorine flux injection rate to each of rotary furnaces RF #1 and RF #2; and
  - (E) Establishing an operating parameter value for the Baghouse A lime injection system feeder settings for each operating cycle or time period used in the performance test.
- (5) Pursuant to paragraphs (a), (b), (d), and (e) of 40 CFR Part 63.1513, the Permittee shall comply with the requirements and use the applicable equations, references, and/or procedures in these sections respectively for:
- (A) Determining compliance with an emission limit for THC;
  - (B) Determining compliance with an emission limit for PM, HCl, and D/F;
  - (C) Determining compliance with an HCl percent reduction standard;
  - (D) Conversion of D/F measurements to TEQ units; and
  - (E) Determining compliance with emission limits for a secondary aluminum processing unit.

**Comment 21:**

40 CFR Part 63, Subpart RRR does not require ART to operate Baghouse B for Dryer #1. We

believe the original requirement to operate Baghouse B in the draft permit stemmed from the incorrect classification of Dryer #1 as a scrap dryer. Please verify that 40 CFR Part 63, Subpart RRR, does not require ART to operate Baghouse B.

#### **Response to Comment 21:**

This comment is related to draft Condition D.1.10 which requires the operation of Baghouse B. IDEM, OAQ agrees that Subpart RRR does not require ART to operate Baghouse B, a lime-injected baghouse, when operating the controlled emission unit (thermal chip dryer, Dryer #1). In fact, Subpart RRR does not require the use of a control device for compliance purposes; rather, the rule specifies certain requirements should a source utilize a control device for compliance purposes. In the case of the thermal chip dryer, Dryer #1, IDEM agrees that the original draft of this permit listed this emission unit as a scrap dryer. Based on this original designation, this scrap dryer would have applicable PM and HCl emission limits (in addition to THC and D/F) pursuant to Subpart RRR, and Baghouse B with lime-injection could have been used for compliance with the PM and HCl emission limits. However, subsequent to this original designation, IDEM conducted an inspection of the plant and determined this unit to be a thermal chip dryer pursuant to the definition of such in Subpart RRR. As a thermal chip dryer, PM and HCl emission limits do not apply. Therefore, IDEM agrees that Subpart RRR does not require Dryer #1 to utilize a lime-injected baghouse for emissions control.

The above notwithstanding, Conditions D.1.1 and D.1.2 of this permit do establish PM and PM10 emission limitations for the emission units at this source, including Dryer #1, for rules other than Subpart RRR. Also, compliance stack testing performed for Dryer #1 during April 2003 occurred while Baghouse B was in operation (with lime-injection). Draft Conditions D.1.7(c), D.1.8, and D.1.10, now respectively re-numbered as D.1.8(c), D.1.9 and D.1.11 (per Response to Comment 25), are revised to clarify that operation of Baghouse B is not required for purposes of Subpart RRR, but is required to demonstrate compliance with D.1.1 and D.1.2. Proper operation of the Baghouse A lime injection system is also added to these requirements.

#### **D.1.78 Operation, Maintenance, and Monitoring (OM&M) Plan [40 CFR Part 63.1510(b)]**

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- (c) Procedures for the proper operation and maintenance of each of the two (2) natural gas-fired rotary furnaces (identified as RF #1 and RF #2), ~~and the one (1) natural gas-fired thermal chip dryer (identified as Dryer #1); and Baghouses (A and B)~~ **with continuous lime injection and the Dryer #1 afterburner, each as an add-on control device** used to meet the applicable emission limits or standards in 40 CFR Part 63.1505.

#### **D.1.89 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**

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A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for:

- (a) the two (2) natural gas-fired rotary furnaces, identified as RF #1 and RF #2;
- (b) the one (1) natural gas-fired thermal chip dryer, identified as Dryer #1;
- (c) Baghouse A **and its continuous lime injection system** (which controls emissions from RF #1 and RF #2)
- (d) Baghouse B (which controls emissions from Dryer #1); and

- (e) all associated ductwork related to RF #1 and RF #2, Dryer #1, Baghouse A, and Baghouse B.

**D.1.101 Particulate Matter (PM and PM10), Hydrogen Chloride (HCl), Total Hydrocarbons (THC), and Dioxins and Furans (D/F)**

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- (a) In order to comply with D.1.1, D.1.2, D.1.4, and D.1.6, Baghouses A and B, each with lime injection for PM, PM10 and HCl control shall be in operation at all times that furnaces RF #1 and RF #2 and the thermal chip dryer, Dryer #1, are in respective operation according to the procedures and requirements of the OM&M plan.
- (b) **In order to comply with D.1.1 and D.1.2, Baghouse B for PM and PM10 control shall be in operation and control emissions from the thermal chip dryer, Dryer #1, at all times that Dryer #1 is in operation.**
- (b)(c) In order to comply with D.1.4 and D.1.6, the afterburner for THC and D/F emissions control shall be in operation at all times that the thermal chip dryer, Dryer #1, is in operation according to the procedures and requirements of the OM&M plan.

**Comment 22:**

As written, Condition D.1.11 is overly broad and does not accurately describe the requirements of 40 CFR § 63.1506(d). Additionally, Conditions D.1.11 and D.1.12 each include portions of the feed/charge requirements of 40 CFR Part 63, Subpart RRR, for RF #1, RF #2 and Dryer #1. To clarify the requirements and so as not to be duplicative, Condition D.1.12(a) should be deleted because it is adequately addressed in Condition D.1.6. Additionally, the first sentence of Condition D.1.12(b) should be deleted because it is duplicative of Condition D.1.11(a). The remainder of Condition D.1.12(b) should be included in Condition D.1.11 under the heading "Feed/Charge Determination".

**Comment 23:**

In connection with draft Conditions D.1.11 (Feed/Charge Determination) and D.1.12((g) (Secondary Aluminum Production Compliance Determination), ART submitted a document entitled "Request for Alternate Approval Feed/Charge Weight Measurement Procedures" to the IDEM in care of Mr. Mike Hirtler on October 23, 2003. IDEM reviewed the document and was in general agreement with the request for an alternate procedures plan; however, the Permittee was advised that the plan lacked certain details relating to procedural record keeping. In response to IDEM's concern, ART submitted a revised alternate plan on January 14, 2004, with supplemental information provided on January 16, 2004 and March 1, 2004. The request, as revised, is incorporated as Comment 23 as follows:

*Aluminum Recovery Technologies, Inc. (ART) is requesting approval of the following alternate procedures to measure and record the feed/charge weight for the thermal chip dryer (Dryer #1) and two rotary furnaces (RF #1 and RF #2) in accordance with 40 CFR 63.1510(e). The proposed alternate methods will enable ART to measure and record the total weight of feed/charge for each of these emission units as required by 40 CFR § 63.1510(e).*

*Alternate Rotary Furnace Feed/Charge Weight Measurement Procedure*

*Prior to unloading, each truckload of metal/dross is assigned a unique lot number and is weighed on an outdoor truck scale (Toledo Model No. 8530 Cougar) accurate to ±1.0% for lots weighing 4000 pounds (lbs) or more. In the unlikely event a load would be less than 4,000 lbs, since loads of scrap have always weighed more than 4,000 lbs, ART would load the material into small portable hoppers and weigh the material on the smaller production scale which is accurate to ±1.0%. The entire contents of the truck are placed in a dedicated storage bin for processing. When the truck is empty, it is weighed again on the outdoor truck*

scale. The gross and tare weights are recorded on a spreadsheet used for tracking the metal/dross through the plant. The spreadsheet also contains the unique lot number, source of metal/dross, net weight, ID of the storage bin holding the raw material load, date and time the metal/dross is processed through the furnace, the identification number of the furnace in which the metal/dross is processed, and the ID of the storage bin holding the recovered metal. Occasionally a supplier may deliver two truckloads of the same material and these two loads will be placed in the same storage bin.

The metal/dross from one bin is processed in one furnace, until all the material from that bin has been processed. If the amount of material in the bin is more than can be processed in one furnace charge, the material will be divided as follows:

If the material is to be processed in Furnace 1, the total pounds of material in the bin is divided by 23,000<sup>1</sup> rounding any fraction up to the next whole number, N. The material is then partitioned into N number of approximately equal portions and is processed one portion per charge. (For example, if the material in the bin weighs 47,000 lbs, dividing 47,000 by 23,000 equals 2.08. Rounding 2.08 up, N=3. The material is then processed in 3 approximately equal charges.)

If the material is to be processed in Furnace 2, the total pounds of material in the bin is divided by 9,000<sup>2</sup> rounding any fraction up to the next whole number, N. The material is then partitioned into N number of approximately equal portions and is processed one portion per charge.

Since the furnace process rate is constant and a bin lot is processed within a 12-hour period, ART is requesting that it be allowed to measure and record furnace feed/charge weights in bin lots as described above. For each bin lot the hourly feed/charge rate will be calculated by dividing the total pounds of material in the bin by the total amount of furnace operating time in hours used to process the material.

The proposed alternate procedure will also enable ART to accurately measure the total feed/charge weight for each furnace on a daily basis for each 24-hour day of operation for use in the calculations required by 40 CFR § 63.1510(t), if applicable.

#### Flux Injection Weight Procedure

The maximum amount of flux allowed for a charge is calculated by multiplying the approximate pounds of metal/dross charge by the maximum flux injection rate. Bulk A-103 solid flux is placed in a tared, portable hopper and weighed on a WTX scale (Model W1125) accurate to  $\pm 1.0\%$  for lots weighing 200 lbs or more. If the net flux weight is more than the maximum amount of flux allowed, some flux is removed from the hopper and reweighed. Once the amount of flux is less than the maximum amount allowed, the hopper contents are dumped into the furnace. The date, time, net weight of flux, flux rate, and type of flux are recorded on a spreadsheet.

The proposed alternate procedure will also enable ART to add flux to each charge without exceeding the maximum flux injection rate.

#### Alternate Thermal Chip Dryer Feed/Charge Weight Measurement Procedure

Prior to unloading, each truckload of metal is assigned a unique lot number and is weighed on an outdoor truck scale (Toledo Model No. 8530 Cougar) accurate to  $\pm 1.0\%$  for lots

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<sup>1</sup> Maximum Furnace 1 dross charge during stack testing on March 27, 2003, rounded down to nearest 1000 lbs.

<sup>2</sup> Maximum Furnace 2 dross charge during stack testing on April 2, 2003, rounded down to nearest 1000 lbs.

*weighing 4000 pounds (lbs) or more. In the unlikely event a load would be less than 4,000 lbs, since loads of scrap have always weighed more than 4,000 lbs, ART would load the material into small portable hoppers and weigh the material on the smaller production scale which is accurate to  $\pm 1.0\%$ . The entire contents of the truck are placed in a dedicated bin for processing. When the truck is empty it is weighed again on the outdoor truck scale. The gross and tare weights are recorded on a spreadsheet used for tracking the metal through the plant. The spreadsheet also contains the unique lot number, source of metal, net weight, ID of the storage bin holding the raw material, date and time the metal is processed through the dryer, and ID of the storage bin holding the processed metal. Occasionally, a supplier may deliver two truckloads of the same material and these two loads will be placed in the same storage bin.*

*The metal from one bin is processed continuously through the dryer until all the metal from that bin has been processed. The dryer is operated at a constant rate for each bin lot of material. Since the process rate is constant for a bin lot (or truckload) of material, ART is requesting that it be allowed to measure and record dryer feed/charge weights in bin lot (or truckload) increments, as follows. The maximum permitted material processing through the dryer is 7,035 lbs/hour. After setting the feeder vibrating and timer settings, record the first load of material taken from the bin and placed into the empty vibrating feed hopper. Record the time it takes to empty the first feed hopper and divide the net weight in pounds by the time in hours and verify this hourly rate is less than 7,035 lbs/hour. Repeat this weight rate verification procedure after making any adjustments to the feeder settings.*

*The proposed alternate method will enable ART to measure and record the total weight of the dryer feed/charge as required by 40 CFR § 63.1510(e).*

*Additional ART Comments Received on March 1, 2004:*

To be consistent with 40 CFR 63.1510(f)(1)(vi), please change the word "loaded" to "located" in the last sentence of draft D.1.12(c)(6). Also, as allowed under 40 CFR 63.1510(u), please add a paragraph (6) to draft Condition D.1.12(i) that reads as follows:

*"As an alternative to the procedures of paragraph (5), the Permittee may demonstrate, through performance tests, that each individual emissions unit within the secondary aluminum processing unit is in compliance with applicable emissions limits for the emission unit (40 CFR 63.1510(u))."*

**Response to Comments 22 and 23:**

With respect to draft Condition D.1.11, IDEM, OAQ does not agree that the condition does not accurately describe the requirements of 40 CFR § 63.1506(d), as the condition is identical to the requirements found at § 63.1506(d). IDEM does agree, however, that the requirements of D.1.11 and D.1.12(b), both pertaining to the feed/charge requirements of 40 CFR Part 63, Subpart RRR, are highly similar. In order to eliminate duplicative requirements, Condition D.1.11 is revised to incorporate those requirements at D.1.12(b), and to include the rule cites found at both D.1.11 and D.1.12. Also, draft Conditions D.1.11 and D.1.12 are renumbered as D.1.12 and D.1.13, respectively, per the Response to Comment 25.

With respect to the comment on duplicative requirements of draft Conditions D.1.12(a) and D.1.6, IDEM again agrees that the requirements of the two conditions are highly similar. Both conditions pertain to the capture and control system requirements of 40 CFR Part 63, Subpart. In order to eliminate duplicative requirements, draft Condition D.1.12(a) is eliminated and removed to D.1.6, which will also include both rule cites as found at draft D.1.6 and D.1.12(a).

Regarding the request for approval on the alternate feed/charge and flux injection rate weight measurement procedures, IDEM has reviewed these proposed procedures and is approving the requirements for such herein. The detailed requirements for the alternate feed/charge weight

measurement procedure is incorporated into re-numbered D.1.12(b) below. The detailed requirements for the alternate flux injection rate measurement procedure is incorporated into renumbered D.1.13(e) under Response to Comment 24 (see next comment). Finally, regarding the comments of March 1, 2004, the additional paragraph requested by the Permittee is already in the permit as Condition D.1.19(b). Except for the requested word correction, which is made in Response to Comment 24 (see next comment), no other changes are made to the permit due to the March 1, 2004 comments.

Based on the above, the affected permit conditions are revised as follows:

D.1.6 Capture and Control Systems [40 CFR Part 63.1506(c)][**40 CFR Part 63.1510(d)(1)**]

Pursuant to 40 CFR **Part 63.1506(c) and 40 CFR Part 63.1510(d)(1)**, for **RF#1, RF#2 and Dryer #1**, ~~the owner or operator of each~~ **as an affected** emission unit equipped with an add-on air pollution control device, including rotary furnaces #1 and #2 and the thermal chip dryer, Dryer #1, ~~the Permittee~~ must:

- (a) Design and install a system for the capture and collection of emissions to meet the engineering standards for minimum exhaust rates as published by the American Conference of Governmental Industrial Hygienists in chapters 3 and 5 of "Industrial Ventilation: A Manual of Recommended Practice" (incorporated by reference: 40 CFR 63.1502).
- (b) Vent captured emissions through a closed system, except that dilution air may be added to emission streams for the purpose of controlling temperature at the inlet to a fabric filter; and
- (c) Operate **and maintain** each capture/collection system according to the procedures and requirements in the OM&M plan.

D.1.142 Feed/Charge Determination [40 CFR Part 63.1506(d)][**40 CFR Part 63.1510(e)**]

Pursuant to 40 CFR **Part 63.1506(d) and 40 CFR Part 63.1510(e)**, for each **affected** emission unit subject to an emission limit in kg/Mg (lb/ton) **or g/Mg (gr/ton)** of feed/charge, ~~including furnaces #1 and #2, and the thermal chip dryer, (RF#1, RF#2, and Dryer #1)~~, the Permittee shall:

- (a) Install, **calibrate, and** operate **and maintain** a device that measures and records, or otherwise determine, the weight of feed/charge (or throughput) for each operating cycle or time period used in the performance test; ~~and.~~
- (b) **Pursuant to 40 CFR 63.1510(e), in lieu of paragraph (a) of this condition, IDEM hereby approves the use of an alternate measurement procedure to determine the total weight of feed/charge to RF#1, RF#2, and Dryer #1, each as an affect emission unit. The Permittee shall comply with this alternate measurement procedure as follows:**
  - (1) **Rotary furnace (RF#1 and RF#2) Alternate Feed/Charge Weight Procedure:**
    - (A) **For each truckload of metal/dross delivered to the plant, weigh:**
      - (i) **truck at the outdoor truck scale prior to unloading to determine gross weight;**
      - (ii) **truck at the outdoor truck scale after unloading to determine tare weight; and**
      - (iii) **metal/dross load at the small production scale, if the weight of the metal/dross delivery is determined to be less than**

**4,000 pounds.**

- (B) Assign a unique lot number to each truckload of metal/dross delivered to the plant.**
- (C) For each truckload of metal/dross delivered to the plant, record:**
  - (i) the gross and tare truckload weights, and the net weight of the metal/dross delivery (i.e., lot);**
  - (ii) the unique lot number assigned to the delivery,**
  - (iii) the source (i.e., supplier) of the raw metal/dross delivery; and**
  - (iv) the identification (ID) of the storage bin holding each lot (i.e., load of metal/dross).**
- (D) The metal/dross from one bin shall be processed in only one furnace, either RF#1 or RF#2, until all the metal/dross from that bin has been processed. If the amount of metal/dross in the bin is more than can be processed in one furnace charge, the Permittee shall limit the number of charges to the furnace as follows:**
  - (i) RF#1: The total weight (pounds) of metal/dross in the bin shall be divided by the maximum furnace operating cycle charge amount of 23,000 pounds, rounding any fraction up to the next whole number, to obtain the number of allowed charges, N. The metal/dross in the bin shall be partitioned into N number of approximately equal portions and processed one portion per charge (e.g., if the material in the bin weighs 47,000 lbs, dividing 47,000 by 23,000 equals 2.08. Round 2.08 up to N=3. The material is then processed in 3 approximately equal charges.).**
  - (ii) RF#2: The total weight (pounds) of metal/dross in the bin shall be divided by the maximum furnace operating cycle charge amount of 9,000 pounds, rounding any fraction up to the next whole number, to obtain the number of allowed charges, N. The metal/dross in the bin shall be partitioned into N number of approximately equal portions and processed one portion per charge.**
- (E) For each furnace, the hourly feed/charge rate shall be calculated by dividing the total weight of metal/dross in the respective bin (pounds) by the total amount of furnace operating time (hours) used to process the metal/dross in that bin.**
- (F) For each bin of metal/dross processed, record:**
  - (i) date and time the metal/dross is processed through the furnace;**
  - (ii) identification number of the furnace in which the metal/dross is processed;**



maximum feed/charge rate of 7,035 pounds per hour; and

(iv) repeat (i) through (iii) of this condition after any adjustment is made to the feeder settings.

(F) For each bin of scrap metal processed, record:

(i) date and time the metal is processed through the dryer;

(ii) dryer rate of feed verification calculation;

(iii) total weight of the metal charged to the dryer from the bin, the total dryer operating time to process the material in the bin, and the computed hourly feed rate; and

(iv) identification number of the storage bin holding the recovered metal.

(3) The accuracy of the weight measurement devices used in the alternate measurement procedure must be  $\pm 1$  percent of the weight being measured. This requirement shall apply to the Toledo Model 8530 Cougar outdoor truck weigh scale, and any other weight measurement device used to comply with the alternate measurement procedure.

(4) The Permittee must verify the calibration of the weight measurement devices used in the alternate measurement procedure in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every 6 months.

~~(b)~~(c) Operate each measurement system or other the alternate weight determination procedure in accordance with the OM&M plan.

~~(c)~~(d) Alternatively, The Permittee may choose to measure and record aluminum production weight from an affected emission unit rather than feed/charge weight provided that:

(1) the aluminum production weight is measured for all emission units within a secondary aluminum processing unit; and

(2) all calculations to demonstrate compliance with the emission limits for secondary aluminum processing units (**SAPUs**) are based on aluminum production weight rather than feed/charge weight.

- ~~(d)~~(e) Feed/charge or aluminum production within SAPUs must be measured and recorded on an emission unit-by-emission unit basis.

D.1.123 Secondary Aluminum Production Compliance Determination [40 CFR Part 63, Subpart RRR]

Pursuant to 40 CFR Part 63.1510, the following conditions shall apply to the two (2) natural gas-fired rotary furnaces (identified as RF #1 and RF #2) and the one (1) natural gas-fired thermal chip dryer (identified as Dryer #1):

- (a) ~~The owner or operator must install, operate, and maintain a capture/collection system for rotary furnaces RF #1 and RF #2 and thermal chip dryer, Dryer #1, each equipped with an add-on air pollution control device. [§63.1510(d)]~~

- ~~(b) The owner or operator of an affected source or emission unit subject to an emission limit in kg/Mg (lb/ton) or g/Mg (gr/ton) of feed/charge (i.e., rotary furnaces RF #1 and RF #2 and thermal chip dryer, Dryer #1) must install, calibrate, operate, and maintain a device to measure and record the total weight of feed/charge to, or the aluminum production from, the each emission unit over the same operating cycle or time period used in the performance test. Feed/charge or aluminum production within SAPUs must be measured and recorded on an emission unit-by-emission unit basis. As an alternative to a measurement device, the owner or operator may use a procedure acceptable to the applicable permitting authority to determine the total weight of feed/charge or aluminum production to the affected source or emission unit. [§63.1510(e)]~~

- ~~(1) The accuracy of the weight measurement device or procedure must be  $\pm 1$  percent of the weight being measured. The owner or operator may apply to the permitting agency for approval to use a device of alternative accuracy if the required accuracy cannot be achieved as a result of equipment layout or charging practices. A device of alternative accuracy will not be approved unless the owner or operator provides assurance through data and information that the affected source will meet the relevant emission standard.~~

- ~~(2) The owner or operator must verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every 6 months.~~

**Comment 24:**

Ten (10) separate comments were made on draft Condition D.1.12 (Secondary Aluminum Production Compliance Determination), and they are as follows:

- (a) Condition D.1.12(c) includes Dryer #1; however, 40 CFR § 63.1506, Operating Requirements, does not require ART to utilize a lime-injected baghouse to control emissions from Dryer #1 and the Afterburner. Therefore, please delete all references to Dryer #1 in Condition D.1.12(c).

Additionally, the first sentence of existing Condition D.1.12(c) should be clarified as follows:

*The owner or operator of an affected source or emission unit using a lime-injected fabric filter to comply with the requirements of 40 CFR Part 63, Subpart RRR (RF #1 and RF #2) must install, calibrate, maintain and continuously operate a bag leak detection system. [40 CFR Part § 63.1510(f)(1)]*

- (b) Condition D.1.12(c) incorporates the requirements set forth in 40 CFR § 63.1510(f)(1) regarding the bag leak detection system specifications for ART's Group 1 furnaces using a lime-injected fabric filter; however, the applicable bag leak detection system operating standards set forth in 40 CFR § 63.1506(m)(1) for Group 1 furnaces with add-on air pollution control devices were not included in the Emission Limitations and Standards section of Section D.1 of the draft permit.
- (c) Condition D.1.12(e) incorporates the requirements set forth in 40 CFR § 63.1510(h) regarding the performance and equipment specifications for the device to continuously monitor and record the temperature of the fabric filter inlet gases of a Group 1 furnace with add-on air pollution control devices; however, the applicable operating standard set forth in 40 CFR § 63.1506(m)(3) for Group 1 furnaces was not included in the Emission Limitations and Standards section of Section D.1 of the draft permit.
- (d) The first sentence of Condition D.1.12(e) should be amended as follows:  
  
*The owner or operator of a Group 1 furnace using a lime-injected fabric filter must...*
- (e) Condition D.1.12(f) incorporates the requirements set forth in 40 CFR § 63.1510(i) regarding the Group 1 furnace's lime injection system monitoring requirements; however, the applicable continuous lime injection system operating standards set forth in 40 CFR § 63.1506(m)(4) for Group 1 furnaces with add-on air pollution control devices were not included in the Emission Limitations and Standards section of Section D.1 of the draft permit.
- (f) Please clarify Condition D.1.12(f) by modifying the first paragraph as follows:  
  
*Permittee must operate a continuous lime injection system on Baghouse A, controlling RF #1 and RF #2, and verify that lime is always free-flowing by:*
- (g) Condition D.1.12(f) should include the alternative procedures for a demonstrating compliance with a continuous lime injection system contained in 40 CFR § 63.1510(i)(1)(ii) and (iii) as well as the alternative requirements contained in 40 CFR § 63.1510(i)(3) and 40 CFR § 63.1510(v).
- (h) Condition D.1.12(g) should include the procedure set forth in 40 CFR § 63.1510(j)(5) for obtaining approval for an alternative method for monitoring and recording the total reactive flux addition rate.
- (i) Please reword Condition D.1.12(j) to include the specific prohibitions referenced in 40 CFR § 63.1510(s)(2)(i) through (iv).
- (j) The Compliance Determination section of Section D.1 should include a condition which sets forth the procedures contained in 40 CFR § 63.1510(w) regarding the use of alternative monitoring methods to demonstrate compliance.

**Response to Comment 24:**

In response to paragraph (a), IDEM agrees that 40 CFR 63.1506 does not require ART to use a lime-injected baghouse to control emissions from Dryer #1 (Baghouse B), as discussed at Response to Comment 21. Reference to Dryer #1 is removed from Condition D.1.12(c) (now renumbered D.1.13(c), based on the Response to Comment 25).

In response to paragraphs (b), (c) and (e) regarding the request for the requirements of §63.1506(m), this is now included in the permit as new Condition D.1.17, with subsequent conditions renumbered accordingly. This is considered to be a monitoring condition associated with the operation of the bag leak detection system, rather than as an Emission Limitation and Standards condition as suggested.

In response to paragraphs (d) and (f), clarifying language is added to the condition.

In response to paragraph (g), the additional citations requested for inclusion in Condition D.1.12 (now D.1.13) that pertain to a continuous lime-injection fabric filter, which is the type of control device used by ART, are added. Those requested citations pertaining to when an owner or operator intermittently adds lime to a lime coated fabric filter (i.e., 40 CFR 63.1510(i)(3) and 63.1510(v)) are not included since they are not relevant to this permit and source.

In response to paragraphs (h), (i) and (j), additional applicable provisions are added to the condition for completeness, as requested. Further, the approved alternate flux injection rate measurement procedure discussed in detail in Response to Comments 22 and 23 (see previous comments) is incorporated below at renumbered D.1.13(e).

Condition D.1.12 (now D.1.13) is revised as shown below, inclusive of the changes at Response to Comments 22 and 23. New D.1.17 is also added to this permit. These changes follow:

D.1.123 Secondary Aluminum Production Compliance Determination [40 CFR Part 63, Subpart RRR]

Pursuant to 40 CFR Part 63.1510, the following conditions shall apply to the two (2) natural gas-fired rotary furnaces (identified as RF #1 and RF #2) and the one (1) natural gas-fired thermal chip dryer (identified as Dryer #1):

- (a) ~~The owner or operator must install, operate, and maintain a capture/collection system for rotary furnaces RF #1 and RF #2 and thermal chip dryer, Dryer #1, each equipped with an add-on air pollution control device. [§63.1510(d)]~~
- (b) ~~The owner or operator of an affected source or emission unit subject to an emission limit in kg/Mg (lb/ton) or g/Mg (gr/ton) of feed/charge (i.e., rotary furnaces RF #1 and RF #2 and thermal chip dryer, Dryer #1) must install, calibrate, operate, and maintain a device to measure and record the total weight of feed/charge to, or the aluminum production from, the each emission unit over the same operating cycle or time period used in the performance test. Feed/charge or aluminum production within SAPUs must be measured and recorded on an emission unit-by-emission unit basis. As an alternative to a measurement device, the owner or operator may use a procedure acceptable to the applicable permitting authority to determine the total weight of feed/charge or aluminum production to the affected source or emission unit. [§63.1510(e)]~~
  - (1) ~~The accuracy of the weight measurement device or procedure must be  $\pm 1$  percent of the weight being measured. The owner or operator may apply to the permitting agency for approval to use a device of alternative accuracy if the required accuracy cannot be achieved as a result of equipment layout or charging practices. A device of alternative accuracy will not be approved unless the owner or operator provides assurance through data and information that the affected source will meet the relevant emission standard.~~
  - (2) ~~The owner or operator must verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every 6 months.~~

- (c) ~~The owner or operator of For RF#1 and RF#2, each as an affected source or emission unit using a lime-injected fabric filter to comply with the requirements of this subpart 40 CFR Part 63, Subpart RRR, (i.e., rotary furnaces RF #1, and RF #2 and thermal chip dryer, Dryer #1)~~ **the Permittee** must install, calibrate, maintain, and continuously operate a bag leak detection system **at the RF#1 and RF#2 fabric filters.** [§ 40 CFR Part 63.1510(f)(1)]
- (1) ~~The owner or operator~~ **Permittee** must install and operate a bag leak detection system for each exhaust stack of a fabric filter.
  - (2) Each triboelectric bag leak detection system must be installed, calibrated, operated, and maintained according to the "Fabric Filter Bag Leak Detection Guidance," (September 1997). Other bag leak detection systems must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations.
  - (3) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.
  - (4) The bag leak detection system sensor must provide output of relative or absolute PM loadings.
  - (5) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.
  - (6) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm must be ~~located~~ **located** where it is easily heard by plant operating personnel.
  - (7) For positive pressure fabric filter systems, a bag leak detection system must be installed in each baghouse compartment or cell. For negative pressure or induced air fabric filters, the bag leak detector must be installed downstream of the fabric filter.
  - (8) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.
  - (9) The baseline output must be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time.
  - (10) Following initial adjustment of the system, ~~the owner or operator~~ **Permittee** must not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time except as detailed in the OM&M plan. In no case may the sensitivity be increased by more than 100 percent or decreased more than 50 percent over a 365-day period unless such adjustment follows a complete fabric filter inspection which demonstrates that the fabric filter is in good operating condition.
- (d)(b) ~~The owner or operator~~ **For Dryer #1, as an affected source using an afterburner to comply with the requirements of 40 CFR Part 63, Subpart RRR, the Permittee** must install, calibrate, maintain, and operate a device to continuously monitor and record the operating temperature of the ~~thermal chip dryer, Dryer #1~~ afterburner consistent with the requirements for continuous monitoring systems in 40 CFR 63 Subpart A. The

temperature monitoring device must: [§ 40 CFR Part 63.1510(g)]

- (1) Be installed at the end of the combustion zone of each afterburner.
- (2) Must record the temperature in 15-minute block averages and determine and record the average temperature for each 3-hour block period.
- (3) The recorder response range must include zero and 1.5 times the average temperature established according to the requirements in § 40 CFR Part 63.1512(m).
- (4) The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Administrator.

~~(e)(c)~~ **The owner or operator For RF#1 and RF#2, each as a Group 1 furnace using a lime-injected fabric filter to comply with the requirements of 40 CFR Part 63, Subpart RRR, the Permittee must** install, calibrate, maintain, and operate a device to continuously monitor and record the temperature of the fabric filter inlet gases consistent with the requirements for continuous monitoring systems in 40 CFR 63, Subpart A. The temperature monitoring device must meet each of these performance and equipment specifications: [§ 40 CFR Part 63.1510(h)]

- (1) The monitoring system must record the temperature in 15-minute block averages and calculate and record the average temperature for each 3-hour block period.
- (2) The recorder response range must include zero and 1.5 times the average temperature established according to the requirements in § 40 CFR Part 63.1512(n).
- (3) The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Administrator.

~~(f)(d)~~ **For RF#1 and RF#2, each as an affected source or emission unit using a lime-injected fabric filter to comply with the requirements of 40 CFR Part 63, Subpart RRR, the Permittee shall comply as follows:** ~~An owner or operator of a continuous lime injection system must verify that lime is always free-flowing by:~~ [§ 40 CFR Part 63.1510(i)]

- (1) **For the continuous lime injection system, verify that lime is always free-flowing by:**
  - (A) Inspecting each feed hopper or silo at least once each 8-hour period and recording the results of each inspection. If lime is found not to be free-flowing during any of the 8-hour periods, the ~~owner or operator~~ **Permittee** must increase the frequency of inspections to at least once every 4-hour period for the next 3 days. The ~~owner or operator~~ **Permittee** may return to inspections at least once every 8 hour period if corrective action results in no further blockages of lime during the 3-day period; or
  - (B) **Subject to the approval of IDEM, installing, operating and maintaining a load cell, carrier gas/lime flow indicator, carrier gas pressure drop measurement system or other system to confirm that**

**lime is free-flowing. If lime is found not to be free-flowing, the Permittee must promptly initiate and complete corrective action, or**

**(C) Subject to the approval of IDEM, installing, operating and maintaining a device to monitor the concentration of HCl at the outlet of the fabric filter. If an increase in the concentration of HCl indicates that the lime is not free-flowing, the Permittee must promptly initiate and complete corrective action.**

(2) The Permittee shall also record the feeder setting once each day of operation.

~~(g)~~**(e)** For each of the two (2) natural gas-fired rotary furnaces RF #1 and RF #2 that use only solid reactive flux, the ~~owner or operator~~ **Permittee** must: [**§ 40 CFR Part 63.1510(j)**]

(1) Record, for each 15-minute block period during each operating cycle or time period used in the performance test during which reactive fluxing occurs, the time, weight, and type of flux for each addition of solid reactive flux.

(2) Calculate and record the total reactive flux injection rate for each operating cycle or time period used in the performance test using the procedure in **§ 40 CFR Part 63.1512(o)**.

**(3) Pursuant to 40 CFR 63.1510(j), in lieu of paragraphs (e)(1) and (e)(2) of this condition, IDEM hereby approves the use of an alternate method for monitoring and recording the total reactive flux, which shall be based on monitoring the weight and quantity of reactive flux per ton of feed/charge for each operating cycle and time period used in the performance test. The Permittee shall comply with this alternate procedure as follows:**

**(A) Compute the maximum amount of flux needed per charge, based on the metal/dross charge weight and the maximum flux injection rate specified at Sections A.2 (a) and (b) for furnaces RF#1 and RF#2, respectively.**

**(B) Weigh the amount of solid flux to be injected (i.e., dumped) into each furnace charge using a tared, portable hopper.**

**(C) Record:**

**(i) date and time, and weight, of the flux injected into the furnace;**

**(ii) identification number of the furnace in which the flux is processed; and**

**(iii) total reactive flux injection rate and type of flux used.**

- (D) **The accuracy of the weight measurement device used in this alternate procedure must be  $\pm 1$  percent of the weight being measured. This requirement shall apply to the WTX Model W1125 flux weigh scale, and any other weight measurement device used to comply with the alternate procedure.**
- (E) **The Permittee must verify the calibration of the weight measurement devices used in this alternate procedure in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every 6 months.**
- (h)(f) ~~The owner or operator of the one (1) natural gas-fired thermal chip dryer,~~ **For Dryer #1, as a thermal chip dryer with emissions controlled by an afterburner, the Permittee must: [§ 40 CFR Part 63.1510(k)]**
- (1) Record the type of materials charged to the unit for each operating cycle or time period used in the performance test.
  - (2) Submit a certification of compliance with the applicable operational standard for charge materials in § 40 CFR Part 63.1506(f)(3) for each 6-month reporting period. Each certification must contain the information in § 40 CFR Part 63.1516(b)(2)(i).
- (i)(g) ~~An owner or operator of a facility~~ **For RF#1 and RF #2, each as a secondary aluminum processing unit at this source, the Permittee must include, within the OM&M plan prepared in accordance with 40 CFR Part 63.1510(b), the following information: [40 CFR Part 63.1510(s)(1)]**
- (1) The identification of each emission unit in the secondary aluminum processing unit;
  - (2) The specific control technology ~~of~~ **for** pollution prevention measure to be used for each emission unit in the secondary aluminum processing unit and the date of its installation or application;
  - (3) The emission limit calculated for each secondary aluminum processing unit and performance test result with supporting calculations demonstrating initial compliance with each applicable emission limit;
  - (4) Information and data demonstrating compliance for each emission unit with all applicable design equipment work practice or operational standards of Subpart RRR; and
  - (5) The monitoring requirements applicable to each emission unit in a secondary aluminum processing unit and the monitoring procedures for daily calculation of the 3-day, 24-hour rolling average using the procedure in 40 CFR Part 63.1510(t).
- (j)(h) ~~The SAPU compliance procedures within the OM&M plan may not contain any of the information provided in 40 CFR 63.1510(s)(2)(i) through (iv)~~ **following provisions: [40 CFR Part 63.1510(s)(2)]**
- (1) **Any averaging among emissions of differing pollutants;**
  - (2) **The inclusion of any affected sources other than emission units in a**

**secondary aluminum processing unit;**

- (3) The inclusion of any emission unit while it is shutdown; or**
- (4) The inclusion of any periods of startup, shutdown, or malfunction in emission calculations.**
- ~~(k)~~**(i)** To revise the SAPU compliance provisions within the OM&M plan prior to the end of the permit term, the ~~owner or operator~~ **Permittee** must submit a request to ~~the applicable permitting authority~~ **IDEM** containing the information required by **§ 40 CFR Part 63.1510(s)(1)** and obtain approval of ~~the applicable permitting authority~~ **from IDEM** prior to implementing any revisions. [40 CFR **Part 63.1510(s)(3)**]
- (j) If the Permittee wishes to use an alternative monitoring method to demonstrate compliance with any emission standard in 40 CFR Part 63, Subpart RRR, other than those alternative monitoring methods which may be authorized pursuant to 40 CFR Part 63.1510(j)(5) and 40 CFR Part 63.1510(v), the Permittee may submit an application to the IDEM. Any such application will be processed according to the criteria and procedures set forth in 40 CFR Part 63.1510(w)(1) through (6).**

**D.1.17 Lime-Injected Fabric Filter [40 CFR Part 63.1506(m)]**

Pursuant to 40 CFR Part 63.1506(m) for Group 1 furnaces RF#1 and RF#2 which use a lime-injected fabric filter for emissions control (Baghouse A), the Permittee shall comply as follows:

- (a) For the bag leak detection system used to meet the monitoring requirements in 40 Part CFR 63.1510, the Permittee shall:**
  - (1) Initiate corrective action within one (1) hour of a bag leak detection system alarm.**
  - (2) Complete the corrective action procedures in accordance with the OM&M plan.**
  - (3) Operate the fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If the Permittee takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the Permittee to initiate corrective action.**
- (b) Maintain the 3-hour block average inlet temperature for the fabric filter at or below the average temperature established during the performance test, plus 14 °C (plus 25 °F).**
- (c) For the continuous-lime injection system, the Permittee shall maintain free-flowing alkaline agent in the hopper to the feed device at all times and maintain the alkaline agent feeder setting at the same level established during the performance test. For the purposes of this rule lime means calcium oxide or other alkaline reagent; and lime-injection means the continuous addition of lime upstream of the fabric filter.**
- (d) Maintain the total reactive chlorine flux injection rate for each operating cycle or time period used in the performance test at or below the average rate established during the performance test.**

**Comment 25:**

The requirements found in Condition D.1.13 are the operating requirements set forth in 40 CFR 63.1506(f) and should therefore be included in the **Emission Limitations and Standards** section of Section D.1.

**Response to Comment 25:**

Draft Condition D.1.13 (Thermal Chip Dryer Afterburner Compliance Requirements) is moved to the **Emission Limitations and Standards** section of the permit as requested. Draft Condition D.1.13 is now renumbered as D.1.7, and draft Conditions D.1.7 through D.1.12 are respectively renumbered D.1.8 through D.1.13, all without specific replication herein. However, changes to these condition numbers are reflected in this document as appropriate.

**Comment 26:**

Pursuant to Condition D.1.12(c), ART is required to install, calibrate, maintain and continuously operate a bag leak detection system for Baghouse A, thus the visible emission notation requirements for RF #1 and RF #2 contained in Condition D.1.14 should be deleted from the permit as unnecessary and redundant.

**Response to Comment 26:**

IDEM believes the requirements for compliance monitoring at draft D.1.14(a) (Visible Emissions Notations) and D.1.23 (Broken or Failed Bag Detection) further ensure proper operation of Baghouse A, in addition to the bag leak detection system. While D.1.14 is not removed from this permit, IDEM has reduced the frequency of the visible notation monitoring due to the concurrent requirement to operate the bag leak detection system. IDEM has also eliminated the existing requirement for static pressure drop readings of Baghouse A, as found at existing D.1.20 (Parametric Monitoring). Further, Condition D.1.23 (Broken or Failed Bag Detection) is revised to reflect only those requirements applicable to a multi-compartment baghouse, which is the type of baghouse found at this source (i.e., Baghouses A and B). Additionally, the term "violation" in each of these conditions is revised to "deviation" to be consistent with Condition C.15. These conditions, renumbered as shown, are revised as follows:

D.1.14 Visible Emissions Notations

- (a) Visible emission notations of the stack exhaust **from Baghouse B controlling emissions from for the two (2) rotary furnaces RF #1 and RF #2, and thermal chip dryer, Dryer #1, and** 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.
- (b) **Visible emission notations of the stack exhaust from Baghouse A controlling emissions from RF #1 and RF #2 shall be performed at least once per month during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.**
- (b)(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.
- (c)(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.
- (d)(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.

- (e)(f) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a ~~violation of~~ **deviation from** this permit.

#### D.1.201 Parametric Monitoring

The Permittee shall record the total static pressure drop across ~~the baghouses~~ **Baghouse B**, used in conjunction with ~~the two (2) natural gas-fired rotary furnaces (identified as RF #1 and RF #2) the one (1) natural gas-fired thermal chip dryer (identified as Dryer #1)~~, at least once per shift, when ~~the two (2) natural gas-fired rotary furnaces (identified as RF #1 and RF #2), and the one (1) natural gas-fired thermal chip dryer (identified as Dryer #1)~~ **are** is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a ~~violation of~~ **deviation from** this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other 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.1.223 Broken or Failed Bag Detection

**For Baghouses A and B**, in the event that bag failure has been observed **or has been determined to occur by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, or bag leak detection system alarm,**

- (a) ~~For multi-compartment units~~, the affected compartments **for these multi-compartment units** will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Preparation, Implementation, Records, and Reports, shall be considered a ~~violation of~~ **deviation from** this permit. If operations continue after bag failure is observed and it will be 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.

- (b) ~~For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have 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).~~

**Comment 27:**

As written, Condition D.1.18 is overly broad and does not accurately describe the requirements of 40 CFR § 63.1510(a) and (t). As such, please modify the first paragraph of Condition D.1.18 as follows:

*Pursuant to 40 CFR Part 63, Subpart RRR, on and after the compliance date, the Permittee shall monitor all new or existing affected sources or emission units and control equipment according to the following requirements:*

Additionally, please confirm that ART would never have to calculate the daily 3-day rolling average discussed in Condition D.1.18, if it has previously conducted a stack test on both RF #1 and RF #2 which demonstrates compliance with the applicable emission limitations. See 40 CFR § 63.1510(u).

**Response to Comment 27:**

The first paragraph of existing Condition D.1.18 (now D.1.19) is revised as requested to be more consistent with Subpart RRR. Additionally, with regard to the confirmation request pertaining to D.1.18(b) (now D.1.19(b)), this condition is taken from § 63.1510(u) which is an applicable and enforceable requirement pursuant to 40 CFR Part 63, Subpart RRR. This notwithstanding, D.1.18(b) (now D.1.19(b)) is revised to be more consistent with the rule as shown below. Finally, minor changes to (a)(1) of the condition are made for greater clarity.

D.1.189 Compliance Monitoring Requirements [40 CFR **Part** 63.1510(t)] [40 CFR **Part** 63.1510(u)]

Pursuant to 40 CFR **Part** 63, Subpart RRR, on and after the compliance date, the Permittee shall monitor all **new and existing affected sources or** emission units and control equipment according to the following requirements [§ **40 CFR Part** 63.1510(a)]:

- (a) The Permittee shall calculate and record the 3-day, 24- hour rolling average emissions of PM, HCl, and D/F for each furnace on a daily basis. To calculate the 3-day, 24-hour rolling average, the Permittee shall [§ **40 CFR Part** 63.1510(t)]:
- (1) Calculate and record the total weight of material charged to each furnace for each twenty-four- (24-) hour day of operation using the feed/charge weight data collected as required under Subpart RRR. If the ~~owner or operator~~ **Permittee** chooses to comply on the basis of weight of aluminum produced by the emission unit, rather than weight of material charged to the emission unit, all performance test emissions results and all calculations must be conducted on the aluminum production weight basis.
- (b) As an alternative to the procedures in (a) above, the Permittee may demonstrate, through performance tests, that each individual furnace **emission unit within a secondary aluminum production unit (RF#1 and RF#2)** is in compliance with the applicable emission limits **for the emission unit.** [40 CFR 63.1510(u)]

**Comment 28:**

Pursuant to Condition D.1.12(c) ART is required to install, calibrate, maintain and continuously operate a bag leak detection system for Baghouse A, thus the total static pressure drop readings required for RF #1 and RF #2 in Condition D.1.20 should be deleted from the permit as unnecessary and redundant.

**Response to Comment 28:**

See Response to Comment 26.

**Comment 29:**

Four (4) separate comments were received on existing Condition D.1.23 as follows:

- (a) Condition D.1.23(a) should reference "Condition D.1.14" rather than "Condition D.1.10."
- (b) Condition D.1.23(b) should reference "Condition D.1.20" rather than "Condition D.1.12."
- (c) Condition D.1.23(c) should reference "Condition D.1.21" rather than "Condition D.1.13."
- (d) Condition D.1.23(d) should reference "Condition D.1.8" rather than "Condition D.1.5."

**Response to Comment 29:**

Condition D.1.23 (now as D.1.24) is revised to reflect the requested changes, incorporating other permit condition changes as discussed in this document:

**D.1.234 Record Keeping Requirements**

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- (a) To document compliance with Condition D.1.4014, the Permittee shall maintain once per shift **and once per month** visible emissions notations **for Baghouses B and A, respectively**.
- (b) To document compliance with Condition D.1.4221, the Permittee shall maintain once per shift records of the total static pressure drop **for Baghouse B** during normal operation when venting to the atmosphere.
- (c) To document compliance with Condition D.1.4322, the Permittee shall maintain records of the results of the inspections required under Condition D.1.4322 and the dates the vents are redirected.
- (d) To document compliance with Condition D.1.59, the Permittee shall maintain of records of any additional inspections prescribed by the Preventive Maintenance Plan.
- (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**Comment 30:**

Three (3) separate comments were received on draft Condition D.1.24 as follows:

- (a) The first paragraph of Condition D.1.24(b) and the first phrase of Condition D.1.24(b)(1) should be modified as follows:
  - (b) *In addition to the general records required by 40 CFR § 63.10(b), the Permittee must maintain records of:*
    - (1) *For Baghouse A controlling RF #1 and RF #2.*
- (b) The first phrase of Condition D.1.24(b)(2) should be modified as follows: “For Dryer #1 with emissions controlled by an afterburner.”
- (c) The first phrase of Condition D.1.24(b)(4) should be modified as follows: “For RF #1 and RF #2 controlled by a lime-injected fabric filter.”

**Response to Comment 30:**

Condition D.1.24 (now as D.1.25) is revised at the first paragraphs of (a) and (b), and the first paragraphs of (b)(1), (b)(2) and (b)(4), to provide greater clarity and to correct that the thermal chip dryer, Dryer #1, is not required by 40 CFR Part 63, Subpart RRR to be controlled by a lime-injected fabric filter as explained earlier in this document. Also, the condition is revised at paragraph (b)(10), consistent with the Response to Comments 22 and 23, and the Response to Comment 24:

**D.1.245 Secondary Aluminum Production Record Keeping Requirements [40 CFR Part 63, Subpart RRR]**

Pursuant to 40 CFR Part 63.1517, the ~~owner or operator~~ **Permittee** shall comply with the following:

- (a) As required by **40 CFR Part § 63.10(b)**, the ~~owner or operator~~ **Permittee** shall maintain files of all information (including all reports and notifications) required by the general provisions and **40 CFR 63**, Subpart RRR.
  - (1) The ~~owner or operator~~ **Permittee** must retain each record for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records must be retained at the facility. The remaining 3 years of records may be retained off site.
  - (2) The ~~owner or operator~~ **Permittee** may retain records on microfilm, computer disks, magnetic tape, or microfiche; and
  - (3) The ~~owner or operator~~ **Permittee** may report required information on paper or on a labeled computer disk using commonly available and EPA-compatible computer software.
- (b) In addition to the general records required by **40 CFR Part §63.10(b)**, the ~~owner or operator~~ **Permittee** of a new or existing affected source (including an emission unit in a secondary aluminum processing unit) must maintain records of:
  - (1) For **RF#1 and RF#2**, each **as an** affected source and emission unit with emissions controlled by a lime-injected fabric filter:
  - (2) For **Dryer #1**, **as an** each affected source with emissions controlled by an afterburner:

- (4) For ~~rotary furnaces RF #1 and RF #2 and thermal chip dryer, Dryer #1~~, each with emissions controlled by a lime-injected fabric filter:
- (10) Records for any approved alternative monitoring or test procedure, **including Conditions D.1.12(b) and D.1.13(e)(3)**.
- (12) For each of rotary furnaces RF #1 and RF #2 and thermal chip dryer, Dryer #1, records of total charge weight, or if the ~~owner or operator~~ **Permittee** chooses to comply on the basis of aluminum production, total aluminum produced for each 24-hour period and calculations of 3-day, 24-hour rolling average emissions.

**Comment 31:**

Four (4) separate comments were received on draft Condition D.1.25 as follows:

- (a) To avoid confusion, since ART does not utilize chlorine flux, please delete the references to same in the parentheticals in Conditions D.1.25(b)(4) and D.1.25(e)(2). Additionally, to clarify the requirements contained in these two conditions regarding operating parameter values and/or ranges, please either list the provisions for which an operating parameter value and/or range must be developed or reference another Condition which lists same.
- (b) Consistent with the requirement contained in 40 CFR § 63.1516(b)(2)(i), please insert quotation marks around the following phrase in Condition D.1.25(f): "Only unpainted aluminum chips were used as feedstock in any thermal chip dryer during this reporting period."
- (c) Please include a subsection in Condition D.1.25 which sets forth ART's deviation reporting requirements.
- (d) Condition D.1.25(a) refers to the "Administrator". I believe this should refer to the permitting authority. Could you please correct this provision. (This comment was received via email on November 6, 2003).

*Additional ART Comments Received on March 1, 2004:*

Four (4) separate comments were received on March 1, 2004 relating to Condition D.1.26, as re-numbered in the response below, as follows:

- (a) The introductory line to this Section incorrectly identifies 40 CFR Parts 63.1510 and 63.1516. GAI believes you mean to reference 40 CFR Parts 63.1515 and 63.1516. Please correct the references accordingly.
- (b) Please either delete D.1.26(a) or move it to Section C.9. This paragraph refers to the requirement in 40 CFR 63.1515(a)(6) which requires providing initial notification for conducting performance testing.

If this requirement refers to providing notification of initial performance testing, ART has already conducted and provided documentation of initial performance testing. Therefore, this requirement is no longer applicable and should be deleted.

If this requirement refers to providing initial notification of all performance testing, it should be moved to Section C.9, which identifies the performance testing requirements. Not including this requirement in Section C.9 is misleading and suggests the requirement is not applicable as stated above.

- (c) We refer to the sentence in D.1.26(b) as follows: *“In a State with an approved operating permit program where delegation of authority under Section 112(l) of the CAA has not been requested or approved, the Permittee must provide duplicate notification to the applicable Regional Administrator.”* If IDEM has been delegated authority please delete this sentence. If IDEM has not been delegated authority, please clearly state the Permittee must provide a duplicate notification to U.S. EPA Region V, Regional Administrator.
- (d) The most recent version of 40 CFR Part 63, Subpart RRR, as amended on September 24, 2002 and December 30, 2002, does not require the OM&M plan to be approved. Accordingly, please delete the word *“Approved”* from Condition D.1.26(b)(7). (*This comment was received via email on March 2, 2004*).

### **Response to Comment 31:**

Regarding the comments at paragraph (a), both of existing Conditions D.1.25(b)(4) and D.1.25(e)(2) refer to “total reactive chlorine flux injection rate”. The flux supplier material safety data sheet (MSDS), as provided to IDEM by the source, shows the solid flux used by this source to contain chloride compounds. Solid reactive chloride flux is a component of the “total reactive chlorine flux injection rate”, pursuant to the definition of such found at 40 CFR Part 63.1503, *Definitions*. Therefore, there is no change to either condition due to this comment. This notwithstanding, reference to Condition D.1.9(b)(4) (now D.1.10(b)(4)) is added to both D.1.25(b)(4) and (e)(2) (now D.1.26(b)(4) and (d)(1)(B)), as requested to clarify the relevant operating parameters.

Regarding the comment at paragraph (b), Condition D.1.25(f) (now D.1.26(d)(2)) is revised as requested.

Regarding the comment at paragraph (c), the deviation reporting requirements are specified at Condition B.14. With respect to the specific reporting requirements of 40 CFR 63, Subpart RRR, Condition D.1.25 (now Condition D.1.26) is revised at paragraph (d) below to be more complete with respect to the specific reporting requirements of 40 CFR 63.1517.

Regarding the comment at paragraph (d), IDEM agrees that the reference should be the permitting authority (i.e., IDEM) and the condition is revised accordingly.

Regarding the comments received on March 1, 2004, Condition D.1.26 is revised per the comments at paragraphs (a), (c) and (d) to provide greater accuracy and clarity. Regarding the comment at paragraph (b), the requirements of D.1.26 are specific to Subpart RRR, while Condition C.9 is a general requirement applicable to any source that must conduct performance testing. Since this source must conduct performance testing pursuant to both Subpart RRR and separate state requirements, as cited at Condition D.1.10, the Permittee must comply with the respective notification requirements. Clearly, the notification requirement of D.1.26(a) will satisfy the notification requirement of C.9 when testing pursuant to Subpart RRR. As such, there is no change to either C.9 or D.1.26(a) due to this comment.

Condition D.1.25 (now D.1.26) is revised as follows:

**D.1.256 Secondary Aluminum Production Reporting Requirements [40 CFR Part 63, Subpart RRR]**

Pursuant to 40 CFR Parts 63.15105 and 63.1516, the ~~owner or operator~~ **Permittee** shall comply with the following:

- (a) The ~~owner or operator~~ **Permittee** must submit initial notifications to ~~the applicable permitting authority~~ **IDEM** as described below:

The ~~owner or operator~~ **Permittee** must provide notification of the anticipated date for conducting performance tests and visible emission observations. The ~~owner or operator~~ **Permittee** must notify ~~the Administrator~~ **IDEM** of the intent to conduct a performance test at least 60 days before the performance test is scheduled; notification of opacity or visible emission observations for a performance test must be provided at least 30 days before the observations are scheduled to take place.

- (b) ~~Each owner or operator~~ **The Permittee** must submit a notification of compliance status report within 60 days after the compliance dates specified in **40 CFR Part §63.1501**. The notification must be signed by the responsible official who must certify its accuracy. A complete notification of compliance status report must include the information specified in paragraphs (1) through (8). The required information may be submitted in an operating permit application, in an amendment to an operating permit application, in a separate submittal, or in any combination. ~~In a State with an approved operating permit program where delegation of authority under section 112(l) of the CAA has not been requested or approved,~~ The ~~owner or operator~~ **Permittee** must provide duplicate notification to the ~~applicable U.S. EPA Region V,~~ Regional Administrator. ~~If an owner or operator~~ **the Permittee** submits the information specified in this section at different times or in different submittals, later submittals may refer to earlier submittals instead of duplicating and resubmitting the information previously submitted. A complete notification of compliance status report must include:

- (1) All information required in **40 CFR Part §63.9(h)**. The ~~owner or operator~~ **Permittee** must provide a complete performance test report for each affected source and emission unit for which a performance test is required. A complete performance test report includes all data, associated measurements, and calculations (including visible emission and opacity tests).
- (2) The approved site-specific test plan and performance evaluation test results for each continuous monitoring system (including a continuous emission or opacity monitoring system).
- (3) Unit labeling as described in **40 CFR Part §63.1506(b)**, including process type or furnace classification and operating requirements.
- (4) The compliant operating parameter value or range established for each affected source or emission unit, **as listed at Condition D.1.10(b)(4)**, with supporting documentation and a description of the procedure used to establish the value (~~e.g., lime injection rate, total reactive chlorine flux injection rate, afterburner operating temperature, fabric filter inlet temperature~~), including the operating cycle or time period used in the performance test.
- (5) Design information and analysis, with supporting documentation, demonstrating conformance with the requirements for capture/collection systems in **40 CFR Part §63.1506(c)**.

- (6) If applicable, analysis and supporting documentation demonstrating conformance with EPA guidance and specifications for bag leak detection systems in **40 CFR Part §63.1510(f)**.
  - (7) ~~Approved~~The OM&M plan.
  - (8) Startup, shutdown, and malfunction plan, with revisions.
- (c) The ~~owner or operator~~ **Permittee** must develop and implement a written plan that contains specific procedures to be followed for operating and maintaining the source during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the standard. The ~~owner or operator~~ **Permittee** shall also keep records of each event as required by **40 CFR Part §63.10(b)** and record and report if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the plan as described in **40 CFR Part §63.6(e)(3)**. In addition to the information required in **40 CFR Part §63.6(e)(3)**, the plan must include:
- (1) Procedures to determine and record the cause of the malfunction and the time the malfunction began and ended; and
  - (2) Corrective actions to be taken in the event of a malfunction of a process or control device, including procedures for recording the actions taken to correct the malfunction or minimize emissions.
- (d) **As required by 40 CFR Part 63.10(e)(3)**, the ~~owner or operator~~ **Permittee** must submit semiannual reports within 60 days after the end of each 6-month period. Each report must contain the information specified in **40 CFR Part §63.10(c)**. When no deviations of parameters have occurred, the ~~owner or operator~~ **Permittee** must submit a report stating that no excess emissions occurred during the reporting period.
- ~~(e)~~ (1) A report must be submitted if any of these conditions occur during a 6-month reporting period:
- ~~(+)~~ (A) The corrective action specified in the OM&M plan for a bag leak detection system alarm was not initiated within 1 hour.
  - ~~(2)~~ (B) An excursion of a compliant process or operating parameter value or range, **as listed at Condition D.1.10(b)(4)**, ~~(e.g., lime injection rate or screw feeder setting, total reactive chlorine flux injection rate, afterburner operating temperature, fabric filter inlet temperature, definition of acceptable scrap, or other approved operating parameter)~~.
  - ~~(3)~~ (C) An action taken during a startup, shutdown, or malfunction was not consistent with the procedures in the plan as described in **40 CFR Part §63.6(e)(3)**.
  - ~~(4)~~ (D) An affected source (including an emission unit in a secondary aluminum processing unit) was not operated according to the requirements of **this 40 CFR Part 63, Subpart RRR**.
  - ~~(5)~~ (E) A deviation from the 3-day, 24-hour rolling average emission limit for a secondary aluminum processing unit.
- ~~(f)~~ (2) Each semi-annual report must include a certification for the thermal chip dryer,

Dryer #1, stating that “Only unpainted aluminum chips were used as feedstock in the thermal chip dryer during this reporting period.”

- (g) (3) The ~~owner or operator~~ **Permittee** must submit the results of any performance test conducted during the reporting period, including one complete report documenting test methods and procedures, process operation, and monitoring parameter ranges or values for each test method used for a particular type of emission point tested.
- (h)(e) For the purpose of annual certifications of compliance required by 40 CFR Part 70 or 71, the ~~owner or operator~~ **Permittee** must certify continuing compliance based upon, but not limited to, the following conditions:
- (1) Any period of excess emissions, as defined in **40 CFR Part §63.1516(b)**, that occurred during the year were reported as required by this subpart; and
  - (2) All monitoring, record keeping, and reporting requirements were met during the year.

**Comment 30:**

Please re-label the existing permit conditions consistent with the changes discussed above.

**Response to Comment 30:**

The changes discussed above have resulted in a general re-numbering of the affected permit conditions as shown throughout this document.

**Comment 31:**

Please revise and correct the TSD consistent with these comments to the draft permit.

**Response to Comment 31:**

The Technical Support Document (TSD) reflects the version of the draft permit that was placed on public notice. Changes to the permit or technical support material that occur after the public notice ends are presented in this Addendum to the TSD. This ensures that permit related concerns are documented as part of the record regarding this permit decision. Therefore, there are no changes to the TSD due to this comment.

### Public Comments Received:

This draft permit was available for public review during two (2) separate thirty (30) day periods during which time public comments were solicited by IDEM. The following presents the summary of the public comments received and related responses. Any changes made to the permit as a result of the following comments are shown in bold and deleted permit language is shown with a line through it. Permit changes affecting the permit's Table of Contents are also revised without replication herein.

#### **Public Comment 1:**

The following comments were received during the first 30-day notice period, January 7 to February 6, 2002, and were made by Gary R. Hake, Director of Indiana Operations, Hendrickson Truck Suspension Systems:

*Hendrickson Truck Suspension Systems (Hendrickson) is taking this opportunity to provide comments related to Aluminum Recovery Technologies' (ART's) draft Part 70 air permit. Hendrickson operates a manufacturing facility that is located in the same industrial park as ART. Hendrickson has operated the facility since the early 1980s. ART constructed its foundry near our facility in 1999. Beginning in the spring of 2000, several of our employees reported that the finish on their vehicles become spotted while parked at work. A total of over 50 claims were submitted to our insurance carrier regarding the spotting of employee vehicles during the spring and early summer of 2000. Our insurance carrier investigated the claims and their findings showed that the spotting of the employee vehicles was due to the oxidation of metallic particles associated with dust which had accumulated onto the vehicles. Their findings further showed that ART is located upwind from our facility and emits particulate matter in which metallic dust is a component.*

*During the same time period associated with the vehicle spotting issue, our employees documented through photographs and video tape the emission of dust and smoke from ART's facility on numerous occasions. Of particular concern, were the release of black smoke through one of its truck dock doors during the late night hours. The emission of black smoke occurred several nights during the summer months of 2000. Black smoke emitted from ART's truck dock door migrated into our facility. Our employees have raised health and safety issues resulting from their exposure to the black smoke. Hendrickson contacted IDEM for assistance regarding ART's emission practices. A formal response from IDEM has yet to be received.*

*Hendrickson trusts IDEM will act to protect the health and safety of the public, especially our employees, and considers the information presented in this letter during the processing of ART's Part 70 air permit.*

#### **Public Comment 2:**

The following comments were received during the first 30-day notice period, January 7 to February 6, 2002, and were made by Larry J. McGahen, Mayor of the City of Kendallville.

*I was recently informed that Aluminum Recovery Technologies of Kendallville, Indiana has applied for an air emission permit. Permit will allow Aluminum Recovery Technologies to emit air pollutants from existing equipment as well as equipment installed in March of 2000.*

*This letter is to advise IDEM that this office has received several complaints regarding current emissions from Aluminum Recovery Technologies. The complaints have originated at nearby factories of Hendrickson Tandem as well as the Courier Citizen. Both of these factories are located immediately west of ART. One such complaint from Hendrickson involved several vehicles in parking lot being damaged. Complaint from Courier and Hendrickson also reported strong fumes entering the two buildings from ART.*

*It is hoped that IDEM review the current emissions from Aluminum Recovery Technologies.*

**Public Comment 3:**

The following comments were received during the first 30-day notice period, January 7 to February 6, 2002, and were made by Mrs. Emily J. Andrews, an employee of Hendrickson Truck Suspension Systems.

*I cannot believe you would even consider to renew ART's air pollution emission permit or even think about increasing the amount of emission they are allowed to be released into the air.*

*I work at Hendrickson Plant #3 and I have personally had my vehicle (a 2000 Dodge Van) damaged by ART's foundry dust. My van was only 3 months old and I had not yet made my 3<sup>rd</sup> payment yet, when we had a fog of foundry dust from ART fill our factory for the entire day. My van had to be completely repainted. My Insurance Company which is State Farm Ins. My agent is Joe Young. They were out around \$7,400.00 to get my van repaired. State Farm is in the process of suing ART. I personally know of 2 other people suing ART over damages on their vehicles.*

*I would greatly appreciate your help in not letting our personal property or our health be damaged by this company.*

*Thank you, in advance for I know you will look into this matter and take care of it.*

**Public Comment 4:**

The following comments were received during the first 30-day notice period, January 7 to February 6, 2002, and were made by the employees of Hendrickson Truck Suspension. The comments included 99 Hendrickson employee signatures.

*On February 18, 2002, the Human Resource manager brought to our attention that ART has applied for an air emission permit.*

*We would like to state that we have had our plant filled with their emissions from their building on many occasions. Our former Safety Director Mr. William Wallace had submitted a video taped evidence of the amount of hazardous pollutants that are being emitted by ART. The tape showed carelessness. Mr. Wallace has contacted you several times about this and somehow ART has always managed to sidestep the issue.*

*Here at Hendrickson we must follow safety guidelines when working with chemicals. (i.e.; PPE, cleanup etc.) What we don't understand is how ART can emit such air pollutants into our building and it is not their concern. Once it leaves their building, are they no longer responsible? This has caused great discomfort to us. We are in the path of airflow to where we receive the full brunt of their pollutants.*

*We are also in the position where we have to work without having the luxury of leaving to avoid the smell and breathing of the hazardous air pollutants due to our job requirements. In the summer months, closing the doors is not an option. Sore throats, burning irritated eyes, nausea are some of the affects we have to deal with. These pollutants that are being emitted, can you show us they are not CANCER causing?*

*Our vehicles have also fell victim to their emissions. The paint on them has been damaged to the point of having to repaint them. Yet ART assumes no responsibility.*

*We cannot believe they are asking to be allowed to produce even more pollutants. We must rely on those in the position such as yours to protect our health, our way of life. When does someone stand up for us? It seems that when ART was first looking to build they would have considered how populated the area was and the wind direction.*

*It would be better if ART moved to a site where its effects would have less serious*

*consequences. If ART moving is not an option then we must rely on you to limit the amount of pollutants they will be emitting. If what ART is emitting now causes health and property damage, what will happen if they are allowed to produce more? ART has not shown they are responsible in managing the type of pollutants they create.*

*This affects us and our families. We submit this petition with the request that the air emission permit not be granted. Not at this location. Not at this time.*

#### **Public Comment 5:**

The following comments were received during the second 30-day notice period, October 2 to November 1, 2003, and were made by the employees of Hendrickson Truck Suspension Plant 1 and Plant 3. Both of these plants are located adjacent to ART. The public comments were received as separate letters from the employees of Hendrickson's Plants 1 and 3, and include 60 employee signatures and 38 employee signatures, respectively. Since the comments made in both letters are identical, the following summary reflects both sets of comments:

*In recent months, ART has been doing a little better with its pollutant emissions control; but one of our many concerns is that since it was applying for another permit, they had no choice but to comply. During the summer months our facility doors have been almost always open and fresh air was somewhat able to sweep through our plant. During the winter months our doors are always closed and the vents on our building pull the emissions into our plant and then we have difficulty getting the air inside clean.*

*From the time they were in operation until ART had requested another permit; various employees here at Hendrickson have witnessed ART emit smoke and contaminants that were coming out of the overhead doors; profusely at times. What kind of filters and such would help with the emissions through the overhead doors? Another concern is they do most of this under the cover of darkness. They must figure traffic would be minimal and who would pay attention if it was hard to see? If it is that bad on the outside, it makes us wonder what they are doing for the employees who are in the building.*

*Whether ART gets the permit is up to your office, however, we feel ART should be held accountable and have to publicly defend its permit request and prove it is capable of doing what it says it will do to qualify for the permit. Ultimately, help keep Indiana a cleaner, healthier place to live and work.*

#### **Response to Public Comments 1 Through 5:**

The permit that has been proposed herein is a Part 70 operating permit. This permit does not propose new emissions generating equipment for installation at this source, nor does it propose to increase emissions from this source. The Part 70 permit does, however, specify all limits and requirements applicable to this source. In order to comply with these limits and requirements, the permit requires the Permittee to comply with certain compliance monitoring, record keeping and reporting conditions. In this permit, such conditions include continuous control device operations, including the use of baghouse leak detection systems; continuous measurement of specific parameters that ensure proper operation of related emission units and control equipment; direct pollutant emissions testing on a periodic (2.5-year) basis; emission unit and control device equipment inspection programs; written operation and maintenance plans; and detailed record keeping and reporting of source operating data, including quarterly reporting of deviations, as defined, from any permit requirements. These compliance monitoring, testing, record keeping and reporting requirements shall help ensure that the source operates in compliance with the prescribed limits and standards of this Part 70 permit.

Regarding the comments on the source's operations and emissions, IDEM has conducted at least seven (7) inspections and surveillance through the end of the first 30-day public notice period. Additional follow-up inspections, along with March, April and September 2003 performance testing of production equipment, have been conducted through the end of the second public notice period. The inspections occurred during daytime and nighttime hours. From the inspection and test data, IDEM determined that ART was out of compliance with certain pollutant emission limits of 40 CFR Part 63, Subpart RRR. Also, due to a paucity of data, IDEM could not determine whether the source was in compliance with emissions limits established pursuant to 326 IAC 2-2 (PSD). While this latter issue has recently been resolved (see discussion beginning on page 52 of this document), it was because of these issues that the draft Part 70 permit was made available for public review for a second time. IDEM, OAQ has informed the IDEM Office of Enforcement (OE) of these issues that continue to be investigated by OAQ and OE. At the conclusion of this investigation, IDEM will establish an enforceable schedule and/or method of operational change that will result in ART's compliance with the related air regulations and permit conditions. Conditions D.1.1(b) and D.1.4(c) of the draft permit addressed these compliance issues. Condition D.1.1(b) has been revised per the discussion beginning on page 52 of this document.

Through its investigation, IDEM believes that the visible emissions result from two (2) different processes. First, during past visits to the plant IDEM identified problems with the ductwork associated with Baghouses A and B. These baghouses are used to control particulate emissions from furnace and thermal chip dryer operations, respectively. While the ductwork problems may have caused prior visible emissions, IDEM has confirmed that the structural integrity of the ductwork has been restored. The permit now specifically requires the ductwork to be maintained such that there are no visible emissions due to its use (see Condition D.1.1). A second process that IDEM has investigated as a possible source of emissions involves the placement of hot furnace dross into pans to allow that material to cool. This process does not utilize an emissions control device. Direct particulate emissions and condensation of gases during this cooling process may lead to visible emissions. IDEM has required the source to evaluate the particulate emissions from this process, and the source has complied by conducting an emissions test on September 25, 2003. The results of this test demonstrated that the source is in compliance with the applicable emission limits for this process established at draft Condition D.1.1(a)(4) (see page 52 for a more detailed discussion of this issue).

The above notwithstanding, activities conducted at this source, including dross cooling, must comply with the rule requirements for opacity and fugitive dust emissions, as respectively contained at Conditions C.2 and C.5. Any further concerns about the operation of this source and its continued compliance with conditions of this permit can be referred to Doyle Houser, the IDEM, OAQ inspector for Noble County, c/o the Compliance Data Section, at telephone number (800) 451-6027, or by calling the IDEM Northern Regional Office at telephone number (800) 753-5519.

For this type of permit (i.e., a Part 70 permit), the permitting program rules and requirements are delineated at 326 Indiana Administrative Code (IAC) 2-7. Pursuant to this rule, this permit requires that ART comply with all:

- (a) emission limitations and standards necessary to assure compliance with the permit terms and conditions and all applicable requirements; and
- (b) monitoring, testing, reporting, and record keeping requirements that assure all reasonable information is provided to evaluate continuous compliance with the permit terms and conditions, the underlying requirements of this title, and the Clean Air Act.

This Part 70 operating permit contains conditions that will ensure that ART is in compliance, or will come into compliance, with all applicable state and federal rules. Specific limitations and standards and methods of compliance applicable to this source are contained in Section D of the proposed permit, and they are reflective of permit conditions created in past permits; conditions pertaining to new requirements applicable during this permit review (e.g., 40 CFR Part 63, Subpart RRR); and additional conditions added to existing requirements to ensure compliance with the applicable rules. IDEM believes

that this permit addresses the requisite Part 70 program requirements and is approvable as proposed. IDEM personnel will nonetheless continue to visit and inspect the plant to ensure compliance with its Part 70 permit, and will continue to respond to public complaints as they arise. If ART is found to be in violation of any conditions in the Part 70 operating permit, IDEM will take the appropriate measures that require ART to correct any and all identified problems.

**Response to Public Comment 4:**

A summary of the hazardous air pollutants (HAPs) typically emitted from this type of industrial source, and the associated potential to emit (PTE) each pollutant from this plant in tons/year, after enforceable controls and limits, is presented below.

HAP	Potential To Emit (tons/year)
Antimony	0.0924
Arsenic	0.0016
Cadmium	0.0015
Chromium	0.0052
Hydrogen Chloride (HCl)	13.60*
Hydrogen Fluoride(HF)	
Lead	0.0131
Manganese	0.0021
Mercury	<0.0001
Nickel	0.0057
Selenium	0.0026
Polychlorinated dibenzofurans total	0.00000109**
Polychlorinated dibenzo-p-dioxins total	
<b>TOTAL</b>	<b>13.72</b>

\* Limit based on 40 CFR 63, Subpart RRR as HCl which is a surrogate for total HCl and HF.

\*\* Limit based on 40 CFR 63, Subpart RRR as total dioxin/furan.

Regarding the query on the potential health effects from said HAPs, detailed information of such can be found at the U.S. EPA's Integrated Risk Information System (IRIS) website at <http://www.epa.gov/iris/>. IRIS is a database of information on human health effects that may result from exposure to various substances found in the environment, including those listed in the above table.

The requirements of 40 CFR 63, Subpart RRR, as contained in the permit, are intended to reduce HAP emissions from secondary aluminum processing plants (i.e. the ART plant). This rule specifically targets emissions of HCl, HF and total dioxin/furan. This source is required to comply with all applicable requirements of this rule, including emissions performance testing. The source currently uses emission controls to capture and/or destroy emissions of the pollutants regulated pursuant to Subpart RRR. IDEM and U.S. EPA will continue to enforce all applicable requirements of HAP emissions control.

Regarding the comment pertaining to the siting of the ART plant, the IDEM, OAQ does not have jurisdiction over local zoning laws.

In addition to the source/public comments and responses presented above, the OAQ has made the following changes to this Part 70 permit. Changes are shown in bold and deleted permit language is shown with a line through it. Changes affecting the permit's Table of Contents are revised without replication herein.

1. Section A.3(a) of the permit provides a listing of insignificant activities at this source that are regulated by a specific rule. The two (2) activities listed at A.3(a) are reflective of the welding and cutting done at the plant as part of general maintenance practices, and the Baghouse A and B lime conveyors. These activities emit particulate matter; they are processes with process weight rates less than one hundred (100) pounds per hour; and they are regulated for particulate emissions. The citation to the applicable rule was omitted from draft Section A.3(a) and is now included as shown below. The existing rule cite is removed since this cite provides only the listing in the rule of this insignificant activity, and is not an applicable requirement. Also, a new Section D.2 for insignificant activities is added to the permit to include the applicable rule requirements, as shown on the following page.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

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

- (1) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment; ~~[326 IAC 2-7-1(21)(G)(vi)(EE)]~~ **[326 IAC 6-3-2]** and
- (2) 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 A and Baghouse B **lime injection** screw conveyors, each conveying up to 100 pounds per hour of lime to the respective baghouse. ~~[326 IAC 2-7-1(21)(G)(xiv)(AA)(bb)]~~ **[326 IAC 6-3-2]**

## SECTION D.2 FACILITY OPERATION CONDITIONS

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

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; [326 IAC 6-3-2] and
- (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 A and Baghouse B lime injection screw conveyors, each conveying up to 100 pounds per hour of lime to the respective baghouse. [326 IAC 6-3-2]

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

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

#### D.2.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the particulate from the cutting and welding, and the Baghouse A and Baghouse B lime injection screw conveyors, shall each not exceed the pound per hour emission rate established as E in the following formula:

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

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

#### Compliance Determination Requirements

There are no specific compliance determination requirements applicable to these facilities.

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

There are no specific compliance monitoring requirements applicable to these facilities.

2. Condition B.21 is revised to include all appropriate rule citations as follows:

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]

3. Condition C.15(b)(3) is revised for greater clarity as follows:

C.15 Compliance Response Plan - Preparation, Implementation, Records, and Reports  
[326 IAC 2-7-5] [326 IAC 2-7-6]

(b) (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, and it will be **ten (10)** days or more until the unit or device will be shut down, then the Permittee shall promptly notify the IDEM, OAQ of the expected date of the shut down. **The notification shall also include** the status of the applicable compliance monitoring parameter with respect to normal, and the results of the **response** actions taken up to the time of notification.

4. Condition D.1.1(b) of the draft permit established that IDEM did not have enough information to determine whether the source was in compliance with the PM and PM10 emission limits of Condition D.1.1 (PSD Minor Limit). This lack of information was attributable to the dross cooling operation which is a process whereby the source places hot furnace dross into pans to allow the dross to cool. During the cooling process particulate matter and condensed (cooled) gases, as a particulate aerosol, are emitted. While PM and PM10 emission limits were established for this process at draft D.1.1(a)(3), it was unknown whether the source could comply with these limits. To determine compliance, draft Conditions D.1.1(b) and D.1.9(a) required the source to perform both PM and PM10 emissions testing. On September 25, 2003 the requisite dross cooling emissions testing was performed, and the final test report was submitted to, and approved by, IDEM. The IDEM verified test results for the dross cooling process are as follows:

- PM: 0.101 lb/ton dross cooled; and
- PM10: 0.151 lb/ton dross cooled.

At a maximum dross cooling rate of 12,420 pound per hour (6.21 ton/hr), this equates to:

- PM: 0.627 lb/hr; and
- PM10: 0.938 lb/hr.

Condition D.1.1(a)(3) of the draft permit established the dross cooling emission limits at 10.66 pounds per hour for each of PM and PM10. Therefore, the September 25, 2003 test results demonstrate that the source is in compliance with both of these emission limits. Based on this, draft Conditions D.1.1(b) and D.1.9(a) (now D.1.10(a)) are obsolete and are removed from this permit, as shown below.

In response to the September 25, 2003 test results, the Permittee requested during November 2003 that the revised PM/PM10 limits for dross cooling reflect an hourly emission rate of 2.00 pounds per hour (lb/hr) for each pollutant. This is less than the 10.66 lb/hr emission limits of the draft permit. At a maximum dross production rate of 12,420 lb/hr (6.21 tons/hour) and a maximum annual operating schedule of 8,760 hours per year, the 2.00 lb/hr emission rate equates to 8.76 tpy of PM and PM10, and is also equivalent to 0.322 lb/ton for PM and PM10.

On March 1, 2004, the Permittee submitted additional comments to IDEM on the proposed permit. Such included a request that no production limit on dross cooling be placed in Condition D.1.1; rather, the Permittee requested that the condition reflect the potential amount of dross cooled per year. The Permittee also requested that records of furnace production be maintained instead of requiring dross cooling records, since dross cooling cannot exceed furnace production and the Permittee is already required to maintain feed/charge records per Subpart RRR.

In support of their request, the Permittee has agreed to assume a maximum dross cooling rate that is equal to the rotary furnace production capacity. The draft maximum dross cooling rate of 12,420 lb/hr, which is equal to 80% of the rotary furnace production capacity (as RF#1, since furnaces RF#1 and RF#2 do not operate simultaneously), therefore increases to 15,530 lb/hr. A proportionate increase is applied to the initial 2.00 lb/hour PM/PM10 emission rate, resulting in an emission rate limit of 2.50 lb/hr for each of PM and PM10. At a maximum of 8,760 hours per year of operation, this is equal to 10.95 tpy for each of PM and PM10. When this is combined with other PM/PM10 emitting activities at this source, the potential to emit for the source is 63.7 tons per year for each pollutant. Since this reflects maximum production capacity; the Permittee has demonstrated compliance through testing; and feed/charge records will be maintained as required by Subpart RRR, IDEM agrees that no dross cooling production limit nor record keeping of dross cooling is required. The allowable particulate limit for dross cooling at Condition D.1.2(a)(4), along with A.2(d), are revised as shown below to account for the revision to the maximum dross cooling rate.

Inclusive of the revisions presented at Response to Comment 16, Condition D.1.1 is further revised based on the above discussion. Similarly, pages 1 and 2 of Appendix A (i.e., the spreadsheet emission rate computations) are changed to reflect the revised potential to emit of PM/PM10 from the dross cooling operation. Finally, for purposes of completeness, the table presented in the **Potential to Emit After Issuance** section of the draft TSD is replicated below, where the dross cooling emission limits are revised to be consistent with the changes discussed herein.

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]  
[326 IAC 2-7-5(15)]

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

- (d) One (1) dross cooling operation, cooling up to ~~42,420~~ **15,530** pounds of furnace dross per hour, with emissions exhausting into the building.

D.1.1 PSD Minor Limit [326 IAC 2-2][~~326 IAC 2-7-6(3)~~] [~~326 IAC 2-7-15~~]

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(a) Pursuant to Significant Source Modification 113-11409-00071, issued on March 29, 2000, and revised by this Title V permit, the Permittee shall comply as follows:

(+)(a) Rotary Furnaces ~~RDRF~~#1 and ~~RDRF~~#2:

(A)(1) ~~PM and PM10~~ emissions shall be limited to 8.00 pounds per hour from the baghouse controlling the furnaces.

(B)(2) **PM10 emissions shall be limited to 8.00 pounds per hour from the baghouse controlling the furnaces.**

(B)(3) Rotary furnaces ~~RDRF~~#1 and ~~RDRF~~#2 shall not operate at the same time.

~~(2)~~(b) Thermal Chip Dryer #1:

(1) PM ~~and PM10~~ emissions shall be limited to 4.00 pounds per hour.

(2) **PM10 emissions shall be limited to 4.00 pounds per hour.**

~~(3)~~(c) Dross Cooling Operation:

~~(A)~~(1) PM ~~and PM10~~ emissions shall be limited to ~~40.66~~**2.50** pounds per hour.

~~(B)~~(2) **PM10 emissions shall be limited to 2.50 pounds per hour.**

~~(4)~~(d) There shall be no visible emissions from any ductwork related to the two (2) natural gas-fired rotary furnaces, RF #1 and RF #2, the one (1) natural gas-fired thermal chip dryer, Dryer #1, Baghouse A (which controls emissions from RF #1 and RF #2) and Baghouse B (which controls emissions from Dryer #1).

Compliance with this condition shall limit the potential to emit of PM and PM10 of the source to less than 100 tons per twelve (12) consecutive month period. Therefore, compliance with this condition shall make the requirements of 326 IAC 2-2 (PSD) not applicable to the source.

~~(b) — IDEM has insufficient data to demonstrate that the dross cooling operation is in compliance with the PM and PM10 limits of this condition, and the source shall demonstrate compliance with these limits pursuant to Condition D.1.9(a). Therefore, the permit shield authorized by the B section of this permit in the condition titled Permit Shield, and set out in 326 IAC 2-7-15, does not apply with regard to 326 IAC 2-2 (PSD), nor does it shield the Permittee from possible enforcement actions initiated by either the U.S. EPA or the Indiana Department of Environmental Management (IDEM) pursuant to 326 IAC 2-2 (PSD). Compliance with the terms of this permit does not serve as proof of compliance for the dross cooling operation. The Permittee shall apply for revision of this permit to address the resolution of any such outstanding issue, including revision to remove this Condition D.1.1(b) if compliance is demonstrated pursuant to Condition D.1.9(a). [326 IAC 2-7-6(3)] [326 IAC 2-7-15]~~

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

(a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the facilities listed below shall be limited as stated:

(4) The dross cooling operation shall not exceed ~~43.93~~ **16.18** pounds per hour when operating at a process weight rate of ~~42,420~~ **15,530** pounds of furnace dross **cooled** per hour.

~~D.1.910~~ Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11][40 CFR 63, Subpart RRR]

(a) ~~In order to demonstrate compliance with Condition D.1.1, the Permittee shall comply as follows:~~

~~(1) — Within 90 days after issuance of this permit, the Permittee shall perform PM and PM10 testing on the one (1) dross cooling operation, using methods as approved by the Commissioner.~~

- (2) During the period from ~~September~~ **August** 2005 to ~~February~~ **January** 2006, the Permittee shall perform a PM and a PM10 performance testing on each of the rotary furnaces RF #1 and RF #2 and the thermal chip dryer, Dryer #1, using methods as approved by the Commissioner. Thereafter, pursuant to 326 IAC 2-7-6(1) and (6) and 326 IAC 2-1.1-11, ~~this~~ **these** tests shall be repeated at least once every two and one-half (2.5) years from the date of this valid compliance demonstration.

PM10 includes filterable and condensable PM10. Testing shall be conducted in accordance with Section C - Performance Testing.

**Potential to Emit After Issuance**

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 operating permit.

Process/facility	Limited Potential to Emit (tons/year)							
	PM <sup>(2)</sup>	PM10 <sup>(2)</sup>	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	Single HAP	Total HAPs
Rotary furnace (RF#1) <sup>(1)</sup>	35.14	35.44	0.71	5.05	4.42	5.60	13.60 <sup>(3)</sup>	13.72
Rotary furnace (RF #2) <sup>(1)</sup>								
Chip dryer (Dryer #1)	17.60	17.85	5.50	10.69 <sup>(3)</sup>	3.68	16.38	negl.	negl.
Dross cooling operation	<del>&lt;46.74</del> <b>10.95</b>	<del>&lt;46.74</del> <b>10.95</b>	0.00	0.00	0.00	0.00	negl.	negl.
<b>Total Emissions</b>	<b>&lt;100</b>	<b>&lt;100</b>	<b>6.21</b>	<b>15.74</b>	<b>8.10</b>	<b>21.98</b>	<b>13.60</b>	<b>13.72</b>

1. Furnaces 1 is the primary unit and furnace 2 is the backup unit and the furnaces do not operate simultaneously. Furnace emissions, which include pollutant emissions from natural gas firing at the furnace burners, reflect worst case of furnace 1 or 2.  
 2. Limited emissions such that the requirements of 326 IAC 2-2 (PSD) do not apply (see Condition D.1.1).  
 3. Reflects the applicable limit of 40 CFR 63, Subpart RRR.

5. Condition C.17 (Emission Statement) is revised to provide for greater consistency with the emissions reporting rule requirements.

C.17 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]~~~~[326 IAC 2-7-19(e)]~~

- (a) The Permittee shall submit an ~~annual~~ emission statement certified pursuant to the requirements of 326 IAC 2-6., ~~that must be received by April 15 of each year~~ **This statement must be received in accordance with the compliance schedule specified in 326 IAC 2-6-3** and must comply with the minimum requirements specified in 326 IAC 2-6-4. **The submittal should cover the period identified in 326 IAC 2-6.** The ~~annual~~ emission statement shall meet the following requirements:
- (1) Indicate estimated actual emissions of criteria pollutants from the source, **in compliance with 326 IAC 2-6 (Emission Reporting);**
  - (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(32) ("Regulated pollutant which is used only for purposes of Section 19 of this rule") from the source, for purposes of Part 70 fee assessment.

- ~~(b) The annual emission statement covers the twelve (12) consecutive month time period starting January 1 and ending December 31. The annual emission statement must be submitted to:~~

**The statement must be submitted to:**

Indiana Department of Environmental Management  
Technical Support and Modeling Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

The emission statement does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

- (c) The ~~annual~~ emission statement 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.
6. Conditions C.9(c), C.14, and C.19(a) make reference to the “source”, and conditions in Section D.1 that pertain to the requirements of 40 CFR Part 63, Subpart RRR, make reference to the “owner or operator”. Each of these references should instead be made to the “Permittee.” Since this change has already been made to some Section D.1 conditions previously revised herein, only those remaining affected conditions in Section D.1 are revised below.

C.9 Performance Testing [326 IAC 3-6]

- (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 ~~source~~ **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.

C.14 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 ~~source~~ **Permittee** must comply with the applicable requirements of 40 CFR 68.

C.19 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

- (a) The ~~source~~ **Permittee** shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

D.1.5 Labeling [40 CFR Part 63.1506(b)]

The ~~owner or operator~~ **Permittee** shall provide and maintain easily visible labels that shall be posted at the furnaces. Said labels shall identify the applicable emission limits and means of compliance, including:

**D.1.137 Thermal Chip Dryer Afterburner Compliance Requirements [40 CFR Part 63.1506(f)]**

~~The owner or operator~~ **For Dryer #1, as of a thermal chip dryer with emissions controlled by an afterburner, the Permittee** must:

**D.1.15 Labeling [40 CFR Part 63.1510(c)]**

Pursuant to 40 CFR Part 63.1510, the ~~owner or operator~~ **Permittee** must inspect the labels for each furnace required by Condition D.1.5 at least once per calendar month to confirm that posted labels as required by the operational standard in **40 CFR Part §63.1506(b)** are intact and legible.

**D.1.16 Capture/Collection System [40 CFR Part 63.1510(d)]**

The ~~owner or operator~~ **Permittee** must inspect each capture/collection and closed vent system required by Condition D.1.6 at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in **40 CFR Part §63.1506(c)** and record the results of each inspection.

**D.1.178 Corrective Action [40 CFR Part 63.1506(p)]**

The ~~owner or operator~~ **Permittee** must initiate corrective action when a process parameter or add-on air pollution control device operating parameter deviates from the value or range established during the performance test and incorporated in the OM&M plan. Corrective action must restore operation of the affected source or emission unit (including the process or control device) to its normal or usual mode of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. Corrective actions taken must include follow-up actions necessary to return the process or control device parameter level(s) to the value or range of values established during the performance test and steps to prevent the likely recurrence of the cause of a deviation.

7. Section D.1 of the draft permit makes repeated reference to sections of 40 CFR Part 63, Subpart RRR, using the symbol “§” (for example, §63.1505 refers to 40 CFR Part 63.1505). For purposes of greater clarity, the symbol “§” is deleted throughout Section D.1 and replaced with “40 CFR Part 63”. These changes are made without replication herein.

## Indiana Department of Environmental Management Office of Air Management

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

#### Source Background and Description

**Source Name:** Aluminum Recovery Technologies, Inc.  
**Source Location:** 2170 Production Road, Kendallville, IN 46755  
**County:** Noble  
**SIC Code:** 3365,3363,3341  
**Operation Permit No.:** T113-12126-00071  
**Permit Reviewer:** Michael Hirtler / EVP

The Office of Air Quality (OAQ) has reviewed a Part 70 permit application from Aluminum Recovery Technologies, Inc. (ART) relating to the operation of a stationary secondary aluminum production source.

This Part 70 permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-7-10.5, applicable to those conditions.

#### Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) natural gas-fired rotary furnace, identified as RF #1, constructed in February 1999, with a maximum heat input capacity of 12.0 million British thermal units (MMBtu) per hour, with a maximum capacity of 13,362 pounds of dross and aluminum scrap per hour and 2,168 pounds of solid reactive flux per hour, with emissions controlled by one (1) lime injected baghouse, identified as Baghouse A, exhausting through one (1) stack, identified as Vent #1;
- (b) One (1) natural gas-fired rotary furnace, identified as RF #2, constructed in September 2001, with a maximum heat input capacity of 12.0 MMBtu/hr, with a maximum capacity of 8,735 pounds of dross and aluminum scrap per hour and 1,674 pounds of solid reactive flux per hour, with emissions controlled by one (1) lime injected baghouse, identified as Baghouse A, exhausting through one (1) stack, identified as Vent #1; and
- (c) One (1) natural gas-fired thermal chip dryer, identified as Dryer #1, constructed in January 1999, with a maximum heat input capacity of 4.0 MMBtu/hr, with a maximum capacity of processing 6,090 pounds of aluminum per hour, with emissions controlled by one (1) baghouse, identified as Baghouse B, 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 #2.

#### Unpermitted Emission Units and Pollution Control Equipment

The source also consists of the following unpermitted facilities and emission units:

One (1) dross cooling operation, cooling up to 12,420 pounds of furnace dross per hour, with emissions exhausting into the building.

## **New Emission Units and Pollution Control Equipment Receiving Advanced Source Modification Approval**

There are no new facilities proposed at this source during this review process.

### **Insignificant Activities**

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour;
- (b) Combustion source flame safety purging on startup;
- (c) 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;
- (d) The following VOC and HAP storage containers:
  - (1) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons;
  - (2) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids;
- (e) Refractory storage not requiring air pollution control equipment;
- (f) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings;
- (g) Machining where an aqueous cutting coolant continuously floods the machining interface;
- (h) Cleaners and solvents characterized as follows:
  - (1) Having a vapor pressure equal to or less than 2 kPa; 15mm Hg; or 0.3 psi measured at 38 degrees C (100F) or;
  - (2) 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;
- (i) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment;
- (j) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;
- (k) Process vessel degassing and cleaning to prepare for internal repairs;
- (l) Paved and unpaved roads and parking lots with public access;

(m) 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 A and Baghouse B screw conveyors, each conveying up to 100 pounds per hour of lime to the respective baghouse;

(n) 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;

(o) Flue gas conditioning systems and associated chemicals such as the following: sodium sulfate, ammonia; and sulfur trioxide;

(p) Purge double block and bleed valves; and

(q) Filter or coalescer media changeout.

### Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

(a) Construction Permit, CP-113-10429-00071, issued on March 5, 1999;

(b) Significant Source Modification 113-11409-00071, issued on March 29, 2000; and

(c) Administrative Amendment 113-13807-00071, issued on February 12, 2001.

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

All conditions from previous approvals were incorporated into this Part 70 permit, except the following changes have been made:

(a) *Significant Source Modification 113-11409-00071, issued on March 29, 2000:*

#### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

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This stationary source is approved to construct and operate the following emission units and pollution control devices:

(a) two (2) natural gas-fired rotary dross furnaces (ID RDF #2 and #3), each having a maximum heat input capacity of 12.0 million British thermal units (MMBtu) per hour, each with a maximum melt rate of 12,000 pounds of aluminum scrap per hour, with one (1) new lime injected baghouse (ID Baghouse B) for particulate matter control for both furnaces, exhausting through one (1) stack (ID No. BH #2); and

(b) one (1) rotary dross cooler (ID RDFC), with a maximum capacity to cool 20,000 pounds of salt dross per hour, with one (1) existing lime injected baghouse (ID Baghouse A) for particulate matter control, exhausting through one (1) stack (ID BH #1).

*Reason changed:* Aluminum Recovery Technologies, Inc. (ART) has provided information during this review indicating that they never constructed rotary furnace (RF) #3. Reference to this facility is not included in this permit. ART has also indicated that the exhaust from RF #2 is directed through RF #1 Baghouse A, and that furnaces RF#1 and RF#2 do not operate at the same time. RF#2 is a backup furnace that is only operated when RF#1 is down for maintenance. ART has requested that the permit reflect this method of operation, and such is included herein. Further, ART has indicated they discontinued use of the rotary dross furnace cooler in September 2001 and have dismantled the equipment. However, the dross furnace cooling process continues to be conducted at this source in open pans located inside the production building. This process revision, which was made without IDEM approval prior to the modification, is updated in Section A.2 as currently configured.

(b) *Significant Source Modification 113-11409-00071, issued on March 29, 2000:*

D.1.2 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

Emissions of PM and PM10 from the two (2) rotary dross furnaces #2 and #3 and the rotary dross cooler shall not exceed 100 tons per year. Only the baghouse (ID Baghouse A) is required to be in operation to control PM and PM10 emissions from the rotary dross cooler at all times that the rotary dross cooler is in operation to comply with this limit. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

*Reason changed:* The Permittee has decided to include rotary furnace #1 in the PSD Minor Limit and have the potential to emit of PM/PM10 be limited to less than 100 tons per year for the source. As such, this limit is revised herein to include rotary furnace #1; remove reference to rotary furnace #3, which was never constructed as discussed above; revise reference to the rotary dross cooler as the dross cooling operation, again as discussed above; and include respective PM/PM10 emission limits (lb/hour) for the affected facilities.

(c) *Construction Permit, CP-113-10429-00071, issued on March 5, 1999, and Significant Source Modification 113-11409-00071, issued on March 29, 2000:*

The equipment listing on the cover page to CP113-10429 and at Section A.2 to SSM 113-11409 are revised at the capacities of the listed facilities.

*Reason changed:* During March and April 2003, performance testing of source emissions at the RF#1, RF#2 and Dryer #1 was conducted. This testing was performed in accordance with IDEM approved methods and was verified by IDEM. The test results have indicated that the unit capacities, as specified in their respective construction approvals, to be incorrectly stated. IDEM, OAQ, has decided the capacities determined during the testing are more reflective of unit production, increased by a factor of 1.05 (i.e., 5 percent). Therefore, the unit capacities are revised herein to be consistent with the test results.

(d) *All construction conditions from all previously issued permits.*

*Reason not incorporated:* All facilities previously permitted have already been constructed; therefore, the construction conditions are no longer necessary as part of the operating permit. Any facilities that were previously permitted but have not yet been constructed would need new pre-construction approval before beginning construction.

## **Enforcement Issue**

IDEM is aware that this source is out of compliance with the National Emission Standards for Hazardous Air Pollutants, 326 IAC 20, (40 CFR 63, Subpart RRR). IDEM is reviewing this matter as Enforcement Case No. 2002-11680-A and will take the appropriate action as necessary at the conclusion of this review. Such may result in the reopening of this permit using the provisions of 326 IAC 2-7-9 (Permit Reopening) to include detailed requirements necessary to comply with the rule and a schedule for achieving compliance with such requirements. This notwithstanding, all applicable requirements pursuant to 40 CFR 63, Subpart RRR are incorporated into this approval.

This source may also be out of compliance with the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration, PSD). This source conducts a cross cooling operation as listed at *Unpermitted Emission Units and Pollution Control Equipment*. This operation, in combination with other specified facilities, is limited to less than 100 tons per year of PM and PM10 such that the PSD requirements (326 IAC 2-2) do not apply. The cross cooling operation is uncontrolled and exhausts into the production building. The determination of the PM and PM10 emission rates from this process are not included in this permit due to the lack of available emissions information for such activities. The Permittee shall, as a condition of this approval, perform testing to determine the PM and PM10 emission rates from this process to demonstrate that such emission rates, when combined with PM and PM10 emissions from other facilities at this source, are less than the PSD major source threshold of 100 tons per year. Should the results of the test indicate non-compliance with this emission limit, IDEM will take the appropriate action.

## **Recommendation**

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

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

An administratively complete Part 70 permit application for the purposes of this review was received on March 31, 2000. Additional information was received at numerous intervals throughout this entire permit review process.

There was no notice of completeness letter mailed to the source.

## **Emission Calculations**

See Appendix A of this document for detailed emissions calculations (Appendix A, pages 1 through 4).

## **Potential To Emit**

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source 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."

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	greater than 100
PM-10	greater than 100
SO <sub>2</sub>	less than 100
VOC	greater than 100
CO	less than 100
NO <sub>x</sub>	less than 100

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
Antimony	less than 10
Arsenic	less than 10
Cadmium	less than 10
Chromium	less than 10
Hydrogen Chloride (HCl)	greater than 10
Hydrogen Fluoride(HF)	greater than 10
Lead	less than 10
Manganese	less than 10
Mercury	less than 10
Nickel	less than 10
Selenium	less than 10
Polychlorinated dibenzofurans total	less than 10
Polychlorinated dibenzo-p-dioxins total	less than 10
TOTAL	greater than 25

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of VOC and PM10 is equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is equal to or greater than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination HAPs is greater than or equal to twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (c) Fugitive Emissions  
 Since this type of operation is one of the twenty-eight (28) listed source categories under 326 IAC 2-2, the fugitive emissions are counted toward determination of PSD applicability.

**Actual Emissions**

The following table shows the actual emissions from the source. This information reflects the 2001 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	not reported
PM-10	1.3
SO <sub>2</sub>	6.3
VOC	1.0
CO	1.8
NO <sub>x</sub>	4.2
HAP (specify)	not reported

**Potential to Emit After Issuance**

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 operating permit.

Process/facility	Limited Potential to Emit (tons/year)							
	PM <sup>(2)</sup>	PM-10 <sup>(2)</sup>	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	Single HAP	Total HAPs
Rotary furnace (RF#1) <sup>(1)</sup>	35.14	35.44	0.71	5.05	4.42	5.60	13.60 <sup>(3)</sup>	13.72
Rotary furnace (RF #2) <sup>(1)</sup>								
Chip dryer (Dryer #1)	17.60	17.85	5.50	10.69 <sup>(3)</sup>	3.68	16.38	negl.	negl.
Dross cooling operation	<46.71	<46.71	0.00	0.00	0.00	0.00	negl.	negl.
<b>Total Emissions</b>	<b>&lt;100</b>	<b>&lt;100</b>	<b>6.21</b>	<b>15.74</b>	<b>8.10</b>	<b>21.98</b>	<b>13.60</b>	<b>13.72</b>

1. Furnaces 1 is the primary unit and furnace 2 is the backup unit and the furnaces do not operate simultaneously. Furnace emissions, which include pollutant emissions from natural gas firing at the furnace burners, reflect worst case of furnace 1 or 2.  
 2. Limited emissions such that the requirements of 326 IAC 2-2 (PSD) do not apply (see Condition D.1.1).  
 3. Reflects the applicable limit of 40 CFR 63, Subpart RRR.

**County Attainment Status**

The source is located in Noble County.

Pollutant	Status
PM-10	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Noble County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

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

### Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet the following:

- (a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.
- (b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

### Federal Rule Applicability

- (a) This source is not subject to the requirements of the New Source Performance Standard (NSPS), 326 IAC 12, 40 CFR 60.191, Subpart S (Primary Aluminum Reduction), because the source does not perform primary aluminum reduction as defined in 40 CFR 60.191. This source is a secondary aluminum foundry plant, therefore the requirements under 326 IAC 12, (40 CFR 60.191, Subpart S) do not apply.
- (b) 40 CFR Part 60, Subparts K, Ka, and Kb (Standards of Performance for Petroleum Liquid Storage Vessels and Volatile Liquid Storage Vessels)

The insignificant activities identified as “a petroleum fuel, other than gasoline, dispensing facility with storage capacity less than or equal to 10,500 gallons”, and VOC and HAP storage containers with capacities less than or equal to 1,000 gallons, are not subject to the New Source Performance Standards, 326 IAC 12, (40 CFR Parts 60.110, 110a - 115a or 110b - 117b, as Subparts K, Ka, and Kb, respectively). The storage capacities associated with these activities are below the minimum applicable threshold to the three rules (i.e., 40 cubic meters (10,568 gallons)).

There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

- (c) The two (2) natural gas-fired rotary furnaces, RF#1 and RF#2, and the one (1) natural gas-fired thermal chip dryer, Dryer #1, are subject to the National Emission Standards for Hazardous Air Pollutants, 326 IAC 20, (40 CFR 63, Subpart RRR). Following is a summary of the requirements:
  - (1) The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facilities described in this section except when otherwise specified in 40 CFR 63 Subpart RRR.
  - (2) Identification, emission limits and means of compliance shall be posted on all affected sources and emission units.

- (3) The two (2) natural gas-fired rotary furnaces RF #1 and RF #2 shall be controlled by a baghouse with a continuous lime injection system. The one (1) natural gas-fired thermal chip dryer, Dryer #1, shall be controlled by an afterburner and baghouse with a continuous lime injection system.
  - (4) A bag leak detection system shall be installed and operated in accordance with the "Fabric Filter Bag Leak Detection Guidance".
  - (6) A baghouse inlet temperature monitoring system shall be installed and operated.
  - (7) An afterburner temperature monitoring system shall be installed at the exit of the combustion zone and operated.
  - (8) The PM emissions from each of the two (2) natural gas-fired rotary furnaces identified as RF #1 and RF #2 shall not exceed that required for a secondary aluminum processing unit, based on 0.40 pounds per ton of feed for a group 1 furnace.
  - (9) The HCl emissions from each of the two (2) natural gas-fired rotary furnaces identified as RF #1 and RF #2 shall not exceed that required for a secondary aluminum processing unit, based on 0.40 pounds per ton of feed for a group 1 furnace.
  - (10) The total dioxins/furans (D/F) emissions from each of the two (2) natural gas-fired rotary furnaces identified as RF #1 and RF #2 shall not exceed 15 micrograms per megagram (F g/Mg) of feed.
  - (11) The total hydrocarbon (THC), as propane, emissions from the one (1) natural gas-fired thermal chip dryer identified as Dryer #1 shall not exceed 0.80 pounds per ton of feed.
  - (12) The total dioxins/furans (D/F) emissions from the one (1) natural gas-fired thermal chip dryer identified as Dryer #1 shall not exceed 2.50 F g/Mg of feed.
  - (13) A scale or scales with an accuracy of plus or minus 1% shall be installed and utilized to record the weight of each feed/charge to the two (2) natural gas-fired rotary furnaces identified as RF #1 and RF #2 and the thermal chip dryer identified as Dryer #1, each as an emission unit subject to an emission limit in kg/Mg (lb/ton) or F g/Mg (gr/ton).
  - (14) An operations, malfunction, and maintenance plan shall be developed for the emission capture and collection system, charge monitoring system, PM control systems, afterburner temperature monitoring system, and baghouse inlet temperature monitoring system.
- (d) The requirements of Section 112(j) of the Clean Air Act (40 CFR Part 63.50 through 63.56) are not applicable to this source because the source does not include one or more units that belong to one or more source categories affected by the Section 112(j) MACT Hammer date of May 15, 2002.

- (e) The requirements of 40 CFR Part 64, Compliance Assurance Monitoring, are not applicable to this source. Such requirements apply to a pollutant-specific emissions unit (PSEU), as defined in 40 CFR 64.1, at a major source that is required to obtain a Part 70 or 71 permit if the PSEU meets the following criteria:
- (1) the unit is subject to an emission limitation or standard for an applicable regulated air pollutant,
  - (2) the unit uses a control device as defined in 40 CFR 64.1 to comply with that emission limitation or standard, and
  - (3) the unit has a potential to emit (PTE) before controls equal to or greater than 100 percent of the amount (tons per year) of the pollutant required for a source to be classified as a Part 70 major source.

This source is required to obtain a Part 70 permit pursuant to 40 CFR 63.1500(e). The PSEUs as RD#1 or RD#2 (only one furnace operates at a time) have an uncontrolled PTE at greater than 100 percent of the applicable major Part 70 thresholds for PM10 and HAPs (for HCl). However, pursuant to 40 CFR 64.2(b)(i), *Exemptions*, the requirements of Part 64 do not apply to sources subject to Section 112 emission limits or standards published after November 15, 1990. Since these PSEUs are subject to Subpart RRR (i.e., a Section 112 emission limit), the requirements of 40 CFR 64, Compliance Assurance Monitoring, are not applicable.

#### **State Rule Applicability - Entire Source**

##### **326 IAC 2-2 (Prevention of Significant Deterioration, PSD)**

This existing stationary source was initially constructed in 1999, after the August 7, 1977 rule applicability date, and it is one of the 28 listed source categories. It is presently unknown if this is a major stationary source (i.e., potential to emit of 100 tons per year or more of a regulated pollutant), due to the current uncertainty of the PM/PM10 emissions from the dross cooling process. Source status will be established after the Permittee conducts requisite testing of the dross cooling emissions, as discussed in the *Enforcement Issue* section above.

Construction Permit, CP-113-10429-00071, issued on March 5, 1999, limited the PM and PM10 emissions from the source (i.e., RF #1 and Dryer #1) to less than 100 tons per year. Therefore, the requirements of 326 IAC 2-2 did not apply to the source.

Significant Source Modification 113-11409-00071, issued on March 29, 2000, limited the PM and PM10 emissions from the modification (i.e., RF #2 and dross cooling operation) to less than 100 tons per year. Therefore, the requirements of 326 IAC 2-2 did not apply to the modification.

Pursuant to this Part 70 approval, the Permittee has decided to accept conditions that limit the source-wide potential to emit PM and PM10 to less than 100 tons per year such that the source will be an existing minor stationary source and the requirements of 326 IAC 2-2 will not apply. IDEM has decided that, due to the physical condition of the facility/control device ductwork, the source must also have no visible emissions from any facility and control device related ductwork to satisfy this requirement. As such, the following applies:

- (a) The Permittee shall comply as follows:
- (1) Rotary Furnaces RD#1 and RD#2:

- (A) PM and PM10 emissions shall be limited to 8.00 pounds per hour from the baghouse controlling the furnaces.
- (B) Rotary furnaces RD#1 and RD#2 shall not operate at the same time.
- (2) Thermal Chip Dryer #1 PM and PM10 emissions shall be limited to 4.00 pounds per hour.
- (3) Dross Cooling Operation PM and PM10 emissions shall be limited to less than 10.66 pounds per hour.
- (4) There shall be no visible emissions from any ductwork related to the two (2) natural gas-fired rotary furnaces, RF #1 and RF #2, the one (1) natural gas-fired thermal chip dryer, Dryer #1, Baghouse A (which controls emissions from RF #1 and RF #2) and Baghouse B (which controls emissions from Dryer #1).

Compliance with this condition shall limit the potential to emit of PM and PM-10 of the source to less than 100 tons per 12 consecutive month period. Therefore, compliance with this condition shall make the requirements of 326 IAC 2-2 (PSD) not applicable to the source.

- (b) IDEM has insufficient data to demonstrate that the dross cooling operation is in compliance with the PM and PM10 limits of this condition, and the source shall demonstrate compliance with these limits pursuant to Condition D.1.9(a). Therefore, the permit shield authorized by the B section of this permit in the condition titled Permit Shield, and set out in 326 IAC 2-7-15, does not apply to this facility with regard to 326 IAC 2-2 (PSD), nor does it shield the Permittee from possible enforcement actions initiated by either the U.S. EPA or the Indiana Department of Environmental Management (IDEM) involving this facility. Compliance with the terms of this permit does not serve as proof of compliance for the facility described above. The Permittee shall, if needed, apply for revision of this permit to address the resolution of any such outstanding issue. [326 IAC 2-7-6(3)] [326 IAC 2-7-15]

#### 326 IAC 2-6 (Emission Reporting)

This source is located in Noble County, which is not one of the listed counties for this rule. Additionally, the source does not have the potential to emit CO, VOC, NO<sub>x</sub>, PM-10, or SO<sub>2</sub> at greater than a 100 ton per year rate. Therefore, 326 IAC 2-6 does not apply.

This determination notwithstanding, the source is required to annually submit a statement of the actual emissions of all federally regulated pollutants from the source, for the purpose of fee assessment. The annual statement must be received by July 1 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

#### 326 IAC 5-1 (Opacity Limitations)

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

- (a) Opacity shall not exceed an average of forty percent (40%) 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.

326 IAC 6-4 (Fugitive Dust Emissions)

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).

**State Rule Applicability - Individual Facilities**

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

Pursuant to 326 IAC 2-4.1-1 (New Source Toxics Control), any new process or production unit, which in and of itself emits or has the potential to emit (PTE) 10 tons per year of any hazardous air pollutant (HAP) or 25 tons per year of the combination of HAPs, and is constructed or reconstructed after July 27, 1997, must be controlled using technologies consistent with Maximum Achievable Control Technology (MACT). This rule does not apply to a major source of HAPs specifically regulated by Section 112(d) of the Clean Air Act. Since the facilities at this source are regulated by Section 112(d) (i.e., 40 CFR 63, Subpart RRR), the requirements of 326 IAC 2-4.1-1 (New Source Toxics Control) do not apply to any facilities at this source.

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

- (a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the facilities listed below shall be limited as stated:

- (1) Rotary furnace RF #1 shall not exceed 16.18 pounds per hour when operating at a process weight rate of 15,530 pounds of feed (i.e., metal, dross and solid reactive flux) per hour.
- (2) Rotary furnace RF #2 shall not exceed 12.38 pounds per hour when operating at a process weight rate of 10,410 pounds of feed (i.e., metal, dross and solid reactive flux) per hour.
- (3) Thermal chip dryer, Dryer #1, shall not exceed 8.64 pounds per hour when operating at a process weight rate of 6,090 pounds of metal per hour.
- (4) The dross cooling operation shall not exceed 13.93 pounds per hour when operating at a process weight rate of 12,420 pounds of furnace dross per hour.

- (b) These limits are based on the following equation:

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

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

Baghouse A and Baghouse B shall be in operation at all times that the two (2) rotary furnaces identified as RF #1 and RF #2, and the one (1) thermal chip dryer identified as Dryer #1, are in operation in order to comply with the above limits.

- (c) Pursuant to 326 IAC 6-3-2(c), the allowable particulate emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour. The manufacturing activities and conveying operations, as insignificant activities, shall be subject to this limit.

**326 IAC 8-1-6 (New Facilities; General Reduction Requirements)**

This rule applies to facilities located anywhere in the state that were constructed on or after January 1, 1980, which have potential volatile organic compound (VOC) emissions of 25 tons per year or more, and which are not otherwise regulated by another provision of Article 8.

The thermal chip dryer identified as Dryer #1 has the potential to emit of VOC at greater than 25 tons per year. However, this facility has an applicable emission limit of 0.8 pounds VOC (as total hydrocarbon) per ton of feed, pursuant to 40 CFR 63, Subpart RRR. The source has demonstrated compliance with this limit based on April 2003 IDEM verified stack testing. Based on a maximum facility capacity of 6,090 pounds per hour (3.045 tons per hour), this emission limit is equivalent to 10.7 tons VOC per year. Therefore, compliance with the requirements of 40 CFR 63, Subpart RRR shall also limit the potential to emit of VOC from the dryer to less than 25 tons per year, and the requirements of 326 IAC 8-1-6 shall not apply. No other facilities have a PTE of VOC at 25 tons per year or more; therefore, the requirements of this rule do not apply.

**326 IAC 8-4-3 (Petroleum Liquid Storage Facilities)**

Pursuant to 326 IAC 8-4-1 (Applicability) and 326 IAC 8-4-3 (Petroleum Liquid Storage Facilities), all petroleum liquid storage vessels with capacities greater than one hundred fifty thousand (150,000) liters (39,000 gallons) containing VOC whose true vapor pressure is greater than 10.5 kPa (1.52 psi) shall comply with the requirements for external fixed and floating roof tanks and the specified record keeping and reporting requirements. The insignificant activities identified as "a petroleum fuel, other than gasoline, dispensing facility with storage capacity less than or equal to 10,500 gallons" and VOC and HAP storage containers with capacities less than or equal to 1,000 gallons, are not subject to the requirements of 326 IAC 8-4-3 since the storage tanks are below the 39,000 gallon threshold for rule applicability.

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

Pursuant to 326 IAC 8-9-1, on and after October 1, 1995 stationary vessels used to store volatile organic liquids (VOL) must comply with the requirement of the rule if located in Clark, Floyd, Lake or Porter Counties. This rule is not applicable to this source since it is located in Noble County.

**326 IAC 11-1 (Emission Limitations for Specific Type of Operations)**

Pursuant to 326 IAC 11-1-1, emission limitations are established for particulate matter from foundries. Particulate emissions from all foundries in operation on or before December 6, 1968 shall comply with the requirements set forth in 326 IAC 11-1-2 of this rule and all foundries in operation after December 6, 1968, shall comply with 326 IAC 6-3. Since this source began operation after December 6, 1968, it must comply with 326 IAC 6-3-2 and the limitations of 326 IAC 11-1 are not applicable.

## Testing Requirements

Aluminum Recovery Technologies, Inc. has conducted performance testing. Rotary dryers RD#1 and RD#2 were tested during March and April 2003 for emissions of dioxin/furan, PM/PM10, and HCl; and thermal chip dryer, Dryer #1, was tested during April 2003 for emissions of VOC (as total hydrocarbons), dioxin/furan, PM/PM10, and SO<sub>2</sub>. Pursuant to 40 CFR 63.1511(e) (Subpart RRR), repeat testing shall be performed at least once every 5 years following the initial performance test to confirm compliance with the applicable Subpart RRR emission limits.

In addition to the above, and as indicated in the *Enforcement Issues* section of this document, this source may also be out of compliance with the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration, PSD) for the dross cooling operation and the Permittee is required to perform testing to determine the PM and PM10 emission rates from this process. Should the results of the test indicate non-compliance with the applicable emission limits for this process, IDEM will take the appropriate action. IDEM has determined that such facilities as the furnaces and the dryer, which rely on the control devices described herein, require more frequent testing to demonstrate continued compliance with the applicable PSD emission limits. Therefore, the source is required to conduct repeat testing every 2.5 years from the date of the most recent valid test.

The following testing requirements are applicable to this source:

- (a) In order to demonstrate compliance with 326 IAC 2-2, the Permittee shall comply as follows:
  - (1) Within 90 days after issuance of this permit, the Permittee shall perform PM and PM10 testing on the one (1) dross cooling operation, using methods as approved by the Commissioner.
  - (2) During the period from September 2005 to February 2006, the Permittee shall perform PM and PM10 testing on each of rotary furnaces RF #1 and RF #2 and the thermal chip dryer, Dryer #1, using methods as approved by the Commissioner. Thereafter, pursuant to 326 IAC 2-7-6(1) and (6) and 326 IAC 2-1.1-11, this test shall be repeated at least once every two and one-half (2.5) years from the date of this valid compliance demonstration.

PM-10 includes filterable and condensable PM-10. Testing shall be conducted in accordance with Section C - Performance Testing.

- (b) In order to demonstrate compliance with Subpart RRR, the Permittee shall comply as follows:
  - (1) During the period from September 2005 to February 2006, the Permittee shall perform PM and PM10, HCl, and D/F testing on each of rotary furnaces RF #1 and RF #2, in accordance with the requirements in 40 CFR 63, Subpart A and 40 CFR 63, Subpart RRR, and using methods as approved by the Commissioner. Thereafter, this test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration.
  - (2) During the period from September 2005 to February 2006, the Permittee shall perform PM and PM10, total hydrocarbon (THC, measured as propane), and D/F testing on the thermal chip dryer, Dryer #1, in accordance with the requirements in 40 CFR 63, Subpart A and 40 CFR 63, Subpart RRR, and using methods as approved by the Commissioner. Thereafter, this test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration.

PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C - Performance Testing.

- (3) The Permittee shall establish a minimum or maximum operating parameter value, or an operating parameter range for each parameter to be monitored as required by 40 CFR 63.1510 that ensures compliance with the applicable 40 CFR, Subpart RRR pollutant emission limit. The Permittee may use existing data in addition to the results of the performance test to establish operating parameter values for compliance monitoring provided the requirements of 40 CFR 63.1511(g) are met.

### Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

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

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

The two (2) natural gas-fired rotary furnaces identified as RF #1 and RF #2, and the one (1) natural gas-fired thermal chip dryer identified as Dryer #1, have applicable compliance monitoring conditions as specified below:

- (a) Visible emission notations of the stack exhaust for the two (2) rotary furnaces RF #1 and RF #2, and thermal chip dryer, Dryer #1, and 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. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) Pursuant to 40 CFR Part 63.1510, the owner or operator must inspect the labels for each furnace required by Condition D.1.5 at least once per calendar month to confirm that posted labels as required by the operational standard in §63.1506(b) are intact and legible.
- (c) The owner or operator must inspect each capture/collection and closed vent system required by Condition D.1.12(a) at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in §63.1506(c) and record the results of each inspection.

- (d) The owner or operator must initiate corrective action when a process parameter or add-on air pollution control device operating parameter deviates from the value or range established during the performance test and incorporated in the OM&M plan. Corrective action must restore operation of the affected source or emission unit (including the process or control device) to its normal or usual mode of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. Corrective actions taken must include follow-up actions necessary to return the process or control device parameter level(s) to the value or range of values established during the performance test and steps to prevent the likely recurrence of the cause of a deviation.
- (e) Pursuant to 40 CFR Subpart RRR, on and after the compliance date, the Permittee shall monitor all emission units and control equipment according to the following requirements:
- The Permittee shall calculate and record the 3-day, 24- hour rolling average emissions of PM, HCl, and D/F for each furnace on a daily basis. To calculate the 3-day, 24-hour rolling average, the Permittee shall [§ 63.1510(t)]:
- (1) Calculate and record the total weight of material charged to each furnace for each twenty-four- (24-) hour day of operation using the feed/charge weight data collected as required under Subpart RRR. If the owner or operator chooses to comply on the basis of weight of aluminum produced by the emission unit, rather than weight of material charged to the emission unit, all performance test emissions results and all calculations must be conducted on the aluminum production weight basis.
  - (2) To provide emissions for each furnace for the twenty-four- (24-) hour period, in pounds: multiply the total feed/charge weight to the furnace or the weight of aluminum produced by the furnace for the twenty-four- (24-) hour period, by the emission rate (in lb/ton of feed/charge) for that furnace (as determined during the emission test).
  - (3) Calculate and record the three- (3-) day, twenty-four- (24-) hour rolling average for each pollutant each day by summing the daily emission rates for each pollutant over the three (3) most recent consecutive days and dividing by three (3).
- (f) Pursuant to 40 CFR 63.1510(g), for the thermal chip dryer Dryer #1 using an afterburner for control, the Permittee shall conduct an inspection of each afterburner at least once a year and record the results.

- (g) The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the two (2) natural gas-fired rotary furnaces (identified as RF #1 and RF #2) and the one (1) natural gas-fired thermal chip dryer (identified as Dryer #1), at least once per shift when the two (2) natural gas-fired rotary furnaces (identified as RF #1 and RF #2) and the one (1) natural gas-fired thermal chip dryer (identified as Dryer #1) are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (h) An inspection shall be performed each calendar quarter of all bags controlling the rotary furnaces RF #1 and RF #2 and the thermal chip dryer Dryer #1 when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections required by this condition shall not be performed in consecutive months. Inspections are optional when venting to the indoors. All defective bags shall be replaced.
- (i) In the event that bag failure has been observed:
- (1) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit. If operations continue after bag failure is observed and it will be 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.
  - (2) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have 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).

These monitoring conditions are necessary because the baghouses with lime injection for rotary furnaces RF #1 and RF #2 and thermal chip dryer Dryer #1, and the afterburner controlling emissions from thermal chip dryer Dryer #1, must operate properly to ensure compliance with 40 CFR 63, Subpart RRR, 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes), and 326 IAC 2-7 (Part 70).

## **Conclusion**

The operation of this secondary aluminum production source shall be subject to the conditions of the attached proposed Part 70 Permit No. T113-12126-00071.

## Appendix A: Emission Calculations

**Company Name:** Aluminum Recovery Technologies, Inc.  
**Address, City, IN Zip:** 2170 Production Road, Kendallville, IN 46755  
**Part 70 Permit No:** 113-12126-00071  
**Reviewer:** Michael Hirtler / EVP  
**Date:** September 2003

<b>Uncontrolled Potential to Emit: Source Summary (tons/year)</b>				
Emissions Generating Activity				
Pollutant	Rotary Furnace RF#1 / RF#2*	Thermal Chip Dryer #1	Dross Cooling Operation	<b>TOTAL</b>
PM	146.35	41.79	10.95	199.09
PM10	88.83	42.04	10.95	141.82
SO2	0.71	6.35	0.00	7.06
NOx	5.60	18.25	0.00	23.85
VOC	5.05	123.49	0.00	128.54
CO	4.42	3.68	0.00	8.10
total HAPs	5,259.32	negligible	0.00	5,259.32
worst case single HAP	5,018.55	negligible	0.00	5,018.55
Total emissions based on rated capacity at 8,760 hours operation per year.				
*Reflects the higher emissions of furnace 1 or furnace 2, as furnace 1 is the primary unit and furnace 2 is the backup unit and the units do not operate simultaneously, and furnace emissions include pollutant emissions from natural gas firing at the furnace burners.				
<b>Controlled/Limited Potential to Emit: Source Summary (tons/year)</b>				
Emissions Generating Activity				
Pollutant	Rotary Furnace RF#1 / RF#2*	Thermal Chip Dryer #1	Dross Cooling Operation	<b>TOTAL</b>
PM	35.04	17.52	10.95	63.51
PM10	35.04	17.52	10.95	63.51
SO2	0.71	6.35	0.00	7.06
NOx	5.60	18.25	0.00	23.85
VOC	5.05	12.35	0.00	17.40
CO	4.42	3.68	0.00	8.10
total HAPs	13.72	negligible	0.00	13.72
worst case single HAP	13.60	negligible	0.00	13.60
Total emissions based on rated capacity at 8,760 hours operation per year, after enforceable limitations and controls.				
*Reflects the higher emissions of furnace 1 or furnace 2, as furnace 1 is the primary unit and furnace 2 is the backup unit and the units do not operate simultaneously, and furnace emissions include pollutant emissions from natural gas firing at the furnace burners.				

Appendix A: Process Emissions Calculations  
Secondary Aluminum Production

Company Name: Aluminum Recovery Technologies, Inc.  
Address City IN Zip: 2170 Production Road, Kendallville, IN 46755  
Part 70 Permit No: 113-12126-00071  
Reviewer: Michael Hirtler / EVP  
Date: September 2003

Emission Unit	Actual Throughputs*			2003 Stack Test Throughput	
	1999	2000	2001		
<b>Thermal Chip Dryer #1</b>					
metal production (tons/yr):	55	2012.94	4266	6700	(lb metal/hour)
natural gas usage (MMcf/yr):	1	0.805	7.95	4	(MMBtu/hr, burner rating)
				6	(MMBtu/hr, afterburner rating)
<b>Rotary Furnace RF #1</b>					
metal production (tons/yr):	6827	10762.1	12990	14791	(lb feed/hour) * feed is metal plus flux
natural gas usage (MMcf/yr):	15	21.52	35.74	12	(MMBtu/hr, burner rating)
<b>Rotary Furnace RF #2</b>					
metal production (tons/yr):	**	**	0**	9913	(lb feed/hour) * feed is metal plus flux
natural gas usage (MMcf/yr):				12	(MMBtu/hr, burner rating)

\* Data immediately available at IDEM, OAQ, based on actual emissions reporting information submitted by the source.

\*\* Furnace #2 became operational during 2001, and all metal production for the year was assumed at Furnace #1.

<b>Dryer #1 (metal production)</b>	Maximum Actual Throughput (tons/yr):	4,266
	Stack Test Throughput (tons/yr):	29,346.00 (based on tested tn/hr * 8,760 hr/yr)
	Maximum Capacity (tons/hr):	3.52

	PM	PM10	SO2	NOx	VOC	CO	dioxan/furan (D/F)
Emission factor (lb/ton)*	2.707	2.707	0.410	0.9	0.8	0	3.50E-05
Potential to Emit (tons/yr)	41.71	41.71	6.32	13.87	123.25	0.00	7.70E-08
Limited Potential to Emit (tons/yr)**	17.52	17.52	6.32	13.87	12.33	0.00	7.70E-08

\*Emission Factors for PM/PM10 based on lb/ton equivalent from 326 IAC 6-3-2(e) allowable particulate emission rate; for SO2 reflects 4/03 compliance stack test results; for NOx from FIRE v.6.23 for SCC #3-04-001-09; and for VOC & D/F reflects 40 CFR 63 Subpart RRR for thermal chip dryers (D/F factor in grains/ton). Stack testing results for uncontrolled VOC not immediately available, so a 90% control efficiency for the thermal afterburner was assumed for estimate of uncontrolled VOC emissions.

\*\* Limited potential to emit for PM/PM10 reflects the PSD minor limits, including natural gas emissions, such that the requirements of 326 IAC 2-2 do not apply to this source.

<b>Dryer #1 (natural gas usage)</b>	Maximum Actual Throughput (MMcf/yr):	7.95
	Maximum Rated Throughput (MMcf/yr):	87.6 (furnace & afterburner)
	Maximum Throughput (MMcf/hr):	10.00 (furnace & afterburner)

	PM	PM10	SO2	NOx	VOC	CO
Emission factor (lb/MMCF)*	1.9	7.6	0.6	100.0	5.5	84.0
Potential to Emit (tons/yr)	0.08	0.33	0.03	4.38	0.24	3.68

\*Emission Factors 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 (SUPPL. D 7/98)

<b>Furnace 1, RF#1 (metal production)</b>	Maximum Actual Throughput (tons/yr):	12,990
	Stack Test Throughput (tons/yr):	64,784.58 (based on tested tn/hr * 8,760 hr/yr)
	Maximum Capacity (tons/hr):	7.77

	PM	PM10	SO2	NOx	VOC	CO	dioxan/furan (D/F)
Emission factor (lb/ton)*	4.3	2.6	0.02	0.01	0.14	0	2.10E-04
Potential to Emit (tons/yr)	146.25	88.43	0.68	0.34	4.76	0.00	1.02E-06
Limited Potential to Emit (tons/yr)	35.04	35.04	0.68	0.34	4.76	0.00	1.02E-06

\*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. D/F factor from 40 CFR 63, Subpart RRR.

\*\* Limited potential to emit for PM/PM10 reflects the PSD minor limits, including natural gas emissions, such that the requirements of 326 IAC 2-2 do not apply to this source.

<b>Furnace 2, RF#2 (metal production)</b>	Maximum Actual Throughput (tons/yr):	0
	Stack Test Throughput (tons/yr):	43,418.94 (based on tested tn/hr * 8,760 hr/yr)
	Maximum Capacity (tons/hr):	5.20

	PM	PM10	SO2	NOx	VOC	CO	dioxan/furan (D/F)
Emission factor (lb/ton)*	4.3	2.6	0.02	0.01	0.14	0	2.10E-04
Potential to Emit (tons/yr)	98.02	59.27	0.46	0.23	3.19	0.00	6.84E-07
Limited Potential to Emit (tons/yr)	35.04	35.04	0.46	0.23	3.19	0.00	6.84E-07

\*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. D/F factor from 40 CFR 63, Subpart RRR.

\*\* Limited potential to emit for PM/PM10 reflects the PSD minor limits, including natural gas emissions, such that the requirements of 326 IAC 2-2 do not apply to this source.

<b>Furnace (natural gas usage)</b>	Maximum Actual Throughput (MMcf/yr):	35.74
	Maximum Rated Throughput (MMcf/yr):	105.12
	Maximum Throughput (MMcf/hr):	12.00

	PM	PM10	SO2	NOx	VOC	CO
Emission factor (lb/MMCF)*	1.9	7.6	0.6	100	5.5	84
Potential to Emit (tons/yr)	0.10	0.40	0.03	5.26	0.29	4.42

\*Emission Factors 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 (SUPPL. D 7/98)

Maximum Rated Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

<b>Dross Cooling</b>	Maximum Capacity (tons/hr):	7.77	(based on max. capacity of RF1, as the greater of RF1 & RF2)
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	PM	PM10	SO2	NOx	VOC	CO
Emission factor (lb/hour)*	0.322	0.322	0	0	0	0
Potential to Emit (tons/yr)	10.95	10.95	0.00	0.00	0.00	0.00

\*Emission Factors reflect equivalent PSD Minor limit (2.5 lb/hr) and maximum dross cooling production capacity.

\*\* Limited potential to emit for PM/PM10 reflects the PSD minor limits, including natural gas emissions, such that the requirements of 326 IAC 2-2 do not apply to this source.

	PM	PM10	SO2	NOx	VOC	CO	dioxan/furan (D/F)
<b>Total Potential to Emit (PTE) for Aluminum Production Units</b>							
Total PTE (tons/yr)	199.09	141.82	7.05	23.84	128.54	8.09	1.10E-06
Limited PTE (tons/yr)	63.51	63.51	7.05	23.84	17.62	8.09	1.10E-06

Notes:

Maximum capacities for metal production are determined as the higher of the 2003 stack test throughput rate or the maximum actual rate from 1999-2001, multiplied by a factor of 1.05 (i.e., increased by 5%). Maximum capacities for natural gas usage reflect the combustion unit burner rating.

Total PTE and Limited PTE reflect the higher emissions of furnace 1 or furnace 2, as furnace 1 is the primary unit and furnace 2 is the backup unit and they do not operate simultaneously.

**Appendix A: Emissions Calculations  
Secondary Aluminum Misc. HAP Metal Calculations**

**Company Name: Aluminum Recovery Technologies, Inc.  
Address, City, IN Zip: 2170 Production Road, Kendallville, IN 46755  
Part 70 Permit No: 113-12126-00071  
Reviewer: Michael Hirtler / EVP  
Date: September 2003**

Pollutant	Potential to Emit (PTE) HAPs from Dryer #1*			Potential to Emit (PTE) HAPs from Rotary Furnace #1/#2**			Total HAPs	
	Emission Factor (lb/ton)	PTE (tons/year)	Limited PTE (tons/year)	Emission Factor percent (%)	PTE (tons/year)	Limited PTE (tons/year)	PTE (tons/year)	Limited PTE (tons/year)
Antimony	4.29E-09	5.72E-08	2.65E-08	2.64E-03	3.86E-01	9.24E-02	3.86E-01	9.24E-02
Arsenic	6.32E-10	8.43E-09	3.90E-09	4.63E-05	6.77E-03	1.62E-03	6.77E-03	1.62E-03
Cadmium	1.4E-09	1.87E-08	8.64E-09	4.16E-05	6.09E-03	1.46E-03	6.09E-03	1.46E-03
Chromium	2.02E-08	2.69E-07	1.25E-07	1.48E-04	2.17E-02	5.19E-03	2.17E-02	5.19E-03
Lead	5.18E-09	6.91E-08	3.20E-08	3.75E-04	5.48E-02	1.31E-02	5.48E-02	1.31E-02
Manganese	3.2E-08	4.27E-07	1.97E-07	6.01E-05	8.80E-03	2.11E-03	8.80E-03	2.11E-03
Mercury	2.8E-09	3.73E-08	1.73E-08	0.00E+00	0.00E+00	0.00E+00	3.73E-08	1.73E-08
Nickel	2.34E-08	3.12E-07	1.44E-07	1.62E-04	2.37E-02	5.67E-03	2.37E-02	5.67E-03
Selenium	1.25E-09	1.67E-08	7.71E-09	7.40E-05	1.08E-02	2.59E-03	1.08E-02	2.59E-03
<b>Total</b>		<b>1.215E-06</b>	<b>5.624E-07</b>		<b>0.518</b>	<b>0.124</b>	<b>0.518</b>	<b>0.124</b>

Notes:

\* Emission factor from FIRE v.6.23 for SCC #3-04-001-09 (secondary aluminum production, burning/drying). The maximum capacity of the dryer is: 3.04 tons metal/hour.  
The limited PTE reflects the ratio of the limited PM emission rate of: 17.52 tons per year, to the potential PM emission rate of: 37.86 tons per year.

\*\* Emission factor from SPECIATE v.3.2 for profile number 20102 (secondary aluminum plant, dross recovery furnace), where factors are presented as a percentage of the mass fraction of particulate matter for that process. The mass fraction of PM for this process is: 46.26% and the uncontrolled and controlled PM emission rates for furnace 1, as the higher emitted furnace of 1 or 2, where only 1 furnace will operate at a time, is: 146.28 lb/hour, and 35.04 lb/hour, respectively.

**Appendix A: Flux Usage Emission Calculations**

Company Name: Aluminum Recovery Technologies, Inc.  
 Address City IN Zip: 2170 Production Road, Kendallville, IN 46755  
 Part 70 Permit No: 113-12126-00071  
 Reviewer: Michael Hirtler / EVP  
 Date: September 2003

**Emissions from Rotary Furnace RF #1 (using up to 2,168 lbs of solid reactive flux per hour)\***

Emission Unit	Solid Reactive Flux Usage (lbs/yr)	Pollutant	EF (lb/lb org flux)	Emissions before Controls (tons/yr)	Emissions** after Controls (tons/yr)	Control Device
Furnace #1 (15,530 lb feed/hr)	18,991,680	PM	included in melting emissions			baghouse w/lime injection
		PM10	included in melting emissions			baghouse w/lime injection
		HF	0.0253	240.24		baghouse w/lime injection
		HCl	0.5285	5018.55	13.60	baghouse w/lime injection
		<b>Total HAP</b>		<b>5258.80</b>	<b>13.60</b>	

**Emissions from Rotary Furnace RF #2 (using up to 1,674 lbs of solid reactive flux per hour)\***

Emission Unit	Solid Reactive Flux Usage (lbs/yr)	Pollutant	EF (lb/lb org flux)	Emissions before Controls (tons/yr)	Emissions** after Controls (tons/yr)	Control Device
Furnace #2 (10,409 lb feed/hr)	14,664,240	PM	included in melting emissions			baghouse w/lime injection
		PM10	included in melting emissions			baghouse w/lime injection
		HF	0.0253	185.50		baghouse w/lime injection
		HCl	0.5285	3875.03	9.12	baghouse w/lime injection
		<b>Total HAPs</b>		<b>4060.53</b>	<b>9.12</b>	

Note: Emission factor for HCl/HF has been calculated as follows:

Solid reactive flux consists of 51.4% chloride (Cl) and 2.4% fluoride (F). Emission factor assumes 100% conversion to HCl and HF.

$$51.4\% * (36.5(\text{mw HCl})/35.5(\text{mw Cl})) = 0.5285 \text{ lb/lb flux}$$

$$2.4\% * (20.0(\text{mw HF})/19.0(\text{mw F})) = 0.0253 \text{ lb/lb flux}$$

\* Only one of furnace #1 or #2 operate at a time. The higher emission rate of the two furnaces is used for source-wide potential to emit.

\*\* Emissions after controls reflect 40 CFR 63, Subpart RRR limit of 0.4 lb HCl/ton feed. Per 40 CFR 63.1503 (Definitions), HCl emissions serve as a surrogate measure of the total hydrogen chloride, hydrogen fluoride and chlorine HAPs. The source will utilize a baghouse w/lime injection to control emissions from these facilities.