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

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

To: Interested Parties

Date: July 9, 2014

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

Source Name: Superior Aluminum Alloys, LLC

Permit Level: Part 70 Operating Permit Renewal

Permit Number: 003-33033-00286

Source Location: 14214 Edgerton Road, New Haven, Indiana

Type of Action Taken: Permit Renewal

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 matter referenced above.

The final decision is available on the IDEM website at: http://www.in.gov/apps/idem/caats/
To view the document, select Search option 3, then enter permit 33033.

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

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

Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

(continues on next page)

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

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

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

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

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

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

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

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

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

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

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

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

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

Part 70 Operating Permit Renewal
OFFICE OF AIR QUALITY

Superior Aluminum Alloys, LLC
14214 Edgerton Road
New Haven, Indiana 46774

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

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

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

Operation Permit No.: T003-33033-00286	
Issued by: Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: July 9, 2014 Expiration Date: July 9, 2019

TABLE OF CONTENTS

SECTION A SOURCE SUMMARY

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

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

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

Source Address:	14214 Edgerton Road, New Haven, Indiana 46774
General Source Phone Number:	260-423-8595
SIC Code:	3341 (Secondary Smelting and Refining of Nonferrous Metals)
County Location:	Allen
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Minor Source, under PSD and Emission Offset Rules Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

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

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

(a) One (1) natural gas-fired Reverberatory Furnace, identified as Furnace #1 (approved in 2002 for construction), with a nominal capacity of 28,000 pounds of aluminum scrap per hour, chlorine flux of 10,233 pounds per eight-hour charge, heat input capacity of 28 MMBtu/hr, equipped with low NOx Burner and continuous lime injection baghouses E and F, and combustion and process emissions exhausting to stacks E and/or F.

Under NESHAP, Subpart RRR, Furnace #1 is considered an existing group 1 furnace.

(b) One (1) natural gas-fired Reverberatory Furnace, identified as Furnace #2 (approved in 2002 for construction), with a nominal capacity of 28,000 pounds of aluminum scrap per hour, chlorine flux of 10,233 pounds per eight-hour charge, heat input capacity of 28 MMBtu/hr, equipped with low NOx Burner and continuous lime injection baghouses E and F, and combustion and process emissions exhausting to stacks E and/or F.

Under NESHAP, Subpart RRR, Furnace #2 is considered an existing group 1 furnace.

Note: Baghouses E and F are common controls for Furnace #1 and Furnace #2.

(c) One (1) natural gas-fired Reverberatory Furnace, identified as Furnace #3 (approved in 2004 for construction), with a nominal capacity of 28,000 pounds of aluminum scrap per hour, chlorine flux of 10,233 pounds per eight-hour charge, heat input capacity of 28 MMBtu/hr, equipped with low NOx Burner and continuous lime injection baghouses L and N, and combustion and process emissions exhausting to stacks L and/or N.

Under NESHAP, Subpart RRR, Furnace #3 is considered an existing group 1 furnace.

(d) One (1) natural gas-fired Reverberatory Furnace, identified as Furnace #4 (approved in

2000 for construction), with a nominal capacity of 28,000 pounds of aluminum scrap per hour, chlorine flux of 10,233 pounds per eight-hour charge, heat input capacity of 28 MMBtu/hr, equipped with low NOx Burner and continuous lime injection baghouses L and N, and combustion and process emissions exhausting to stacks L and/or N.

Under NESHAP, Subpart RRR, Furnace #4 is considered an existing group 1 furnace.

Note: Baghouses L and N are common controls for Furnace #3 and Furnace #4.

(e) Pouring and Casting operations, (approved in 2000 for construction), without a control, with a total throughput capacity of 56 tons per hour.

(f) One (1) dross cooling operation consisting of cooling pans and two (2) holding bins, cooling up to 6850 pounds of furnace dross per hour, no control, with emissions exhausting into the building.

(g) One (1) electric Scrap Shredder, identified as unit E, approved in 2005 for construction, with a nominal capacity of fifty (50) tons of aluminum scrap per hour, with emissions controlled by fabric filter baghouse C, and exhausting through stack C .

Under NESHAP, Subpart RRR, this electric Scrap Shredder is considered an existing scrap shredder.

(h) One (1) natural gas-fired Thermal Chip Dryer, identified as unit D, approved in 1998 for construction, with a nominal drying capacity of 12,000 pounds of uncoated aluminum chips per hour and heat input capacity of 6.0 MMBtu/hr, with emissions controlled by fabric filter baghouse D and a 12.0 MMBtu/hr afterburner, and exhausting to stack D.

Under NESHAP, Subpart RRR, this Thermal Chip Dryer is considered an existing chip dryer.

(i) One (1) aluminum chip sorting system, identified as A-5, installed in 2011, with a nominal capacity of 1.5 tons per hour, with emissions controlled by a voluntary baghouse, exhausting outside and also equipped with a magnetic separator, final screen and product tote bins.

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

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

(a) One (1) lime silo for the lime injection system, installed in 2012, identified as Silo 1, with a nominal capacity of 2,500 cubic feet and equipped with passive bin vent filters and exhausting outside.

(b) One (1) lime silo for the lime injection system, installed in 2012, identified as Silo 2, with a nominal capacity of 2,500 cubic feet and equipped with passive bin vent filters and exhausting inside.

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

Eleven melt pot stands, each equiped with one (1) natural gas-fired low NOx burner rated at 2.5 MMBtu/hr, identified as burners #1-11, with uncontrolled emissions.

(d) Aluminum scrap storage pile.

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

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

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

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

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

SECTION B GENERAL CONDITIONS

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

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

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

(a) This permit, T003-33033-00286, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(c) A "responsible official" is defined at 326 IAC 2-7-1(35).

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

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

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

and

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

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

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

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

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

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

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

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

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

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

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

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

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

The Permittee shall implement the PMPs.

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

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

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

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

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

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

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

The Permittee shall implement the PMPs.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(A) A description of the emergency;

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

(C) Corrective actions taken.

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

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

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

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

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(8) be revised in response to an emergency.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(a) All terms and conditions of permits established prior to T003-33033-00286 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

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

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

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

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

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

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

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

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

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

(1) That this permit contains a material mistake.

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

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

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

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

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

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

Request for renewal shall be submitted to:

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

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

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

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

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if,

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

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

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

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

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

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

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

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

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

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

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

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

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

(2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

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

(4) The Permittee notifies the:

Indiana Department of Environmental Management

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

and

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

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

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

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

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

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

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

(3) Any change in emissions; and

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

C.2 Opacity [326 IAC 5-1]

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality

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

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

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in

accordance with good air pollution control practices for minimizing excess emissions.

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

(1) initial inspection and evaluation;

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

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

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

(1) monitoring results;

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

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

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

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

(II)

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

(1) Upon detecting an excursion or exceedance, subject to CAM, the Permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(2) Determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

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

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

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

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

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

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

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

(g) Implementation of a QIP shall not excuse the Permittee from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.

(h) *CAM recordkeeping requirements.*

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

(2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks,

or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements

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

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

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

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

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

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

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

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

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

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

The statement must be submitted to:

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

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

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

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

(AA) All calibration and maintenance records.

(BB) All original strip chart recordings for continuous monitoring instrumentation.

(CC) Copies of all reports required by the Part 70 permit.

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

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

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

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

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

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

(b) The address for report submittal is:

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

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

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

Stratospheric Ozone Protection

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

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

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) One (1) natural gas-fired Reverberatory Furnace, identified as Furnace #1 (approved in 2002 for construction), with a nominal capacity of 28,000 pounds of aluminum scrap per hour, chlorine flux of 10,233 pounds per eight-hour charge, heat input capacity of 28 MMBtu/hr, equipped with low NOx Burner and continuous lime injection baghouses E and F, and combustion and process emissions exhausting to stacks E and/or F.

Under NESHAP, Subpart RRR, Furnace #1 is considered an existing group 1 furnace.

(b) One (1) natural gas-fired Reverberatory Furnace, identified as Furnace #2 (approved in 2002 for construction), with a nominal capacity of 28,000 pounds of aluminum scrap per hour, chlorine flux of 10,233 pounds per eight-hour charge, heat input capacity of 28 MMBtu/hr, equipped with low NOx Burner and continuous lime injection baghouses E and F, and combustion and process emissions exhausting to stacks E and/or F.

Under NESHAP, Subpart RRR, Furnace #2 is considered an existing group 1 furnace.

Note: Baghouses E and F are common controls for Furnace #1 and Furnace #2.

(c) One (1) natural gas-fired Reverberatory Furnace, identified as Furnace #3 (approved in 2004 for construction), with a nominal capacity of 28,000 pounds of aluminum scrap per hour, chlorine flux of 10,233 pounds per eight-hour charge, heat input capacity of 28 MMBtu/hr, equipped with low NOx Burner and continuous lime injection baghouses L and N, and combustion and process emissions exhausting to stacks L and/or N.

Under NESHAP, Subpart RRR, Furnace #3 is considered an existing group 1 furnace.

(d) One (1) natural gas-fired Reverberatory Furnace, identified as Furnace #4 (approved in 2000 for construction), with a nominal capacity of 28,000 pounds of aluminum scrap per hour, chlorine flux of 10,233 pounds per eight-hour charge, heat input capacity of 28 MMBtu/hr, equipped with low NOx Burner and continuous lime injection baghouses L and N, and combustion and process emissions exhausting to stacks L and/or N.

Under NESHAP, Subpart RRR, Furnace #4 is considered an existing group 1 furnace.

Note: Baghouses L and N are common controls for Furnace #3 and Furnace #4.

(e) Pouring and Casting operations, (approved in 2000 for construction), without a control, with a total throughput capacity of 56 tons per hour.

(f) One (1) dross cooling operation consisting of cooling pans and two (2) holding bins, cooling up to 6850 pounds of furnace dross per hour, no control, with emissions exhausting into the building.

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

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

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

In order to render 326 IAC 2-2 (PSD) not applicable, the following conditions apply to

Reverberatory Furnaces #1 through #4:

Throughput Limit

(a) The combined input of aluminum scrap to Furnaces #1, #2, #3, and #4 shall not exceed 300,000,000 pounds per twelve consecutive month period with compliance determined at the end of each month.

NO_x Limits

(b) The NO_x emissions (consisting of combustion and process emissions) from Stacks E and F combined shall not exceed 0.82 pounds per ton of aluminum scrap processed in Furnace #1 or Furnace #2.

(c) The NO_x emissions (including combustion and process emissions) from Stacks L and N combined shall not exceed 0.82 pounds per ton of aluminum scrap processed in furnace #3 or furnace #4.

PM Limits

(d) The PM emissions (consisting of combustion and process emissions) from Stacks E and F combined shall not exceed 0.4 pounds per ton of aluminum melted in Furnace #1 or Furnace #2.

(e) The PM emissions (consisting of combustion and process emissions) from Stacks L and N combined shall not exceed 0.4 pounds per ton of aluminum melted in Furnace #3 or Furnace #4.

PM10 Limits

(f) The PM10 emissions (consisting of combustion and process emissions) from Stacks E and F combined shall not exceed 0.4 pounds per ton of aluminum melted in furnace #1 or furnace #2.

(g) The PM10 emissions (consisting of combustion and process emissions) from Stacks L and N combined shall not exceed 0.4 pounds per ton of aluminum melted in Furnace #3 or Furnace #4.

PM2.5 Limits

(h) The PM2.5 emissions (consisting of combustion and process emissions) from Stacks E and F combined shall not exceed 0.4 pounds per ton of aluminum melted in Furnace #1 or Furnace #2.

(i) The PM2.5 emissions (consisting of combustion and process emissions) from Stacks L and N combined shall not exceed 0.4 pounds per ton of aluminum melted in Furnace #3 or Furnace #4.

Compliance with limits (a), (b) and (c) above in conjunction with NO_x emissions from other emission units at the source will limit the source-wide NO_x PTE to less than 100 tons per twelve (12) consecutive month period, and renders the source minor under 326 IAC 2-2, PSD.

Compliance with the limits (a), (d) through (i) above in conjunction with conditions D.2.1, D.3.1 and the PM, PM and PM2.5 PTE of the insignificant activities will limit the source wide total PM, PM10 and PM2.5 PTE below one hundred (100) tons per year and will render the requirements of 326 IAC 2-2 not applicable.

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate from the dross cooling operation shall not exceed a total 9.35 pounds per hour when

operating at a process weight rate of 6850 pounds (3.42 tons) of metal per hour.

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

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

D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

Compliance Determination Requirements

D.1.4 Testing Requirements [326 IAC 2-1.1-11]

In order to demonstrate compliance with Condition D.1.1, the Permittee shall perform PM, PM10, PM2.5 and NO_x, testing for Furnaces #1, #2, #3 and #4 no later than two and one-half (2.5) years after the date of the most recent compliance testing performed on the subject emission unit using methods as approved by the Commissioner. These test shall be repeated at least once every two and one-half (2.5) years from the date of the most recent valid compliance demonstration for PM, PM10, PM2.5 and NO_x.

Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures).

Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

PM10 and PM2.5 shall include filterable and condensable PM.

D.1.5 Particulate Matter (PM)

(a) In order to comply with the particulate limits specified in Condition D.1.1, the baghouses equipped on Furnace #1 through Furnace #4, shall be in operation and control particulate emissions from their respective furnace(s) as follows:

(i) It is acceptable to operate only the baghouse that exhausts to stack L or the baghouse that exhausts to stack N if only either #3 or #4 is operating.

(ii) If both furnaces #3 and #4 are operating, then the baghouse that exhausts to stack L and the baghouse that exhausts to stack N must be operating.

(iii) It is acceptable to operate only the baghouse that exhausts to stack E or the baghouse that exhausts to stack F if only either furnace #1 or #2 is operating.

(iv) If both furnaces #1 and #2 are operating, then both the baghouse that exhausts to stack E and the baghouse that exhausts to stack F must be operating.

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

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

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

Pursuant to 40 CFR 64 (CAM), the Permittee shall operate BLDS (as required under NESHAP, Subpart RRR) on the Baghouses E, F, L and N.

This monitoring condition satisfies the CAM for Baghouses E, F, L and N.

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

D.1.7 Record Keeping Requirements

(a) To document compliance with D.1.1(a), the Permittee shall maintain monthly records of the total scrap aluminum processed at each reverberatory furnace.

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

D.1.8 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.1.1(a) shall be submitted to the address listed in Section C- General Reporting Requirements, of this permit, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official," as defined by 326 IAC 2-7-1(34).

SECTION D.2 FACILITY OPERATION CONDITIONS

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

(g) One (1) electric Scrap Shredder, identified as unit E, approved in 2005 for construction, with a nominal capacity of fifty (50) tons of aluminum scrap per hour, with emissions controlled by fabric filter baghouse C, and exhausting through stack C .

Under NESHAP, Subpart RRR, this electric Scrap Shredder is considered an existing scrap shredder.

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

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

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

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

(a) The PM emissions after control from the electric Scrap Shredder shall not exceed 4.28 pounds per hour.

(b) The PM10 emissions after control from the electric Scrap Shredder shall not exceed 4.28 pounds per hour.

(c) The PM2.5 emissions after control from the electric Scrap Shredder shall not exceed 4.28 pounds per hour.

Compliance with these limits in conjunction with conditions D.1.1(a), D.1.1(d) through (i), D.3.1 and the PM, PM and PM2.5 PTE of the insignificant activities will limit the source wide PM, PM10 and PM2.5 PTE to less than 100 tons per twelve (12) consecutive month period, and renders the source minor under 326 IAC 2-2, PSD.

D.2.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan is required for the facility described in this section and its control device. Section B - Preventative Maintenance Plan contains the Permittee's obligations with regard to the plan required by this condition.

Compliance Determination Requirements

D.2.3 Particulate Matter

(a) In order to demonstrate compliance with Condition D.2.1, the baghouse C for PM, PM10 and PM2.5 control shall be in operation and control emissions from the Scrap Shredder at all times that the shredder is in operation.

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

D.2.4 Testing Requirements [326 IAC 2-7-6(1),(6)]

In order to demonstrate compliance with Condition D.2.1, the Permittee shall perform PM,

PM10 and PM2.5 testing for the Scrap Shredder no later than five (5) years after the date of the most recent test using methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration.

Testing shall be conducted in accordance with Section C - Performance Testing.

Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

PM, PM10 and PM2.5 shall include filterable PM only.

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

D.2.5 Bag Leak Detection System (BLDS) [40 CFR 64]

Pursuant to 40 CFR 64 (CAM), the Permittee shall operate BLDS (as required under NESHAP, Subpart RRR) on the Baghouse C.

SECTION D.3 FACILITY OPERATION CONDITIONS

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

(h) One (1) natural gas-fired Thermal Chip Dryer, identified as unit D, approved in 1998 for construction, with a nominal drying capacity of 12,000 pounds of uncoated aluminum chips per hour and heat input capacity of 6.0 MMBtu/hr, with emissions controlled by fabric filter baghouse D and a 12.0 MMBtu/hr afterburner, and exhausting to stack D.

Under NESHAP, Subpart RRR, this Thermal Chip Dryer is considered an existing chip dryer.

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

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

D.3.1 PSD Minor Source Limit [326 IAC 2-2]

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

(a) The PM emissions after control from the Chip Dryer shall not exceed 4.18 pounds per hour.

(b) The PM10 emissions after control from the Chip Dryer shall not exceed 4.18 pounds per hour.

(c) The PM2.5 emissions after control from the Chip Dryer shall not exceed 4.18 pounds per hour.

Compliance with these limits in conjunction with Conditions D.1.1(a), D.1.1(d) through (i), D.2.1 and the PM, PM and PM2.5 PTE of the insignificant activities will limit the source-wide PM, PM10 and PM2.5 PTE to less than 100 tons per twelve (12) consecutive month period, and renders the source minor under 326 IAC 2-2, PSD.

D.3.2 VOC BACT (Best Available Control Technology) and PSD Minor Limit [326 IAC 8-1-6] [326 IAC 2-2]

Pursuant to CP 003-9243-00286 (issued on May 1, 1998), 326 IAC 8-1-6 BACT and in order to render 326 IAC 2-2 not applicable, the afterburner, determined to be the 326 IAC 8-1-6 BACT, shall be operated at all times that the Chip Dryer is in operation. When operating, the afterburner must maintain a minimum VOC capture efficiency of ninety-nine percent (99%) and a minimum VOC destruction efficiency of ninety-nine percent (99%).

Compliance with this limit in conjunction with the potential to emit of other emission units at this source will limit the source-wide VOC PTE to less than 100 tons per twelve (12) consecutive month period, and renders the source minor under 326 IAC 2-2, PSD.

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emissions rate from the Chip Dryer shall not exceed 13.62 pounds per hour when operating at a process weight rate of 6 tons of metal per hour.

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

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

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

D.3.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

Compliance Determination Requirements

D.3.5 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

(a) In order to demonstrate compliance with Condition D.3.1, the Permittee shall perform PM, PM10 and PM2.5 testing for the baghouse D equipped on the Chip Dryer no later than five (5) years after the date of the most recent VOC capture and destruction efficiency testing performed for the After Burner equipped on the Chip Dryer using methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration.

Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures).

Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

PM10 and PM2.5 shall include filterable and condensable PM.

The testing time frames for PM, PM10 and PM2.5 of the Chip Dryer are streamlined to coincide with the next VOC scheduled testing.

(b) In order to demonstrate compliance with Condition D.3.2, the Permittee shall perform VOC capture and destruction efficiency testing for the After Burner equipped on the Chip Dryer no later than five (5) years after the date of the most recent compliance testing performed for the After Burner equipped on the Chip Dryer using methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration.

Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures).

Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

D.3.6 After Burner

In order to demonstrate compliance with Condition D.3.2, Permittee shall comply with the following:

(a) The afterburner for VOC control shall be in operation and control emissions from the Chip Dryer at all times that the Chip Dryer is in operation.

(b) Operate the Chip Dryer using only unpainted aluminum chips as the feedstock.

D.3.7 Particulate Control

(a) In order to assure compliance with Conditions D.3.1 and D.3.3, the baghouse D shall be in operation and control emissions from the Chip Dryer at all times the Chip Dryer is in operation.

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

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

D.3.8 After Burner Temperature

(a) A continuous monitoring system shall be calibrated, maintained, and operated on the After Burner for measuring operating temperature. For the purpose of this condition, continuous means no less often than once per fifteen (15) minutes. The Permittee shall operate the afterburner at or above the average temperature established during the most recent performance test.

(b) The Permittee shall determine the 3-hour block average temperature from the most recent valid stack test that demonstrates compliance with the limits in Condition D.3.2.

(c) The Permittee shall operate the After Burner at or above the 3-hour average temperature as observed during the most recent compliant stack test.

D.3.9 After Burner Fan Amperage

(a) The Permittee shall determine the appropriate fan amperage from the most recent valid stack test that demonstrates compliance with limits in Condition D.3.2.

(b) The fan amperage shall be observed at least once per day when the After Burner is in operation. The fan amperage shall be maintained within the normal range as established in most recent compliant stack test.

D.3.10 Bag Leak Detection System (BLDS) [40 CFR 64]

Pursuant to 40 CFR 64 (CAM), the Permittee shall install and operate continuous Bag leak detection systems (BLDSs) for the baghouse D.

The BLDS shall meet the following requirements:

(a) Each triboelectric bag leak detection system must be installed, calibrated, operated, and maintained according to the “Fabric Filter Bag Leak Detection Guidance,” (September 1997). This document is available from the U.S. Environmental Protection Agency; Office of Air Quality Planning and Standards; Emissions, Monitoring and Analysis Division; Emission Measurement Center (MD-19), Research Triangle Park, NC 27711. This document also is available on the Technology Transfer Network (TTN) under Emission Measurement Technical Information (EMTIC), Continuous Emission Monitoring.

Other bag leak detection systems must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations.

(b) 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.

(c) The bag leak detection system sensor must provide output of relative or absolute PM loadings.

(d) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.

(e) 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.

(f) 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.

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

(h) 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.

(i) 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.3.11 Broken or Failed Bag Detection [40 CFR 64]

Pursuant to 40 CFR 64 (CAM), the Permittee shall comply with the following for baghouse D in the event of a BLDS alarm for baghouse D:

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

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

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

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

D.3.12 Record Keeping Requirements

(a) To document compliance with Condition D.3.8, the Permittee shall maintain records of the 3-hour block average temperature used to demonstrate compliance during the most recent compliant stack test.

(b) To document compliance with Condition D.3.10, the Permittee shall maintain records of each alarm.

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

SECTION D.4 FACILITY OPERATION CONDITIONS

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

(i) One (1) aluminum chip sorting system, identified as A-5, installed in 2011, with a nominal capacity of 1.5 tons per hour, with emissions controlled by a voluntary baghouse, exhausting outside and also equipped with a magnetic separator, final screen and product tote bins.

(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.4.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate from the aluminum chip sorting system shall not exceed a total 5.38 pounds per hour when operating at a process weight rate of 1.5 tons of aluminum per hour. The pound per hour limitation was calculated with the following equation:

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

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

D.4.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan is required for the facility described in this section and its control device. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.4.3 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

In order to demonstrate compliance with Condition D.4.1, the Permittee shall perform a one-time PM testing on the chip sorting system (before control) no later than hundred eighty (180) days after the issuance of renewal T003-33033-00286 using methods as approved by the Commissioner.

Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures).

Section C – Performance Testing contains the Permittee’s obligation with regard to the performance testing required by this condition.

PM shall include filterable and condensable PM..

SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) One (1) lime silo for the lime injection system, installed in 2012, identified as Silo 1, with a nominal capacity of 2,500 cubic feet and equipped with passive bin vent filters and exhausting outside.

(b) One (1) lime silo for the lime injection system, installed in 2012, identified as Silo 2, with a nominal capacity of 2,500 cubic feet and equipped with passive bin vent filters and exhausting inside.

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

Compliance Determination Requirements

D.5.1 Particulate Matter (PM)

In order to comply with Condition C.1, the bin vent filters equipped on Silo 1 and Silo 2 shall be in operation or shall be in place and control particulate emissions from Silo 1 and Silo 2 at all times the Silo 1 and Silo 2 are in operation.

SECTION E.1 FACILITY OPERATION CONDITIONS

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

(a) One (1) natural gas-fired Reverberatory Furnace, identified as Furnace #1 (approved in 2002 for construction), with a nominal capacity of 28,000 pounds of aluminum scrap per hour, chlorine flux of 10,233 pounds per eight-hour charge, heat input capacity of 28 MMBtu/hr, equipped with low NOx Burner and continuous lime injection baghouses E and F, and combustion and process emissions exhausting to stacks E and/or F.

Under NESHAP, Subpart RRR, Furnace #1 is considered an existing group 1 furnace.

(b) One (1) natural gas-fired Reverberatory Furnace, identified as Furnace #2 (approved in 2002 for construction), with a nominal capacity of 28,000 pounds of aluminum scrap per hour, chlorine flux of 10,233 pounds per eight-hour charge, heat input capacity of 28 MMBtu/hr, equipped with low NOx Burner and continuous lime injection baghouses E and F, and combustion and process emissions exhausting to stacks E and/or F.

Under NESHAP, Subpart RRR, Furnace #2 is considered an existing group 1 furnace.

Note: Baghouses E and F are common controls for Furnace #1 and Furnace #2.

(c) One (1) natural gas-fired Reverberatory Furnace, identified as Furnace #3 (approved in 2004 for construction), with a nominal capacity of 28,000 pounds of aluminum scrap per hour, chlorine flux of 10,233 pounds per eight-hour charge, heat input capacity of 28 MMBtu/hr, equipped with low NOx Burner and continuous lime injection baghouses L and N, and combustion and process emissions exhausting to stacks L and/or N.

Under NESHAP, Subpart RRR, Furnace #3 is considered an existing group 1 furnace.

(d) One (1) natural gas-fired Reverberatory Furnace, identified as Furnace #4 (approved in 2000 for construction), with a nominal capacity of 28,000 pounds of aluminum scrap per hour, chlorine flux of 10,233 pounds per eight-hour charge, heat input capacity of 28 MMBtu/hr, equipped with low NOx Burner and continuous lime injection baghouses L and N, and combustion and process emissions exhausting to stacks L and/or N.

Under NESHAP, Subpart RRR, Furnace #4 is considered an existing group 1 furnace.

Note: Baghouses L and N are common controls for Furnace #3 and Furnace #4.

(g) One (1) electric Scrap Shredder, identified as unit E, approved in 2005 for construction, with a nominal capacity of fifty (50) tons of aluminum scrap per hour, with emissions controlled by fabric filter baghouse C, and exhausting through stack C .

Under NESHAP, Subpart RRR, this electric Scrap Shredder is considered an existing scrap shredder.

(h) One (1) natural gas-fired Thermal Chip Dryer, identified as unit D, approved in 1998 for construction, with a nominal drying capacity of 12,000 pounds of uncoated aluminum chips per hour and heat input capacity of 6.0 MMBtu/hr, with emissions controlled by fabric filter baghouse D and a 12.0 MMBtu/hr afterburner, and exhausting to stack D.

Under NESHAP, Subpart RRR, this Thermal Chip Dryer is considered an existing chip dryer.

(The information describing the process contained in this facility description box is descriptive information and

does not constitute enforceable conditions.)

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

Pursuant to 40 CFR 63.1500, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1, except as otherwise specified in 40 CFR Part 63, Subpart RRR.

E.1.2 National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production Requirements [40 CFR Part 63, Subpart RRR] [326 IAC 20-70]

The Permittee which engages in secondary aluminum production shall comply with the following provisions of 40 CFR Part 63, Subpart RRR.

The full text of Subpart RRR may be found in Attachment A of this permit.

Where the NESHAP provides options for compliance, nothing in this condition precludes the Permittee from choosing among those options or requires the Permittee to use a particular option:

(a) 40 CFR 63.1500(a), (b)(1, 2 and 8), and (d)
(b) 40 CFR 63.1501(a)
(c) 40 CFR 63.1502
(d) 40 CFR 63.1503
(e) 40 CFR 63.1505(a), (b), (c), (i)(1 - 4 and 6) and (k)(1 - 4 and 6)
(f) 40 CFR 63.1506(a)(1 and 4), (b), (c), (d), (e)(1), (f), (m)(1, 3, 4, 5 and 6), (o) and (p)
(g) 40 CFR 63.1510(a), (b)(1 - 3, 4(i), 5 - 7), (c), (d), (e), (f)(1), (g), (h), (i)(1)(i and ii) and (2), (j), (k), (n), (s), (t), (u), (v) and (w)
(h) 40 CFR 63.1511(a), (b), (c), (d), (e), (g), (h) and (i)
(i) 40 CFR 63.1512(a), (b), (d), (j), (k), (m), (n), (o), (p), (q), (r) and (s)
(j) 40 CFR 63.1513
(k) 40 CFR 63.1515(a)(6) and (b)(1 - 7 and 10)
(l) 40 CFR 63.1516(a), (b)(1)(i and iv - vii), (b)(2)(i and iii), (b)(3) and (c)
(m) 40 CFR 63.1517(a), (b)(1)(i), 2, 3, 5, 6, 7, 9, 10, 13, 14, 15, 16 and 17
(n) 40 CFR 63.1518
(o) 40 CFR 63.1519
(p) Table 1 (applicable portions)
(q) Table 2 (applicable portions)
(r) Table 3 (applicable portions)
(s) Appendix A to Subpart RRR

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

Source Name: Superior Aluminum Alloys, LLC
Source Address: 14214 Edgerton Road, New Haven, Indiana 46774
Part 70 Permit No.: T003-33033-00286

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

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify)

☐ Report (specify)

☐ Notification (specify)

☐ Affidavit (specify)

☐ Other (specify)

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: Superior Aluminum Alloys, LLC
Source Address: 14214 Edgerton Road, New Haven, Indiana 46774
Part 70 Permit No.: T003-33033-00286

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

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

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

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

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

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

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

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

Part 70 Quarterly Report

Source Name: Superior Aluminum Alloys, LLC
Source Address: 14214 Edgerton Road, New Haven, Indiana 46774
Part 70 Permit No.: T003-33033-00286
Facility: Four Reverberatory Furnaces (Furnaces #1 through #4)
Parameter: Total amount of scrap aluminum fed/charged
Limit: 300,000,000 pounds per twelve consecutive month period

QUARTER : YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

□ No deviation occurred in this quarter.

□ Deviation/s occurred in this quarter.
Deviation has been reported on:

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

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

Source Name: Superior Aluminum Alloys, LLC
Source Address: 14214 Edgerton Road, New Haven, Indiana 46774
Part 70 Permit No.: T003-33033-00286

Months: _____ to _____ Year: _____

This report shall be submitted quarterly based on a calendar year. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C-General Reporting. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

□ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

□ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

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

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

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

Attachment A
to
Part 70 Operating Permit Renewal
Permit Renewal No.: T003-33033-00286

National Emission Standards for Hazardous Air Pollutants (NESHAP) for Secondary Aluminum Production 40 CFR 63, Subpart RRR

Superior Aluminum Alloys, LLC
14214 Edgerton Road, New Haven, Indiana 46774

Title 40: Protection of Environment
Part 63 - National Emission Standards for Hazardous Air Pollutants (NESHAP) for Subpart RRR-Secondary Aluminum Production

Source: 65 FR 15710, Mar. 23, 2000, unless otherwise noted.

General

§ 63.1500 Applicability.

(a) The requirements of this subpart apply to the owner or operator of each secondary aluminum production facility as defined in §63.1503.

(b) The requirements of this subpart apply to the following affected sources, located at a secondary aluminum production facility that is a major source of hazardous air pollutants (HAPs) as defined in §63.2:

(1) Each new and existing aluminum scrap shredder;

(2) Each new and existing thermal chip dryer;

(3) Each new and existing scrap dryer/delacquering kiln/decoating kiln;

(4) Each new and existing group 2 furnace;

(5) Each new and existing sweat furnace;

(6) Each new and existing dross-only furnace;

(7) Each new and existing rotary dross cooler; and

(8) Each new and existing secondary aluminum processing unit.

(c) The requirements of this subpart pertaining to dioxin and furan (D/F) emissions and associated operating, monitoring, reporting and recordkeeping requirements apply to the following affected sources, located at a secondary aluminum production facility that is an area source of HAPs as defined in §63.2:

(1) Each new and existing thermal chip dryer;

(2) Each new and existing scrap dryer/delacquering kiln/decoating kiln;

(3) Each new and existing sweat furnace;

(4) Each new and existing secondary aluminum processing unit, containing one or more group 1 furnace emission units processing other than clean charge.

(d) The requirements of this subpart do not apply to facilities and equipment used for research and development that are not used to produce a saleable product.

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

(f) An aluminum die casting facility, aluminum foundry, or aluminum extrusion facility shall be considered to be an area source if it does not emit, or have the potential to emit considering controls, 10 tons per year or more of any single listed HAP or 25 tons per year of any combination of listed HAP from all emission sources which are located in a contiguous area and under common control, without regard to whether or not such sources are regulated under this subpart or any other subpart. In the case of an aluminum die casting facility, aluminum foundry, or aluminum extrusion facility which is an area source and is subject to regulation under this subpart only because it operates a thermal chip dryer, no furnace operated by such a facility shall be deemed to be subject to the requirements of this subpart if it melts only clean charge, internal scrap, or customer returns.

[65 FR 15710, Mar. 23, 2000, as amended at 67 FR 79814, Dec. 30, 2002; 70 FR 75346, Dec. 19, 2005]

§ 63.1501 Dates.

(a) The owner or operator of an existing affected source must comply with the requirements of this subpart by March 24, 2003.

(b) Except as provided in paragraph (c) of this section, the owner or operator of a new affected source that commences construction or reconstruction after February 11, 1999 must comply with the requirements of this subpart by March 24, 2000 or upon startup, whichever is later.

(c) The owner or operator of any affected source which is constructed or reconstructed at any existing aluminum die casting facility, aluminum foundry, or aluminum extrusion facility which otherwise meets the applicability criteria set forth in §63.1500 must comply with the requirements of this subpart by March 24, 2003 or upon startup, whichever is later.

[67 FR 59791, Sept. 24, 2002]

§ 63.1502 Incorporation by reference.

(a) The following material is incorporated by reference in the corresponding sections noted. The incorporation by reference (IBR) of certain publications listed in the rule will be approved by the Director of the Office of the Federal Register as of the date of publication of the final rule in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. This material is incorporated as it exists on the date of approval:

(1) Chapters 3 and 5 of “Industrial Ventilation: A Manual of Recommended Practice,” American Conference of Governmental Industrial Hygienists, (23rd edition, 1998), IBR approved for §63.1506(c), and

(2) “Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs) and 1989 Update” (EPA/625/3–89/016).

(b) The material incorporated by reference is available for inspection at the National Archives and Records Administration (NARA); and at the Air and Radiation Docket and Information Center, U.S. EPA, 1200 Pennsylvania Ave., NW., Washington, DC. For information on the availability of this material at NARA, call 202–741–6030, or go to: *http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.* The material is also available for purchase from the following addresses:

(1) Customer Service Department, American Conference of Governmental Industrial Hygienists (ACGIH), 1330 Kemper Meadow Drive, Cincinnati, OH 45240–1634, telephone number (513) 742–2020; and

(2) The National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA, NTIS no. PB 90–145756.

§ 63.1503 Definitions.

Terms used in this subpart are defined in the Clean Air Act as amended (CAA), in §63.2, or in this section as follows:

Add-on air pollution control device means equipment installed on a process vent that reduces the quantity of a pollutant that is emitted to the air.

Afterburner means an air pollution control device that uses controlled flame combustion to convert combustible materials to noncombustible gases; also known as an incinerator or a thermal oxidizer.

Aluminum scrap means fragments of aluminum stock removed during manufacturing (*i.e.,* machining), manufactured aluminum articles or parts rejected or discarded and useful only as material for reprocessing, and waste and discarded material made of aluminum.

Aluminum scrap shredder means a unit that crushes, grinds, or breaks aluminum scrap into a more uniform size prior to processing or charging to a *scrap dryer/delacquering kiln/decoating kiln,* or furnace. A bale breaker is not an *aluminum scrap shredder.*

Bag leak detection system means an instrument that is capable of monitoring particulate matter loadings in the exhaust of a fabric filter (*i.e.,* baghouse) in order to detect bag failures. A *bag leak detection system* includes, but is not limited to, an instrument that operates on triboelectric, light scattering, light transmittance, or other effect to monitor relative particulate matter loadings.

Chips means small, uniformly-sized, unpainted pieces of aluminum scrap, typically below 11/4inches in any dimension, primarily generated by turning, milling, boring, and machining of aluminum parts.

Clean charge means furnace charge materials, including molten aluminum; T-bar; sow; ingot; billet; pig; alloying elements; aluminum scrap known by the owner or operator to be entirely free of paints, coatings, and lubricants; uncoated/unpainted aluminum chips that have been thermally dried or treated by a centrifugal cleaner; aluminum scrap dried at 343 °C (650 °F) or higher; aluminum scrap delacquered/decoated at 482 °C (900 °F) or higher, and runaround scrap.

Cover flux means salt added to the surface of molten aluminum in a *group 1* or *group 2 furnace,* without agitation of the molten aluminum, for the purpose of preventing oxidation.

Customer returns means any aluminum product which is returned by a customer to the aluminum company that originally manufactured the product prior to resale of the product or further distribution in commerce, and which contains no paint or other solid coatings (*i.e.,* lacquers).

D/F means dioxins and furans.

Dioxins and furans means tetra-, penta-, hexa-, and octachlorinated dibenzo dioxins and furans.

Dross means the slags and skimmings from aluminum melting and refining operations consisting of fluxing agent(s), impurities, and/or oxidized and non-oxidized aluminum, from scrap aluminum charged into the furnace.

Dross-only furnace means a furnace, typically of rotary barrel design, dedicated to the reclamation of aluminum from dross formed during melting, holding, fluxing, or alloying operations carried out in other process units. Dross and salt flux are the sole feedstocks to this type of furnace.

Emission unit means a *group 1 furnace* or *in-line fluxer* at a *secondary aluminum production facility.*

Fabric filter means an add-on air pollution control device used to capture particulate matter by filtering gas streams through filter media; also known as a baghouse.

Feed/charge means, for a furnace or other process unit that operates in batch mode, the total weight of material (including molten aluminum, T-bar, sow, ingot, etc.) and alloying agents that enter the furnace during an operating cycle. For a furnace or other process unit that operates continuously, *feed/charge* means the weight of material (including molten aluminum, T-bar, sow, ingot, etc.) and alloying agents that enter the process unit within a specified time period (*e.g.,* a time period equal to the performance test period). The *feed/charge* for a dross only furnace includes the total weight of dross and solid flux.

Fluxing means refining of molten aluminum to improve product quality, achieve product specifications, or reduce material loss, including the addition of solvents to remove impurities (solvent flux); and the injection of gases such as chlorine, or chlorine mixtures, to remove magnesium (demagging) or hydrogen bubbles (degassing). *Fluxing* may be performed in the furnace or outside the furnace by an *in-line fluxer.*

Furnace hearth means the combustion zone of a furnace in which the molten metal is contained.

Group 1 furnace means a furnace of any design that melts, holds, or processes aluminum that contains paint, lubricants, coatings, or other foreign materials with or without *reactive fluxing,* or processes *clean charge* with *reactive fluxing.*

Group 2 furnace means a furnace of any design that melts, holds, or processes only *clean charge* and that performs no *fluxing* or performs *fluxing* using only nonreactive, non-HAP-containing/non-HAP-generating gases or agents.

HCl means, for the purposes of this subpart, emissions of hydrogen chloride that serve as a surrogate measure of the total emissions of the HAPs hydrogen chloride, hydrogen fluoride and chlorine.

In-line fluxer means a device exterior to a furnace, located in a transfer line from a furnace, used to refine (flux) molten aluminum; also known as a flux box, degassing box, or demagging box.

Internal scrap means all aluminum scrap regardless of the level of contamination which originates from castings or extrusions produced by an aluminum die casting facility, aluminum foundry, or aluminum extrusion facility, and which remains at all times within the control of the company that produced the castings or extrusions.

Lime means calcium oxide or other alkaline reagent.

Lime-injection means the continuous addition of lime upstream of a *fabric filter.*

Melting/holding furnace means a *group 1 furnace* that processes only *clean charge,* performs melting, holding, and fluxing functions, and does not transfer molten aluminum to or from another furnace except for purposes of alloy changes, off-specification product drains, or maintenance activities.

Operating cycle means for a batch process, the period beginning when the feed material is first charged to the operation and ending when all feed material charged to the operation has been processed. For a batch melting or holding furnace process, *operating cycle* means the period including the charging and melting of scrap aluminum and the fluxing, refining, alloying, and tapping of molten aluminum (the period from tap-to-tap).

PM means, for the purposes of this subpart, emissions of particulate matter that serve as a measure of total particulate emissions and as a surrogate for metal HAPs contained in the particulates, including but not limited to, antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury, nickel, and selenium.

Pollution prevention means source reduction as defined under the Pollution Prevention Act of 1990 (*e.g.,* equipment or technology modifications, process or procedure modifications, reformulation or redesign of products, substitution of raw materials, and improvements in housekeeping, maintenance, training, or inventory control), and other practices that reduce or eliminate the creation of pollutants through increased efficiency in the use of raw materials, energy, water, or other resources, or protection of natural resources by conservation.

Reactive fluxing means the use of any gas, liquid, or solid flux (other than cover flux) that results in a HAP emission. Argon and nitrogen are not reactive and do not produce HAP.

Reconstruction means the replacement of components of an affected source or *emission unit* such that the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new affected source, and it is technologically and economically feasible for the reconstructed source to meet relevant standard(s) established in this subpart. Replacement of the refractory in a furnace is routine maintenance and is not a *reconstruction.* The repair and replacement of *in-line fluxer* components (*e.g.,* rotors/shafts, burner tubes, refractory, warped steel) is considered to be routine maintenance and is not considered a

reconstruction. In-line fluxers are typically removed to a maintenance/repair area and are replaced with repaired units. The replacement of an existing *in-line fluxer* with a repaired unit is not considered a *reconstruction.*

Residence time means, for an *afterburner,* the duration of time required for gases to pass through the *afterburner* combustion zone. *Residence time* is calculated by dividing the *afterburner* combustion zone volume in cubic feet by the volumetric flow rate of the gas stream in actual cubic feet per second.

Rotary dross cooler means a water-cooled rotary barrel device that accelerates cooling of dross.

Runaround scrap means scrap materials generated on-site by aluminum casting, extruding, rolling, scalping, forging, forming/stamping, cutting, and trimming operations and that do not contain paint or solid coatings. Uncoated/unpainted aluminum chips generated by turning, boring, milling, and similar machining operations may be clean charge if they have been thermally dried or treated by a centrifugal cleaner, but are not considered to be *runaround scrap.*

Scrap dryer/delacquering kiln/decoating kiln means a unit used primarily to remove various organic contaminants such as oil, paint, lacquer, ink, plastic, and/or rubber from *aluminum scrap* (including used beverage containers) prior to melting.

Secondary aluminum processing unit (SAPU). An existing SAPU means all existing *group 1 furnaces* and all existing *in-line fluxers* within a *secondary aluminum production facility.* Each existing *group 1 furnace* or existing *in-line fluxer* is considered an *emission unit* within a *secondary aluminum processing unit.* A new *SAPU* means any combination of individual *group 1 furnaces* and *in-line fluxers* within a *secondary aluminum processing facility* which either were constructed or reconstructed after February 11, 1999, or have been permanently redesignated as new emission units pursuant to §63.1505(k)(6). Each of the *group 1 furnaces* or *in-line fluxers* within a new *SAPU* is considered an *emission unit* within that *secondary aluminum processing unit.*

Secondary aluminum production facility means any establishment using *clean charge, aluminum scrap,* or dross from aluminum production, as the raw material and performing one or more of the following processes: scrap shredding, scrap drying/delacquering/decoating, thermal chip drying, furnace operations (*i.e.,* melting, holding, sweating, refining, fluxing, or alloying), recovery of aluminum from dross, in-line fluxing, or dross cooling. A *secondary aluminum production facility* may be independent or part of a primary aluminum production facility. For purposes of this subpart, aluminum die casting facilities, aluminum foundries, and aluminum extrusion facilities are not considered to be secondary aluminum production facilities if the only materials they melt are *clean charge,* customer returns, or internal scrap, and if they do not operate sweat furnaces, thermal chip dryers, or scrap dryers/delacquering kilns/decoating kilns. The determination of whether a facility is a *secondary aluminum production facility* is only for purposes of this subpart and any regulatory requirements which are derived from the applicability of this subpart, and is separate from any determination which may be made under other environmental laws and regulations, including whether the same facility is a “secondary metal production facility” as that term is used in 42 U.S.C. §7479(1) and 40 CFR 52.21(b)(1)(i)(A) (“prevention of significant deterioration of air quality”).

Sidewell means an open well adjacent to the hearth of a furnace with connecting arches between the hearth and the open well through which molten aluminum is circulated between the hearth, where heat is applied by burners, and the open well, which is used for charging scrap and solid flux or salt to the furnace, injecting fluxing agents, and skimming dross.

Sweat furnace means a furnace used exclusively to reclaim aluminum from scrap that contains substantial quantities of iron by using heat to separate the low-melting point aluminum from the scrap while the higher melting-point iron remains in solid form.

TEQ means the international method of expressing 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” (EPA–625/3–89–016), available from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161, NTIS no. PB 90–145756.

THC means, for the purposes of this subpart, total hydrocarbon emissions that also serve as a surrogate for the emissions of organic HAP compounds.

Thermal chip dryer means a device that uses heat to evaporate oil or oil/water mixtures from unpainted/uncoated aluminum chips. Pre-heating boxes or other dryers which are used solely to remove water from aluminum scrap are not considered to be thermal chip dryers for purposes of this subpart.

Three-day, 24-hour rolling average means daily calculations of the average 24-hour emission rate (lbs/ton of feed/charge), over the 3 most recent consecutive 24-hour periods, for a *secondary aluminum processing unit.*

Total reactive chlorine flux injection rate means the sum of the total weight of chlorine in the gaseous or liquid reactive flux and the total weight of chlorine in the solid reactive chloride flux, divided by the total weight of feed/charge, as determined by the procedure in §63.1512(o).

[65 FR 15710, Mar. 23, 2000, as amended at 67 FR 79814, Dec. 30, 2002; 69 FR 18803, Apr. 9, 2004; 69 FR 53984, Sept. 3, 2004; 70 FR 57517, Oct. 3, 2005]

§ 63.1504 [Reserved]

Emission Standards and Operating Requirements

§ 63.1505 Emission standards for affected sources and emission units.

(a) *Summary.* The owner or operator of a new or existing affected source must comply with each applicable limit in this section. Table 1 to this subpart summarizes the emission standards for each type of source.

(b) *Aluminum scrap shredder.* On and after the compliance date established by §63.1501, the owner or operator of an aluminum scrap shredder at a secondary aluminum production facility that is a major source must not discharge or cause to be discharged to the atmosphere:

(1) Emissions in excess of 0.023 grams (g) of PM per dry standard cubic meter (dscm) (0.010 grain (gr) of PM per dry standard cubic foot (dscf)); and

(2) Visible emissions (VE) in excess of 10 percent opacity from any PM add-on air pollution control device if a continuous opacity monitor (COM) or visible emissions monitoring is chosen as the monitoring option.

(c) *Thermal chip dryer.* On and after the compliance date established by §63.1501, the owner or operator of a thermal chip dryer must not discharge or cause to be discharged to the atmosphere emissions in excess of:

(1) 0.40 kilogram (kg) of THC, as propane, per megagram (Mg) (0.80 lb of THC, as propane, per ton) of feed/charge from a thermal chip dryer at a secondary aluminum production facility that is a major source; and

(2) 2.50 micrograms (µg) of D/F TEQ per Mg (3.5×10^{-5}gr per ton) of feed/charge from a thermal chip dryer at a secondary aluminum production facility that is a major or area source.

(d) *Scrap dryer/delacquering kiln/decoating kiln.* On and after the compliance date established by §63.1501:

(1) The owner or operator of a scrap dryer/delacquering kiln/decoating kiln must not discharge or cause to be discharged to the atmosphere emissions in excess of:

(i) 0.03 kg of THC, as propane, per Mg (0.06 lb of THC, as propane, per ton) of feed/charge from a scrap dryer/delacquering kiln/decoating kiln at a secondary aluminum production facility that is a major source;

(ii) 0.04 kg of PM per Mg (0.08 lb per ton) of feed/charge from a scrap dryer/delacquering kiln/decoating kiln at a secondary aluminum production facility that is a major source;

(iii) 0.25 µg of D/F TEQ per Mg (3.5×10^{-6}gr of D/F TEQ per ton) of feed/charge from a scrap dryer/delacquering kiln/decoating kiln at a secondary aluminum production facility that is a major or area source; and

(iv) 0.40 kg of HCl per Mg (0.80 lb per ton) of feed/charge from a scrap dryer/delacquering kiln/decoating kiln at a secondary aluminum production facility that is a major source.

(2) The owner or operator of a scrap dryer/delacquering kiln/decoating kiln at a secondary aluminum production facility that is a major source must not discharge or cause to be discharged to the atmosphere visible emissions in excess of 10 percent opacity from any PM add-on air pollution control device if a COM is chosen as the monitoring option.

(e) *Scrap dryer/delacquering kiln/decoating kiln: alternative limits.* The owner or operator of a scrap dryer/ delacquering kiln/decoating kiln may choose to comply with the emission limits in this paragraph (e) as an alternative to the limits in paragraph (d) of this section if the scrap dryer/delacquering kiln/decoating kiln is equipped with an afterburner having a design residence time of at least 1 second and the afterburner is operated at a temperature of at least 760 °C (1400 °F) at all times. On and after the compliance date established by §63.1501:

(1) The owner or operator of a scrap dryer/delacquering kiln/decoating kiln must not discharge or cause to be discharged to the atmosphere emissions in excess of:

(i) 0.10 kg of THC, as propane, per Mg (0.20 lb of THC, as propane, per ton) of feed/charge from a scrap dryer/delacquering kiln/decoating kiln at a secondary aluminum production facility that is a major source;

(ii) 0.15 kg of PM per Mg (0.30 lb per ton) of feed/charge from a scrap dryer/delacquering kiln/decoating kiln at a secondary aluminum production facility that is a major source;

(iii) 5.0 µg of D/F TEQ per Mg (7.0×10^{-5}gr of D/F TEQ per ton) of feed/charge from a scrap dryer/delacquering kiln/decoating kiln at a secondary aluminum production facility that is a major or area source; and

(iv) 0.75 kg of HCl per Mg (1.50 lb per ton) of feed/charge from a scrap dryer/delacquering kiln/decoating kiln at a secondary aluminum production facility that is a major source.

(2) The owner or operator of a scrap dryer/ delacquering kiln/decoating kiln at a secondary aluminum production facility that is a major source must not discharge or cause to be discharged to the atmosphere visible emissions in excess of 10 percent opacity from any PM add-on air pollution control device if a COM is chosen as the monitoring option.

(f) *Sweat furnace.* The owner or operator of a sweat furnace shall comply with the emission standard of paragraph (f)(2) of this section.

(1) The owner or operator is not required to conduct a performance test to demonstrate compliance with the emission standard of paragraph (f)(2) of this section, provided that, on and after the compliance date of this rule, the owner or operator operates and maintains an afterburner with a design residence time of 0.8 seconds or greater and an operating temperature of 1600 °F or greater.

(2) On and after the compliance date established by §63.1501, the owner or operator of a sweat furnace at a secondary aluminum production facility that is a major or area source must not discharge or cause to be discharged to the atmosphere emissions in excess of 0.80 nanogram (ng) of D/F TEQ per dscm (3.5×10^{-10}gr per dscf) at 11 percent oxygen (O^2).

(g) *Dross-only furnace.* On and after the compliance date established by §63.1501, the owner or operator of a dross-only furnace at a secondary aluminum production facility that is a major source must not discharge or cause to be discharged to the atmosphere:

(1) Emissions in excess of 0.15 kg of PM per Mg (0.30 lb of PM per ton) of feed/charge.

(2) Visible emissions in excess of 10 percent opacity from any PM add-on air pollution control device if a COM is chosen as the monitoring option.

(h) *Rotary dross cooler.* On and after the compliance date established by §63.1501, the owner or operator of a rotary dross cooler at a secondary aluminum production facility that is a major source must not discharge or cause to be discharged to the atmosphere:

(1) Emissions in excess of 0.09 g of PM per dscm (0.04 gr per dscf).

(2) Visible emissions in excess of 10 percent opacity from any PM add-on air pollution control device if a COM is chosen as the monitoring option.

(i) *Group 1 furnace.* The owner or operator of a group 1 furnace must use the limits in this paragraph to determine the emission standards for a SAPU.

(1) 0.20 kg of PM per Mg (0.40 lb of PM per ton) of feed/charge from a group 1 furnace, that is not a melting/holding furnace processing only clean charge, at a secondary aluminum production facility that is a major source;

(2) 0.40 kg of PM per Mg (0.80 lb of PM per ton) of feed/charge from a group 1 melting/holding furnace processing only clean charge at a secondary aluminum production facility that is a major source;

(3) 15 µg of D/F TEQ per Mg (2.1×10^{-4}gr of D/F TEQ per ton) of feed/charge from a group 1 furnace at a secondary aluminum production facility that is a major or area source. This limit does not apply if the furnace processes only clean charge; and

(4) 0.20 kg of HCl per Mg (0.40 lb of HCl per ton) of feed/charge or, if the furnace is equipped with an add-on air pollution control device, 10 percent of the uncontrolled HCl emissions, by weight, for a group 1 furnace at a secondary aluminum production facility that is a major source.

(5) The owner or operator of a group 1 furnace at a secondary aluminum production facility that is a major source must not discharge or cause to be discharged to the atmosphere visible emissions in excess of 10 percent opacity from any PM add-on air pollution control device if a COM is chosen as the monitoring option.

(6) The owner or operator 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) The owner or operator of a sidewell group 1 furnace that conducts reactive fluxing (except for cover flux) in the hearth, or that conducts reactive fluxing in the sidewell at times when the level of molten metal falls below the top of the passage between the sidewell and the hearth, must comply with the emission limits of paragraphs (i)(1) through (4) of this section on the basis of the combined emissions from the sidewell and the hearth.

(j) *In-line fluxer.* Except as provided in paragraph (j)(3) of this section for an in-line fluxer using no reactive flux material, the owner or operator of an in-line fluxer must use the limits in this paragraph to determine the emission standards for a SAPU.

(1) 0.02 kg of HCl per Mg (0.04 lb of HCl per ton) of feed/charge;

(2) 0.005 kg of PM per Mg (0.01 lb of PM per ton) of feed/charge.

(3) The emission limits in paragraphs (j)(1) and (j)(2) of this section do not apply to an in-line fluxer that uses no reactive flux materials.

(4) The owner or operator of an in-line fluxer at a secondary aluminum production facility that is a major source must not discharge or cause to be discharged to the atmosphere visible emissions in excess of 10 percent opacity from any PM add-on air pollution control device used to control emissions from the in-line fluxer, if a COM is chosen as the monitoring option.

(5) The owner or operator may determine the emission standards for a SAPU by applying the in-line fluxer limits on the basis of the aluminum production weight in each in-line fluxer, rather than on the basis of feed/charge.

(k) *Secondary aluminum processing unit.* On and after the compliance date established by §63.1501, the owner or operator must comply with the emission limits calculated using the equations for PM and HCl in paragraphs (k)(1) and (2) of this section for each secondary aluminum processing unit at a secondary aluminum production facility that is a major source. The owner or operator must comply with the emission limit calculated using the equation for D/F in paragraph (k)(3) of this section for each secondary aluminum processing unit at a secondary aluminum production facility that is a major or area source.

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

$$L_{C_{PM}} = \frac{\sum_{i=1}^{N}\left(L_{ti_{PM}} \times T_{ti}\right)}{\sum_{i=1}^{N}\left(T_{ti}\right)} \qquad (Eq.\ 1)$$

Where,

L_{tiPM}= The PM emission limit for individual emission unit i in paragraph (i)(1) and (2) of this section for a group 1 furnace or in paragraph (j)(2) of this section for an in-line fluxer;

T_{ti}= The feed/charge rate for individual emission unit I; and

L_{cPM}= The PM emission limit for the secondary aluminum processing unit.

Note: In-line fluxers using no reactive flux materials cannot be included in this calculation since they are not subject to the PM limit.

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

$$L_{c_{HCl}} = \frac{\sum_{i=1}^{n}\left(L_{ti_{HCl}} \times T_{ti}\right)}{\sum_{i=1}^{n}\left(T_{ti}\right)} \qquad (Eq.\ 2)$$

Where,

L_{tiHCl}= The HCl emission limit for individual emission unit i in paragraph (i)(4) of this section for a group 1 furnace or in paragraph (j)(1) of this section for an in-line fluxer; and

L_{cHCl}= The HCl emission limit for the secondary aluminum processing unit.

Note: In-line fluxers using no reactive flux materials cannot be included in this calculation since they are not subject to the HCl limit.

(3) The owner or operator must not discharge or allow to be discharged to the atmosphere any 3-day, 24-hour rolling average emissions of D/F in excess of:

$$L_{C_{D/F}} = \frac{\sum_{i=1}^{n}\left(L_{ti_{D/F}} \times T_{ti}\right)}{\sum_{i=1}^{n}\left(T_{ti}\right)} \qquad (Eq.\ 3)$$

Where,

$L_{tiD/F}$= The D/F emission limit for individual emission unit i in paragraph (i)(3) of this section for a group 1 furnace; and

$L_{cD/F}$= The D/F emission limit for the secondary aluminum processing unit.

Note: Clean charge furnaces cannot be included in this calculation since they are not subject to the D/F limit.

(4) The owner or operator of a SAPU at a secondary aluminum production facility that is a major source may demonstrate compliance with the emission limits of paragraphs (k)(1) through (3) of this section by demonstrating that each emission unit within the SAPU is in compliance with the applicable emission limits of paragraphs (i) and (j) of this section.

(5) The owner or operator of a SAPU at a secondary aluminum production facility that is an area source may demonstrate compliance with the emission limits of paragraph (k)(3) of this section by demonstrating that each emission unit within the SAPU is in compliance with the emission limit of paragraph (i)(3) of this section.

(6) With the prior approval of the responsible permitting authority, an owner or operator may redesignate any existing group 1 furnace or in-line fluxer 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 and will be irreversible.

[65 FR 15710, Mar. 23, 2000, as amended at 67 FR 59792, Sept. 24, 2002; 67 FR 79816, Dec. 30, 2002; 70 FR 57517, Oct. 3, 2005]

§ 63.1506 Operating requirements.

(a) *Summary.* (1) On and after the compliance date established by §63.1501, the owner or operator must operate all new and existing affected sources and control equipment according to the requirements in this section.

(2) The owner or operator of an existing sweat furnace that meets the specifications of §63.1505(f)(1) must operate the sweat furnace and control equipment according to the requirements of this section on and after the compliance date of this standard.

(3) The owner or operator of a new sweat furnace that meets the specifications of §63.1505(f)(1) must operate the sweat furnace and control equipment according to the requirements of this section by March 23, 2000 or upon startup, whichever is later.

(4) Operating requirements are summarized in Table 2 to this subpart.

(b) *Labeling.* The owner or operator must provide and maintain easily visible labels posted at each group 1 furnace, group 2 furnace, in-line fluxer and scrap dryer/delacquering kiln/decoating kiln that identifies the applicable emission limits and means of compliance, including:

(1) 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).

(2) 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.

(3) The afterburner operating temperature and design residence time for a scrap dryer/delacquering kiln/decoating kiln.

(c) *Capture/collection systems.* For each affected source or emission unit equipped with an add-on air pollution control device, the owner or operator must:

(1) 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 in §63.1502 of this subpart);

(2) 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

(3) Operate each capture/collection system according to the procedures and requirements in the OM&M plan.

(d) *Feed/charge weight.* The owner or operator of each affected source or emission unit subject to an emission limit in kg/Mg (lb/ton) or µg/Mg (gr/ton) of feed/charge must:

(1) Except as provided in paragraph (d)(3) of this section, install and operate 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

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

(3) The owner or operator may chose to measure and record aluminum production weight from an affected source or emission unit rather than feed/charge weight to an affected source or emission unit, provided that:

(i) The aluminum production weight, rather than feed/charge weight is measured and recorded for all emission units within a SAPU; and

(ii) All calculations to demonstrate compliance with the emission limits for SAPUs are based on aluminum production weight rather than feed/charge weight.

(e) *Aluminum scrap shredder.* The owner or operator of a scrap shredder with emissions controlled by a fabric filter must operate a bag leak detection system, or a continuous opacity monitor, or conduct visible emissions observations.

(1) If a bag leak detection system is used to meet the monitoring requirements in §63.1510, the owner or operator must:

(i) Initiate corrective action within 1-hour of a bag leak detection system alarm and complete the corrective action procedures in accordance with the OM&M plan.

(ii) Operate each 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 owner or operator takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the owner or operator to initiate corrective action.

(2) If a continuous opacity monitoring system is used to meet the monitoring requirements in §63.1510, the owner or operator must initiate corrective action within 1-hour of any 6-minute average reading of 5 percent or more opacity and complete the corrective action procedures in accordance with the OM&M plan.

(3) If visible emission observations are used to meet the monitoring requirements in §63.1510, the owner or operator must initiate corrective action within 1-hour of any observation of visible emissions during a daily visible emissions test and complete the corrective action procedures in accordance with the OM&M plan.

(f) *Thermal chip dryer.* The owner or operator of a thermal chip dryer with emissions controlled by an afterburner must:

(1) Maintain the 3-hour block average operating temperature of each afterburner at or above the average temperature established during the performance test.

(2) Operate each afterburner in accordance with the OM&M plan.

(3) Operate each thermal chip dryer using only unpainted aluminum chips as the feedstock.

(g) *Scrap dryer/delacquering kiln/decoating kiln.* The owner or operator of a scrap dryer/delacquering kiln/decoating kiln with emissions controlled by an afterburner and a lime-injected fabric filter must:

(1) For each afterburner,

(i) Maintain the 3-hour block average operating temperature of each afterburner at or above the average temperature established during the performance test.

(ii) Operate each afterburner in accordance with the OM&M plan.

(2) If a bag leak detection system is used to meet the fabric filter monitoring requirements in §63.1510,

(i) Initiate corrective action within 1-hour of a bag leak detection system alarm and complete any necessary corrective action procedures in accordance with the OM&M plan.

(ii) Operate each 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 owner or operator takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the owner or operator to initiate corrective action.

(3) If a continuous opacity monitoring system is used to meet the monitoring requirements in §63.1510, initiate corrective action within 1-hour of any 6-minute average reading of 5 percent or more opacity and complete the corrective action procedures in accordance with the OM&M plan.

(4) Maintain the 3-hour block average inlet temperature for each fabric filter at or below the average temperature established during the performance test, plus 14 °C (plus 25 °F).

(5) For a continuous injection device, maintain free-flowing lime in the hopper to the feed device at all times and maintain the lime feeder setting at the same level established during the performance test.

(h) *Sweat furnace.* The owner or operator of a sweat furnace with emissions controlled by an afterburner must:

(1) Maintain the 3-hour block average operating temperature of each afterburner at or above:

(i) The average temperature established during the performance test; or

(ii) 1600 °F if a performance test was not conducted, and the afterburner meets the specifications of §63.1505(f)(1).

(2) Operate each afterburner in accordance with the OM&M plan.

(i) *Dross-only furnace.* The owner or operator of a dross-only furnace with emissions controlled by a fabric filter must:

(1) If a bag leak detection system is used to meet the monitoring requirements in §63.1510,

(i) Initiate corrective action within 1-hour of a bag leak detection system alarm and complete the corrective action procedures in accordance with the OM&M plan.

(ii) Operate each 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 owner or operator takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the owner or operator to initiate corrective action.

(2) If a continuous opacity monitoring system is used to meet the monitoring requirements in §63.1510, initiate corrective action within 1-hour of any 6-minute average reading of 5 percent or more opacity and complete the corrective action procedures in accordance with the OM&M plan.

(3) Operate each furnace using dross and salt flux as the sole feedstock.

(j) *Rotary dross cooler.* The owner or operator of a rotary dross cooler with emissions controlled by a fabric filter must:

(1) If a bag leak detection system is used to meet the monitoring requirements in §63.1510,

(i) Initiate corrective action within 1-hour of a bag leak detection system alarm and complete the corrective action procedures in accordance with the OM&M plan.

(ii) Operate each 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 owner or operator takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the owner or operator to initiate corrective action.

(2) If a continuous opacity monitoring system is used to meet the monitoring requirements in §63.1510, initiate corrective action within 1 hour of any 6-minute average reading of 5 percent or more opacity and complete the corrective action procedures in accordance with the OM&M plan.

(k) *In-line fluxer.* The owner or operator of an in-line fluxer with emissions controlled by a lime-injected fabric filter must:

(1) If a bag leak detection system is used to meet the monitoring requirements in §63.1510,

(i) Initiate corrective action within 1-hour of a bag leak detection system alarm and complete the corrective action procedures in accordance with the OM&M plan.

(ii) Operate each 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 owner or operator takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the owner or operator to initiate corrective action.

(2) If a continuous opacity monitoring system is used to meet the monitoring requirements in §63.1510, initiate corrective action within 1 hour of any 6-minute average reading of 5 percent or more opacity and complete the corrective action procedures in accordance with the OM&M plan.

(3) For a continuous injection system, maintain free-flowing lime in the hopper to the feed device at all times and maintain the lime feeder setting at the same level established during the performance test.

(4) 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.

(l) *In-line fluxer using no reactive flux material.* The owner or operator of a new or existing in-line fluxer using no reactive flux materials must operate each in-line fluxer using no reactive flux materials.

(m) *Group 1 furnace with add-on air pollution control devices.* The owner or operator of a group 1 furnace with emissions controlled by a lime-injected fabric filter must:

(1) If a bag leak detection system is used to meet the monitoring requirements in §63.1510, the owner or operator must:

(i) Initiate corrective action within 1 hour of a bag leak detection system alarm.

(ii) Complete the corrective action procedures in accordance with the OM&M plan.

(iii) Operate each 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 owner or operator takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the owner or operator to initiate corrective action.

(2) If a continuous opacity monitoring system is used to meet the monitoring requirements in §63.1510, the owner or operator must:

(i) Initiate corrective action within 1 hour of any 6-minute average reading of 5 percent or more opacity; and

(ii) Complete the corrective action procedures in accordance with the OM&M plan.

(3) Maintain the 3-hour block average inlet temperature for each fabric filter at or below the average temperature established during the performance test, plus 14 °C (plus 25 °F).

(4) For a continuous lime injection system, maintain free-flowing lime in the hopper to the feed device at all times and maintain the lime feeder setting at the same level established during the performance test.

(5) 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.

(6) Operate each sidewell furnace such that:

(i) The level of molten metal remains above the top of the passage between the sidewell and hearth during reactive flux injection, unless emissions from both the sidewell and the hearth are included in demonstrating compliance with all applicable emission limits.

(ii) Reactive flux is added only in the sidewell, unless emissions from both the sidewell and the hearth are included in demonstrating compliance with all applicable emission limits.

(n) *Group 1 furnace without add-on air pollution control devices.* The owner or operator of a group 1 furnace (including a group 1 furnace that is part of a secondary aluminum processing unit) without add-on air pollution control devices must:

(1) 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.

(2) Operate each furnace in accordance with the work practice/pollution prevention measures documented in the OM&M plan and within the parameter values or ranges established in the OM&M plan.

(3) Operate each group 1 melting/holding furnace subject to the emission standards in §63.1505(i)(2) using only clean charge as the feedstock.

(o) *Group 2 furnace.* The owner or operator of a new or existing group 2 furnace must:

(1) Operate each furnace using only clean charge as the feedstock.

(2) Operate each furnace using no reactive flux.

(p) *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, the owner or operator must initiate corrective action. 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.

[65 FR 15710, Mar. 23, 2000, as amended at 67 FR 59792, Sept. 24, 2002; 67 FR 79816, Dec. 30, 2002; 69 FR 53984, Sept. 3, 2004]

§§ 63.1507-63.1509 [Reserved]

Monitoring and Compliance Requirements

§ 63.1510 Monitoring requirements.

(a) *Summary.* On and after the compliance date established by §63.1501, the owner or operator of a new or existing affected source or emission unit must monitor all control equipment and processes according to the requirements in this section. Monitoring requirements for each type of affected source and emission unit are summarized in Table 3 to this subpart.

(b) *Operation, maintenance, and monitoring (OM&M) plan.* The owner or operator must prepare and implement for each new or existing affected source and emission unit, a written operation, maintenance, and monitoring (OM&M) plan. The owner or operator of an existing affected source must submit the OM&M plan to the responsible permitting authority no later than the compliance date established by §63.1501(a). The owner or operator of any new affected source must submit the OM&M plan to the responsible permitting authority within 90 days after a successful initial performance test under §63.1511(b), or within 90 days after the compliance date established by §63.1501(b) if no initial performance test is required. The plan must be accompanied by a written certification by the owner or operator that the OM&M plan satisfies all requirements of this section and is otherwise consistent with the requirements of this subpart. The owner or operator must comply with all of the provisions of the OM&M plan as submitted to the permitting authority, unless and until the plan is revised in accordance with the following procedures. If the permitting authority determines at any time after receipt of the OM&M plan that any revisions of the plan are necessary to satisfy the requirements of this section or this subpart, the owner or operator must promptly make all necessary revisions and resubmit the revised plan. If the owner or operator determines that any other revisions of the OM&M plan are necessary, such revisions will not become effective until the owner or operator submits a description of the changes and a revised plan incorporating them to the permitting authority. Each plan must contain the following information:

(1) 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.

(2) A monitoring schedule for each affected source and emission unit.

(3) Procedures for the proper operation and maintenance of each process unit and add-on control device used to meet the applicable emission limits or standards in §63.1505.

(4) Procedures for the proper operation and maintenance of monitoring devices or systems used to determine compliance, including:

(i) Calibration and certification of accuracy of each monitoring device, at least once every 6 months, according to the manufacturer's instructions; and

(ii) Procedures for the quality control and quality assurance of continuous emission or opacity monitoring systems as required by the general provisions in subpart A of this part.

(5) Procedures for monitoring process and control device parameters, including procedures for annual inspections of afterburners, and if applicable, the procedure to be used for determining charge/feed (or throughput) weight if a measurement device is not used.

(6) Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the value or range established in paragraph (b)(1) of this section, including:

(i) Procedures to determine and record the cause of any deviation or excursion, and the time the deviation or excursion began and ended; and

(ii) Procedures for recording the corrective action taken, the time corrective action was initiated, and the time/date corrective action was completed.

(7) 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.

(8) Documentation of the work practice and pollution prevention measures used to achieve compliance with the applicable emission limits and a site-specific monitoring plan as required in paragraph (o) of this section for each group 1 furnace not equipped with an add-on air pollution control device.

(c) *Labeling.* The owner or operator must inspect the labels for each group 1 furnace, group 2 furnace, in-line fluxer and scrap dryer/delacquering kiln/decoating kiln 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.

(d) *Capture/collection system.* The owner or operator must:

(1) Install, operate, and maintain a capture/collection system for each affected source and emission unit equipped with an add-on air pollution control device; and

(2) Inspect each capture/collection and closed vent system 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.

(e) *Feed/charge weight.* The owner or operator of an affected source or emission unit subject to an emission limit in kg/Mg (lb/ton) or µg/Mg (gr/ton) of feed/charge 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 affected source or 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.

(1) The accuracy of the weight measurement device or procedure must be ±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.

(f) *Fabric filters and lime-injected fabric filters.* The owner or operator of an affected source or emission unit using a fabric filter or lime-injected fabric filter to comply with the requirements of this subpart must install, calibrate, maintain, and continuously operate a bag leak detection system as required in paragraph (f)(1) of this section or a continuous opacity monitoring system as required in paragraph (f)(2) of this section. The owner or operator of an aluminum scrap shredder must install and operate a bag leak detection system as required in paragraph (f)(1) of this section, install and operate a continuous opacity monitoring system as required in paragraph (f)(2) of this section, or conduct visible emission observations as required in paragraph (f)(3) of this section.

(1) These requirements apply to the owner or operator of a new or existing affected source or existing emission unit using a bag leak detection system.

(i) The owner or operator must install and operate a bag leak detection system for each exhaust stack of a fabric filter.

(ii) Each triboelectric bag leak detection system must be installed, calibrated, operated, and maintained according to the “Fabric Filter Bag Leak Detection Guidance,” (September 1997). This document is available from the U.S. Environmental Protection Agency; Office of Air Quality Planning and Standards; Emissions, Monitoring and Analysis Division; Emission Measurement Center (MD–19), Research Triangle Park, NC 27711. This document also is available on the Technology Transfer Network (TTN) under Emission Measurement Technical Information (EMTIC), Continuous Emission Monitoring. Other bag leak detection systems must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations.

(iii) 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.

(iv) The bag leak detection system sensor must provide output of relative or absolute PM loadings.

(v) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.

(vi) 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.

(vii) 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.

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

(ix) 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.

(x) Following initial adjustment of the system, the owner or operator 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.

(2) These requirements apply to the owner or operator of a new or existing affected source or an existing emission unit using a continuous opacity monitoring system.

(i) The owner or operator must install, calibrate, maintain, and operate a continuous opacity monitoring system to measure and record the opacity of emissions exiting each exhaust stack.

(ii) Each continuous opacity monitoring system must meet the design and installation requirements of Performance Specification 1 in appendix B to 40 CFR part 60.

(3) These requirements apply to the owner or operator of a new or existing aluminum scrap shredder who conducts visible emission observations. The owner or operator must:

(i) Perform a visible emissions test for each aluminum scrap shredder using a certified observer at least once a day according to the requirements of Method 9 in appendix A to 40 CFR part 60. Each Method 9 test must consist of five 6-minute observations in a 30-minute period; and

(ii) Record the results of each test.

(g) *Afterburner.* These requirements apply to the owner or operator of an affected source using an afterburner to comply with the requirements of this subpart.

(1) The owner or operator must install, calibrate, maintain, and operate a device to continuously monitor and record the operating temperature of the afterburner consistent with the requirements for continuous monitoring systems in subpart A of this part.

(2) The temperature monitoring device must meet each of these performance and equipment specifications:

(i) The temperature monitoring device must be installed at the exit of the combustion zone of each afterburner.

(ii) The monitoring system must record the temperature in 15-minute block averages and determine and record the average temperature for each 3-hour block period.

(iii) The recorder response range must include zero and 1.5 times the average temperature established according to the requirements in §63.1512(m).

(iv) 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.

(3) The owner or operator must conduct an inspection of each afterburner at least once a year and record the results. At a minimum, an inspection must include:

(i) Inspection of all burners, pilot assemblies, and pilot sensing devices for proper operation and clean pilot sensor;

(ii) Inspection for proper adjustment of combustion air;

(iii) Inspection of internal structures (*e.g.,* baffles) to ensure structural integrity;

(iv) Inspection of dampers, fans, and blowers for proper operation;

(v) Inspection for proper sealing;

(vi) Inspection of motors for proper operation;

(vii) Inspection of combustion chamber refractory lining and clean and replace lining as necessary;

(viii) Inspection of afterburner shell for corrosion and/or hot spots;

(ix) Documentation, for the burn cycle that follows the inspection, that the afterburner is operating properly and any necessary adjustments have been made; and

(x) Verification that the equipment is maintained in good operating condition.

(xi) Following an equipment inspection, all necessary repairs must be completed in accordance with the requirements of the OM&M plan.

(h) *Fabric filter inlet temperature.* These requirements apply to the owner or operator of a scrap dryer/delacquering kiln/decoating kiln or a group 1 furnace using a lime-injected fabric filter to comply with the requirements of this subpart.

(1) The owner or operator 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 subpart A of this part.

(2) The temperature monitoring device must meet each of these performance and equipment specifications:

(i) 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.

(ii) The recorder response range must include zero and 1.5 times the average temperature established according to the requirements in §63.1512(n).

(iii) 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.

(i) *Lime injection.* These requirements apply to the owner or operator of an affected source or emission unit using a lime-injected fabric filter to comply with the requirements of this subpart.

(1) The owner or operator of a continuous lime injection system must verify that lime is always free-flowing by either:

(i) 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 must increase the frequency of inspections to at least once every 4-hour period for the next 3 days. The owner or operator 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

(ii) Subject to the approval of the permitting agency, 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 owner or operator must promptly initiate and complete corrective action, or

(iii) Subject to the approval of the permitting agency, 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 owner or operator must promptly initiate and complete corrective action.

(2) The owner or operator of a continuous lime injection system must record the lime feeder setting once each day of operation.

(3) An owner or operator who intermittently adds lime to a lime coated fabric filter must obtain approval from the permitting authority for a lime addition monitoring procedure. The permitting authority will not approve a monitoring procedure unless data and information are submitted establishing that the procedure is adequate to ensure that relevant emission standards will be met on a continuous basis.

(j) *Total reactive flux injection rate.* These requirements apply to the owner or operator of a group 1 furnace (with or without add-on air pollution control devices) or in-line fluxer. The owner or operator must:

(1) Install, calibrate, operate, and maintain a device to continuously measure and record the weight of gaseous or liquid reactive flux injected to each affected source or emission unit.

(i) The monitoring system must record the weight for each 15-minute block period, during which reactive fluxing occurs, over the same operating cycle or time period used in the performance test.

(ii) The accuracy of the weight measurement device must be ±1 percent of the weight of the reactive component of the flux being measured. The owner or operator may apply to the permitting authority for permission to use a weight measurement device of alternative accuracy in cases where the reactive flux flow rates are so low as to make the use of a weight measurement device of ±1 percent impracticable. 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 standards.

(iii) 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.

(2) Calculate and record the gaseous or liquid reactive flux injection rate (kg/Mg or lb/ton) for each operating cycle or time period used in the performance test using the procedure in §63.1512(o).

(3) 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:

(i) Gaseous or liquid reactive flux other than chlorine; and

(ii) Solid reactive flux.

(4) 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 §63.1512(o).

(5) The owner or operator of a group 1 furnace or in-line fluxer performing reactive fluxing may apply to the Administrator for approval of an alternative method for monitoring and recording the total reactive flux addition rate based on monitoring the weight or quantity of reactive flux per ton of feed/charge for each operating cycle or time period used in the performance test. An alternative monitoring method will not be approved unless the owner or operator provides assurance through data and information that the affected source will meet the relevant emission standards on a continuous basis.

(k) *Thermal chip dryer.* These requirements apply to the owner or operator of a thermal chip dryer with emissions controlled by an afterburner. The owner or operator must:

(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 §63.1506(f)(3) for each 6-month reporting period. Each certification must contain the information in §63.1516(b)(2)(i).

(l) *Dross-only furnace.* These requirements apply to the owner or operator of a dross-only furnace. The owner or operator must:

(1) Record the materials charged to each 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 §63.1506(i)(3) for each 6-month reporting period. Each certification must contain the information in §63.1516(b)(2)(ii).

(m) *In-line fluxers using no reactive flux.* The owner or operator of an in-line fluxer that uses no reactive flux materials must submit a certification of compliance with the operational standard for no reactive flux materials in §63.1506(l) for each 6-month reporting period. Each certification must contain the information in §63.1516(b)(2)(vi).

(n) *Sidewell group 1 furnace with add-on air pollution control devices.* These requirements apply to the owner or operator of a sidewell group 1 furnace using add-on air pollution control devices. The owner or operator must:

(1) Record in an operating log for each charge of a sidewell furnace that the level of molten metal was above the top of the passage between the sidewell and hearth during reactive flux injection, unless the furnace hearth was also equipped with an add-on control device.

(2) Submit a certification of compliance with the operational standards in §63.1506(m)(7) for each 6-month reporting period. Each certification must contain the information in §63.1516(b)(2)(iii).

(o) *Group 1 furnace without add-on air pollution control devices.* These requirements apply to the owner or operator of a group 1 furnace that is not equipped with an add-on air pollution control device.

(1) The owner or operator must develop, in consultation with the responsible permitting authority, a written site-specific monitoring plan. The site-specific monitoring plan must be submitted to the permitting authority as part of the OM&M plan. The site-specific monitoring plan must contain sufficient procedures to ensure continuing compliance with all applicable emission limits and must demonstrate, based on documented test results, the relationship between emissions of PM, HCl, and D/F and the proposed monitoring parameters for each pollutant. Test data must establish the highest level of PM, HCl, and D/F that will be emitted from the furnace. This may be determined by conducting performance tests and monitoring operating parameters while charging the furnace with feed/charge materials containing the highest anticipated levels of oils and coatings and fluxing at the highest anticipated rate. If the permitting authority determines that any revisions of the site-specific monitoring plan are necessary to meet the requirements of this section or this subpart, the owner or operator must promptly make all necessary revisions and resubmit the revised plan to the permitting authority.

(i) The owner or operator of an existing affected source must submit the site-specific monitoring plan to the applicable permitting authority for review at least 6 months prior to the compliance date.

(ii) The permitting authority will review and approve or disapprove a proposed plan, or request changes to a plan, based on whether the plan contains sufficient provisions to ensure continuing compliance with applicable emission limits and demonstrates, based on documented test results, the relationship between emissions of PM, HCl, and D/F and the proposed monitoring parameters for each pollutant. Test data must establish the highest level of PM, HCl, and D/F that will be emitted from the furnace. Subject to permitting agency approval of the OM&M plan, this may be determined by conducting performance tests and monitoring operating parameters while charging the furnace with feed/charge materials containing the highest anticipated levels of oils and coatings and fluxing at the highest anticipated rate.

(2) Each site-specific monitoring plan must document each work practice, equipment/design practice, pollution prevention practice, or other measure used to meet the applicable emission standards.

(3) Each site-specific monitoring plan must include provisions for unit labeling as required in paragraph (c) of this section, feed/charge weight measurement (or production weight measurement) as required in paragraph (e) of this section and flux weight measurement as required in paragraph (j) of this section.

(4) Each site-specific monitoring plan for a melting/holding furnace subject to the clean charge emission standard in §63.1505(i)(3) must include these requirements:

(i) The owner or operator must record the type of feed/ charge (*e.g* ., ingot, thermally dried chips, dried scrap, etc.) for each operating cycle or time period used in the performance test; and

(ii) The owner or operator must submit a certification of compliance with the applicable operational standard for clean charge materials in §63.1506(n)(3) for each 6-month reporting period. Each certification must contain the information in §63.1516(b)(2)(iv).

(5) If a continuous emission monitoring system is included in a site-specific monitoring plan, the plan must include provisions for the installation, operation, and maintenance of the system to provide quality-assured measurements in accordance with all applicable requirements of the general provisions in subpart A of this part.

(6) If a continuous opacity monitoring system is included in a site-specific monitoring plan, the plan must include provisions for the installation, operation, and maintenance of the system to provide quality-assured measurements in accordance with all applicable requirements of this subpart.

(7) If a site-specific monitoring plan includes a scrap inspection program for monitoring the scrap contaminant level of furnace feed/charge materials, the plan must include provisions for the demonstration and implementation of the program in accordance with all applicable requirements in paragraph (p) of this section.

(8) If a site-specific monitoring plan includes a calculation method for monitoring the scrap contaminant level of furnace feed/charge materials, the plan must include provisions for the demonstration and implementation of the program in accordance with all applicable requirements in paragraph (q) of this section.

(p) *Scrap inspection program for group 1 furnace without add-on air pollution control devices.* A scrap inspection program must include:

(1) A proven method for collecting representative samples and measuring the oil and coatings content of scrap samples;

(2) A scrap inspector training program;

(3) An established correlation between visual inspection and physical measurement of oil and coatings content of scrap samples;

(4) Periodic physical measurements of oil and coatings content of randomly-selected scrap samples and comparison with visual inspection results;

(5) A system for assuring that only acceptable scrap is charged to an affected group 1 furnace; and

(6) Recordkeeping requirements to document conformance with plan requirements.

(q) *Monitoring of scrap contamination level by calculation method for group 1 furnace without add-on air pollution control devices.* The owner or operator of a group 1 furnace dedicated to processing a distinct type of furnace feed/charge composed of scrap with a uniform composition (such as rejected product from a manufacturing process for which the coating-to-scrap ratio can be documented) may include a program in the site-specific monitoring plan for determining, monitoring, and certifying the scrap contaminant level using a calculation method rather than a scrap inspection program. A scrap contaminant monitoring program using a calculation method must include:

(1) Procedures for the characterization and documentation of the contaminant level of the scrap prior to the performance test.

(2) Limitations on the furnace feed/charge to scrap of the same composition as that used in the performance test. If the performance test was conducted with a mixture of scrap and clean charge, limitations on the proportion of scrap in the furnace feed/charge to no greater than the proportion used during the performance test.

(3) Operating, monitoring, recordkeeping, and reporting requirements to ensure that no scrap with a contaminant level higher than that used in the performance test is charged to the furnace.

(r) *Group 2 furnace.* These requirements apply to the owner or operator of a new or existing group 2 furnace. The owner or operator must:

(1) Record a description of the materials charged to each furnace, including any nonreactive, non-HAP-containing/non-HAP-generating fluxing materials or agents.

(2) Submit a certification of compliance with the applicable operational standard for charge materials in §63.1506(o) for each 6-month reporting period. Each certification must contain the information in §63.1516(b)(2)(v).

(s) *Site-specific requirements for secondary aluminum processing units.* (1) An owner or operator of a secondary aluminum processing unit at a facility must include, within the OM&M plan prepared in accordance with §63.1510(b), the following information:

(i) The identification of each emission unit in the secondary aluminum processing unit;

(ii) 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;

(iii) The emission limit calculated for each secondary aluminum processing unit and performance test results with supporting calculations demonstrating initial compliance with each applicable emission limit;

(iv) Information and data demonstrating compliance for each emission unit with all applicable design, equipment, work practice or operational standards of this subpart; and

(v) 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 §63.1510(t).

(2) The SAPU compliance procedures within the OM&M plan may not contain any of the following provisions:

(i) Any averaging among emissions of differing pollutants;

(ii) The inclusion of any affected sources other than emission units in a secondary aluminum processing unit;

(iii) The inclusion of any emission unit while it is shutdown; or

(iv) The inclusion of any periods of startup, shutdown, or malfunction in emission calculations.

(3) To revise the SAPU compliance provisions within the OM&M plan prior to the end of the permit term, the owner or operator must submit a request to the applicable permitting authority containing the information required by paragraph (s)(1) of this section and obtain approval of the applicable permitting authority prior to implementing any revisions.

(t) *Secondary aluminum processing unit.* Except as provided in paragraph (u) of this section, the owner or operator must calculate and record the 3-day, 24-hour rolling average emissions of PM, HCl, and D/F for each secondary aluminum processing unit on a daily basis. To calculate the 3-day, 24-hour rolling average, the owner or operator must:

(1) Calculate and record the total weight of material charged to each emission unit in the secondary aluminum processing unit for each 24-hour day of operation using the feed/charge weight information required in paragraph (e) of this section. 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) Multiply the total feed/charge weight to the emission unit, or the weight of aluminum produced by the emission unit, for each emission unit for the 24-hour period by the emission rate (in lb/ton of feed/charge) for that emission unit

(as determined during the performance test) to provide emissions for each emission unit for the 24-hour period, in pounds.

(3) Divide the total emissions for each SAPU for the 24-hour period by the total material charged to the SAPU, or the weight of aluminum produced by the SAPU over the 24-hour period to provide the daily emission rate for the SAPU.

(4) Compute the 24-hour daily emission rate using Equation 4:

$$E_{day} = \frac{\sum_{i=1}^{n}\left(T_i \times ER_i\right)}{\sum_{i=1}^{n} T_i} \qquad (Eq.\ 4)$$

Where,

E_{day}= The daily PM, HCl, or D/F emission rate for the secondary aluminum processing unit for the 24-hour period;

T_i= The total amount of feed, or aluminum produced, for emission unit i for the 24-hour period (tons or Mg);

ER_i= The measured emission rate for emission unit i as determined in the performance test (lb/ton or µg/Mg of feed/charge); and

n = The number of emission units in the secondary aluminum processing unit.

(5) Calculate and record the 3-day, 24-hour rolling average for each pollutant each day by summing the daily emission rates for each pollutant over the 3 most recent consecutive days and dividing by 3.

(u) *Secondary aluminum processing unit compliance by individual emission unit demonstration.* As an alternative to the procedures of paragraph (t) of this section, an owner or operator may demonstrate, through performance tests, that each individual emission unit within the secondary aluminum production unit is in compliance with the applicable emission limits for the emission unit.

(v) *Alternative monitoring method for lime addition.* The owner or operator of a lime-coated fabric filter that employs intermittent or noncontinuous lime addition may apply to the Administrator for approval of an alternative method for monitoring the lime addition schedule and rate based on monitoring the weight of lime added per ton of feed/charge for each operating cycle or time period used in the performance test. An alternative monitoring method will not be approved unless the owner or operator provides assurance through data and information that the affected source will meet the relevant emission standards on a continuous basis.

(w) *Alternative monitoring methods.* If an owner or operator wishes to use an alternative monitoring method to demonstrate compliance with any emission standard in this subpart, other than those alternative monitoring methods which may be authorized pursuant to §63.1510(j)(5) and §63.1510(v), the owner or operator may submit an application to the Administrator. Any such application will be processed according to the criteria and procedures set forth in paragraphs (w)(1) through (6) of this section.

(1) The Administrator will not approve averaging periods other than those specified in this section.

(2) The owner or operator must continue to use the original monitoring requirement until necessary data are submitted and approval is received to use another monitoring procedure.

(3) The owner or operator shall submit the application for approval of alternate monitoring methods no later than the notification of the performance test. The application must contain the information specified in paragraphs (w)(3) (i) through (iii) of this section:

(i) Data or information justifying the request, such as the technical or economic infeasibility, or the impracticality of using the required approach;

(ii) A description of the proposed alternative monitoring requirements, including the operating parameters to be monitored, the monitoring approach and technique, and how the limit is to be calculated; and

(iii) Data and information documenting that the alternative monitoring requirement(s) would provide equivalent or better assurance of compliance with the relevant emission standard(s).

(4) The Administrator will not approve an alternate monitoring application unless it would provide equivalent or better assurance of compliance with the relevant emission standard(s). Before disapproving any alternate monitoring application, the Administrator will provide:

(i) Notice of the information and findings upon which the intended disapproval is based; and

(ii) Notice of opportunity for the owner or operator to present additional supporting information before final action is taken on the application. This notice will specify how much additional time is allowed for the owner or operator to provide additional supporting information.

(5) The owner or operator is responsible for submitting any supporting information in a timely manner to enable the Administrator to consider the application prior to the performance test. Neither submittal of an application nor the Administrator's failure to approve or disapprove the application relieves the owner or operator of the responsibility to comply with any provisions of this subpart.

(6) The Administrator may decide at any time, on a case-by-case basis, that additional or alternative operating limits, or alternative approaches to establishing operating limits, are necessary to demonstrate compliance with the emission standards of this subpart.

[65 FR 15710, Mar. 23, 2000, as amended at 67 FR 59792, Sept. 24, 2002; 67 FR 79816, Dec. 30, 2002; 69 FR 53984, Sept. 3, 2004]

§ 63.1511 Performance test/compliance demonstration general requirements.

(a) *Site-specific test plan.* Prior to conducting any performance test required by this subpart, the owner or operator must prepare a site-specific test plan which satisfies all of the requirements, and must obtain approval of the plan pursuant to the procedures, set forth in §63.7(c).

(b) *Initial performance test.* Following approval of the site-specific test plan, the owner or operator must demonstrate initial compliance with each applicable emission, equipment, work practice, or operational standard for each affected source and emission unit, and report the results in the notification of compliance status report as described in §63.1515(b). The owner or operator of any existing affected source for which an initial performance test is required to demonstrate compliance must conduct this initial performance test no later than the date for compliance established by §63.1501(a). The owner or operator of any new affected source for which an initial performance test is required must conduct this initial performance test within 90 days after the date for compliance established by §63.1501(b). Except for the date by which the performance test must be conducted, the owner or operator must conduct each performance test in accordance with the requirements and procedures set forth in §63.7(c). Owners or operators of affected sources located at facilities which are area sources are subject only to those performance testing requirements pertaining to D/F. Owners or operators of sweat furnaces meeting the specifications of §63.1505(f)(1) are not required to conduct a performance test.

(1) The owner or operator must conduct each test while the affected source or emission unit is operating at the highest production level with charge materials representative of the range of materials processed by the unit and, if applicable, at the highest reactive fluxing rate.

(2) Each performance test for a continuous process must consist of 3 separate runs; pollutant sampling for each run must be conducted for the time period specified in the applicable method or, in the absence of a specific time period in the test method, for a minimum of 3 hours.

(3) Each performance test for a batch process must consist of three separate runs; pollutant sampling for each run must be conducted over the entire process operating cycle.

(4) Where multiple affected sources or emission units are exhausted through a common stack, pollutant sampling for each run must be conducted over a period of time during which all affected sources or emission units complete at least 1 entire process operating cycle or for 24 hours, whichever is shorter.

(5) Initial compliance with an applicable emission limit or standard is demonstrated if the average of three runs conducted during the performance test is less than or equal to the applicable emission limit or standard.

(c) *Test methods.* The owner or operator must use the following methods in appendix A to 40 CFR part 60 to determine compliance with the applicable emission limits or standards:

(1) Method 1 for sample and velocity traverses.

(2) Method 2 for velocity and volumetric flow rate.

(3) Method 3 for gas analysis.

(4) Method 4 for moisture content of the stack gas.

(5) Method 5 for the concentration of PM.

(6) Method 9 for visible emission observations.

(7) Method 23 for the concentration of D/F.

(8) Method 25A for the concentration of THC, as propane.

(9) Method 26A for the concentration of HCl. Where a lime-injected fabric filter is used as the control device to comply with the 90 percent reduction standard, the owner or operator must measure the fabric filter inlet concentration of HCl at a point before lime is introduced to the system.

(d) *Alternative methods.* The owner or operator may use an alternative test method, subject to approval by the Administrator.

(e) *Repeat tests.* The owner or operator of new or existing affected sources and emission units located at secondary aluminum production facilities that are major sources must conduct a performance test every 5 years following the initial performance test.

(f) *Testing of representative emission units.* With the prior approval of the permitting authority, an owner or operator may utilize emission rates obtained by testing a particular type of group 1 furnace which is not controlled by any add-on control device, or by testing an in-line flux box which is not controlled by any add-on control device, to determine the emission rate for other units of the same type at the same facility. Such emission test results may only be considered to be representative of other units if all of the following criteria are satisfied:

(1) The tested emission unit must use feed materials and charge rates which are comparable to the emission units that it represents;

(2) The tested emission unit must use the same type of flux materials in the same proportions as the emission units it represents;

(3) The tested emission unit must be operated utilizing the same work practices as the emission units that it represents;

(4) The tested emission unit must be of the same design as the emission units that it represents; and

(5) The tested emission unit must be tested under the highest load or capacity reasonably expected to occur for any of the emission units that it represents.

(g) *Establishment of monitoring and operating parameter values.* The owner or operator of new or existing affected sources and emission units must establish a minimum or maximum operating parameter value, or an operating parameter range for each parameter to be monitored as required by §63.1510 that ensures compliance with the applicable emission limit or standard. To establish the minimum or maximum value or range, the owner or operator must use the appropriate procedures in this section and submit the information required by §63.1515(b)(4) in the notification of compliance status report. The owner or operator may use existing data in addition to the results of performance tests to establish operating parameter values for compliance monitoring provided each of the following conditions are met to the satisfaction of the applicable permitting authority:

(1) The complete emission test report(s) used as the basis of the parameter(s) is submitted.

(2) The same test methods and procedures as required by this subpart were used in the test.

(3) The owner or operator certifies that no design or work practice changes have been made to the source, process, or emission control equipment since the time of the report.

(4) All process and control equipment operating parameters required to be monitored were monitored as required in this subpart and documented in the test report.

(h) *Testing of commonly-ducted units within a secondary aluminum processing unit.* When group 1 furnaces and/or in-line fluxers are included in a single existing SAPU or new SAPU, and the emissions from more than one emission unit within that existing SAPU or new SAPU are manifolded to a single control device, compliance for all units within the SAPU is demonstrated if the total measured emissions from all controlled and uncontrolled units in the SAPU do not exceed the emission limits calculated for that SAPU based on the applicable equation in §63.1505(k).

(i) *Testing of commonly-ducted units not within a secondary aluminum processing unit.* With the prior approval of the permitting authority, an owner or operator may do combined performance testing of two or more individual affected sources or emission units which are not included in a single existing SAPU or new SAPU, but whose emissions are manifolded to a single control device. Any such performance testing of commonly-ducted units must satisfy the following basic requirements:

(1) All testing must be designed to verify that each affected source or emission unit individually satisfies all emission requirements applicable to that affected source or emission unit;

(2) All emissions of pollutants subject to a standard must be tested at the outlet from each individual affected source or emission unit while operating under the highest load or capacity reasonably expected to occur, and prior to the point that the emissions are manifolded together with emissions from other affected sources or emission units;

(3) The combined emissions from all affected sources and emission units which are manifolded to a single emission control device must be tested at the outlet of the emission control device;

(4) All tests at the outlet of the emission control device must be conducted with all affected sources and emission units whose emissions are manifolded to the control device operating simultaneously under the highest load or capacity reasonably expected to occur; and

(5) For purposes of demonstrating compliance of a commonly-ducted unit with any emission limit for a particular type of pollutant, the emissions of that pollutant by the individual unit shall be presumed to be controlled by the same percentage as total emissions of that pollutant from all commonly-ducted units are controlled at the outlet of the emission control device.

[65 FR 15710, Mar. 23, 2000, as amended at 67 FR 59792, Sept. 24, 2002; 67 FR 79817, Dec. 30, 2002]

§ 63.1512 Performance test/compliance demonstration requirements and procedures.

(a) *Aluminum scrap shredder.* The owner or operator must conduct performance tests to measure PM emissions at the outlet of the control system. If visible emission observations is the selected monitoring option, the owner or operator must record visible emission observations from each exhaust stack for all consecutive 6-minute periods during the PM emission test according to the requirements of Method 9 in appendix A to 40 CFR part 60.

(b) *Thermal chip dryer.* The owner or operator must conduct a performance test to measure THC and D/F emissions at the outlet of the control device while the unit processes only unpainted aluminum chips.

(c) *Scrap dryer/delacquering kiln/decoating kiln.* The owner or operator must conduct performance tests to measure emissions of THC, D/F, HCl, and PM at the outlet of the control device.

(1) If the scrap dryer/delacquering kiln/decoating kiln is subject to the alternative emission limits in §63.1505(e), the average afterburner operating temperature in each 3-hour block period must be maintained at or above 760 °C (1400 °F) for the test.

(2) The owner or operator of a scrap dryer/delacquering kiln/decoating kiln subject to the alternative limits in §63.1505(e) must submit a written certification in the notification of compliance status report containing the information required by §63.1515(b)(7).

(d) *Group 1 furnace with add-on air pollution control devices.* (1) The owner or operator of a group 1 furnace that processes scrap other than clean charge materials with emissions controlled by a lime-injected fabric filter must conduct performance tests to measure emissions of PM and D/F at the outlet of the control device and emissions of HCl at the outlet (for the emission limit) or the inlet and the outlet (for the percent reduction standard).

(2) The owner or operator of a group 1 furnace that processes only clean charge materials with emissions controlled by a lime-injected fabric filter must conduct performance tests to measure emissions of PM at the outlet of the control device and emissions of HCl at the outlet (for the emission limit) or the inlet and the outlet (for the percent reduction standard).

(3) The owner or operator may choose to determine the rate of reactive flux addition to the group 1 furnace and assume, for the purposes of demonstrating compliance with the SAPU emission limit, that all reactive flux added to the group 1 furnace is emitted. Under these circumstances, the owner or operator is not required to conduct an emission test for HCl.

(4) The owner or operator of a sidewell group 1 furnace that conducts reactive fluxing (except for cover flux) in the hearth, or that conducts reactive fluxing in the sidewell at times when the level of molten metal falls below the top of the passage between the sidewell and the hearth, must conduct the performance tests required by paragraph (d)(1) or (d)(2) of this section, to measure emissions from both the sidewell and the hearth.

(e) *Group 1 furnace (including melting holding furnaces) without add-on air pollution control devices.* In the site-specific monitoring plan required by §63.1510(o), the owner or operator of a group 1 furnace (including a melting/holding furnaces) without add-on air pollution control devices must include data and information demonstrating compliance with the applicable emission limits.

(1) If the group 1 furnace processes other than clean charge material, the owner or operator must conduct emission tests to measure emissions of PM, HCl, and D/F at the furnace exhaust outlet.

(2) If the group 1 furnace processes only clean charge, the owner or operator must conduct emission tests to simultaneously measure emissions of PM and HCl at the furnace exhaust outlet. A D/F test is not required. Each test must be conducted while the group 1 furnace (including a melting/holding furnace) processes only clean charge.

(3) The owner or operator may choose to determine the rate of reactive flux addition to the group 1 furnace and assume, for the purposes of demonstrating compliance with the SAPU emission limit, that all reactive flux added to the group 1 furnace is emitted. Under these circumstances, the owner or operator is not required to conduct an emission test for HCl.

(f) *Sweat furnace.* Except as provided in §63.1505(f)(1), the owner or operator must measure emissions of D/F from each sweat furnace at the outlet of the control device.

(g) *Dross-only furnace.* The owner or operator must conduct a performance test to measure emissions of PM from each dross-only furnace at the outlet of each control device while the unit processes only dross and salt flux as the sole feedstock.

(h) *In-line fluxer.* (1) The owner or operator of an in-line fluxer that uses reactive flux materials must conduct a performance test to measure emissions of HCl and PM or otherwise demonstrate compliance in accordance with paragraph (h)(2) of this section. If the in-line fluxer is equipped with an add-on control device, the emissions must be measured at the outlet of the control device.

(2) The owner or operator may choose to limit the rate at which reactive chlorine flux is added to an in-line fluxer and assume, for the purposes of demonstrating compliance with the SAPU emission limit, that all chlorine in the reactive flux added to the in-line fluxer is emitted as HCl. Under these circumstances, the owner or operator is not required to conduct an emission test for HCl. If the owner or operator of any in-line flux box which has no ventilation ductwork manifolded to any outlet or emission control device chooses to demonstrate compliance with the emission limit for HCl by limiting use of reactive chlorine flux and assuming that all chlorine in the flux is emitted as HCl, compliance with the HCl limit shall also constitute compliance with the emission limit for PM, and no separate emission test for PM is required. In this case, the owner or operator of the unvented in-line flux box must utilize the maximum permissible PM emission rate for the in-line flux boxes when determining the total emissions for any SAPU which includes the flux box.

(i) *Rotary dross cooler.* The owner or operator must conduct a performance test to measure PM emissions at the outlet of the control device.

(j) *Secondary aluminum processing unit.* The owner or operator must conduct performance tests as described in paragraphs (j)(1) through (3) of this section. The results of the performance tests are used to establish emission rates in lb/ton of feed/charge for PM and HCl and µg TEQ/Mg of feed/charge for D/F emissions from each emission unit. These emission rates are used for compliance monitoring in the calculation of the 3-day, 24-hour rolling average emission rates using the equation in §63.1510(t). A performance test is required for:

(1) Each group 1 furnace processing only clean charge to measure emissions of PM and either:

(i) Emissions of HCl (for the emission limit); or

(ii) The mass flow rate of HCl at the inlet to and outlet from the control device (for the percent reduction standard).

(2) Each group 1 furnace that processes scrap other than clean charge to measure emissions of PM and D/F and either:

(i) Emissions of HCl (for the emission limit); or

(ii) The mass flow rate of HCl at the inlet to and outlet from the control device (for the percent reduction standard).

(3) Each in-line fluxer to measure emissions of PM and HCl.

(k) *Feed/charge weight measurement.* During the emission test(s) conducted to determine compliance with emission limits in a kg/Mg (lb/ton) format, the owner or operator of an affected source or emission unit, subject to an emission limit in a kg/Mg (lb/ton) of feed/charge format, must measure (or otherwise determine) and record the total weight of feed/charge to the affected source or emission unit for each of the three test runs and calculate and record the total weight. An owner or operator that chooses to demonstrate compliance on the basis of the aluminum production weight must measure the weight of aluminum produced by the emission unit or affected source instead of the feed/charge weight.

(l) *Continuous opacity monitoring system.* The owner or operator of an affected source or emission unit using a continuous opacity monitoring system must conduct a performance evaluation to demonstrate compliance with

Performance Specification 1 in appendix B to 40 CFR part 60. Following the performance evaluation, the owner or operator must measure and record the opacity of emissions from each exhaust stack for all consecutive 6-minute periods during the PM emission test.

(m) *Afterburner.* These requirements apply to the owner or operator of an affected source using an afterburner to comply with the requirements of this subpart.

(1) Prior to the initial performance test, the owner or operator must conduct a performance evaluation for the temperature monitoring device according to the requirements of §63.8.

(2) The owner or operator must use these procedures to establish an operating parameter value or range for the afterburner operating temperature.

(i) Continuously measure and record the operating temperature of each afterburner every 15 minutes during the THC and D/F performance tests;

(ii) Determine and record the 15-minute block average temperatures for the three test runs; and

(iii) Determine and record the 3-hour block average temperature measurements for the 3 test runs.

(n) *Inlet gas temperature.* The owner or operator of a scrap dryer/delacquering kiln/decoating kiln or a group 1 furnace using a lime-injected fabric filter must use these procedures to establish an operating parameter value or range for the inlet gas temperature.

(1) Continuously measure and record the temperature at the inlet to the lime-injected fabric filter every 15 minutes during the HCl and D/F performance tests;

(2) Determine and record the 15-minute block average temperatures for the 3 test runs; and

(3) Determine and record the 3-hour block average of the recorded temperature measurements for the 3 test runs.

(o) *Flux injection rate.* The owner or operator must use these procedures to establish an operating parameter value or range for the total reactive chlorine flux injection rate.

(1) Continuously measure and record the weight of gaseous or liquid reactive flux injected for each 15 minute period during the HCl and D/F tests, determine and record the 15-minute block average weights, and calculate and record the total weight of the gaseous or liquid reactive flux for the 3 test runs;

(2) Record the identity, composition, and total weight of each addition of solid reactive flux for the 3 test runs;

(3) Determine the total reactive chlorine flux injection rate by adding the recorded measurement of the total weight of chlorine in the gaseous or liquid reactive flux injected and the total weight of chlorine in the solid reactive flux using Equation 5:

$$W_t = F_1 W_1 + F_2 W_2 \qquad (Eq.\ 5)$$

Where,

W_t= Total chlorine usage, by weight;

F_1= Fraction of gaseous or liquid flux that is chlorine;

W_1= Weight of reactive flux gas injected;

F_2= Fraction of solid reactive chloride flux that is chlorine (*e.g.,* F = 0.75 for magnesium chloride; and

W_2= Weight of solid reactive flux;

(4) Divide the weight of total chlorine usage (W_t) for the 3 test runs by the recorded measurement of the total weight of feed for the 3 test runs; and

(5) If a solid reactive flux other than magnesium chloride is used, the owner or operator must derive the appropriate proportion factor subject to approval by the applicable permitting authority.

(p) *Lime injection.* The owner or operator of an affected source or emission unit using a lime-injected fabric filter system must use these procedures during the HCl and D/F tests to establish an operating parameter value for the feeder setting for each operating cycle or time period used in the performance test.

(1) For continuous lime injection systems, ensure that lime in the feed hopper or silo is free-flowing at all times; and

(2) Record the feeder setting for the 3 test runs. If the feed rate setting varies during the runs, determine and record the average feed rate from the 3 runs.

(q) *Bag leak detection system.* The owner or operator of an affected source or emission unit using a bag leak detection system must submit the information described in §63.1515(b)(6) as part of the notification of compliance status report to document conformance with the specifications and requirements in §63.1510(f).

(r) *Labeling.* The owner or operator of each scrap dryer/delacquering kiln/decoating kiln, group 1 furnace, group 2 furnace and in-line fluxer must submit the information described in §63.1515(b)(3) as part of the notification of compliance status report to document conformance with the operational standard in §63.1506(b).

(s) *Capture/collection system.* The owner or operator of a new or existing affected source or emission unit with an add-on control device must submit the information described in §63.1515(b)(2) as part of the notification of compliance status report to document conformance with the operational standard in §63.1506(c).

[65 FR 15710, Mar. 23, 2000, as amended at 67 FR 79817, Dec. 30, 2002; 69 FR 53984, Sept. 3, 2004]

§ 63.1513 Equations for determining compliance.

(a) *THC emission limit.* Use Equation 6 to determine compliance with an emission limit for THC:

$$E = \frac{C \times MW \times Q \times K_1 \times K_2}{M_v \times P \times 10^6} \qquad (Eq.\ 6)$$

Where,

E = Emission rate of measured pollutant, kg/Mg (lb/ton) of feed;

C = Measured volume fraction of pollutant, ppmv;

MW = Molecular weight of measured pollutant, g/g-mole (lb/lb-mole): THC (as propane) = 44.11;

Q = Volumetric flow rate of exhaust gases, dscm/hr (dscf/hr);

K_1= Conversion factor, 1 kg/1,000 g (1 lb/lb);

K_2= Conversion factor, 1,000 L/m^3 (1 ft^3 /ft^3);

M_v= Molar volume, 24.45 L/g-mole (385.3 ft^3 /lb-mole); and

P = Production rate, Mg/hr (ton/hr).

(b) *PM, HCl and D/F emission limits.* (1) Use Equation 7 of this section to determine compliance with an emission limit for PM or HCl:

$$E=\frac{C\times Q\times K_1}{P} \qquad \text{(Eq. 7)}$$

Where:

E = Emission rate of PM or HCl, kg/Mg (lb/ton) of feed;

C = Concentration of PM or HCl, g/dscm (gr/dscf);

Q = Volumetric flow rate of exhaust gases, dscm/hr (dscf/hr);

K_1= Conversion factor, 1 kg/1,000 g (1 lb/7,000 gr); and

P = Production rate, Mg/hr (ton/hr).

(2) Use Equation 7A of this section to determine compliance with an emission limit for D/F:

$$E=\frac{C\times Q}{P} \qquad \text{(Eq. 7A)}$$

Where:

E = Emission rate of D/F, µg/Mg (gr/ton) of feed;

C = Concentration of D/F, µg/dscm (gr/dscf);

Q = Volumetric flow rate of exhaust gases, dscm/hr (dscf/hr); and

P = Production rate, Mg/hr (ton/hr).

(c) *HCl percent reduction standard.* Use Equation 8 to determine compliance with an HCl percent reduction standard:

$$\%R=\frac{L_i-L_o}{L_i}\times 100 \qquad (Eq.\ 8)$$

Where,

%R = Percent reduction of the control device;

L_i= Inlet loading of pollutant, kg/Mg (lb/ton); and

L_o= Outlet loading of pollutant, kg/Mg (lb/ton).

(d) *Conversion of D/F measurements to TEQ units.* To convert D/F measurements to TEQ units, the owner or operator must use the procedures and equations in "Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs) and 1989 Update" (EPA–625/3–89–016), incorporated by reference in §63.1502 of this subpart, available from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia, NTIS no. PB 90–145756.

(e) *Secondary aluminum processing unit.* Use the procedures in paragraphs (e)(1), (2), and (3) or the procedure in paragraph (e)(4) of this section to determine compliance with emission limits for a secondary aluminum processing unit.

(1) Use Equation 9 to compute the mass-weighted PM emissions for a secondary aluminum processing unit. Compliance is achieved if the mass-weighted emissions for the secondary aluminum processing unit (E_{cPM}) is less than or equal to the emission limit for the secondary aluminum processing unit (L_{cPM}) calculated using Equation 1 in §63.1505(k).

$$E_{C_{PM}} = \frac{\sum_{i=1}^{n}\left(E_{ti_{PM}} \times T_{ti}\right)}{\sum_{i=1}^{n}\left(T_{ti}\right)} \qquad (Eq.\ 9)$$

Where,

E_{cPM}= The mass-weighted PM emissions for the secondary aluminum processing unit;

E_{tiPM}= Measured PM emissions for individual emission unit i;

T_{ti}= The average feed rate for individual emission unit i during the operating cycle or performance test period; and

n=The number of emission units in the secondary aluminum processing unit.

(2) Use Equation 10 to compute the aluminum mass-weighted HCl emissions for the secondary aluminum processing unit. Compliance is achieved if the mass-weighted emissions for the secondary aluminum processing unit (E_{cHCl}) is less than or equal to the emission limit for the secondary aluminum processing unit (L_{cHCl}) calculated using Equation 2 in §63.1505(k).

$$E_{C_{HCl}} = \frac{\sum_{i=1}^{n}\left(E_{ti_{HCl}} \times T_{ti}\right)}{\sum_{i=1}^{n}\left(T_{ti}\right)} \qquad (Eq.\ 10)$$

Where,

E_{cHCl}= The mass-weighted HCl emissions for the secondary aluminum processing unit; and

E_{tiHCl}= Measured HCl emissions for individual emission unit i.

(3) Use Equation 11 to compute the aluminum mass-weighted D/F emissions for the secondary aluminum processing unit. Compliance is achieved if the mass-weighted emissions for the secondary aluminum processing unit is less than or equal to the emission limit for the secondary aluminum processing unit ($L_{cD/F}$) calculated using Equation 3 in §63.1505(k).

$$E_{C_{D/F}} = \frac{\sum_{i=1}^{n}\left(E_{ti_{D/F}} \times T_{ti}\right)}{\sum_{i=1}^{n}\left(T_{ti}\right)} \qquad (Eq.\ 11)$$

Where,

$E_{cD/F}$= The mass-weighted D/F emissions for the secondary aluminum processing unit; and

$E_{tiD/F}$= Measured D/F emissions for individual emission unit i.

(4) As an alternative to using the equations in paragraphs (e)(1), (2), and (3) of this section, the owner or operator may demonstrate compliance for a secondary aluminum processing unit by demonstrating that each existing group 1 furnace is in compliance with the emission limits for a new group 1 furnace in §63.1505(i) and that each existing in-line fluxer is in compliance with the emission limits for a new in-line fluxer in §63.1505(j).

[65 FR 15710, Mar. 23, 2000, as amended at 69 FR 53984, Sept. 3, 2004]

§ 63.1514 [Reserved]

Notifications, Reports, And Records

§ 63.1515 Notifications.

(a) *Initial notifications.* The owner or operator must submit initial notifications to the applicable permitting authority as described in paragraphs (a)(1) through (7) of this section.

(1) As required by §63.9(b)(1), the owner or operator must provide notification for an area source that subsequently increases its emissions such that the source is a major source subject to the standard.

(2) As required by §63.9(b)(3), the owner or operator of a new or reconstructed affected source, or a source that has been reconstructed such that it is an affected source, that has an initial startup after the effective date of this subpart and for which an application for approval of construction or reconstruction is not required under §63.5(d), must provide notification that the source is subject to the standard.

(3) As required by §63.9(b)(4), the owner or operator of a new or reconstructed major affected source that has an initial startup after the effective date of this subpart and for which an application for approval of construction or reconstruction is required by §63.5(d) must provide the following notifications:

(i) Intention to construct a new major affected source, reconstruct a major source, or reconstruct a major source such that the source becomes a major affected source;

(ii) Date when construction or reconstruction was commenced (submitted simultaneously with the application for approval of construction or reconstruction if construction or reconstruction was commenced before the effective date of this subpart, or no later than 30 days after the date construction or reconstruction commenced if construction or reconstruction commenced after the effective date of this subpart);

(iii) Anticipated date of startup; and

(iv) Actual date of startup.

(4) As required by §63.9(b)(5), after the effective date of this subpart, an owner or operator who intends to construct a new affected source or reconstruct an affected source subject to this subpart, or reconstruct a source such that it becomes an affected source subject to this subpart, must provide notification of the intended construction or

reconstruction. The notification must include all the information required for an application for approval of construction or reconstruction as required by §63.5(d). For major sources, the application for approval of construction or reconstruction may be used to fulfill these requirements.

(i) The application must be submitted as soon as practicable before the construction or reconstruction is planned to commence (but no sooner than the effective date) if the construction or reconstruction commences after the effective date of this subpart; or

(ii) The application must be submitted as soon as practicable before startup but no later than 90 days after the effective date of this subpart if the construction or reconstruction had commenced and initial startup had not occurred before the effective date.

(5) As required by §63.9(d), the owner or operator must provide notification of any special compliance obligations for a new source.

(6) As required by §63.9(e) and (f), the owner or operator must provide notification of the anticipated date for conducting performance tests and visible emission observations. The owner or operator must notify the Administrator 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.

(7) As required by §63.9(g), the owner or operator must provide additional notifications for sources with continuous emission monitoring systems or continuous opacity monitoring systems.

(b) *Notification of compliance status report.* Each owner or operator of an existing affected source must submit a notification of compliance status report within 60 days after the compliance date established by §63.1501(a). Each owner or operator of a new affected source must submit a notification of compliance status report within 90 days after conducting the initial performance test required by §63.1511(b), or within 90 days after the compliance date established by §63.1501(b) if no initial performance test is required. 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 (a)(1) through (10) of this section. 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 must provide duplicate notification to the applicable Regional Administrator. If an owner or operator 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 §63.9(h). The owner or operator 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 §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 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 §63.1506(c).

(6) If applicable, analysis and supporting documentation demonstrating conformance with EPA guidance and specifications for bag leak detection systems in §63.1510(f).

(7) Manufacturer's specification or analysis documenting the design residence time of no less than 1 second for each afterburner used to control emissions from a scrap dryer/delacquering kiln/decoating kiln subject to alternative emission standards in §63.1505(e).

(8) Manufacturer's specification or analysis documenting the design residence time of no less than 0.8 seconds and design operating temperature of no less than 1,600 °F for each afterburner used to control emissions from a sweat furnace that is not subject to a performance test.

(9) The OM&M plan (including site-specific monitoring plan for each group 1 furnace with no add-on air pollution control device).

(10) Startup, shutdown, and malfunction plan, with revisions.

[65 FR 15710, Mar. 23, 2000, as amended at 67 FR 59793, Sept. 24, 2002; 67 FR 79818, Dec. 30, 2002]

§ 63.1516 Reports.

(a) *Startup, shutdown, and malfunction plan/reports.* The owner or operator must develop a written plan as described in §63.6(e)(3) 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 shall also keep records of each event as required by §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 §63.6(e)(3). In addition to the information required in §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.

(b) *Excess emissions/summary report.* The owner or operator must submit semiannual reports according to the requirements in §63.10(e)(3). Except, the owner or operator must submit the semiannual reports within 60 days after the end of each 6-month period instead of within 30 days after the calendar half as specified in §63.10(e)(3)(v). When no deviations of parameters have occurred, the owner or operator 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:

(i) The corrective action specified in the OM&M plan for a bag leak detection system alarm was not initiated within 1 hour.

(ii) The corrective action specified in the OM&M plan for a continuous opacity monitoring deviation was not initiated within 1 hour.

(iii) The corrective action specified in the OM&M plan for visible emissions from an aluminum scrap shredder was not initiated within 1 hour.

(iv) An excursion of a compliant process or operating parameter value or range (*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).

(v) An action taken during a startup, shutdown, or malfunction was not consistent with the procedures in the plan as described in §63.6(e)(3).

(vi) An affected source (including an emission unit in a secondary aluminum processing unit) was not operated according to the requirements of this subpart.

(vii) A deviation from the 3-day, 24-hour rolling average emission limit for a secondary aluminum processing unit.

(2) Each report must include each of these certifications, as applicable:

(i) For each thermal chip dryer: “Only unpainted aluminum chips were used as feedstock in any thermal chip dryer during this reporting period.”

(ii) For each dross-only furnace: “Only dross and salt flux were used as the charge materials in any dross-only furnace during this reporting period.”

(iii) For each sidewell group 1 furnace with add-on air pollution control devices: “Each furnace was operated such that the level of molten metal remained above the top of the passage between the sidewell and hearth during reactive fluxing, and reactive flux, except for cover flux, was added only to the sidewell or to a furnace hearth equipped with an add-on air pollution control device for PM, HCl, and D/F emissions during this reporting period.”

(iv) For each group 1 melting/holding furnace without add-on air pollution control devices and using pollution prevention measures that processes only clean charge material: “Each group 1 furnace without add-on air pollution control devices subject to emission limits in §63.1505(i)(2) processed only clean charge during this reporting period.”

(v) For each group 2 furnace: “Only clean charge materials were processed in any group 2 furnace during this reporting period, and no fluxing was performed or all fluxing performed was conducted using only nonreactive, non-HAP-containing/non-HAP-generating fluxing gases or agents, except for cover fluxes, during this reporting period.”

(vi) For each in-line fluxer using no reactive flux: “Only nonreactive, non-HAP-containing, non-HAP-generating flux gases, agents, or materials were used at any time during this reporting period.”

(3) The owner or operator 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.

(c) *Annual compliance certifications.* For the purpose of annual certifications of compliance required by 40 CFR part 70 or 71, the owner or operator must certify continuing compliance based upon, but not limited to, the following conditions:

(1) Any period of excess emissions, as defined in paragraph (b)(1) of this section, that occurred during the year were reported as required by this subpart; and

(2) All monitoring, recordkeeping, and reporting requirements were met during the year.

[65 FR 15710, Mar. 23, 2000, as amended at 69 FR 53984, Sept. 3, 2004; 71 FR 20461, Apr. 20, 2006]

§ 63.1517 Records

(a) As required by §63.10(b), the owner or operator shall maintain files of all information (including all reports and notifications) required by the general provisions and this subpart.

(1) The owner or operator 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 may retain records on microfilm, computer disks, magnetic tape, or microfiche; and

(3) The owner or operator 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 §63.10(b), the owner or operator of a new or existing affected source (including an emission unit in a secondary aluminum processing unit) must maintain records of:

(1) For each affected source and emission unit with emissions controlled by a fabric filter or a lime-injected fabric filter:

(i) 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.

(ii) If a continuous opacity monitoring system is used, records of opacity measurement data, including records where the average opacity of any 6-minute period exceeds 5 percent, with a brief explanation of the cause of the emissions, the time the emissions occurred, the time corrective action was initiated and completed, and the corrective action taken.

(iii) If an aluminum scrap shredder is subject to visible emission observation requirements, records of all Method 9 observations, including records of any visible emissions during a 30-minute daily test, with a brief explanation of the cause of the emissions, the time the emissions occurred, the time corrective action was initiated and completed, and the corrective action taken.

(2) For each affected source with emissions controlled by an afterburner:

(i) 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

(ii) Records of annual afterburner inspections.

(3) For each scrap dryer/delacquering kiln/decoating kiln and 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 each affected source and emission unit with emissions controlled by a lime-injected fabric filter:

(i) 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;

(ii) 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.

(iii) If lime addition rate for a noncontinuous lime injection system is monitored pursuant to the approved alternative monitoring requirements in §63.1510(v), records of the time and mass of each lime addition during each operating cycle or time period used in the performance test and calculations of the average lime addition rate (lb/ton of feed/charge).

(5) For each group 1 furnace (with or without add-on air pollution control devices) or in-line fluxer, records of 15-minute block average weights of gaseous or liquid reactive flux injection, total reactive flux injection rate and

calculations (including records of the identity, composition, and weight of each addition of gaseous, liquid or solid reactive flux), including records of any period the rate exceeds the compliant operating parameter value and corrective action taken.

(6) For each continuous monitoring system, records required by §63.10(c).

(7) For each affected source and emission unit 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) Approved site-specific monitoring plan for a group 1 furnace without add-on air pollution control devices with records documenting conformance with the plan.

(9) Records of all charge materials for each thermal chip dryer, dross-only furnace, and group 1 melting/holding furnaces without air pollution control devices processing only clean charge.

(10) Operating logs for each group 1 sidewell furnace with add-on air pollution control devices documenting conformance with operating standards for maintaining the level of molten metal above the top of the passage between the sidewell and hearth during reactive flux injection and for adding reactive flux only to the sidewell or a furnace hearth equipped with a control device for PM, HCl, and D/F emissions.

(11) For each in-line fluxer for which the owner or operator has certified that no reactive flux was used:

(i) Operating logs which establish that no source of reactive flux was present at the in-line fluxer;

(ii) Labels required pursuant to §63.1506(b) which establish that no reactive flux may be used at the in-line fluxer; or

(iii) Operating logs which document each flux gas, agent, or material used during each operating cycle.

(12) Records of all charge materials and fluxing materials or agents for a group 2 furnace.

(13) Records of monthly inspections for proper unit labeling for each affected source and emission unit subject to labeling requirements.

(14) Records of annual inspections of emission capture/collection and closed vent systems.

(15) Records for any approved alternative monitoring or test procedure.

(16) Current copy of all required plans, including any revisions, with records documenting conformance with the applicable plan, including:

(i) Startup, shutdown, and malfunction plan;

(ii) OM&M plan; and

(iii) Site-specific secondary aluminum processing unit emission plan (if applicable).

(17) For each secondary aluminum processing unit, records of total charge weight, or if the owner or operator 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.

[65 FR 15710, Mar. 23, 2000, as amended at 67 FR 79818, Dec. 30, 2002]

Other

§ 63.1518 Applicability of general provisions.

The requirements of the general provisions in subpart A of this part that are applicable to the owner or operator subject to the requirements of this subpart are shown in appendix A to this subpart.

§ 63.1519 Implementation and enforcement.

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

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

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

(1) Approval of alternatives to the requirements in §§63.1500 through 63.1501 and 63.1505 through 63.1506.

(2) Approval of major alternatives to test methods for under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart.

(3) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart.

(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

[68 FR 37359, June 23, 2003]

§ 63.1520 [Reserved]

Table 1 to Subpart RRR of Part 63—Emission Standards for New and Existing Affected Sources

Table 1 to Subpart RRR--Emission Standards for New and Existing Affected Sources

Affected source/ Emission unit	Pollutant	Limit	Units
All new and existing affected sources and emission units that are controlled with a PM add-on control device and that choose to monitor with a COM; and all new and existing aluminum scrap shredders that choose to monitor with a COM or to monitor visible emissions	Opacity	10	percent
New and existing aluminum scrap shredder	PM	0.01	gr/dscf
New and existing thermal chip dryer	THC D/F[a]	0.80 2.50	lb/ton of feed µg TEQ/Mg of feed
New and existing scrap dryer/delacquering kiln/decoating kiln	PM HCl THC D/F[a]	0.08 0.80 0.06 0.25	lb/ton of feed lb/ton of feed lb/ton of feed µg TEQ/Mg of feed
Or			
Alternative limits if afterburner has a design residence time of at least 1 second and operates at a temperature of at least 1400 °F	PM HCl THC D/F[a]	0.30 1.50 0.20 5.0	lb/ton of feed lb/ton of feed lb/ton of feed µg TEQ/Mg of feed
New and existing sweat furnace	D/F[a]	0.80	ng TEQ/dscm @ 11% O_2[b]
New and existing dross-only furnace	PM	0.30	lb/ton of feed

View or download PDF

New and existing in-line fluxer[a]	HCl PM	0.04 0.01	lb/ton of feed lb/ton of feed
New and existing in-line fluxer with no reactive fluxing		No limit	Work practice: no reactive fluxing
New and existing rotary dross cooler	PM	0.04	gr/dscf
New and existing clean furnace (Group 2)		No limit	Work practices: clean charge only and no reactive fluxing
New and existing group 1 melting/holding furnace (processing only clean charge)[c]	PM HCl	0.80 0.40 or 10	lb/ton of feed lb/ton of feed percent of the HCl upstream of an add-on control device
New and existing group 1 furnace[c]	PM HCl	0.40 0.40 or 10	lb/ton of feed lb/ton of feed percent of the HCl upstream of an add-on control device
	D/F[d]	15.0	µg TEQ/Mg of feed
New and existing group 1 furnace[c] with clean charge only	PM HCl	0.40 0.40 Or 10	lb/ton of feed lb/ton of feed percent of the HCl upstream of an add-on control device
	D/F[d]	No Limit	Clean charge only

View or download PDF

New and existing secondary aluminum processing unit[a,d] (consists of all existing group 1 furnaces and existing in-line flux boxes at the facility, or all simultaneously constructed new group 1 furnaces and new in-line fluxers)	PM[e]	$L_{t_{PM}} = \frac{\sum_{i=1}^{n} (L_{i_{PM}} \times T_i)}{\sum_{i=1}^{n} (T_i)}$
	HCl[f]	$L_{t_{HCl}} = \frac{\sum_{i=1}^{n} (L_{i_{HCl}} \times T_i)}{\sum_{i=1}^{n} (T_i)}$
	D/F[g]	$L_{t_{D/F}} = \frac{\sum_{i=1}^{n} (L_{i_{D/F}} \times T_i)}{\sum_{i=1}^{n} (T_i)}$

[a] D/F limit applies to a unit at a major or area source.

[b] Sweat furnaces equipped with afterburners meeting the specifications of §63.1505(f)(1) are not required to conduct a performance test.

[c] These limits are also used to calculate the limits applicable to secondary aluminum processing units.

[d] Equation definitions: L_{iPM} = the PM emission limit for individual emission unit i in the secondary aluminum processing unit [kg/Mg (lb/ton) of feed]; T_i = the feed rate for individual emission unit i in the secondary aluminum processing unit; L_{tPM} = the overall PM emission limit for the secondary aluminum processing unit [kg/Mg (lb/ton) of feed]; L_{iHCl} = the HCl emission limit for individual emission unit i in the secondary aluminum processing unit [kg/Mg (lb/ton) of feed]; L_{tHCl} = the overall HCl emission limit for the secondary aluminum processing unit [kg/Mg (lb/ton) of feed]; $L_{iD/F}$ = the D/F emission limit for individual emission unit i [µg TEQ/Mg (gr TEQ/ton) of feed]; $L_{tD/F}$ = the overall D/F emission limit for the secondary aluminum processing unit [µg TEQ/Mg (gr TEQ/ton) of feed]; n = the number of units in the secondary aluminum processing unit.

[e] In-line fluxers using no reactive flux materials cannot be included in this calculation since they are not subject to the PM limit.

[f] In-line fluxers using no reactive flux materials cannot be included in this calculation since they are not subject to the HCl limit.

[g] Clean charge furnaces cannot be included in this calculation since they are not subject to the D/F limit.

View or download PDF

Table 2 to Subpart RRR of Part 63—Summary of Operating Requirements for New and Existing Affected Sources and Emission Units

Affected source/emission unit	Monitor type/operation/process	Operating requirements
All affected sources and emission units with an add-on air pollution control device	Emission capture and collection system	Design and install in accordance with Industrial Ventilation: A Handbook of Recommended Practice; operate in accordance with OM&M plan.[b]
All affected sources and emission units subject to production-based (lb/ton of feed) emission limits[a]	Charge/feed weight or Production weight	Operate a device that records the weight of each charge; Operate in accordance with OM&M plan.[b]
Group 1 furnace, group 2 furnace, in-line fluxer and scrap dryer/delacquering kiln/decoating kiln	Labeling	Identification, operating parameter ranges and operating requirements posted at affected sources and emission units; control device temperature and residence time requirements posted at scrap dryer/delacquering kiln/decoating kiln.
Aluminum scrap shredder with fabric filter	Bag leak detector or	Initiate corrective action within 1-hr of alarm and complete in accordance with OM&M plan[b]; operate such that alarm does not sound more than 5% of operating time in 6-month period.
	COM or	Initiate corrective action within 1-hr of a 6-minute average opacity reading of 5% or more and complete in accordance with OM&M plan.[b]
	VE	Initiate corrective action within 1-hr of any observed VE and complete in accordance with the OM&M plan.[b]
Thermal chip dryer with afterburner	Afterburner operating temperature	Maintain average temperature for each 3-hr period at or above average operating temperature during the performance test.
	Afterburner operation	Operate in accordance with OM&M plan.[b]
	Feed material	Operate using only unpainted aluminum chips.
Scrap dryer/delacquering kiln/decoating kiln with afterburner and lime-injected fabric filter	Afterburner operating temperature	Maintain average temperature for each 3-hr period at or above average operating temperature during the performance test.
	Afterburner operation	Operate in accordance with OM&M plan.[b]
	Bag leak detector or	Initiate corrective action within 1-hr of alarm and complete in accordance with the OM&M plan;[b]operate such that alarm does not sound more than 5% of operating time in 6-month period.
	COM	Initiate corrective action within 1-hr of a 6-minute average opacity reading of 5% or more and complete in accordance with the OM&M plan.[b]
	Fabric filter inlet temperature	Maintain average fabric filter inlet temperature for each 3-hr period at or below average temperature during the performance test +14 °C (+25 °F).
	Lime injection rate	Maintain free-flowing lime in the feed hopper or silo at all times for continuous injection systems; maintain feeder setting at level established during the performance test for continuous injection systems.

Affected source/emission unit	Monitor type/operation/process	Operating requirements
Sweat furnace with afterburner	Afterburner operating temperature	If a performance test was conducted, maintain average temperature for each 3-hr period at or above average operating temperature during the performance test; if a performance test was not conducted, and afterburner meets specifications of §63.1505(f)(1), maintain average temperature for each 3-hr period at or above 1600 °F.
	Afterburner operation	Operate in accordance with OM&M plan.[b]
Dross-only furnace with fabric filter	Bag leak detector or	Initiate corrective action within 1-hr of alarm and complete in accordance with the OM&M plan;[b]operate such that alarm does not sound more than 5% of operating time in 6-month period.
	COM	Initiate corrective action within 1-hr of a 6-minute average opacity reading of 5% or more and complete in accordance with the OM&M plan.[b]
	Feed/charge material	Operate using only dross as the feed material.
Rotary dross cooler with fabric filter	Bag leak detector or	Initiate corrective action within 1-hr of alarm and complete in accordance with the OM&M plan;[b]operate such that alarm does not sound more than 5% of operating time in 6-month period.
	COM	Initiate corrective action within 1-hr of a 6-minute average opacity reading of 5% or more and complete in accordance with the OM&M plan.[b]
In-line fluxer with lime-injected fabric filter (including those that are part of a secondary aluminum processing unit)	Bag leak detector or	Initiate corrective action within 1-hr of alarm and complete in accordance with the OM&M plan;[b]operate such that alarm does not sound more than 5% of operating time in 6-month period.
	COM	Initiate corrective action within 1-hr of a 6-minute average opacity reading of 5% or more and complete in accordance with the OM&M plan.[b]
	Lime injection rate	Maintain free-flowing lime in the feed hopper or silo at all times for continuous injection systems; maintain feeder setting at level established during performance test for continuous injection systems.
	Reactive flux injection rate	Maintain reactive flux injection rate at or below rate used during the performance test for each operating cycle or time period used in the performance test.
In-line fluxer (using no reactive flux material)	Flux materials	Use no reactive flux.
Group 1 furnace with lime-injected fabric filter (including those that are part of a secondary of aluminum processing unit).	Bag leak detector or	Initiate corrective action within 1-hr of alarm; operate such that alarm does not sound more than 5% of operating time in 6-month period; complete corrective action in accordance with the OM&M plan.[b]
	COM	Initiate corrective action within 1-hr of a 6-minute average opacity reading of 5% or more; complete corrective action in accordance with the OM&M plan.[b]
	Fabric filter inlet temperature	Maintain average fabric filter inlet temperature for each 3-hour period at or below average temperature during the

Affected source/emission unit	Monitor type/operation/process	Operating requirements
		performance test +14 °C (+25 °F).
	Reactive flux injection rate	Maintain reactive flux injection rate (kg/Mg) (lb/ton) at or below rate used during the performance test for each furnace cycle.
	Lime injection rate	Maintain free-flowing lime in the feed hopper or silo at all times for continuous injection systems; maintain feeder setting at level established at performance test for continuous injection systems.
	Maintain molten aluminum level	Operate sidewell furnaces such that the level of molten metal is above the top of the passage between sidewell and hearth during reactive flux injection, unless the hearth is also controlled.
	Fluxing in sidewell furnace hearth	Add reactive flux only to the sidewell of the furnace unless the hearth is also controlled.
Group 1 furnace without add-on controls (including those that are part of a secondary aluminum processing unit)	Reactive flux injection rate	Maintain reactive flux injection rate (kg/Mg) (lb/ton) at or below rate used during the performance test for each operating cycle or time period used in the performance test.
	Site-specific monitoring plan[c]	Operate furnace within the range of charge materials, contaminant levels, and parameter values established in the site-specific monitoring plan.
	Feed material (melting/holding furnace)	Use only clean charge.
Clean (group 2) furnace	Charge and flux materials	Use only clean charge. Use no reactive flux.

[a]Thermal chip dryers, scrap dryers/delacquering kilns/decoating kilns, dross-only furnaces, in-line fluxers and group 1 furnaces including melting/holding furnaces.

[b]OM&M plan—Operation, maintenance, and monitoring plan.

[c]Site-specific monitoring plan. Owner/operators of group 1 furnaces without control devices must include a section in their OM&M plan that documents work practice and pollution prevention measures, including procedures for scrap inspection, by which compliance is achieved with emission limits and process or feed parameter-based operating requirements. This plan and the testing to demonstrate adequacy of the monitoring plan must be developed in coordination with and approved by the permitting authority.

[65 FR 15710, Mar. 23, 2000, as amended at 67 FR 79818, Dec. 30, 2002; 69 FR 53984, Sept. 3, 2004]

Table 3 to Subpart RRR of Part 63—Summary of Monitoring Requirements for New and Existing Affected Sources and Emission Units

Affected source/Emission unit	Monitor type/Operation/Process	Monitoring requirements
All affected sources and emission units with an add-on air pollution control device	Emission capture and collection system	Annual inspection of all emission capture, collection, and transport systems to ensure that systems continue to operate in accordance with ACGIH standards.
All affected sources and emission units subject to production-based (lb/ton of feed/charge) emission limits[a]	Feed/charge weight	Record weight of each feed/charge, weight measurement device or other procedure accuracy of ±1%[b]; calibrate according to manufacturers specifications, or at least once every 6 months.
Group 1 furnace, group 2 furnace, in-line fluxer, and scrap dryer/delacquering kiln/decoating kiln	Labeling	Check monthly to confirm that labels are intact and legible.
Aluminum scrap shredder with fabric filter	Bag leak detector or	Install and operate in accordance with "Fabric Filter Bag Leak Detection Guidance"[c]; record voltage output from bag leak detector.
	COM or	Design and install in accordance with PS–1; collect data in accordance with subpart A of 40 CFR part 63; determine and record 6-minute block averages.
	VE	Conduct and record results of 30-minute daily test in accordance with Method 9.
Thermal chip dryer with afterburner	Afterburner operating temperature	Continuous measurement device to meet specifications in §63.1510(g)(1); record average temperature for each 15-minute block; determine and record 3-hr block averages.
	Afterburner operation	Annual inspection of afterburner internal parts; complete repairs in accordance with the OM&M plan.
	Feed/charge material	Record identity of each feed/charge; certify feed/charge materials every 6 months.
Scrap dryer/delacquering kiln/decoating kiln with afterburner and lime-injected fabric filter	Afterburner operating temperature.	Continuous measurement device to meet specifications in §63.1510(g)(1); record temperature for each 15-minute block; determine and record 3-hr block averages.
	Afterburner operation	Annual inspection of afterburner internal parts; complete repairs in accordance with the OM&M plan.
	Bag leak detector or	Install and operate in accordance with "Fabric Filter Bag Leak Detection Guidance[c]; record voltage output from bag leak detector.
	COM	Design and Install in accordance with PS–1; collect data in accordance with subpart A of 40 CFR part 63; determine and record 6-minute block averages.
	Lime injection rate	For continuous injection systems, inspect each feed hooper or silo every 8 hours to verify that lime is free flowing; record results of each inspection. If blockage occurs, inspect every 4 hours for 3 days; return to 8-hour inspections if corrective action results in no further

Affected source/Emission unit	Monitor type/Operation/Process	Monitoring requirements
		blockage during 3-day period, record feeder setting daily.
	Fabric filter inlet temperature.	Continous measurement device to meet specifications in §63.1510(h)(2); record temperatures in 15-minute block averages; determine and record 3-hr block averages.
Sweat furnace with afterburner	Afterburner operating temperature	Continuous measurement device to meet specifications in §63.1510(g)(1); record temperatures in 15-minute block averages; determine and record 3-hr block averages.
	Afterburner operation	Annual inspection of afterburner internal parts; complete repairs in accordance with the OM&M plan.
Dross-only furnace with fabric filter	Bag leak detector or	Install and operate in accordance with “Fabric Filter Bag Leak Detection Guidance”[c]; record output voltage from bag leak detector.
	COM	Design and install in accordance with PS–1; collect data in accordance with subpart A of 40 CFR part 63; determine and record 6-minute block averages.
	Feed/charge material	Record identity of each feed/charge; certify charge materials every 6 months.
Rotary dross cooler with fabric filter	Bag leak detector or	Install and operate in accordance with “Fabric Filter Bag Leak Detection Guidance”[c]; record output voltage from bag leak detector.
	COM	Design and install in accordance with PS–1; collect data in accordance with subpart A of 40 CFR part 63; determine and record 6-minute block averages.
In-line fluxer with lime-injected fabric filter	Bag leak detector or	Install and operate in accordance with “Fabric Filter Bag Leak Detection Guidance”[c]; record output voltage from bag leak detector.
	COM	Design and install in accordance with PS–1; collect data in accordance with subpart A of 40 CFR part 63; determine and record 6-minute block averages
	Reactive flux injection rate	Weight measurement device accuracy of ±1%[b]; calibrate according to manufacturer's specifications or at least once every 6 months; record time, weight and type of reactive flux added or injected for each 15-minute block period while reactive fluxing occurs; calculate and record total reactive flux injection rate for each operating cycle or time period used in performance test; or Alternative flux injection rate determination procedure per §63.1510(j)(5).
	Lime injection rate	For continuous injection systems, record feeder setting daily and inspect each feed hopper or silo every 8 hrs to verify that lime is free-flowing; record results of each inspection. If blockage occurs, inspect every 4 hrs for 3 days; return to 8-hour inspections if corrective action results in no further blockage during 3-day period.[d]
In-line fluxer using no reactive flux	Flux materials	Record flux materials; certify every 6 months for no reactive flux.

Affected source/Emission unit	Monitor type/Operation/Process	Monitoring requirements
Group 1 furnace with lime-injected fabric filter	Bag leak detector or	Install and operate in accordance with "Fabric Filter Bag Leak Detection Guidance"[c]; record output voltage from bag leak detector.
	COM	Design and install in accordance with PS–1; collect data in accordance with subpart A of 40 part CFR 63; determine and record 6-minute block averages.
	Lime injection rate	For continuous injection systems, record feeder setting daily and inspect each feed hopper or silo every 8 hours to verify that lime is free-flowing; record results of each inspection. If blockage occurs, inspect every 4 hours for 3 days; return to 8-hour inspections if corrective action results in no further blockage during 3-day period.[d]
	Reactive flux injection rate	Weight measurement device accuracy of ±1%[b]; calibrate every 3 months; record weight and type of reactive flux added or injected for each 15-minute block period while reactive fluxing occurs; calculate and record total reactive flux injection rate for each operating cycle or time period used in performance test; or Alternative flux injection rate determination procedure per §63.1510(j)(5).
	Fabric filter inlet temperature	Continuous measurement device to meet specifications in §63.1510(h)(2); record temperatures in 15-minute block averages; determine and record 3-hour block averages.
	Maintain molten aluminum level in sidewell furnace	Maintain aluminum level operating log; certify every 6 months.
Group 1 furnace without add-on controls	Fluxing in sidewell furnace hearth	Maintain flux addition operating log; certify every 6 months.
	Reactive flux injection rate	Weight measurement device accuracy of +1%[b]; calibrate according to manufacturers specifications or at least once every six months; record weight and type of reactive flux added or injected for each 15-minute block period while reactive fluxing occurs; calculate and record total reactive flux injection rate for each operating cycle or time period used in performance test.
	OM&M plan (approved by permitting agency)	Demonstration of site-specific monitoring procedures to provide data and show correlation of emissions across the range of charge and flux materials and furnace operating parameters.
	Feed material (melting/holding furnace)	Record type of permissible feed/charge material; certify charge materials every 6 months.
Clean (group 2) furnace	Charge and flux materials	Record charge and flux materials; certify every 6 months for clean charge and no reactive flux.

[a]Thermal chip dryers, scrap dryers/delacquering kilns/decoating kilns, dross-only furnaces, in-line fluxers and group 1 furnaces or melting/holding furnaces.

[b]Permitting agency may approve measurement devices of alternative accuracy, for example in cases where flux rates are very low and costs of meters of specified accuracy are prohibitive; or where feed/charge weighing devices of specified accuracy are not practicable due to equipment layout or charging practices.

[c]Non-triboelectric bag leak detectors must be installed and operated in accordance with manufacturers' specifications.

[d]Permitting agency may approve other alternatives including load cells for lime hopper weight, sensors for carrier gas pressure, or HCl monitoring devices at fabric filter outlet.

[65 FR 15710, Mar. 23, 2000, as amended at 69 FR 53985, Sept. 3, 2004]

Appendix A to Subpart RRR of Part 63—General Provisions Applicability to Subpart RRR

Citation	Requirement	Applies to RRR	Comment
§63.1(a)(1)–(4)	General Applicability	Yes.	
§63.1(a)(5)		No	[Reserved].
§63.1(a)(6)–(8)		Yes.	
§63.1(a)(9)		No	[Reserved].
§63.1(a) (10)–(14)		Yes.	
§63.1(b)	Initial Applicability Determination	Yes	EPA retains approval authority.
§63.1(c)(1)	Applicability After Standard Established	Yes.	
§63.1(c)(2)		Yes	§63.1500(e) exempts area sources subject to this subpart from the obligation to obtain Title V operating permits.
§63.1(c)(3)		No	[Reserved].
§63.1(c)(4)–(5)		Yes.	
§63.1(d)		No	[Reserved].
§63.1(e)	Applicability of Permit Program	Yes.	
§63.2	Definitions	Yes	Additional definitions in §63.1503.
§63.3	Units and Abbreviations	Yes	
§63.4(a)(1)–(3)	Prohibited Activities	Yes.	
§63.4(a)(4)		No	[Reserved]
§63.4(a)(5)		Yes.	
§63.4(b)–(c)	Circumvention/ Severability	Yes.	
§63.5(a)	Construction and Reconstruction—Applicability	Yes.	
§63.5(b)(1)	Existing, New, Reconstructed Sources—Requirements	Yes.	
§63.5(b)(2)		No	[Reserved].
§63.5(b)(3)–(6)		Yes.	
§63.5(c)		No	[Reserved].
§63.5(d)	Application for Approval of Construction/ Reconstruction	Yes.	

Citation	Requirement	Applies to RRR	Comment
§63.5(e)	Approval of Construction/ Reconstruction	Yes.	
§63.5(f)	Approval of Construction/Reconstruction Based on State Review	Yes.	
§63.6(a)	Compliance with Standards and Maintenance—Applicability	Yes.	
§63.6(b)(1)–(5)	New and Reconstructed Sources—Dates	Yes.	
§63.6(b)(6)		No	[Reserved].
§63.6(b)(7)		Yes.	
§63.6(c)(1)	Existing Sources Dates	Yes	§63.1501 specifies dates.
§63.6(c)(2)		Yes.	
§63.6(c)(3)–(4)		No	[Reserved].
§63.6(c)(5)		Yes.	
§63.6(d)		No	[Reserved].
§63.6(e)(1)–(2)	Operation & Maintenance Requirements	Yes	§63.1510 requires plan.
§63.6(e)(3)	Startup, Shutdown, and Malfunction Plan	Yes.	
§63.6(f)	Compliance with Emission Standards	Yes.	
§63.6(g)	Alternative Standard	No	
§63.6(h)	Compliance with Opacity/VE Standards	Yes.	
§63.6(i)(1)–(14)	Extension of Compliance	Yes.	
§63.6(i)(15)		No	[Reserved].
§63.6(i)(16)		Yes.	
§63.6(j)	Exemption from Compliance	Yes.	
§63.7(a)–(h)	Performance Test Requirements-Applicability and Dates	Yes	Except §63.1511 establishes dates for initial performance tests.
§63.7(b)	Notification	Yes.	
§63.7(c)	Quality Assurance/Test Plan	Yes.	
§63.7(d)	Testing Facilities	Yes.	
§63.7(e)	Conduct of Tests	Yes.	
§63.7(f)	Alternative Test Method	Yes.	
§63.7(g)	Data Analysis	Yes.	
§63.7(h)	Waiver of Tests	Yes.	

Citation	Requirement	Applies to RRR	Comment
§63.8(a)(1)	Monitoring Requirements—Applicability	Yes.	
§63.8(a)(2)		Yes.	
§63.8(a)(3)		No	[Reserved]
§63.8(a)(4)		Yes	
§63.8(b)	Conduct of Monitoring	Yes.	
§63.8(c)(1)–(3)	CMS Operation and Maintenance	Yes.	
§63.8(c)(4)–(8)		Yes.	
§63.8(d)	Quality Control	Yes.	
§63.8(e)	CMS Performance Evaluation	Yes.	
§63.8(f)(1)–(5)	Alternative Monitoring Method	No	§63.1510(w) includes provisions for monitoring alternatives.
§63.8(f)(6)	Alternative to RATA Test	Yes.	
§63.8(g)(1)	Data Reduction	Yes.	
§63.8(g)(2)		No	§63.1512 requires five 6-minute averages for an aluminum scrap shredder.
§63.8(g)(3)–(5)		Yes.	
§63.9(a)	Notification Requirements—Applicability	Yes.	
§63.9(b)	Initial Notifications	Yes.	
§63.9(c)	Request for Compliance Extension	Yes.	
§63.9(d)	New Source Notification for Special Compliance Requirements	Yes.	
63.9(e)	Notification of Performance Test	Yes.	
§63.9(f)	Notification of VE/Opacity Test	Yes.	
§63.9(g)	Additional CMS Notifications	Yes.	
§63.9(h)(1)–(3)	Notification of Compliance Status	Yes	Except §63.1515 establishes dates for notification of compliance status reports.
§63.9(h)(4)		No	[Reserved].
§63.9(h)(5)–(6)		Yes.	
§63.9(i)	Adjustment of Deadlines	Yes.	
§63.9(j)	Change in Previous Information	Yes.	
§63.10(a)	Recordkeeping/Reporting—Applicability	Yes.	
§63.10(b)	General Requirements	Yes	§63.1517 includes additional requirements.
§63.10(c)(1)	Additional CMS Recordkeeping	Yes.	

Citation	Requirement	Applies to RRR	Comment
§63.10(c)(2)–(4)		No	[Reserved].
§63.10(c)(5)		Yes.	
§63.10(c)(6)		Yes.	
§63.10(c)(7)–(8)		Yes.	
§63.10(c)(9)		No	[Reserved].
§63.10(c)(10)–(13)		Yes.	
§63.10(c)(14)		Yes.	
§63.10(d)(1)	General Reporting Requirements	Yes.	
§63.10(d)(2)	Performance Test Results	Yes.	
§63.10(d)(3)	Opacity or VE Observations	Yes.	
§63.10(d)(4)–(5)	Progress Reports/Startup, Shutdown, and Malfunction Reports	Yes.	
§63.10(e)(1)–(2)	Additional CMS Reports	Yes.	
§63.10(e)(3)	Excess Emissions/CMS Performance Reports	Yes	Reporting deadline given in §63.1516.
§63.10(e)(4)	COMS Data Reports	Yes.	
§63.10(f)	Recordkeeping/Reporting Waiver	Yes.	
§63.11(a)–(b)	Control Device Requirements	No	Flares not applicable.
§63.12(a)–(c)	State Authority and Delegations	Yes.	EPA retains authority for applicability determinations.
§63.13	Addresses	Yes.	
§63.14	Incorporation by Reference	Yes	Chapters 3 and 5 of ACGIH Industrial Ventilation Manual for capture/collection systems; and Interim Procedures for Estimating Risk Associated with Exposure to Mixtures of Chlorinated Dibenzofurans (CDDs and CDFs) and 1989 Update (incorporated by reference in §63.1502).
§63.15	Availability of Information/Confidentiality	Yes.	

[65 FR 15710, Mar. 23, 2000, as amended at 67 FR 59793, Sept. 24, 2002; 67 FR 79818, Dec. 30, 2002; 69 FR 53986, Sept. 3, 2004; 70 FR 75346, Dec. 19, 2005]

Indiana Department of Environmental Management
Office of Air Quality

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

Source Description and Location

Source Name:	Superior Aluminum Alloys, LLC
Source Location:	14214 Edgerton Road, New Haven, Indiana 46774
County:	Allen
SIC Code:	3341 (Secondary Smelting and Refining of Nonferrous Metals)
Permit Renewal No.:	T003-33033-00286
Permit Reviewer:	Mehul Sura

Public Notice Information

On January 28, 2014, the Office of Air Quality (OAQ) had a notice published in the *Journal Gazette,* Fort Wayne, Indiana stating that IDEM had received an application from Superior Aluminum Alloys, LLC located at 14214 Edgerton Road, New Haven, Indiana 46774 for a renewal of its Part 70 Operating Permit issued on December 29, 2008. The notice also stated that OAQ proposed to issue this Part 70 Operating Permit Renewal and provided information on how the public could review the proposed Part 70 Operating Permit Renewal and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this Part 70 Operating Permit Renewal should be issued as proposed.

On February 27, 2014, Superior Aluminum Alloys, LLC submitted comments on the proposed Part 70 Operating Permit Renewal which are listed below. Similar comments pertaining to the TSD and permit have been combined.

The comments are followed by IDEM's response. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**.

Comment 1: Emissions Calculations

Please correct emission calculations errors as described below. Superior Aluminum Alloys, LLC previously provided corrected calculations.

(a) Please include SO2, NOx and VOC emissions due to natural gas combustion for chip dryer and chip dryer afterburner in the Uncontrolled Emissions table.

The spreadsheet currently contains a formula error which results in zero '0' NOx emissions for the thermal chip dryer. The cell formula references a wrong cell on the natural gas combustion sheet and it should refer to cell H34, not I34. The cell formula does not add the NOx process emissions from Page 3 of TSD Appendix A.

(b) Please include NOx emissions due to natural gas combustion for Chip Dryer and Chip Dryer afterburner in the Limited PTE table and revise the NOx emission factor of the furnaces from 0.85 lb/ton to 0.82 lb/ton, to account this correction and to limit the source-wide NOx PTE less than 100 tons/yr.

(c) Please revise SO2 and VOC PTEs of the furnaces in the Limited PTE table to reflect the production limit that applies to these furnaces.

This table is supposed to reflect the limited PTE based on the production restriction at the furnaces. This production restriction limits PTE of all pollutants at the furnaces, including SO2 and VOC.

(d) Please add a statement that 'the PM/PM10 emissions for the furnaces in the previous Renewal T003-23683-00286, issued on December 29, 2008, were based on 0.1 lb/ton of PM/PM10 emission factor'.

(e) The newly-added HCl calculations for the Chip Dryer are not necessary and should be removed. The permit does not contain requirements regarding HCl emissions from the Chip Dryer, and it is already clear that this is a major HAPs source. IDEM's position has been that once it is determined that a source is major for HAPs or another pollutant; detailed calculations are no longer needed.

(f) IDEM should not calculate PM/PM10/PM2.5 PTE for the Silo 1 and Silo 2 based on lime feed rates derived from a performance test. These lime feed rates can and will change.

Response 1: Emissions Calculations

Please See 'Attachment A' of this ATSD for the revised emission calculations.

(a) The SO2, NOx and VOC emissions due to natural gas combustion for Chip Dryer and Chip Dryer afterburner have been added in the Uncontrolled Emissions table.

(b) The NOx limits for the furnaces have been changed from 0.85 lb/ton to 0.82 lb/ton in the permit. This is still a change from the current limit of 0.26 lb/ton.

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

. . .

NO_x Limits

(b) The NO_x emissions (consisting of combustion and process emissions) from Stacks E and F combined shall not exceed ~~0.85~~**0.82** pounds per ton of aluminum scrap processed in Furnace #1 or Furnace #2.

(c) The NO_x emissions (including combustion and process emissions) from Stacks L and N combined shall not exceed ~~0.85~~**0.82** pounds per ton of aluminum scrap processed in furnace #3 or furnace #4.

(c) The SO2 and VOC PTE of the furnaces in the Limited PTE table now reflect limited emissions based on the production limit that applies to the furnaces.

(d) The following statement has been added:

One tenth (0.1) pound per ton emission factor for PM, PM10 and PM2.5 PM was used in the previous Renewal T003-23683-00286, issued on December 29, 2008.

(e) Potential to emit (PTE) is calculated for regulated pollutants. Since HCl is a regulated pollutant under the PSD rules, its PTE has been calculated. The PTE for regulated pollutants is determined whether or not applicable requirements apply.

No change has been made due to this comment.

(f) Silo 1 and Silo 2 both feed lime to the baghouses associated with the furnaces. The lime feed rates, used in the PTE calculations, were derived from an IDEM approved stack test for these baghouses. These feed rates are the only available information that IDEM has been provided to determine the PTE as the source has not provided any other information. In addition, IDEM has determined that these lime feed rates would not likely change significantly because stack test was supposed to be performed using the nominal capacities of the furnaces and these lime feed rates were based on these nominal capacities.

No change has been made due to this comment.

Comment 2: Chip Sorting System

Please remove the following explanation for the chip sorting system of the TSD and permit because the baghouse for the chip sorting system is voluntary. Reinsert the word "voluntary" in the emission unit description for the baghouse equipped on the chip sorting system because this baghouse is a voluntary baghouse.

(i) One (1) aluminum chip sorting system, identified as A-5, installed in 2011, with a capacity of 1.5 tons per hour, with emissions controlled by a baghouse, exhausting outside and also equipped with a magnetic separator, final screen and product tote bins.

~~Note: The baghouse for A-5 was initially determined to be voluntary, however, upon further review, it is now considered a required control because this baghouse for A-5 is required to comply with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) limit for A-5 (for details of this limit, please refer 'State Rule Applicability – Individual Facilities' section of this TSD).~~

(b) 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 specified when operating at the respective process weight rate:

. . .

~~(B) Even though the PTE before control of the aluminum chip sorting system shows that it complies with the 326 IAC 6-3 limit, since this PTE before control was determined using an alternative emission factor (rated E), in lieu of testing, the baghouse equipped on the aluminum chip sorting system shall be in operation and control particulate emissions at all times when chip sorting system shall be in operation in order to comply with this limit.~~

This baghouse is a voluntary baghouse for the following reasons:

AP-42, Section 11.19.2-2, Crushed Stone Processing emission factors are used for the chip sorting system and these emission factors are conservative for the chip sorting

system because aluminum chips are small pieces. The hourly uncontrolled emission rate calculated in the uncontrolled calculations for the chip sorting system is 42 times less than 326 IAC 6-3-2 limit. The hourly rate calculated in the uncontrolled calculations for the chip sorting system would have to be inaccurate by a factor of nearly 42 before the 326 IAC 6-3-2 limit would be exceeded.

IDEM already reviewed this baghouse in a prior permitting action. It is unreasonable for IDEM to change its determination now and decide that monitoring is required for this baghouse even though uncontrolled emissions estimates are approximately 42 times below the only applicable limit. Also, AP-42, Section 11.19.2-2, Crushed Stone Processing emission factors are expected to conservatively estimate emissions from the sorting of aluminum chips, which are small pieces.

The extensive requirements IDEM has added to the permit (Section D.4) for the baghouse on this tiny 1.5 ton per hour process are excessive. It is unreasonable for IDEM to change its mind now and decide that uncontrolled emissions estimates approximately 42 times below the only applicable limit should warrant a requirement to run a baghouse.

Response 2: Chip Sorting System

When the chip sorting system was initially permitted through AA No. 003-31324-00286 (issued on January 11, 2012), AP-42, Section 11.19.2-2, Crushed Stone Processing emission factor was used to determine the uncontrolled emissions from the chip sorting system. Based on this alternative emission factor, the uncontrolled emissions from the chip sorting system were less than 326 IAC 6-3-2 particulate limit specified for the chip sorting system. In addition, no Compliance Determination and Monitoring Requirements were specified in the permit for the chip sorting system and the baghouse was determined to be voluntary.

IDEM re-evaluated the voluntary status of the baghouse during the review of the draft renewal. IDEM determined that the emission factor used is for an operation that is not comparable to the chip sorting system and has an overall “E” rating. Therefore, the uncontrolled emissions derived from this emission factor may not be the representative uncontrolled emission rate from the chip sorting system. As indicated in the TSD, instead of requiring the source to conduct compliance testing to confirm the potential emissions, the voluntary status of the baghouse was removed and Compliance Determination and Monitoring Requirement were included for the baghouse in the draft renewal permit.

Upon further evaluation, IDEM has decided to remove the compliance monitoring and re-stated the word “voluntary”, however, a one-time testing requirement has been added for the chip sorting system to determine the uncontrolled emission rate since the emission factor used is for a different operation and has a rating of “E”. In addition, the word "nominal" has been added in the description of the chip sorting System and typographical error in Condition D.4.1 has been corrected.

The TSD reflects the public-noticed version and it is not amended.

The changes to the permit due to this comment are shown below. The Table of Contents has also been updated.

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

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

. . .

(i) One (1) aluminum chip sorting system, identified as A-5, installed in 2011, with a **nominal** capacity of 1.5 tons per hour, with emissions controlled by a **voluntary** baghouse, exhausting outside and also equipped with a magnetic separator, final screen and product tote bins.

. . .

SECTION D.4 FACILITY OPERATION CONDITIONS

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

(i) One (1) aluminum chip sorting system, identified as A-5, installed in 2011, with a **nominal** capacity of 1.5 tons per hour, with emissions controlled by a **voluntary** baghouse, exhausting outside and also equipped with a magnetic separator, final screen and product tote bins.

(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.4.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate from the aluminum chip sorting system shall not exceed a total 5.3**8** pounds per hour when operating at a process weight rate of 1.5 tons of aluminum per hour. The pound per hour limitation was calculated with the following equation:

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

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

P = process weight rate in tons per hour.

D.4.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan is required for the facility described in this section ~~and its control device~~. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.4.3 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

In order to demonstrate compliance with Condition D.4.1, the Permittee shall perform a one-time PM testing on the chip sorting system (before control) no later than hundred eighty (180) days after the issuance of renewal T003-33033-00286 using methods as approved by the Commissioner. Testing shall be conducted in accordance with the

provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

PM shall include filterable and condensable PM.

~~D.4.3 Particulate Matter (PM)~~

~~(a) In order to comply Condition D.4.1, the baghouse equipped on the aluminum chip sorting system shall be in operation and control particulate emissions from baghouse equipped on chip sorting system at all times the baghouse equipped on chip sorting system is in operation.~~

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

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

~~D.4.4 Parametric Monitoring~~

~~The Permittee shall record the pressure drop across the baghouse equipped on the aluminum chip sorting system at least once per day when the chip sorting system is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1 and 6 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response. Section C – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.~~

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

~~D.4.5 Visible Emissions Notations~~

~~(a) Daily visible emission notations of the exhaust from the baghouse equipped on the aluminum chip sorting system shall be performed during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.~~

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

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

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

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.4.6 Broken or Failed Bag Detection

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

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

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

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

D.4.7 Record Keeping Requirements

(a) To document the compliance status with Condition D.4.4, the Permittee shall maintain daily records of the pressure drop across the baghouse used in conjunction with chip sorting system. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (i.e. the process did not operate that day).

(b) To document the compliance status with Condition D.4.5, the Permittee shall maintain daily records of the visible emission notations of the exhaust from the baghouse used in conjunction with chip sorting system. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation, (i.e. the process did not operate that day).

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

Comment 3: Compliance Assurance Monitoring (CAM)

Following are the comments related to the analysis documented in the TSD and permit:

(a) PM, PM10 and PM2.5 - Filterable vs. Condensable Particulates

Remove Condition D.1.6 (BLDS for CAM). IDEM has stated in the TSD that NESHAP, Subpart RRR addresses filterable particulate for the emission units and controls listed below. Since NESHAP, Subpart RRR already addresses filterable particulate, CAM does not apply to filterable particulate for these emission units.

(a) Furnace #1
(b) Furnace #2
(c) Furnace #3
(d) Furnace #4
(e) electric Scrap Shredder
(f) Chip Dryer
(g) Baghouses E, F, L and N

It makes no sense to conclude that CAM applies to particulate from the unit, and then use a post-1990 NESHAP's particulate monitoring requirements to comply with CAM. If the NESHAP addresses the pollutant, then CAM does not apply. The NESHAP-required baghouses address filterable particulate. There is no other control or monitoring beyond Subpart RRR's requirements that Superior Aluminum Alloys, LLC can use for subsets of filterable particulate, like filterable PM2.5 or PM10, and IDEM does not have a basis for applying CAM to subsets of a pollutant. Further, CAM cannot apply to condensable particulate, because the units have no control device to control condensable particulate.

The CAM analysis is specific to the filterable particulate only because no control device is used at the source for the condensable particulate.

CAM does not apply if the unit does not use a control device to achieve compliance with any such emission limitation or standard (40 CFR 64.2(a)(2)), CAM does not apply to any limit on condensable particulate emissions for any of the units and controls listed above.

IDEM cannot assert that CAM applies to a fraction of particulate (condensable particulate), but then not acknowledge that the emission units have no control devices to control that particulate fraction (condensable particulate).

The purpose of CAM is to ensure that a permit contains adequate monitoring for pollutants for which the unit is not subject to a NESHAP or other federal requirement. In this case, there is no additional monitoring that can be conducted specifically for filterable PM10 and filterable PM2.5 beyond that which NESHAP, Subpart RRR already requires for filterable particulate from the furnaces and scrap shredder. To layer CAM on top of a NESHAP that already addresses filterable particulate is simply unnecessary.

(b) PM, PM10 and PM2.5 - PTE

PM, PM10, and PM2.5 PTE for each furnace is individually less than 100 tons/yr. For purposes of CAM, PTE must be calculated taking any operational limits into account. The furnaces are subject to a federally enforceable limitation on production – 150,000 tons throughput per year. The uncontrolled PTE in the CAM analysis table must take into account federally enforceable throughput limit for the furnaces. The uncontrolled PTE from each furnace is less than 100 tons per year as determined follows:

Pollutant	PM	PM_{10}	$PM_{2.5}$
Emission Factor (lb/ton produced)	4.3	2.6	2.16
Total Throughput Limit for all 4 furnaces (tons/yr)	150,000	150,000	150,000
# of Furnaces	4	4	4
Potential Emissions from Each Furnace (tons/yr)	80.63	48.75	48.75

Methodology:
Potential Emissions from Each Furnace (tons/yr) = [Emission Factor (lb/ton) x Total Throughput Limit for all 4 furnaces (tons/yr) / [(2000 (lbs/ton) x # of Furnaces]

CAM applicability would be clearer, if IDEM added a third PTE summary table to the emission calculations: Limited/Uncontrolled PTE. The current summary page only sets out a table of Uncontrolled/Unlimited PTE, and a table IDEM calls "Limited PTE," but which is actually Limited/Controlled PTE.

(c) Chip Dryer -VOC

Please remove Conditions D.3.8, D.3.9 and D.3.10 for the Chip Dryer. The Chip Dryer is not subject to CAM for VOC due to the following reasons:

NESHAP, Subpart RRR already contains a limit on total hydrocarbons (THC) for Chip Dryer. The entire purpose of EPA placing a THC limit in this NESHAP, Subpart RRR was to limit VOC emissions. There is no additional monitoring that can be conducted specifically for VOC beyond that which NESHAP, Subpart RRR already requires for THC; all of the monitoring requirements in NESHAP, Subpart RRR for THC fully address VOC emissions. When promulgating NESHAP, Subpart RRR, EPA considered the appropriate monitoring and limits for VOC – thus removing the entire purpose of CAM. EPA chose THC as the nomenclature for measuring compliance. THC is more stringent than VOC, because it includes methane while VOC does not; VOC is merely a subset of THC.

Response 3: Compliance Assurance Monitoring (CAM)

The following are the IDEM's responses:

As indicated in the TSD, CAM still applies because of the following reasons:

(a) PM, PM10 and PM2.5 - Filterable vs. Condensable Particulates

The applicable PM limit under 40 CFR 63, Subpart RRR for Furnace #1, Furnace #2, Furnace #3, Furnace #4 and electric Scrap Shredder are for filterable PM only because Method 5 is used to demonstrate compliance with the PM limit and only filterable portions of particulate are measured under this method.

These emission units are also subject to PM limits (both filterable and condensable) under 326 IAC 2-2, which is independent and separate from NESHAP, Subpart RRR. In addition, the source is required to comply with the limits by using a control. Although not as effective as that of the filterable portion of the particulate, the effect of baghouse to control condensable particulate has been taken into account in complying with these limits.

Based on this, CAM is still applicable to these emission units for PM.

40 CFR 63 NESHAP Subpart RRR does not specify PM10 and PM2.5 limits for the Furnace #1, Furnace #2, Furnace #3, Furnace #4 and electric Scrap Shredder. Therefore, CAM applies to these emission units for PM10 and PM2.5.

No change has been made due to this comment.

(b) PM, PM10 and PM2.5 - PTE

The PM, PM10 and PM2.5 PTE of each is greater than 100 tons/yr based on the nominal capacity of each furnace:

Nominal Capacity of each furnace (tons/yr)	=	Nominal Capacity of each furnace (lbs/hr)	x	8760 (hrs/yr)	x	2000 (lbs/ton)
	=	28,000 (lbs/hr)	x	8760 (hrs/yr)	x	2000 (lbs/ton)
	=	122,640 (tons/yr)				

The nominal capacity of each furnace is less than the enforceable total throughput limit for the furnaces (122,640 tons/yr < 150,000 tons/yr).

As a scenario, any one furnace can operate to its nominal capacity which is less than the enforceable total throughput limit for the furnaces. In this scenario, the uncontrolled emissions from the given furnace would be more than 100 tons/yr, as shown below.

Pollutant	PM	PM_{10}	$PM_{2.5}$
Emission Factor (lb/ton)	4.3	2.6	2.16
nominal capacity of each furnace (tons/yr)	122,640	122,640	122,640
PTE of each furnace (tons/yr)	263.67	159.4	159.4

Methodology:

PTE of each furnace (tons/yr)	=	Emission Factor (lb/ton)	x	nominal capacity of each furnace (tons/yr)	x	2000 (lbs/ton)

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

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

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

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

The furnaces meet all of these criteria, even with the enforceable total throughout limit for all the furnaces.

No change has been made for the PM, PM10 and PM2.5 CAM applicability determination for the furnaces. No change has been made due to this comment.

(c) Chip Dryer -VOC

Upon further evaluation, IDEM agreed that the Chip Dryer is not subject to CAM. Method 25A is used to determine compliance with total hydrocarbon (THC) limit under NESHAP, Subpart RRR. This method covers most of the VOC emitted by the Chip Dryer. IDEM has determined that since the VOC emitted by the Chip Dryer are regulated as THC by NESHAP, Subpart RRR, CAM does not apply to the afterburner equipped on Chip Dryer.

IDEM prefers that the TSD reflect the public-noticed version. Therefore, the TSD has not been amended.

The VOC CAM references to the afterburner will be removed from the permit.

Condition D.3.8 of the permit has been revised to remove CAM references. The reference to '3-hour average temperature' is changed to '3-hour block average temperature' in Condition D.3.8 (for details, please refer Response 15 of this ATSD).

Please note that these compliance monitoring requirements are not being removed. Only CAM references are being removed. Even though these Compliance Monitoring Requirements are specified in NESHAP, Subpart RRR, these Compliance Monitoring Requirements were also included in the D section of the permit because the afterburner must operate properly to ensure compliance with 326 IAC 8-1-6 and 326 IAC 2-2 limits.

D.3.8 After Burner Temperature ~~[40 CFR 64]~~

~~Pursuant to 40 CFR 64,~~

(a) A continuous monitoring system shall be calibrated, maintained, and operated on the After Burner for measuring operating temperature. For the purpose of this condition, continuous means no less often than once per fifteen (15) minutes. The Permittee shall operate the afterburner at or above the average temperature established during the most recent performance test.

(b) The Permittee shall determine the 3-hour **block** average temperature from the most recent valid stack test that demonstrates compliance with **the** limits in Condition D.3.2.

(c) The Permittee shall operate the After Burner at or above the 3-hour average temperature observed during the most recent compliant stack test.

D.3.9 After Burner Fan Amperage ~~[40 CFR 64]~~

~~Pursuant to 40 CFR 64,~~

(a) The Permittee shall determine the appropriate fan amperage from the most recent valid stack test that demonstrates compliance with limits in Condition D.3.2.

(b) The fan amperage shall be observed at least once per day when the After Burner is in operation. The fan amperage shall be maintained within the normal range as established in most recent compliant stack test.

Comment 4: Please correct the spelling of word "pounds" in 326 IAC 2-2 (PSD) rule applicability under 'State Rule Applicability - Entire Source' section of the TSD.

326 IAC 2-2 (PSD)
. . .

(d) Particulate Limits

Emission Unit	PM Limit	PM10 Limit	PM2.5 Limit	Unit of Limit
electric Scrap Shredder*	4.28	4.28	4.28	pound**s** per hour
Chip Dryer*	4.188	4.188	4.188	

. . .

Response 4: IDEM acknowledges this typographical error made in the TSD. The TSD reflects the public-noticed version and it is not amended. There is no change made in the permit due to this comment.

The corrected table is as follows:

Emission Unit	PM Limit	PM10 Limit	PM2.5 Limit	Unit of Limit
electric Scrap Shredder*	4.28	4.28	4.28	pounds per hour
Chip Dryer*	4.188	4.188	4.188	

Comment 5: Dross cooling operation

Please return the dross cooling operation process weight rate to the correct rate as it is set out in the emission unit description and the PTE calculations in this permit. It is unclear why IDEM changed it in this version of the TSD; the limit in Condition D.1.2 is correct.

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

. . .

(b) 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 specified when operating at the respective process weight rate:

Emission Unit	Process Weight Rate (tons/hr)	Allowable particulate Emission Rate (lb/hr)	PM Emissions (lb/hr)*	can comply?
dross cooling operation	3**.425**	~~8.55~~**9.35**	0.34 (uncontrolled)	yes
Chip Dryer	6	13.62	2.15 (controlled)	yes

Aluminum chip sorting system	1.5	5.38	0.13 (uncontrolled)	yes

Response 5: Dross cooling operation

IDEM acknowledges this typographical error made in the TSD. The TSD reflects the public-noticed version and it is not amended. There is no change made in the permit and calculation due to this comment.

The corrected table is as follows:

Emission Unit	Process Weight Rate (tons/hr)	Allowable particulate Emission Rate (lb/hr)	PM Emissions (lb/hr)*	can comply?
dross cooling operation	3.425	9.35	0.34 (uncontrolled)	yes
Chip Dryer	6	13.62	2.15 (controlled)	yes
Aluminum chip sorting system	1.5	5.38	0.13 (uncontrolled)	yes

Comment 6: Silo 1 and Silo 2

(a) Please remove the following note in the TSD due to the following reason:

Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from Silo 1 and Silo 2, each with a maximum process weight rates less than 100 pounds per hour, shall not exceed 0.551 pounds of PM per hour.

In order to comply with this limit, the bin vent filters equipped on Silo 1 and Silo 2 shall be in operation and control particulate emissions from Silo 1 and Silo 2 at all times the Silo 1 and Silo 2 are in operation.

~~Notes: The AP-42 emission factor used to determine the uncontrolled particulate emissions for these silos has an E rating. Therefore, bin vent filters operation requirement has been added through this renewal.~~

~~As indicated in Appendix A, when these silos were initially permitted, the permit level was determined after control (bin vents) even though no integral to the process was submitted by the source nor evaluated by IDEM.~~

IDEM provided Superior Aluminum Alloys, LLC with previous integral findings that IDEM had made for product silos. Superior Aluminum Alloys, LLC provided information highly consistent with those prior determinations made by IDEM. For IDEM to treat these product silos differently than others for which it has made an integral finding is arbitrary.

(b) Please remove Condition D.5.1 (326 IAC 6-3-2) because the limit specified in this condition is already specified in Condition C.1.

Please remove Condition D.5.2 (PMP) because the Bin vent filters are passive controls, and IDEM's PTE calculations reveal that these silos are a tiny emissions source. A Preventive Maintenance Plan is not needed for such a tiny

emission unit.

Please revise Condition D.5.3 (PM). The Bin vent filters are passive controls. The current language implies that the bin vent filters can somehow be "operated" to actively control emissions, which is not the case. IDEM has used this language in other permits it has issued.

D.5.3 Particulate Matter (PM)

In order to comply Condition D.5.1, the bin vent filters equipped on Silo 1 and Silo 2 shall be in operation **or shall be in place** and control particulate emissions ~~from Silo 1 and Silo 2~~ at all times the Silo 1 and Silo 2 are in operation.

Response 6: Silo 1 and Silo 2

(a) As IDEM explained in Page 4 of 7 of the TSD Appendix A, when these 2 silos were initially permitted (AA 003-31838-00286, issued on June 7, 2012), post control emissions were used to determine the source modification level; however, no integral determination was made for the controls. No additional explanation was provided why emissions after control should be used for permit level determination.

During the review of this renewal, a different method of calculation was used for the PTE by using an alternative emission factor, which is rated "E". The justification for the integral determination was abandoned because the 'uncontrolled emissions using an alternative calculation' and 'the post control emissions determined under AA 003-31838-00286' were approximately the same. In addition, the source has not provided information to support a different PTE calculation.

(b) Upon further evaluation, IDEM deleted Condition D.5.1 since it is similar to Condition C.1. In addition, Condition D.5.2 is deleted.

The following conditions have been revised due to this comment:

~~D.5.1 Particulate [326 IAC 6-3-2]~~

~~Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from Silo 1 and Silo 2, each with a maximum process weight rates less than 100 pounds per hour, shall not exceed 0.551 pounds of PM per hour.~~

~~D.5.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]~~

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

Compliance Determination Requirements

D.5.~~3~~**1** Particulate Matter (PM)

In order to comply with Condition ~~D.5.1~~ **C.1**, the bin vent filters equipped on Silo 1 and Silo 2 shall be in operation **or shall be in place** and control particulate emissions from Silo 1 and Silo 2 at all times the Silo 1 and Silo 2 are in operation.

Comment 7: Testing Requirements

Following are the comments related to the testing in the TSD and permit:

(a) Foot note (b) for PM10 and PM2.5

(b) PM10 and PM2.5 shall include filterable and condensable PM.

This foot note addresses only PM10 and PM2.5 and does not address PM. Therefore, the PM entries in the table should not reference footnote (b) and so it needs to be deleted from all of the PM entries in the table. Also, the testing conditions in the permit specify whether filterable and/or condensable fractions are to be included, and this note as used in the table is not consistent with those testing conditions. IDEM should correct the table to be consistent with the testing requirements in the permit.

(b) Chip Dryer testing

Please remove the new PM, PM10 and PM2.5 testing requirement for Chip Dryer in Condition D.3.5. These testing requirements are unnecessary, particularly when the relevant limit is much lower than needed to limit the source to below 100 tons/yr. Superior Aluminum Alloys, LLC could seek to raise this limit today and still remain a PSD minor source. Superior Aluminum Alloys, LLC has not made changes to the process to necessitate additional compliance determination or monitoring. Since this limit is artificially low for PSD minor purposes, testing should not be required.

(c) Foot note (g) for NOx testing

(g) The combustion and process emissions were combined into a common exhaust when the most recent testing was performed for the subject furnace.

Please remove footnote (g) of the table because this information is not relevant to the testing timeframe information in this table.

Response 7: Testing Requirements

Following are the responses for the above comment:

(a) Foot note (b) for PM10 and PM2.5

IDEM acknowledges this typographical error.

(b) Chip Dryer testing

Basing the evaluation on the numerical value of the limits alone is not the sole factor to use in determining if testing is required or not. As explained in Page 16 of 18 of the TSD, the baghouse equipped on the Chip Dryer is required to operate at a high efficiency (>98%) to comply with the 326 IAC 2-2 PM, PM10 and PM2.5 limits for the Chip Dryer. To verify compliance, PM, PM10 and PM2.5 testing requirements for the baghouse equipped on the Chip Dryer have been added through this renewal. Once compliance has been verified, the source can petition IDEM OAQ to re-evaluate if routine testing is required for these emission units or to reduce the testing frequency.

No change has been made due to this comment.

(c) Foot note (g) for NOx testing

This foot note (g) was included in the TSD for clarification and is not being deleted.

The corrected table is as follows:

Unit	Control Device	Timeframe for Testing (years from the most recent testing)	Pollutant	Most Recent Testing date	Type of limit
Furnace #1	baghouse E or F	2.5	PM	12/03/2013	PSD Minor
		5	PM	12/03/2013	NESHAP, Subpart RRR
		2.5	PM10 (b)	12/03/2013	PSD Minor
		(d)	PM2.5 (b)	NA	PSD Minor
		5	DF TEQ	09/16/2013	NESHAP, Subpart RRR
		5	HCl	12/03/2013	NESHAP, Subpart RRR
	none	2.5	NOx (g)	12/03/2013	PSD Minor
Furnace #2	baghouse E or F	5	DF TEQ	09/16/2013	NESHAP, Subpart RRR
		5	HCl	12/03/2013	NESHAP, Subpart RRR
		2.5	PM	12/03/2013	PSD Minor
		5	PM	12/03/2013	NESHAP, Subpart RRR
		2.5	PM10 (b)	12/03/2013	PSD Minor
		(d)	PM2.5 (b)	NA	PSD Minor
	none	2.5	NOx (g)	12/03/2013	PSD Minor
Furnace #3	baghouse L or N	5	DFTEQ	09/16/2013	NESHAP, Subpart RRR
		5	HCl	12/03/2013	NESHAP, Subpart RRR
		2.5	PM	12/03/2013	PSD Minor
		5	PM	12/03/2013	NESHAP, Subpart RRR
		2.5	PM10 (b)	12/03/2013	PSD Minor
		(d)	PM2.5 (b)	NA	PSD Minor
	none	2.5	NOx (g)	12/03/2013	PSD Minor
Furnace #4	baghouse L or N	5	Dioxin/Furans	09/16/2013	40 CFR 63, Subpart RRR
		5	HCl	12/03/2013	40 CFR 63, Subpart RRR
		2.5	PM	12/03/2013	PSD Minor
		2.5	PM10 (b)	12/03/2013	PSD Minor
		(d)	PM2.5 (b)	NA	PSD Minor
		5	PM	12/03/2013	NESHAP, Subpart RRR
	none	2.5	NOx (g)	12/03/2013	PSD Minor
Chip Dryer	Afterburner	5	Dioxin/Furan	10/10/2012	NESHAP, Subpart RRR
		5	VOC	8/27/2012	326 IAC 8-1-6
		5	VOC	8/27/2012	PSD Minor
	baghouse D	(f)	PM	NA	PSD Minor
		(f)	PM10 (b)	NA	PSD Minor
		(f)	PM2.5 (b)	NA	PSD Minor

Unit	Control Device	Timeframe for Testing (years from the most recent testing)	Pollutant	Most Recent Testing date	Type of limit
electric Scrap Shredder (e)	baghouse C	5	PM	6/17/2011	PSD Minor
		5	PM10 (a)	6/17/2011	PSD Minor
		(c)	PM2.5 (a)	--	PSD Minor
		5	PM	6/17/2011	NESHAP, Subpart RRR

(a) PM10 and PM2.5 shall include filterable PM only.

(b) PM10 and PM2.5 shall include filterable and condensable PM.

(c) Testing shall be performed no later than five (5) years after the most recent compliance testing performed for PM on the electric Scrap Shredder.

This PM2.5 testing requirement is new requirement and the testing time frame is streamlined with the testing time frame of the existing PM testing requirement for the electric Scrap Shredder.

(d) Testing shall be performed no later than two and one-half (2.5) years after the most recent compliance testing performed for PM on the subject emission unit.

These PM2.5 testing requirements are new requirements and the testing time frames are streamlined with the testing time frame of the existing PM testing requirement for the subject emission unit.

(e) PM2.5 testing requirement has been added for Scrap Shredder through this renewal.

(f) These PM, PM10 and PM2.5 testing for the Chip Dryer are new requirements and the testing time frames of these new testing are streamlined with the testing time frame of the existing VOC testing requirement for the subject emission unit.

Testing shall be performed no later than five (5) years after the most recent compliance testing performed for VOC on the subject emission unit.

Note: The particulate testing was scheduled to coincide with the next VOC scheduled testing. This was approved by the Compliance Data Section of the OAQ.

The required control efficiency for the baghouse equipped on the Chip Dryer are high (>98%) to comply with 326 IAC 2-2 PM, PM10 and PM2.5 limits for the Chip Dryer (please refer TSD Appendix A for the details of the required control efficiency).

To verify this control efficiency, PM, PM10 and PM2.5 testing requirements for the baghouse equipped on the Chip Dryer have been added through this renewal.

(g) The combustion and process emissions were combined into a common exhaust when the most recent testing was performed for the subject furnace.

Comment 8: Compliance Monitoring

Following are the comments related to the Compliance Monitoring Requirements:

(a) Bag Leak Detection System (BLDS) requirement for Chip Dryer

The Chip Dryer is not equipped with BLDS. There are no monitoring requirements under NESHAP, Subpart RRR for particulate emissions from the chip dryer. The Condition D.3.10 incorrectly specifies BLDS requirements for the chip dryer. Please remove reference to BLDS for the Chip Dryer. The broken and failed bag detection requirement in the existing permit should continue to suffice the compliance monitoring requirements for Chip Dryer.

(b) Chip Dryer - afterburner control monitoring requirements

Chip Dryer is not subject to 326 IAC 2-2 at all, and so this monitoring is not required to ensure compliance with PSD. This is not a PSD source. Please remove the Compliance Monitoring Requirements for the Afterburner equipped on the Chip Dryer.

(c) Continuous Opacity Monitoring (COM) and visible emission (VE) monitoring options

Please add COM and VE monitoring options for the Baghouses E, F, L, N and C and change monitoring frequency verbiage as 'as required in NESHAP, Subpart RRR'.

Response 8: Compliance Monitoring

Following are the responses for the above comment:

(a) BLDS requirement for Chip Dryer

During the meeting between Superior Aluminum Alloys, LLC and IDEM on May 5, 2014, Jaime Saylor (the representative from Superior Aluminum Alloys, LLC) informed IDEM that this comment was made by the Superior Aluminum Alloys, LLC in error. Superior Aluminum Alloys, LLC informed IDEM that baghouse D is actually equipped with BLDS system. Therefore, BLDS requirement (Condition D.3.10) for the baghouse D will not be removed.

IDEM has further evaluated reference to NESHAP, Subpart RRR made in this requirement and determined that the baghouse D is not required to be operated under NESHAP, Subpart RRR because no particulate limit is specified in NESHAP, Subpart RRR for the Chip Dryer. Therefore, IDEM has revised the BLDS requirement for the baghouse D. The revised BLDS requirement for the baghouse D will not refer NESHAP, Subpart RRR.

Please note that the TSD specified daily Pressure drop and visible emission notation monitoring requirement for the baghouse D. The TSD reflects the public-noticed version, therefore, the TSD not amended.

The changes due to this comment are shown below.

D.3.10 Bag Leak Detection System (BLDS) [40 CFR 64]

Pursuant to 40 CFR 64 (CAM), ~~the Permittee shall operate BLDS (as required under NESHAP, Subpart RRR) on the Baghouse D.~~**, the Permittee shall install and operate continuous Bag leak detection systems (BLDSs) for the baghouse D.**

The BLDS shall meet the following requirements:

(a) Each triboelectric bag leak detection system must be installed, calibrated, operated, and maintained according to the "Fabric Filter Bag Leak Detection Guidance," (September 1997). This document is available from the U.S. Environmental Protection Agency; Office of Air Quality Planning and Standards; Emissions, Monitoring and Analysis Division; Emission Measurement Center (MD-19), Research Triangle Park, NC 27711. This document also is available on the Technology Transfer Network (TTN) under Emission Measurement Technical Information (EMTIC), Continuous Emission Monitoring. Other bag leak detection systems must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations.

(b) 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.

(c) The bag leak detection system sensor must provide output of relative or absolute PM loadings.

(d) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.

(e) 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.

(f) 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.

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

(h) 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.

(i) 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.3.11 Broken or Failed Bag Detection [40 CFR 64]

Pursuant to 40 CFR 64 (CAM), the Permittee shall comply with the following for baghouse D in the event of a BLDS alarm for baghouse D:

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

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

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

~~D.3.11~~**D.3.12** Record Keeping Requirements

(a) To document compliance with Condition D.3.8, the Permittee shall maintain records of the ~~continuous temperature for the after burner and the~~ 3-hour **block** average temperature used to demonstrate compliance during the most recent compliant stack test. ~~The record shall be complete and sufficient to establish compliance with the Condition D.3.8.~~

(b) To document compliance with Condition D.3.10, the Permittee shall maintain records of each alarm.

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

(b) Chip Dryer - After Burner control monitoring requirements

The Chip Dryer is subject to 326 IAC 8-1-6 BACT and limits to render 326 IAC 2-2 not applicable (Condition D.3.2). The afterburner is a required VOC control to comply with this limit. These are applicable requirements which require compliance monitoring of the afterburner since that is the control specified to be used for compliance.

No change has been made due to this comment.

(c) Continuous Opacity Monitoring (COM) and visible emission (VE) monitoring options

The Baghouses E, F, L, N and C are currently not equipped with continuous opacity monitors (COMS); therefore, COMS option was not included in the permit. If and when the Permittee decides to equipped the operation with COM, the it has to apply to amend its existing permit to change the compliance monitoring.

No change has been made due to this comment.

Comment 9: Insignificant Activity

Please remove item (d) in Condition A.3 - Insignificant Activity because this insignificant activity is typographical error. Please add Aluminum scrap storage pile because this pile was inadvertently deleted from the permit.

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

. . .

~~(d) Equipment powered by internal combustion engines of capacity equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.~~
Aluminum scrap storage pile.

. . .

Response 9: Insignificant Activity

IDEM agrees and made the changes as recommended above.

Comment 10: Please remove construction permit citations from Condition D.1.5 because it is not necessary to cite to construction permits in compliance determination conditions.

D.1.5 Particulate Matter (PM)

(a) In order to comply with the particulate limits specified in Condition D.1.1, ~~and pursuant to CP-003-9243-00286 (issued on May 1, 1998) and Source Modification 003-11927-00286 (issued on June 7, 2000),~~ the baghouses equipped on Furnace #1 through Furnace #4, shall be in operation and control particulate emissions from their respective furnace(s) as follows:

. . .

Response 10: IDEM agrees and Condition D.1.5 has been revised as recommended above.

Comment 11: Please revise Condition D.2.4 consistent with IDEM's model language.

D.2.4 Testing Requirements [326 IAC 2-7-6(1),(6)]

In order to demonstrate compliance with Condition D.2.1, the Permittee shall perform PM, PM10 and PM2.5 testing for the Scrap Shredder ~~within~~ **not later than** five (5) years ~~from~~ **after** the date of the most recent test using methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

PM, PM10 and PM2.5 shall include filterable PM only.

Response 11: IDEM agrees and Condition D.2.4 has been revised. In addition, it is clarified in the condition that the PM includes filterable PM only.

D.2.4 Testing Requirements [326 IAC 2-7-6(1),(6)]

In order to demonstrate compliance with Condition D.2.1, the Permittee shall perform PM, PM10 and PM2.5 testing for the Scrap Shredder ~~within~~ **no later than** five (5) years ~~from~~ **after** the date of the most recent test using methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

PM, PM10 and PM2.5 shall include filterable PM only.

Comment 12: Scrap Shredder Compliance Monitoring

CAM does not apply to the electric Scrap Shredder. NESHAP, Subpart RRR already requires baghouses for filterable particulate control and contains the relevant monitoring requirements, and baghouses do not control condensable particulate.

Even if CAM did apply, which it does not, NESHAP, Subpart RRR does NOT require use of BLDS for a shredder. As Superior has previously noted, the NESHAP, Subpart RRR provides monitoring options for the shredder, including VE notations. IDEM appears to be basing this requirement on the mistaken belief that NESHAP, Subpart RRR requires use of BLDS for this unit, when that is not correct.

~~D.2.5 Bag Leak Detection System (BLDS) [40 CFR 64]~~

~~Pursuant to 40 CFR 64 (CAM), the Permittee shall operate BLDS (as required under NESHAP, Subpart RRR) on the Baghouse C.~~

Response 12: Scrap Shredder Compliance Monitoring

During the meeting between Superior Aluminum Alloys, LLC and IDEM on May 5, 2014, Jaime Saylor (the representative from Superior Aluminum Alloys, LLC) informed IDEM that this comment was made by the Superior Aluminum Alloys, LLC in error. Superior Aluminum Alloys, LLC informed IDEM that baghouse C is equipped with BLDS system to comply with NESHAP, Subpart RRR.

No change has been made due to this comment.

Comment 13: Please revise Chip Dryer description in Section D.3. This emission unit is a thermal chip dryer, not a scrap dryer. NESHAP, Subpart RRR contains separate requirements for scrap dryers and thermal chip dryers.

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: ~~Scrap~~ Thermal Chip Dryer
. . .

Response 13: The description of the Chip Dryer in Section D.3 has been revised as recommended above.

Comment 14: Please revise the title of Condition D.3.2. The title implies that this condition is actually a PSD BACT requirement rather than a PSD minor limit. This title needs be consistent with Condition D.3.1.

D.3.2 **VOC** BACT (Best Available Control Technology) and ~~Prevention of Significant Deterioration~~**PSD Minor Limit** ~~(PSD)~~ [326 IAC 8-1-6] [326 IAC 2-2]

Pursuant to CP 003-9243-00286 (issued on May 1, 1998), 326 IAC 8-1-6 BACT and in order to render 326 IAC 2-2 not applicable, the afterburner, determined to be the 326 IAC 8-1-6 BACT, shall be operated at all times that the Chip Dryer is in operation. When operating, the afterburner must maintain a minimum VOC capture efficiency of ninety-nine percent (99%) and a minimum VOC destruction efficiency of ninety-nine percent (99%).

Compliance with this limit in conjunction with the potential to emit of other emission units at this source will limit the source-wide VOC PTE to less than 100 tons per twelve (12) consecutive month period, and renders the source minor under 326 IAC 2-2, PSD.

Response 14: Condition D.3.2 has been revised as recommended above. The Table of Contents has been revised accordingly.

Comment 15: IDEM has removed the word “block” for the afterburner in this Renewal. Please re- insert the word "block" in Condition D.3.6. It needs to be added back to this requirement. This language is from the 1998 construction permit and IDEM does not have a basis for changing it in a Title V renewal.

The newly-added NESHAP reference should be removed for the afterburner. Consistent with IDEM’s practice of including NESHAP requirements in Section E rather than incorporating them in D sections and including the entire NESHAP as an attachment to the permit. Superior Aluminum Alloys, LLC requests that NESHAP-related references be removed from the D sections.

D.3.6 After Burner

In order to demonstrate compliance with Condition D.3.2, Permittee shall comply with the following:

(i) Maintain the 3-hour **block** average operating temperature of afterburner at or above the average temperature established during the most recent performance test.

(ii) Operate each afterburner in accordance with the OM&M plan~~, as specified under NESHAP, Subpart RRR.~~

(iii) Operate the Chip Dryer using only unpainted aluminum chips as the feedstock.

Response 15: During the meeting between Superior Aluminum Alloys, LLC and IDEM on May 5, 2014, Jaime Saylor (the representative from Superior Aluminum Alloys, LLC), Superior Aluminum Alloys, LLC proposed an alternative language for Condition D.3.6. Superior Aluminum Alloys, LLC proposed that the afterburner operation requirement to be specified in Condition D.3.6 without referencing the temperature requirement because NESHAP, Subpart RRR is already specifies at which level the afterburner temperature is maintained to comply with NESHAP, Subpart RRR.

IDEM has evaluated the alternative language for Condition D.3.6, and determined that the alternative language is acceptable because NESHAP Subpart RRR already specifies temperature requirement for the afterburner.

The changes due to this comment are shown below.

D.3.6 After Burner

In order to demonstrate compliance with Condition D.3.2, Permittee shall comply with the following:

(a) The afterburner for VOC control shall be in operation and control emissions from the Chip Dryer at all times that the Chip Dryer is in operation.

(b) Operate the Chip Dryer using only unpainted aluminum chips as the feedstock.

~~In order to demonstrate compliance with Condition D.3.2, Permittee shall comply with the following:~~

~~(i) Maintain the 3-hour average operating temperature of afterburner at or above the average temperature established during the most recent performance test.~~

~~(ii) Operate each afterburner in accordance with the OM&M plan, as specified under NESHAP, Subpart RRR.~~

~~(iii) Operate the Chip Dryer using only unpainted aluminum chips as the feedstock.~~

Comment 16: Please revise Condition D.3.12 as shown to be consistent with the Compliance Determination Requirement specified in the permit for the Afterburner.

Also, please remove the “complete and sufficient” language as shown. IDEM has already specified in provision (a) the records the agency finds are sufficient to establish compliance with the requirements in D.3. Thus, because the deleted phrase adds nothing more to the requirement and makes it unclear whether the records the source is required to keep pursuant to provision (a) are sufficient to meet the requirement of this phrase, this vague recordkeeping requirement can be deleted. Further, the language of provision (a) already makes it clear that these records are intended to be used to determine compliance. IDEM has removed this vague “complete and sufficient” language from other permits upon request of the permittee.

D.3.12 Record Keeping Requirements

(a) To document compliance with Condition D.3.~~8~~6, the Permittee shall maintain records of the ~~continuous temperature for the after burner and the~~ 3-hour **block** average temperature used to demonstrate compliance during the most recent compliant stack test. ~~The record shall be complete and sufficient to establish compliance with the Condition D.3.8.~~

...

Response 16: Condition D.3.11 has been revised as recommended above.

Comment 17: Please revise Condition E.1.2 to incorporate model language used by IDEM in many permits it issues. NESHAP, Subpart RRR provides options for compliance; the model language used by IDEM to address this situation should therefore be added here.

E.1.2 National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production Requirements [40 CFR Part 63, Subpart RRR] [326 IAC

20-70]

The Permittee which engages in secondary aluminum production shall comply with the following provisions of 40 CFR Part 63, Subpart RRR. **The full text of Subpart RRR may be found in Attachment A of this permit. Where the NESHAP provides options for compliance, nothing in this condition precludes the Permittee from choosing among those options or requires the Permittee to use a particular option** ~~(included as Attachment A of this permit)~~:

. . .

Response 17: Condition E.1.2 has been revised as recommended as above.

Comment 18: Please remove Condition E.1.3 because it is not IDEM's model language for E sections addressing NESHAP requirements, and it is unclear why it is being added to this renewal permit. Even if a NESHAP or NSPS contains testing, IDEM does not add testing conditions in the E sections. The relevant standards set out the testing requirements, and E.1.2 makes direct reference to those standards.

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

~~The Permittee shall perform the stack testing required under NESHAP 40 CFR 63, Subpart 40 63.1511, utilizing methods as approved by the Commissioner to document compliance with Condition E.1.2. These tests shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.~~

Response 18: Condition E.1.3 has been removed as recommended as above.

Comment 19: Please add the words "daytime" in Emergency Occurrence Report Form. Please also add "A certification is not required for this report" in the same form because it is found in Condition B.11 and the rule language.

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

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

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

. . .

A certification is not required for this report.

Response 19: The word "daytime" has been added in Emergency Occurrence Report Form as recommended above.

The statement "A certification is not required for this report" is not being included in the form to avoid redundancy because it is already stated in Condition B.11.

Permit Level Determination – PSD

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

	Potential to Emit (ton/yr) After Issuance of the Title V Renewal							
Emission Unit	**PM**	**PM10**	**PM2.5**	**SO2**	**NOx**	**VOC**	**CO**	**GHGs**
Furnace #1	30.00	30.00	30.00	~~5.59~~ **6.75**	~~63.75~~ **61.50**	~~8.02~~ **9.00**	10.10	14516.04
Furnace #2				~~5.59~~ **6.75**		~~8.02~~ **9.00**	10.10	14516.04
Furnace #3				~~5.59~~ **6.75**		~~8.02~~ **9.00**	10.10	14516.04
Furnace #4				~~5.59~~ **6.75**		~~8.02~~ **9.00**	10.10	14516.04
Pouring/Casting	--	--	--	1.50	0.75	10.50	--	--
Thermal Chip Dryer	~~18.34~~ **18.49**	~~18.34~~ **18.49**	~~18.34~~ **18.49**	~~11.04~~ **11.08**	**31.58**	~~5.69~~ **6.11**	6.49	9331.74
Scrap Shredder	18.75	18.75	18.75	--	--	--	--	--
Dross Cooling Operation	1.50	2.25	2.25	--	--	--	--	--
Silo 1	0.17	0.17	0.17	--	--	--	--	--
Silo 2	0.17	0.17	0.17					
Chip Sorting Operation	0.57	0.20	0.05	--	--	--	--	--
Natural Gas Combustion (Melting Pot)	0.22	0.90	0.90	~~0.07~~ **0.41**	5.90	~~0.65~~ **3.72**	9.92	14256.83
Scrap Storage Pile	0.06	0.03	0.00	--	--	--	--	--
Total	~~69.78~~ **69.93**	~~70.80~~ **70.95**	~~70.63~~ **70.78**	~~34.97~~ **19.74**	~~70.40~~ **99.54**	~~48.92~~ **29.33**	56.81	81652.74
PSD Major Source Thresholds (1 of 28)	100	100	100	100	100	100	100	100,000 CO_2e

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

	Potential to Emit (ton/yr) After Issuance of the Title V Renewal							
Emission Unit	**PM**	**PM10**	**PM2.5**	**SO2**	**NOx**	**VOC**	**CO**	**GHGs**
Furnace #1	30.00	30.00	30.00	6.75	61.50	9.00	10.10	14516.04
Furnace #2							10.10	14516.04
Furnace #3							10.10	14516.04
Furnace #4							10.10	14516.04
Pouring/Casting	--	--	--	1.50	0.75	10.50	--	--
Thermal Chip Dryer	18.49	18.49	18.49	11.08	31.38	6.11	6.49	9331.74
Scrap Shredder	18.75	18.75	18.75	--	--	--	--	--
Dross Cooling Operation	1.50	2.25	2.25	--	--	--	--	--
Silo 1	0.17	0.17	0.17	--	--	--	--	--
Silo 2	0.17	0.17	0.17					
Chip Sorting Operation	0.57	0.20	0.05	--	--	--	--	--
Natural Gas Combustion (Melting Pot)	0.22	0.90	0.90	0.41	5.90	3.72	9.92	14256.83
Scrap Storage Pile	0.06	0.03	0.00	--	--	--	--	--
Total	69.93	70.95	70.78	19.74	99.54	29.33	56.81	81652.74
PSD Major Source Thresholds (1 of 28)	100	100	100	100	100	100	100	100,000 CO_2e

Attachment A of ATSD: Emissions Calculations Summary

Company Name: Superior Aluminum Alloys, LLC
Address City IN Zip: 14214 Edgerton Road, New Haven, Indiana 46774
Part 70 Permit No: T003-33033-00286
Reviewer: Mehul Sura
Date: 4/1/2013

Uncontrolled Emissions (tons/yr)

	PM	PM10	PM2.5	SO2	NOx	VOC	CO	GHGs	Single HAP (HCl)
Furnace #1	3064.91	1650.48	1623.50	5.59	50.28	8.02	10.10	14516.04	24.5
Furnace #2	3064.91	1650.48	1623.50	5.59	50.28	8.02	10.10	14516.04	24.5
Furnace #3	3064.91	1650.48	1623.50	5.59	50.28	8.02	10.10	14516.04	24.5
Furnace #4	3064.91	1650.48	1623.50	5.59	50.28	8.02	10.10	14516.04	24.5
Pouring/Casting	-	-	-	4.91	2.45	34.34	-	-	-
Thermal Chip Dryer	943.60	943.60	943.60	11.08	31.38	569.39	6.49	9331.74	16.1
Scrap Shredder	919.80	919.80	919.80	--	--	--	--	--	--
Dross Cooling Operation	1.50	2.25	2.25	--	--	--	--	--	--
Silo 1	0.17	0.17	0.17	--	--	--	--	--	--
Silo 2	0.17	0.17	0.17						
Chip Sorting Operation	0.57	0.20	0.05	--	--	--	--	--	--
Natural Gas Combustion (Melting Pot)	0.22	0.90	0.90	0.41	5.90	3.72	9.92	14256.83	--
Scrap Storage Pile	0.06	0.03	0.004	--	--	--	--	--	--
Total	14125.75	8469.05	8360.95	38.76	240.87	639.52	56.81	81652.74	114.2

Furnaces and Thermal Chip Dryer emissions include process emissions and natural gas combustion emissions.

Limited PTE (tons/yr)

	PM	PM10	PM2.5	SO2	NOx	VOC	CO	GHGs	Single HAP (HCl)
Furnace #1	30.00	30.00	30.00	6.75	61.50	9.00	10.10	14516.04	30.0
Furnace #2							10.10	14516.04	
Furnace #3							10.10	14516.04	
Furnace #4							10.10	14516.04	
Pouring/Casting	--	--	--	1.50	0.75	10.50	--	--	--
Thermal Chip Dryer	18.49	18.49	18.49	11.08	31.38	6.11	6.49	9331.74	16.08
Scrap Shredder	18.75	18.75	18.75	--	--	--	--	--	--
Dross Cooling Operation	1.50	2.25	2.25	--	--	--	--	--	--
Silo 1	0.17	0.17	0.17	--	--	--	--	--	--
Silo 2	0.17	0.17	0.17						
Chip Sorting Operation	0.57	0.20	0.05	--	--	--	--	--	--
Natural Gas Combustion (Melting Pot)	0.22	0.90	0.90	0.41	5.90	3.72	9.92	14256.83	--
Scrap Storage Pile	0.06	0.03	0.004	--	--	--	--	--	--
Total	69.93	70.95	70.78	19.74	99.54	29.33	56.81	81652.74	46.08

All Limited PTE of furnaces include emissions due to melting process and emissions due to natural gas combustion at the furnaces.
All Limited PTE of Thermal Chip Dryer include emissions due to chip drying process and emissions due to natural gas combustion at Thermal Chip Dryer.
SOx, NOx, VOC, CO , GHG and HCl Limited PTE of furnaces are uncontrolled emissions.

Attachment A of ATSD: Emission Calculations
Emissions for Aluminum Smelting

Company Name: Superior Aluminum Alloys, LLC
Address City IN Zip: 14214 Edgerton Road, New Haven, Indiana 46774
Part 70 Permit No: T003-33033-00286
Reviewer: Mehul Sura
Date: 4/1/2013

Reverberatory Furnaces

Emission Unit Description	Process Rate (lb/hr)	Process Rate (tons/hr)
Furnace #1	28000	14
Furnace #2	28000	14
Furnace #3	28000	14
Furnace #4	28000	14

Pollutant	PM	PM_{10}	$PM_{2.5}$	SOx	NOx	VOC	CO	HCl
Emission Factor (lb/ton produced)	4.3	2.6	2.16	0.09	0.82	0.12	-	0.40
Furnace #1 (lbs/hr)	60.20	36.40	30.24	1.26	11.48	1.68	-	5.60
Furnace #1 (tons/yr)	263.68	159.43	132.45	5.52	50.28	7.36	10.10	24.53
Furnace #2 (lbs/hr)	60.20	36.40	30.24	1.26	11.48	1.68	-	5.60
Furnace #2 (tons/yr)	263.68	159.43	132.45	5.52	50.28	7.36	10.10	24.53
Furnace #3 (lbs/hr)	60.20	36.40	30.24	1.26	11.48	1.68	-	5.60
Furnace #4 (tons/yr)	263.68	159.43	132.45	5.52	50.28	7.36	10.10	24.53
Furnace #4 (lbs/hr)	60.20	36.40	30.24	1.26	11.48	1.68	-	5.60
Furnace #4 (tons/yr)	263.68	159.43	132.45	5.52	50.28	7.36	10.10	24.53
Total PTE (tons/yr)	**1054.70**	**637.73**	**529.80**	**22.08**	**201.13**	**29.43**	**40.40**	**98.11**

Methodology
One tenth (0.1) pound per ton emission factor for PM, PM10 and PM2.5 PM was used in the previous Renewal T003-23683-00286, issued on December 29, 2008. This emission factor is changed in this renewal in order to include process emissions and combustion emissions. The new PM, PM10 and PM2.5 emission factors are from from AP 42 Table 12.8. The new emission factors are more conservative than the old emission factors . SOx, VOC, CO and HCl emission factors are not changed due to this renewal.

SOx emission factor is based on stack test conducted by Wabash Alloys on a similar process. This emission factor was used to estimate emissions from the furnaces in the original construction permit.

NOx emission rate is based on proposed PSD Minor Limit in permit. Testing requirement specified in the permit for this limit.
VOC emission factor is based on most recent compliance test performed on 1/10/2000 for Furnace #3.
HCl emission rates are from NESHAP, Subpart RRR.
The CO emissions are due to natural gas combustion. For details of these emissions, please refer Page 5 of 5 ATSD Attachment A.
Potential Emissions (lbs/hr) = Emission Factor (lbs/ton of Aluminum) x Throughput (lb/hr) x (1/2000 (lbs/ton)
Potential Emissions (tons/year) = Potential Emissions (lbs/hr) x 8760 (hrs/yr) / 2000 (lbs/ton)
Total Potential Emissions is the sum of Potential Emissions of all furnaces.

Fluxing

Emission Unit Description	Fluxing Process Rate (lb/hr)	Process Rate (tons/hr)
Furnace #1 Fluxing (Chlorination)	1276	0.64
Furnace #2 Fluxing (Chlorination)	1277	0.64
Furnace #3 Fluxing (Chlorination)	1278	0.64
Furnace #4 Fluxing (Chlorination)	1279	0.64

Pollutant	PM	PM_{10}	$PM_{2.5}$
Emission Factor (lb/ton of chlorine used)	1000	532	532
Furnace #1 (lbs/hr)	639.50	340.21	340.21
Furnace #1 (tons/yr)	2801.01	1490.14	1490.14
Furnace #2 (lbs/hr)	639.50	340.21	340.21
Furnace #2 (tons/yr)	2801.01	1490.14	1490.14
Furnace #3 (lbs/hr)	639.00	339.95	339.95
Furnace #4 (tons/yr)	2801.01	1490.14	1490.14
Furnace #4 (lbs/hr)	1,791.25	952.94	952.94
Furnace #4 (tons/yr)	2801.01	1490.14	1490.14
Total Potential Emissions (tons/yr)	11204.04	5960.55	5960.55

Methodology
Fluxing Process Rate derived from original TV permit# 003-11452-00286, issued on June 24, 2002.
PM and PM10 Emission Factors are from AP 42 Table 12.8-2.
PM2.5=PM10
Potential Emissions (lbs/hr) = Emission Factor (lbs/ton Chlorine) x Throughput (lb/hr) x (1/2000 (lbs/ton)
Potential Emissions (tons/year) = Potential Emissions (lbs/hr) x 8760 (hrs/yr) / 2000 (lbs/ton)

Limited Emission for all furnaces, combined
Combined Limited Throughput of all furnaces 300,000,000 lb/yr

Limited Emission	**PM**	**PM10**	**PM2.5**	**SOx**	**NOx**	**VOC**	**CO**	HCl
Emission Rate (lbs/ton metal charged)	0.40	0.40	0.40	0.090	0.82	0.12	-	0.40
Limited Emission (tons/yr)	30.00	30.00	30.00	6.75	61.50	9.00	40.40	30.00

Methodology
PM, PM10, PM2.5 and Nox Emission rates are Permit Limits.
SOx, VOC and CO Emission Rates are uncontrolled emission rates of all furnaces.
HCl emission rates is from NESHAP, Subpart RRR.
Limited Emission (tons/yr) = Limited Throughput (lb/yr) x (1/2000 (lbs/ton) x Emission Rate (lbs/ton metal charged) / 2000 (lbs/ton)

Pouring/Casting

Emission Unit Description	Process Rate (lb/hr)	Process Rate (tons/hr)
Furnace #1 Pouring/Casting	28000	14
Furnace #2 Pouring/Casting	28000	14
Furnace #3 Pouring/Casting	28000	14
Furnace #4 Pouring/Casting	28000	14
Total Potential Throughput	112000	56

Combined Limited Throughput of Pouring/Casting (lb/yr) 300,000,000

Pouring/Casting

Pollutant	PM	PM_{10}	$PM_{2.5}$	SOx	NOx	VOC	CO
Emission Factor (lb/ton produced)	-	-	-	0.02	0.01	0.14	-
Potential Emissions (tons/yr)	-	-	-	4.91	2.45	34.34	-
Limited Emissions (tons/yr)	-	-	-	1.50	0.75	10.50	-

Methodology
Emission Factors are from SCC #3-04-001-04
Process Rate for pouring/casting is assumed to be the same process rate as furnace melting as conservative approach.
Combined Limited Throughput of Pouring/Casting is the same as Combined Limited Throughput of all furnaces.
Six pounds per hour (6 lb/hr) CO emission factor has not been used in the calculation because the source does not perform iron foundry operation.
Potential Emissions (tons/year) = Emission Factor (lbs/ton of Aluminum) x Total Potential Throughput (lb/hr) x (1/2000 (lbs/ton) x 8760 (hrs/yr) / 2000 (lbs/ton)
Limited Emissions (tons/yr) = Emission Factor (lbs/ton of Aluminum) x Combined Limited Throughput of Pouring/Casting (lb/yr) x (1/2000 (lbs/ton) / 2000 (lbs/ton)

Attachment A of ATSD: Emissions Calculations

Company Name: Superior Aluminum Alloys, LLC
Address : 14214 Edgerton Road, New Haven, Indiana 46774
Part 70 Permit No: T003-33033-00286
Reviewer: Mehul Sura
Date: 4/1/2013

Scrap Shredder

Stack Flow Rate (acfm)	25,000	
Baghouse NESHAP, Subpart RRR grain loading limit (gr/dscf)	0.01	based on NESHAP, Subpart RRR
PM/PM10/PM2.5 PSD Minor Limit (lb/hr)	4.28	
Baghouse Efficiency	99%	
PM/PM10/PM2.5 Potential Emissions (tons/yr)	919.8	
PM/PM10/PM2.5 Limited PTE (tons/yr)	18.7464	

Methodology

PM=PM10=PM2.5

PM/PM10/PM2.5 Potential Emissions (tons/yr) = Baghouse NESHAP, Subpart RRR grain loading limit (gr/dscf) x Stack Flow Rate (acfm) x 0.00014 (lb/grain) x 60 (min/hr) x 8760 (hrs/yr)/[2000 (lb/ton) x (1-Baghouse Efficiency)]
PM/PM10/PM2.5 Limited PTE (tons/yr)=PSD Minor Limit (lb/hr) x 8760 (hrs/yr)/2000 (lb/ton)

Thermal Chip Dryer

Maximum Scrap Aluminum Rate (tons/hr) 6

	PM	PM10	PM2.5	SO2	NOx	VOC	CO	HCl
Uncontrolled Emission Rate (lb/ton)	35.9	35.9	35.9	0.42	0.9	-	-	0.612
Uncontrolled Emission Rate (lb/hr)	215.40	215.40	215.40	2.52	5.40	129.9	-	3.67
PSD Minor Limit (lb/hr)	4.188	4.188	4.188	-	-	-	-	-
control	Baghouse	Baghouse	Baghouse	-	-	After Burner	-	-
control efficiency (%)	99%	99%	99%	-	-	99%	-	-
Required control efficiency to comply with PSD Minor Limit (%)	98.06%	98.06%	98.06%			-	-	-
Potential Emissions (tons/yr)	943.45	943.45	943.45	11.04	23.65	568.96	-	16.08
Limited PTE (tons/yr)	18.34	18.34	18.34	-	-	-	-	-
Controlled PTE (tons/yr)	9.43	9.43	9.43	-	-	5.69	-	-
Controlled Emission Rate (lb/hr)	2.15	2.15	2.15	-	-	1.30	-	-

Methodology

PM and NOx Uncontrolled Emission Rates are derived from Part 70 Permit# T003-23683-00286, issued for this source on December 29, 2008.

PM=PM10=PM2.5

VOC Uncontrolled Emission Rate is based on the dryer compliance testing performed on 8/27/2012.

SOx Uncontrolled Emission Rate is based on the dryer compliance testing performed on 1/11/2000.

HCl emission factor is from EPA Secondary Aluminum Industry Emission Report (EPA 454/R-99-018).

Uncontrolled Emission Rate (lb/hr) = Uncontrolled Emission Rate (lb/ton) x Maximum Scrap Aluminum Rate (tons/hr)

Required control efficiency to comply with PSD Minor Limit (%) = 100 x (Uncontrolled Emission Rate (lb/hr) - PSD Minor Limit (lb/hr)) / Uncontrolled Emission Rate (lb/hr)

Potential Emissions (tons/yr) = Uncontrolled Emission Rate (lb/hr) x 8760 (hrs/yr) / 2000 (lbs/ton)

Limited PTE (tons/yr) = PSD Minor Limit (lb/hr) x 8760 (hrs/yr) / 2000 (lbs/ton)

Controlled Emission Rate (lb/hr) = Uncontrolled Emission Rate (lb/hr) x (1-Control Efficiency)

Attachment A of ATSD: Emissions Calculations

Company Name: Superior Aluminum Alloys, LLC
Address City IN Zip: 14214 Edgerton Road, New Haven, Indiana 46774
Part 70 Permit No: T003-33033-00286
Reviewer: Mehul Sura
Date: 4/1/2013

Chip Sorting Operation

Emission Unit Description	Number of Emission Points	Nominal Capacity (tons/hr)	PM Uncontrolled Emission Factor (lb/ton)	Potential PM Emissions (ton/yr)	Uncontrolled PM Emissions (lb/hr)	Uncontrolled Emission Factor (lb/ton)	Potential PM10 Emissions (ton/yr)	PM2.5 Uncontrolled Emission Factor (lb/ton)	Potential PM2.5 Emissions (ton/yr)
Oscillator - Dry	3	1.5	0.025	0.49	0.11	0.0087	0.17	0.0011	0.02
Transfer Point - Dry	4	1.5	0.003	0.08	0.02	0.0011	0.03	0.0011	0.03
			Total:	0.57	0.13		0.20		0.05

METHODOLOGY

Uncontrolled PM and PM10 Emission Factors are taken from AP-42, Section 11.19.2-2 for Crushed Stone Processing Operations. These emission factors have E ratings. These emission factors are considered alternative emission factors for the chip sorting operation.

Baghouse Control Efficiency = 99%
PM10=PM2.5

Potential Emissions (tons/yr) = Emission Factor (lb/ton) x Capacity (ton/hr) x Number Emission Points x 8760 hrs/yr x 1 ton/2000 lbs

Uncontrolled PM Emissions (lb/hr) = Potential PM Emissions (ton/yr) x 2000 (lbs/ton) / 8760 (hrs/yr)

Controlled PM Emissions (lb/hr) = Potential PM Emissions (ton/yr) x (1-Control Efficiency) x 2000 (lbs/ton) / 8760 (hrs/yr)

Silos

	Lime consumption Rate for each baghouse (lb/hr)	Lime consumption Rate for each baghouse (tons/hr)	PM/PM10/PM2.5 Emission Factor (lb/ton of lime)	number of baghouses connected to silo	Uncontrolled PM/PM10/PM2.5 Emissions (lb/hr)	Uncontrolled PM/PM10/PM2.5 Emissions (tons/yr)
Silo 1	34.9	0.01745	2.20	2	0.038	0.17
Silo 2	34.9	0.01745	2.20	2	0.038	0.17

METHODOLOGY

PM emission factor is derived from AP 42 Table 11.17-4, Lime Product transfer and conveying.

PM=PM10=PM2.5

The PTE of these silos were initially determined using the emissions after controls, however, no integral determination was made (see Title AA 003-31838-00286 issued on June 7, 2012).
A different method of calculation was used for the PTE under this renewal by using alternative emission factor, which is rated E. Justification for the integral was initially submitted, however was abandoned when an alternative calculation was used that resulted in approximately the same PTE.

Lime consumption Rate for each baghouse (lb/hr) is derived from compliance stack test performed for Furnace #1 on June 15, 2011.

Lime consumption Rate for each baghouse (tons/hr) = Lime consumption Rate for each baghouse (lb/hr) / 2000 (lbs/ton)

Uncontrolled PM/PM10/PM2.5 Emissions (lb/hr) = PM/PM10/PM2.5 Emission Factor (lb/ton of lime) x Lime consumption Rate for each baghouse (tons/hr) x number of baghouses connected to silo

Uncontrolled PM/PM10/PM2.5 Emissions (tons/yr) = Uncontrolled PM/PM10/PM2.5 Emissions (lb/hr) x 8760 (hrs/yr) / 2000 (lbs/ton)

Dross Cooling Operation

Pollutant	Dross Cooling Rate (lb/hr)	Dross Cooling Rate (tons/yr)	Emission Factor (lbs/ton)	Potential Emission (tons/yr)	Potential Emissions (lb/hr)
PM	6,850	30,003	0.100	1.50	0.34
PM10	6,850	30,003	0.150	2.25	0.51
PM2.5	6,850	30,003	0.150	2.25	0.51

METHODOLOGY

There are no USEPA emission factors for dross cooling at secondary aluminum plants; therefore in order to be conservative, the dross handling emission factors are based upon FIRE SCC 3-03-010-09 (Lead Drossing).

Dross cooling rate 22,316 tons/yr was used in the calculation when the previous renewal number T003-23683-00286 was issued on December 29, 2008. However, the permit specifies 6,850 lb/hr (30,003 tons/yr) Dross cooling rate in the description. No explanation found in the previous approval on why 22,316 tons/yr dross cooling rate instead of 30,003 tons/yr was used in the calculations. Therefore, IDEM has used 30,003 tons/yr in this renewal as a conservative approach.

Dross Production rate is derived from Part 70 Renewal T003-23683-00286, issued for this source on December 29, 2008.

Dross Cooling Rate (tons/yr) = Dross Cooling Rate (lb/hr) x 8760 (hrs/yr) / 2000 (lbs/ton)

PM=PM10=PM2.5

Potential Emission (tons/yr) = Emission Factor (lbs/ton) x Dross Cooling Rate (tons/yr) / 2000 (lbs/ton)

Attachment A of ATSD: Emissions Calculations
Natural Gas Combustion

Company Name: Superior Aluminum Alloys, LLC
Address City IN Zip: 14214 Edgerton Road, New Haven, Indiana 46774
Part 70 Permit No: T003-33033-00286
Reviewer: Mehul Sura
Date: 4/1/2013

	Heat Input Capacity MMBtu/hr	HHV mmBtu/mmscf	Potential Throughput MMCF/yr
Furnace #1	28.0	1020	240.5
Furnace #2	28.0	1020	240.5
Furnace #3	28.0	1020	240.5
Furnace #4	28.0	1020	240.5
Chip Dryer (process heat input plus after burner heat input)	18.0	1020	154.6
Melting Pot	27.5	1020	236.2

	Pollutant (tons/yr)							
	PM*	PM10*	direct PM2.5*	SO2	NOx	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **	50 **	5.5	84
Emission Rate in lb/MMBtu	0.0019	0.0075	0.0075	0.0006	0.0980	0.0490	0.0054	0.0824
Furnace #1	0.228	0.9	0.9	0.1	-	***	0.7	10.1
Furnace #2	0.228	0.9	0.9	0.1	-	***	0.7	10.1
Furnace #3	0.228	0.9	0.9	0.1	-	***	0.7	10.1
Furnace #4	0.228	0.9	0.9	0.1	-	***	0.7	10.1
Chip Dryer (process heat input plus after burner heat input)	0.147	0.6	0.6	0.046	7.7	-	0.4	6.5
Melting Pot	0.224	0.9	0.9	0.1	-	5.9	0.6	9.9
Total	**1.285**	**5.140**	**5.140**	**0.406**	**7.729**	**5.904**	**3.720**	**56.811**

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32
*** NOx emissions from combustion at the furnaces are included in the furnace calculations on page 2 of 7 ATSD Attachment A.

Methodology
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Rate in lb/MMBtu = Emission Factor (lb/MMCF) / 1020 (MMBtu/MMCF)
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

HAPs Emissions

	HAPs - Organics (tons/yr)				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Furnace #1	2.525E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Furnace #2	2.525E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Furnace #3	2.525E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Furnace #4	2.525E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Chip Dryer (process heat input plus after burner hea	1.623E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Melting Pot	2.480E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	0.001	**0.000**	**0.000**	**0.000**	**0.000**

	HAPs - Metals (tons/yr)				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Furnace #1	6.012E-05	1.323E-04	1.683E-04	4.569E-05	2.525E-04
Furnace #2	6.012E-05	1.323E-04	1.683E-04	4.569E-05	2.525E-04
Furnace #3	6.012E-05	1.323E-04	1.683E-04	4.569E-05	2.525E-04
Furnace #4	6.012E-05	1.323E-04	1.683E-04	4.569E-05	2.525E-04
Chip Dryer (process heat input plus after burner hea	3.865E-05	8.502E-05	1.082E-04	2.937E-05	1.623E-04
Melting Pot	5.904E-05	1.299E-04	1.653E-04	4.487E-05	2.480E-04
Total	**0.00034**	**0.00074**	**0.00095**	**0.00026**	**0.00142**

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

Greenhouse Gas Emissions

	Greenhouse Gas (tons/yr)		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Furnace #1	14,428	0.3	0.3
Furnace #2	14,428	0.3	0.3
Furnace #3	14,428	0.3	0.3
Furnace #4	14,428	0.3	0.3
Chip Dryer (process heat input plus after burner hea	9,275	0.2	0.2
Melting Pot	14,171	0.3	0.3

Furnace #1	14,516
Furnace #2	14,516
Furnace #3	14,516
Furnace #4	14,516
Chip Dryer (process heat input plus after burner heat input)	9,332
Melting Pot	14,257
Total	**81,653**

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

Attachment A of ATSD: Emission Calculations
Reciprocating Internal Combustion Engines - Diesel Fuel
Output Rating (<=600 HP)

Company Name: Superior Aluminum Alloys, LLC
Address City IN Zip: 14214 Edgerton Road, New Haven, Indiana 46774
Part 70 Permit No: T003-33033-00286
Reviewer: Mehul Sura
Date: 4/1/2013

Generator ID	Output Horsepower Rating (hp)
EG1	23
EG2	23
EG3	23
Total	69.0
Maximum Hours Operated per Year	8760
Potential Throughput (hp-hr/yr)	604,440

These generators are considered nonroad engines, therefore, their PTE are not included in the summary.

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	0.0022	0.0022	0.0022	0.0021	0.0310	0.0025	0.0067
Potential Emission in tons/yr	0.66	0.66	0.66	0.62	9.37	0.76	2.02

*PM and PM2.5 emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.

Hazardous Air Pollutants (HAPs)

	Pollutant							
	Benzene	Toluene	Xylene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
Emission Factor in lb/hp-hr****	6.53E-06	2.86E-06	2.00E-06	2.74E-07	8.26E-06	5.37E-06	6.48E-07	1.18E-06
Potential Emission in tons/yr	1.97E-03	8.65E-04	6.03E-04	8.27E-05	2.50E-03	1.62E-03	1.96E-04	3.55E-04

***PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)
****Emission factors in lb/hp-hr were calculated using emission factors in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

Potential Emission of Total HAPs (tons/yr)	**8.19E-03**

Green House Gas Emissions (GHG)

	Pollutant		
	CO2	CH4	N2O
Emission Factor in lb/hp-hr	1.15E+00	4.63E-05	9.26E-06
Potential Emission in tons/yr	3.48E+02	1.40E-02	2.80E-03

Summed Potential Emissions in tons/yr	**3.48E+02**
CO2e Total in tons/yr	**3.49E+02**

Methodology
Emission Factors are from AP42 (Supplement B 10/96), Tables 3.3-1 and 3.3-2
CH4 and N2O Emission Factor from 40 CFR 98 Subpart C Table C-2.
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] * [Maximum Hours Operated per Year]
Potential Emission (tons/yr) = [Potential Throughput (hp-hr/yr)] * [Emission Factor (lb/hp-hr)] / [2,000 lb/ton]
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

Attachment A of ATSD: Emission Calculations

Scrap Storage Pile

Company Name: Superior Aluminum Alloys, LLC
Address City IN Zip: 14214 Edgerton Road, New Haven, Indiana 46774
Part 70 Permit No: T003-33033-00286
Reviewer: Mehul Sura
Date: 4/1/2013

Ef = k(0.0032)*((U/5)^1.3)/((M/2)^1.4))
where Ef = emission factor (lb/ton)
M = 2.2 Moisture content (wt %)
U = 1 mean wind speed (m/s)
k= particle size multiplier (dimensionless)
PM = 0.74
PM10 = 0.35
PM2.5 = 0.053

Material	Throughput of Scrap (tpy)	EF for PM (lb/ton)	PTE of PM (tons/yr)	EF for PM10 (lb/ton)	PTE of PM10 (tons/yr)	EF for PM2.5 (lb/ton)	PTE of PM2.5 (tons/yr)
Scrap	490560	2.56E-04	**6.27E-02**	1.21E-04	**2.97E-02**	1.83E-05	**4.49E-03**

Methodology

Throughput of Scrap is assumed to have the same throughput rate as all furnaces, combined, to be conservative.
Emission factors are from AP-42 13.2.4.
Moisture content values obtained from AP-42 Table 13.2.4-1 (dated 11/06)
Potential PM Emissions (tons/yr) = [EF for PM (lb/ton))] x [Throughput of Scrap (tpy)] x (ton/2000 lbs)

Indiana Department of Environmental Management
Office of Air Quality

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

Source Background and Description

Source Name:	Superior Aluminum Alloys, LLC
Source Location:	14214 Edgerton Road, New Haven, Indiana 46774
County:	Allen
SIC Code:	3341 (Secondary Smelting and Refining of Nonferrous Metals)
Permit Renewal No.:	T003-33033-00286
Permit Reviewer:	Mehul Sura

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Superior Aluminum Alloys, LLC relating to the operation of a stationary secondary aluminum production plant. On April 1, 2013, Superior Aluminum Alloys, LLC submitted an application to the OAQ requesting to renew its operating permit. Superior Aluminum Alloys, LLC was issued its first Part 70 Operating Permit Renewal T003-23683-00286 on December 29, 2008.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units: (The construction approval dates are being maintained in the description of the units, since the source has not provided the actual dates the units have been constructed. In addition, the furnaces have been itemized individually, for clarity, instead of being described as a group. Pouring and casting has also been itemized separately since it is a separate operation from melting and it has its own emissions factors and emissions.)

(a) One (1) natural gas-fired Reverberatory Furnace, identified as Furnace #1 (approved in 2002 for construction), with a nominal capacity of 28,000 pounds of aluminum scrap per hour, chlorine flux of 10,233 pounds per eight-hour charge, heat input capacity of 28 MMBtu/hr, equipped with low NOx Burner and continuous lime injection baghouses E and F, and combustion and process emissions exhausting to stacks E and/or F.

Under NESHAP, Subpart RRR, Furnace #1 is considered an existing group 1 furnace.

(b) One (1) natural gas-fired Reverberatory Furnace, identified as Furnace #2 (approved in 2002 for construction), with a nominal capacity of 28,000 pounds of aluminum scrap per hour, chlorine flux of 10,233 pounds per eight-hour charge, heat input capacity of 28 MMBtu/hr, equipped with low NOx Burner and continuous lime injection baghouses E and F, and combustion and process emissions exhausting to stacks E and/or F.

Under NESHAP, Subpart RRR, Furnace #2 is considered an existing group 1 furnace.

Note: Baghouses E and F are common controls for Furnace #1 and Furnace #2.

(c) One (1) natural gas-fired Reverberatory Furnace, identified as Furnace #3 (approved in 2004 for construction), with a nominal capacity of 28,000 pounds of aluminum scrap per hour, chlorine flux of 10,233 pounds per eight-hour charge, heat input capacity of 28 MMBtu/hr, equipped with low NOx Burner and continuous lime injection baghouses L and N, and combustion and process emissions exhausting to stacks L and/or N.

Under NESHAP, Subpart RRR, Furnace #3 is considered an existing group 1 furnace.

(d) One (1) natural gas-fired Reverberatory Furnace, identified as Furnace #4 (approved in 2000 for construction), with a nominal capacity of 28,000 pounds of aluminum scrap per hour, chlorine flux of 10,233 pounds per eight-hour charge, heat input capacity of 28 MMBtu/hr, equipped with low NOx Burner and continuous lime injection baghouses L and N, and combustion and process emissions exhausting to stacks L and/or N.

Under NESHAP, Subpart RRR, Furnace #4 is considered an existing group 1 furnace.

Note: Baghouses L and N are common controls for Furnace #3 and Furnace #4.

(e) Pouring and Casting operations, (approved in 2000 for construction), without a control, with a total throughput capacity of 56 tons per hour.

(f) One (1) dross cooling operation consisting of cooling pans and two (2) holding bins, cooling up to 6850 pounds of furnace dross per hour, no control, with emissions exhausting into the building.

(g) One (1) electric Scrap Shredder, identified as unit E, approved in 2005 for construction, with a nominal capacity of fifty (50) tons of aluminum scrap per hour, with emissions controlled by fabric filter baghouse C, and exhausting through stack C .

Under NESHAP, Subpart RRR, this electric Scrap Shredder is considered an existing scrap shredder.

(h) One (1) natural gas-fired Thermal Chip Dryer, identified as unit D, approved in 1998 for construction, with a nominal drying capacity of 12,000 pounds of uncoated aluminum chips per hour and heat input capacity of 6.0 MMBtu/hr, with emissions controlled by fabric filter baghouse D and a 12.0 MMBtu/hr afterburner, and exhausting to stack D.

Under NESHAP, Subpart RRR, this Thermal Chip Dryer is considered an existing chip dryer.

(i) One (1) aluminum chip sorting system, identified as A-5, installed in 2011, with a capacity of 1.5 tons per hour, with emissions controlled by a baghouse, exhausting outside and also equipped with a magnetic separator, final screen and product tote bins.

Note: The baghouse for A-5 was initially determined to be voluntary, however, upon further review, it is now considered a required control because this baghouse for A-5 is required to comply with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) limit for A-5 (for details of this limit, please refer 'State Rule Applicability – Individual Facilities' section of this TSD).

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

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

Emission Units and Pollution Control Equipment Removed From the Source

No emission unit and Pollution Control Equipment have been removed from the source since the first Part 70 Operating Permit Renewal T003-23683-00286 issued on December 29, 2008.

Insignificant Activities

The source also consists of the following insignificant activities (several insignificant activities that were not currently listed in the permit are now being incorporated to list all the emission units in the permit):

(a) One (1) lime silo for the lime injection system, installed in 2012, identified as Silo 1, with a nominal capacity of 2,500 cubic feet and equipped with passive bin vent filters and exhausting outside.

(b) One (1) lime silo for the lime injection system, installed in 2012, identified as Silo 2, with a nominal capacity of 2,500 cubic feet and equipped with passive bin vent filters and exhausting inside.

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

Eleven melt pot stands, each equiped with one (1) natural gas-fired low NOx burner rated at 2.5 MMBtu/hr, identified as burners #1-11, with uncontrolled emissions.

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

The following are considered non-road engines and have not been considered in the PTE of the source:

(a) One (1) 23 hp spark ignition non-road engine, identified as EG1, used for maintenance-related welding activities and installed in 1998.

EG1 is considered a non-road engine.

(b) One (1) 23 hp spark ignition non-road engine, identified as EG2, used for maintenance-related welding activities and installed in 1998.

EG2 is considered a non-road engine.

(c) One (1) 23 hp spark ignition non-road engine, identified as EG3, used for maintenance-related welding activities and installed in 1998.

EG3 is considered a non-road engine.

Existing Approvals

Since the issuance of the Part 70 Operating Permit T003-23683-00286 on December 29, 2008, the source has constructed or has been operating under the following additional approvals:

(a) Administrative Amendment No. 003-31324-00286 , issued on January 11, 2012.

(b) Administrative Amendment No. 003-31838-00286 , issued on June 7, 2012.

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

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

County Attainment Status

The source is located in Allen County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Attainment effective February 12, 2007, for the Fort Wayne area, including Allen County, for the 8-hour ozone standard.[1]
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Not designated.

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

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

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

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

Fugitive Emissions

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

Unrestricted Potential Emissions

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

The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM, PM10, PM2.5, and VOC, each, is greater than 100 tons per year and 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 of HAPs is equal to or greater than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7 and will be issued a Part 70 Operating Permit Renewal.

Part 70 Permit Conditions

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

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

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

Potential to Emit After Issuance

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

	Potential to Emit (ton/yr) After Issuance of the Title V Renewal							
Emission Unit	**PM**	**PM10**	**PM2.5**	**SO2**	**NOx**	**VOC**	**CO**	**GHGs**
Furnace #1	30.00 (a)	30.00 (a)	30.00 (a)	5.59	63.75 (a)	8.02	10.10	14516.04
Furnace #2				5.59		8.02	10.10	14516.04
Furnace #3				5.59		8.02	10.10	14516.04
Furnace #4				5.59		8.02	10.10	14516.04
Pouring/Casting	--	--	--	1.50	0.75	10.50	--	--
Thermal Chip Dryer	18.34 (a)	18.34 (a)	18.34 (a)	11.04	-	5.69 (a)	6.49	9331.74
Scrap Shredder	18.75 (a)	18.75 (a)	18.75 (a)	--	--	--	--	--
Dross Cooling Operation	1.50	2.25	2.25	--	--	--	--	--
Silo 1	0.17	0.17	0.17	--	--	--	--	--
Silo 2	0.17	0.17	0.17					
Chip Sorting Operation	0.57	0.20	0.05	--	--	--	--	--
Natural Gas Combustion (Melting Pot)	0.22	0.90	0.90	0.07	5.90	0.65	9.92	14256.83
Scrap Storage Pile	0.06	0.03	0.00	--	--	--	--	--
Total	69.78	70.80	70.63	34.97	70.40	48.92	56.81	81652.74
PSD Major Source Thresholds (1 of 28)	100	100	100	100	100	100	100	100,000 CO_2e

(a) PTE is based on PSD Minor Limits (for details, please refer PSD rule applicability in 'State Rule Applicability - Entire Source' section of this TSD).

All Potential to Emit not specified (a) above are uncontrolled emission rates.

This existing stationary source is not major for PSD because the emissions of each criteria pollutant are less than one hundred (<100) tons per year, and it is in one of the twenty-eight (28) listed source categories.

GHG emissions are less than one hundred thousand (<100,000) tons of CO2 equivalent (CO2e) emissions per year.

Federal Rule Applicability

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

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

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

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

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

Emission Unit	Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Furnace #1	PM	Y	Y	>100	<100	100	Y	N
Furnace #2	PM	Y	Y	>100	<100	100	Y	N
Furnace #3	PM	Y	Y	>100	<100	100	Y	N
Furnace #4	PM	Y	Y	>100	<100	100	Y	N
electric Scrap Shredder	PM	Y	Y	>100	<100	100	Y	N
Chip Dryer	PM	Y	Y	>100	<100	100	Y	N
Silo 1	PM	Y	N	<100	<100	100	N	N
Silo 2	PM	Y	N	<100	<100	100	N	N
aluminum chip sorting system	PM	Y	Y	<100	<100	100	N	N
Furnace #1	PM10	Y	Y	>100	<100	100	Y	N
Furnace #2	PM10	Y	Y	>100	<100	100	Y	N
Furnace #3	PM10	Y	Y	>100	<100	100	Y	N
Furnace #4	PM10	Y	Y	>100	<100	100	Y	N
electric Scrap Shredder	PM10	Y	Y	>100	<100	100	Y	N
Chip Dryer	PM10	Y	Y	>100	<100	100	Y	N
Silo 1	PM10	Y	N	<100	<100	100	N	N
Silo 2	PM10	Y	N	<100	<100	100	N	N
aluminum chip sorting system	PM10	Y	Y	<100	<100	100	N	N
Furnace #1	PM2.5	Y	Y	>100	<100	100	Y	N

Emission Unit	Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Furnace #2	PM2.5	Y	Y	>100	<100	100	Y	N
Furnace #3	PM2.5	Y	Y	>100	<100	100	Y	N
Furnace #4	PM2.5	Y	Y	>100	<100	100	Y	N
electric Scrap Shredder	PM2.5	Y	Y	>100	<100	100	Y	N
Chip Dryer	PM2.5	Y	Y	>100	<100	100	Y	N
Silo 1	PM2.5	Y	N	<100	<100	100	N	N
Silo 2	PM2.5	Y	N	<100	<100	100	N	N
aluminum chip sorting system	PM2.5	Y	Y	<100	<100	100	N	N
Chip Dryer	VOC	Y	Y	>100	<100	100	Y	N

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to all of the above listed emission units (except for Silo 1, Silo 2 and Chip Sorting Operation) for PM, PM10, PM2.5 and to Chip Dryer for VOC. Compliance Determination and Monitoring Requirements section includes a detailed description of the CAM requirements.

Even though 40 CFR 63, Subpart RRR is a post 1980 NESHAP, CAM still applies because of the following reasons:

(a) The applicable PM limit under 40 CFR 63, Subpart RRR for Furnace #1, Furnace #2, Furnace #3, Furnace #4 and electric Scrap Shredder are for filterable PM only. Since these emission units are also subject to PM limits (both filterable and condensable) under 326 IAC 2-2, therefore CAM is still applicable to these emission units for PM.

(b) 40 CFR 63, Subpart RRR does not specify PM10 and PM2.5 limits for the Furnace #1, Furnace #2, Furnace #3, Furnace #4 and electric Scrap Shredder Therefore CAM applied to these emission units for PM10 and PM2.5.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

(a) Subpart RRR—National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production

This source is subject to this NESHAP due to the following reasons:

(i) It is a major source of HAPs.

(ii) One or more of the following processes are performed at this source using clean charge, aluminum scrap, or dross from aluminum production, as the raw material: scrap shredding, scrap drying, thermal chip drying, furnace operations (i.e., melting, holding, sweating, refining, fluxing, or alloying), recovery of aluminum from dross, in-line fluxing, or dross cooling.

The specific facilities subject to this NESHAP are listed below. These facilities are considered existing affected facilities.

(a) Furnace #1
(b) Furnace #2
(c) Furnace #3
(d) Furnace #4

(e) electric Scrap Shredder
(f) Chip Dryer

The dross cooler is exempt from this NESHAP due to the following reason: It is not a water-cooled rotary barrel device which accelerates cooling of dross and therefore, it does not meet the definition of Rotary dross cooler under 40 CFR 63.1503.

Nonapplicable portions of this NESHAP will not be included in the permit. The source is subject to the following portions of 40 CFR 63, Subpart RRR:

(a) 40 CFR 63.1500(a), (b)(1, 2 and 8), and (d)
(b) 40 CFR 63.1501(a)
(c) 40 CFR 63.1502
(d) 40 CFR 63.1503
(e) 40 CFR 63.1505(a), (b), (c), (i)(1 - 4 and 6) and (k)(1 - 4 and 6)
(f) 40 CFR 63.1506(a)(1 and 4), (b), (c), (d), (e)(1), (f), (m)(1, 3, 4, 5 and 6), (o) and (p)
(g) 40 CFR 63.1510(a), (b)(1 - 3, 4(i), 5 - 7), (c), (d), (e), (f)(1), (g), (h), (i)(1)(i and ii) and (2), (j), (k), (n), (s), (t), (u), (v) and (w)
(h) 40 CFR 63.1511(a), (b), (c), (d), (e), (g), (h) and (i)
(i) 40 CFR 63.1512(a), (b), (d), (j), (k), (m), (n), (o), (p), (q), (r) and (s)
(j) 40 CFR 63.1513
(k) 40 CFR 63.1515(a)(6) and (b)(1 - 7 and 10)
(l) 40 CFR 63.1516(a), (b)(1)(i and iv - vii), (b)(2)(i and iii), (b)(3) and (c)
(m) 40 CFR 63.1517(a), (b)(1)(i), 2, 3, 5, 6, 7, 9, 10, 13, 14, 15, 16 and 17
(n) 40 CFR 63.1518
(o) 40 CFR 63.1519
(p) Table 1 (applicable portions)
(q) Table 2 (applicable portions)
(r) Table 3 (applicable portions)
(s) Appendix A to Subpart RRR

40 CFR 63.1511 specifies initial and repeat performance testing requirements under this NESHAP.

(b) Subpart ZZZZ—National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)

EG1, EG2 and EG3 are used on an as-needed basis for maintenance-related welding activities and are moved around the facility as necessary more than once a year. Since these engines are transportable and are moved to multiple locations around the facility during a given year, these engines are considered as non-road engines and therefore not subject to the requirements of NESHAP, Subpart ZZZZ.

(c) There are no other NESHAPs (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit due to this modification.

New Source Performance Standards (NSPS):

(a) Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

(b) Subpart IIII—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

EG1, EG2 and EG3 are used on an as-needed basis for maintenance-related welding activities and are moved around the facility as necessary more than once a year. Since

these engines are transportable and are moved to multiple locations around the facility during a given year, these engines are considered as non-road engines and therefore not subject to the requirements of NSPS JJJJ and NSPS IIII.

(c) Subpart OOO—Standards of Performance for Nonmetallic Mineral Processing Plants

The source is not subject to the requirements of this NSPS because it is not a nonmetallic mineral processing plant. (Nonmetallic plant means any combination of equipment which is used to crush or grind any nonmetallic mineral wherever located, including lime plants, power plants, steel mills, asphalt concrete plants, portland cement plants, or any other facility processing nonmetallic minerals except as provided in 40 CFR 60.670(b) and (c)).

(d) There are no other New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) included in the permit.

State Rule Applicability - Entire Source

326 IAC 2-2 (PSD)
In order to render 326 IAC 2-2 not applicable to the entire source, the source has opted to continue to comply with the following existing limits in the permit:

(a) Material Throughput Limit

The combined input of aluminum scrap to Furnaces #1, #2, #3, and #4 shall not exceed 300,000,000 pounds per twelve consecutive month period with compliance determined at the end of each month.

Note: This is an existing limit and not being changed in this renewal.

(b) NOx Limits

Stack	Associated Emission Unit	NOx Limit (pounds per ton of aluminum scrap processed)
Stacks E and F	Furnace #1	0.85* (Stacks E and F combined)
	Furnace #2	
Stacks L and N	Furnace #3	0.85* (Stacks L and N combined)
	Furnace #4	

* Consisting of burner combustion and process emissions.

The above limits are revised limits due to the change that process and combustions emissions are now exhausting to the common stacks. These revisions are Title I changes.

Compliance with limits (a) and (b) above in conjunction with NO_x emissions from the Scrap Dryer, and Melt Pots, will limit the source-wide NO_x PTE to less than 100 tons per twelve (12) consecutive month period, and renders the source minor under 326 IAC 2-2, PSD.

(c) Particulate Limits

Stack	Associated Emission Unit	PM Limit	PM10 Limit	PM2.5 Limit	Unit of Limit
Stacks E and F	Furnace #1	0.4*	0.4*	0.4*	pounds per ton

	Furnace #2	(Stacks E and F combined)	(Stacks E and F combined)	(Stacks E and F combined)	of aluminum melted
Stacks L and N	Furnace #3	0.4* (Stacks L and N combined)	0.4* (Stacks L and N combined)	0.4* (Stacks L and N combined)	
	Furnace #4				

* Consisting of burner combustion and process emissions.

The PM2.5 limits are new requirements to assure that the entire source is a PSD minor source for all regulated pollutants. This is Title I change.

The PM and PM10 limits are revised limits. These revisions are Title I changes.

(d) Particulate Limits

Emission Unit	**PM Limit**	**PM10 Limit**	**PM2.5 Limit**	**Unit of Limit**
electric Scrap Shredder*****	4.28	4.28	4.28	pouns per hour
Chip Dryer*****	4.188	4.188	4.188	

* The PM10 and PM2.5 Limits for the electric Scrap Shredder are new applicable requirement to assure that the entire source is a PSD minor source for all regulated pollutants. These limits are based on the assumption that PM10=PM2.5. This is Title I change.

To assure that the entire source is a PSD minor source for all regulated pollutants, PM, PM10 and PM2.5 mass limits (lb/hr) have been specified for the electric Scrap Shredder, distinct and independent of the NESHAP RRR limit of 0.01 gr/dscf particulate limit.

Compliance with the limits (a), (c) and (d) above in conjunction with the PM, PM and PM2.5 emissions from insignificant activities will limit the source-wide PM, PM and PM2.5 PTE to less than 100 tons per twelve (12) consecutive month period, and renders the source minor under 326 IAC 2-2, PSD.

(e) VOC Limit for Chip Dryer

The afterburner shall be operated at all times that the Chip Dryer is in operation and the afterburner must maintain a minimum VOC capture efficiency of ninety-nine percent (99%) and a minimum VOC destruction efficiency of ninety-nine percent (99%).

Compliance with limit (e) above in conjunction with the VOC emissions from other emission units at this source will limit the source-wide VOC PTE to less than 100 tons per twelve (12) consecutive month period, and renders the source minor under 326 IAC 2-2, PSD.

Note: This limit is specified under 326 IAC 8-1-6 BACT for the Chip Dryer and made equal for the PSD VOC minor limit, even though the Permittee can choose a higher limit than the BACT limit.

Particulate Control Operation Requirement

(a) In order to comply with particulate limits specified in paragraph (c) above, and pursuant to CP-003-9243-00286 (issued on May 1, 1998) and Source Modification 003-11927-00286 (issued on June 7, 2000), the baghouses equipped on Furnace #1 through Furnace #4,

shall be in operation and control particulate emissions from their respective furnace(s) as follows:

(i) It is acceptable to operate only the baghouse that exhausts to stack L or the baghouse that exhausts to stack N if only either #3 or #4 is operating.

(ii) If both furnaces #3 and #4 are operating, then the baghouse that exhausts to stack L and the baghouse that exhausts to stack N must be operating.

(iii) It is acceptable to operate only the baghouse that exhausts to stack E or the baghouse that exhausts to stack F if only either furnace #1 or #2 is operating.

(iv) If both furnaces #1 and #2 are operating, then both the baghouse that exhausts to stack E and the baghouse that exhausts to stack F must be operating.

(b) In order to comply with particulate limits specified in paragraph (d) above, the particulate control equipped on electric Scrap Shredder and Chip Dryer shall be in operation and control particulate emissions from these emission units at all times these emission units are in operation.

326 IAC 2-6 (Emission Reporting)
This source, not located in Lake, Porter, or LaPorte County, is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit pursuant to 326 IAC 2-7 (Part 70). The potential to emit of VOC and PM10 is less than 250 tons per year; and the potential to emit of CO, NOx, and SO2 is less than 2,500 tons per year. Therefore, pursuant to 326 IAC 2-6-3(a)(2), triennial reporting is required. An emission statement shall be submitted in accordance with the compliance schedule in 326 IAC 2-6-3(b)(1) and every three (3) years thereafter. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

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

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

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
This rule does not apply to the source because the source-wide fugitive particulate emissions are less than 25 tons per year.

State Rule Applicability – Individual Facilities

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
(a) The emissions units listed below are exempt from this rule pursuant to 326 IAC 6-3-1(c)(6) because these emission units are subject to NESHAP, Subpart RRR and particulate limits specified in NESHAP, Subpart RRR for these emission units are more stringent than 326 IAC 6-3-2 allowable emission rate.

Emission Unit	Process Weight Rate (tons/hour)	326 IAC 6-3-2 Limit (lb/hr)	NESHAP, Subpart RRR (lb/ton) limit	NESHAP, Subpart RRR (grain/scfm) limit	NESHAP, Subpart RRR limit converted to lb/hr rate	NESHAP, Subpart RRR limit converted to lb/hr rate
	A	--	B	C	=A x B	=A x C x stack air flow rate (25000 acfm) x 60 (min/hr) / 7000 (grain/lb)
Furnace #1	14	24.03	0.40	--	4.2	--
Furnace #2	14	24.03	0.40	--	4.2	--
Furnace #3	14	24.03	0.40	--	4.2	--
Furnace #4	14	24.03	0.40	--	4.2	--
electric Scrap Shredder	50	56.38	--	0.01	--	2.14

326 IAC 6-3-2 Limits in the above tables are calculated using the following equations:

(i) Interpolation of the data for the process weight rate up to sixty thousand 60,000 pounds (30 tons) per hour is calculated using following equation:

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

(ii) Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand 60,000 pounds (30 tons) per hour is calculated using following equation:

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

(b) 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 specified when operating at the respective process weight rate:

Emission Unit	Process Weight Rate (tons/hr)	Allowable particulate Emission Rate (lb/hr)	PM Emissions (lb/hr)*	can comply?
dross cooling operation	3	8.55	0.34 (uncontrolled)	yes
Chip Dryer	6	13.62	2.15 (controlled)	yes
Aluminum chip sorting system	1.5	5.38	0.13 (uncontrolled)	yes

* See Appendix A of this document for detailed emission calculations.

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

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

(A) Since the PTE before control of the Chip Dryer is higher than the allowable particulate emission rate, the fabric filter baghouse equipped on the Chip Dryer shall be in operation and control particulate emissions at all times when the Chip Dryer is in operation in order to comply with this limit.

(B) Even though the PTE before control of the aluminum chip sorting system shows that it complies with the 326 IAC 6-3 limit, since this PTE before control was determined using an alternative emission factor (rated E), in lieu of testing, the baghouse equipped on the aluminum chip sorting system shall be in operation and control particulate emissions at all times when chip sorting system shall be in operation in order to comply with this limit.

(c) Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from Silo 1 and Silo 2, each with a maximum process weight rates less than 100 pounds per hour, shall not exceed 0.551 pounds of PM per hour.

In order to comply with this limit, the bin vent filters equipped on Silo 1 and Silo 2 shall be in operation and control particulate emissions from Silo 1 and Silo 2 at all times the Silo 1 and Silo 2 are in operation.

Notes: The AP 42 emission factor used to determine the uncontrolled particulate emissions for these silos has an E rating. Therefore, bin vent filters operation requirement has been added through this renewal.

As indicated in Appendix A, when these silos were initially permitted, the permit level was determined after control (bin vents) even though no integral to the process was submitted by the source nor evaluated by IDEM.

(d) Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from the insignificant welding, soldering, and brazing operations, each with a maximum process weight rates less than 100 pounds per hour, shall not exceed 0.551 pounds of PM per hour.

326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations)
The Furnace #1, Furnace #2, Furnace #3, Furnace #4 and Chip Dryer, each, has potential to emit SO_2 less than 25 tons per year. Therefore, these emission units are not subject to the requirements of 326 IAC 7-1.1-2.

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

(a) Chip Dryer
The Chip Dryer is subject to 326 IAC 8-1-6, since its potential VOC emissions are greater than 25 tons per year. This determination was made under CP 003-9243-00286, issued on May 1, 1998. The Permittee shall continue to comply with the following Best Available Control Technology (BACT) requirements established for Chip Dryer in CP 003-9243-00286:

(i) The afterburner, determined to be the BACT, shall be operated at all times that the thermal chip dryer is in operation. When operating, the afterburner must maintain a minimum VOC capture efficiency of ninety-nine percent (99%) and a minimum VOC destruction efficiency of ninety-nine percent (99%).

(ii) The Permittee shall determine temperature and fan amperage from the most recent valid stack test that demonstrates compliance with the above BACT, as approved by IDEM.

(iii) On or after the date the approved stack test results are available, the Permittee shall operate the afterburner at or above the average temperature, residence time, and airflow as observed during the compliant stack test.

The requirements in paragraphs (ii) and (iii) are also specified in the existing permit as part of this BACT established for Chip Dryer in CP 003-9243-00286. However, these requirements are compliance monitoring requirements to demonstrate the compliance with the BACT. Therefore, the requirements in paragraphs (ii) and (iii) below will be specified as compliance monitoring requirements in the permit. This change is not considered as BACT revision because BACT condition is not revised and therefore BACT reopening is not required.

(b) All of the emission units other than the Chip Dryer have potential VOC emissions less than twenty-five (25) tons per year; therefore, the requirements of 326 IAC 8-1-6 are not applicable to any emission units other than Chip Dryer. No other standards are established under 326 IAC 8 for all of the emission units other than Chip Dryer.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The following facilities are specifically regulated by NESHAP, Subpart RRR, therefore, these facilities are not subject to the requirements of 326 IAC 2-4.1.

(a) Furnace #1
(b) Furnace #2
(c) Furnace #3
(d) Furnace #4
(e) electric Scrap Shredder
(f) Chip Dryer

Each of the remaining facilities at this source emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs; therefore, these remaining facilities are exempt from the requirements of 326 IAC 2-4.1.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

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

Compliance Determination Requirements

After Burner

In order to demonstrate the compliance with VOC PSD Minor limit and VOC BACT specified for Chip Dryer in 'State Rule Applicability - Entire Source' and ' State Rule Applicability – Individual Facilities' sections of this TSD, respectively, the Permittee shall comply with the following:

(i) Maintain the 3-hour average operating temperature of afterburner at or above the average temperature established during the most recent performance test.

(ii) Operate each afterburner in accordance with the OM&M plan, as specified under NESHAP, Subpart RRR.

(iii) Operate the thermal chip dryer using only unpainted aluminum chips as the feedstock.

Testing Requirements

Unit	Control Device	Timeframe for Testing (years from the most recent testing)	Pollutant	Most Recent Testing date	Type of limit
Furnace #1	baghouse E or F	2.5	PM	12/03/2013	PSD Minor
		5	PM	12/03/2013	NESHAP, Subpart RRR
		2.5	PM10 [(b)]	12/03/2013	PSD Minor
		[(d)]	PM2.5 [(b)]	NA	PSD Minor
		5	DF TEQ	09/16/2013	NESHAP, Subpart RRR
		5	HCl	12/03/2013	NESHAP, Subpart RRR
	none	2.5	NOx [(g)]	12/03/2013	PSD Minor
Furnace #2	baghouse E or F	5	DF TEQ	09/16/2013	NESHAP, Subpart RRR
		5	HCl	12/03/2013	NESHAP, Subpart RRR
		2.5	PM	12/03/2013	PSD Minor
		5	PM	12/03/2013	NESHAP, Subpart RRR
		2.5	PM10 [(b)]	12/03/2013	PSD Minor
		[(d)]	PM2.5 [(b)]	NA	PSD Minor
	none	2.5	NOx [(g)]	12/03/2013	PSD Minor
Furnace #3	baghouse L or N	5	DFTEQ	09/16/2013	NESHAP, Subpart RRR
		5	HCl	12/03/2013	NESHAP, Subpart RRR
		2.5	PM [(b)]	12/03/2013	PSD Minor
		5	PM	12/03/2013	NESHAP, Subpart RRR
		2.5	PM10 [(b)]	12/03/2013	PSD Minor
		[(d)]	PM2.5 [(b)]	NA	PSD Minor
	none	2.5	NOx [(g)]	12/03/2013	PSD Minor
Furnace #4	baghouse L or N	5	Dioxin/Furans	09/16/2013	40 CFR 63, Subpart RRR
		5	HCl	12/03/2013	40 CFR 63, Subpart RRR
		2.5	PM [(b)]	12/03/2013	PSD Minor
		2.5	PM10 [(b)]	12/03/2013	PSD Minor
		[(d)]	PM2.5 [(b)]	NA	PSD Minor
		5	PM	12/03/2013	NESHAP, Subpart RRR

Unit	Control Device	Timeframe for Testing (years from the most recent testing)	Pollutant	Most Recent Testing date	Type of limit
	none	2.5	NOx [g]	12/03/2013	PSD Minor
Chip Dryer	Afterburner	5	Dioxin/Furan	10/10/2012	NESHAP, Subpart RRR
		5	VOC	8/27/2012	326 IAC 8-1-6
		5	VOC	8/27/2012	PSD Minor
	baghouse D	[f]	PM	NA	PSD Minor
		[f]	PM10 [b]	NA	PSD Minor
		[f]	PM2.5 [b]	NA	PSD Minor
electric Scrap Shredder [e]	baghouse C	5	PM [a]	6/17/2011	PSD Minor
		5	PM10 [a]	6/17/2011	PSD Minor
		[c]	PM2.5 [a]	--	PSD Minor
		5	PM	6/17/2011	NESHAP, Subpart RRR

(a) PM10 and PM2.5 shall include filterable PM only.

(b) PM10 and PM2.5 shall include filterable and condensable PM.

(c) Testing shall be performed no later than five (5) years after the most recent compliance testing performed for PM on the electric Scrap Shredder.

This PM2.5 testing requirement is new requirement and the testing time frame is streamlined with the testing time frame of the existing PM testing requirement for the electric Scrap Shredder.

(d) Testing shall be performed no later than two and one-half (2.5) years after the most recent compliance testing performed for PM on the subject emission unit.

These PM2.5 testing requirements are new requirements and the testing time frames are streamlined with the testing time frame of the existing PM testing requirement for the subject emission unit.

(e) PM2.5 testing requirement has been added for Scrap Shredder through this renewal.

(f) These PM, PM10 and PM2.5 testing for the Chip Dryer are new requirements and the testing time frames of these new testing are streamlined with the testing time frame of the existing VOC testing requirement for the subject emission unit.

Testing shall be performed no later than five (5) years after the most recent compliance testing performed for VOC on the subject emission unit.

Note: The particulate testing was scheduled to coincide with the next VOC scheduled testing. This was approved by the Compliance Data Section of the OAQ.

The required control efficiency for the baghouse equipped on the Chip Dryer are high (>98%) to comply with 326 IAC 2-2 PM, PM10 and PM2.5 limits for the Chip Dryer (please refer TSD Appendix A for the details of the required control efficiency).

To verify this control efficiency, PM, PM10 and PM2.5 testing requirements for the baghouse equipped on the Chip Dryer have been added through this renewal.

(g) The combustion and process emissions were combined into a common exhaust when the most recent testing was performed for the subject furnace.

Compliance Monitoring Requirements

Control	emission unit	Parameter	Frequency
baghouses E or F	Furnace #1	Bag leak detection using Bag leak detection systems (BLDS)	continuously
baghouses E or F	Furnace #2		
baghouses L or N	Furnace #3		
baghouses L or N	Furnace #4		
baghouse C	electric Scrap Shredder		
baghouse D	Chip Dryer	Pressure Drop	Daily
		visible emission notation	Daily
baghouse equipped on chip sorting system (A-5)	aluminum chip sorting system (A-5)	Pressure Drop	Daily
		visible emission notation	Daily
After Burner	Chip Dryer	combustion temperature	continuously
		fan amperage	once a day

(a) These monitoring conditions for the baghouses are necessary to ensure compliance with 40 CFR 64.2 (CAM).

(1) The Baghouses E, F, L, N and C are required to be operated under NESHAP, Subpart RRR to control PM and HAPs emissions. These baghouses are equipped with BLDS to comply with this NESHAP. All of the above monitoring requirements are also going to satisfy CAM for Baghouses E, F, L, N and C for PM, PM10 and PM2.5 pollutants.

(2) Since there are no monitoring requirements under NESHAP, Subpart RRR for the Chip Dryer that can be used to satisfy CAM, daily visible emissions notations and pressure drop monitoring requirements for the Chip Dryer have been specified.

(3) The daily visible emissions and pressure drop monitoring requirements for the aluminum chip sorting system are new applicable requirements since the PTE of this emission unit was based on alternative emissions factors with poor rating of E and there are no monitoring specified under NESHAP, Subpart RRR that can be used to satisfy CAM. This is alo in lieu of testing the system to determine the exact PTE of the system.

(b) These monitoring conditions for the After Burner are necessary because the After Burner must operate properly to ensure compliance with 326 IAC 8-1-6, 326 IAC 2-2, 326 IAC 2-7 and 40 CFR 64.2 (CAM).

Recommendation

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

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

An application for the purposes of this review was received on April 1, 2013.

Conclusion

The operation of this stationary secondary aluminum production plant shall be subject to the conditions of the attached Part 70 Operating Permit Renewal No. T003-33033-00286.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Mehul Sura at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-6868 or toll free at 1-800-451-6027 extension 3-6868.

(b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

Appendix A: Emissions Calculations Summary

Company Name: Superior Aluminum Alloys, LLC
Address City IN Zip: 14214 Edgerton Road, New Haven, Indiana 46774
Part 70 Permit No: T003-33033-00286
Reviewer: Mehul Sura
Date: 4/1/2013

Uncontrolled Emissions (tons/yr)

	PM	PM10	PM2.5	SO2	NOx	VOC	CO	GHGs	Single HAP (HCl)
Furnace #1	3064.91	1650.48	1623.50	5.59	52.12	8.02	10.10	14516.04	24.5
Furnace #2	3064.91	1650.48	1623.50	5.59	52.12	8.02	10.10	14516.04	24.5
Furnace #3	3064.91	1650.48	1623.50	5.59	52.12	8.02	10.10	14516.04	24.5
Furnace #4	3064.91	1650.48	1623.50	5.59	52.12	8.02	10.10	14516.04	24.5
Pouring/Casting	-	-	-	4.91	2.45	34.34	-	-	-
Thermal Chip Dryer	943.60	943.60	943.60	11.04	23.65	568.96	6.49	9331.74	16.1
Scrap Shredder	919.80	919.80	919.80	--	--	--	--	--	--
Dross Cooling Operation	1.50	2.25	2.25	--	--	--	--	--	--
Silo 1	0.17	0.17	0.17	--	--	--	--	--	--
Silo 2	0.17	0.17	0.17						
Chip Sorting Operation	0.57	0.20	0.05	--	--	--	--	--	--
Natural Gas Combustion (Melting Pot)	0.22	0.90	0.90	0.07	5.90	0.65	9.92	14256.83	--
Scrap Storage Pile	0.06	0.03	0.00	--	--	--	--	--	--
Total	14125.75	8469.05	8360.95	38.38	240.50	636.03	56.81	81652.74	114.2

Furnaces and Thermal Chip Dryer emissions include process emissions and natural gas combustion emissions.

Limited PTE (tons/yr)

	PM	PM10	PM2.5	SO2	NOx	VOC	CO	GHGs	Single HAP (HCl)
Furnace #1	30.00 (a)	30.00 (a)	30.00 (a)	5.59	63.75 (a)	8.02	10.10	14516.04	24.5
Furnace #2				5.59		8.02	10.10	14516.04	24.5
Furnace #3				5.59		8.02	10.10	14516.04	24.5
Furnace #4				5.59		8.02	10.10	14516.04	24.5
Pouring/Casting	--	--	--	1.50	0.75	10.50	--	--	--
Thermal Chip Dryer	18.34 (a)	18.34 (a)	18.34 (a)	11.04	-	5.69 (a)	6.49	9331.74	16.08
Scrap Shredder	18.75 (a)	18.75 (a)	18.75 (a)	--	--	--	--	--	--
Dross Cooling Operation	1.50	2.25	2.25	--	--	--	--	--	--
Silo 1	0.17	0.17	0.17	--	--	--	--	--	--
Silo 2	0.17	0.17	0.17						
Chip Sorting Operation	0.57	0.20	0.05	--	--	--	--	--	--
Natural Gas Combustion (Melting Pot)	0.22	0.90	0.90	0.07	5.90	0.65	9.92	14256.83	--
Scrap Storage Pile	0.06	0.03	0.00	--	--	--	--	--	--
Total	69.78	70.80	70.63	34.97	70.40	48.92	56.81	81652.74	114.2

(a) PTE is based on PSD Minor Limits.
All Limited PTE of furnaces include emissions due to melting process and emissions due to natural gas combustion at the furnaces.
All Limited PTE of Thermal Chip Dryer include emissions due to chip drying process and emissions due to natural gas combustion at Thermal Chip Dryer.
SOx, NOx, VOC, CO , GHG and HCl Limited PTE of furnaces are uncontrolled emissions.

Appendix A: Emission Calculations
Emissions for Aluminum Smelting

Company Name: Superior Aluminum Alloys, LLC
Address City IN Zip: 14214 Edgerton Road, New Haven, Indiana 46774
Part 70 Permit No: T003-33033-00286
Reviewer: Mehul Sura
Date: 4/1/2013

Reverberatory Furnaces

Emission Unit Description	Process Rate (lb/hr)	Process Rate (tons/hr)
Furnace #1	28000	14
Furnace #2	28000	14
Furnace #3	28000	14
Furnace #4	28000	14

Pollutant	PM	PM_{10}	$PM_{2.5}$	SOx	NOx	VOC	CO	HCl
Emission Factor (lb/ton produced)	4.3	2.6	2.16	0.09	0.85	0.12	-	0.40
Furnace #1 (lbs/hr)	60.20	36.40	30.24	1.26	11.90	1.68	-	5.60
Furnace #1 (tons/yr)	263.68	159.43	132.45	5.52	52.12	7.36	10.10	24.53
Furnace #2 (lbs/hr)	60.20	36.40	30.24	1.26	11.90	1.68	-	5.60
Furnace #2 (tons/yr)	263.68	159.43	132.45	5.52	52.12	7.36	10.10	24.53
Furnace #3 (lbs/hr)	60.20	36.40	30.24	1.26	11.90	1.68	-	5.60
Furnace #4 (tons/yr)	263.68	159.43	132.45	5.52	52.12	7.36	10.10	24.53
Furnace #4 (lbs/hr)	60.20	36.40	30.24	1.26	11.90	1.68	-	5.60
Furnace #4 (tons/yr)	263.68	159.43	132.45	5.52	52.12	7.36	10.10	24.53
Total PTE (tons/yr)	**1054.70**	**637.73**	**529.80**	**22.08**	**208.49**	**29.43**	**40.40**	**98.11**

Methodology
PM, PM10 and PM2.5 emission factors are changed due to this renewal. These emission factors are from AP 42 Table 12.8 and IDEM has changed emission factors because the new emission factors are more conservative than the old emission factors used in previous Renewal T003-23683-00286 issued on December 29, 2008. SOx, VOC, CO and HCl emission

SOx emission factor is based on stack test conducted by Wabash Alloys on a similar process. This emission factor was used to estimate emissions from the furnaces in the original construction permit.

NOx emission rate is based on proposed PSD Minor Limit in permit. Testing requirement specified in the permit for this limit.
VOC emission factor is based on most recent compliance test performed on 1/10/2000 for Furnace #3.
HCl emission rates are from NESHAP, Subpart RRR.
The CO emissions are due to natural gas combustion. For details of these emissions, please refer Page 5 of 5 TSD Appendix A.
Potential Emissions (lbs/hr) = Emission Factor (lbs/ton of Aluminum) x Throughput (lb/hr) x (1/2000 (lbs/ton)
Potential Emissions (tons/year) = Potential Emissions (lbs/hr) x 8760 (hrs/yr) / 2000 (lbs/ton)
Total Potential Emissions is the sum of Potential Emissions of all furnaces.

Fluxing

Emission Unit Description	Fluxing Process Rate (lb/hr)	Process Rate (tons/hr)
Furnace #1 Fluxing (Chlorination)	1276	0.64
Furnace #2 Fluxing (Chlorination)	1277	0.64
Furnace #3 Fluxing (Chlorination)	1278	0.64
Furnace #4 Fluxing (Chlorination)	1279	0.64

Pollutant	PM	PM_{10}	$PM_{2.5}$
Emission Factor (lb/ton of chlorine used)	1000	532	532
Furnace #1 (lbs/hr)	639.50	340.21	340.21
Furnace #1 (tons/yr)	2801.01	1490.14	1490.14
Furnace #2 (lbs/hr)	639.50	340.21	340.21
Furnace #2 (tons/yr)	2801.01	1490.14	1490.14
Furnace #3 (lbs/hr)	639.00	339.95	339.95
Furnace #4 (tons/yr)	2801.01	1490.14	1490.14
Furnace #4 (lbs/hr)	1,791.25	952.94	952.94
Furnace #4 (tons/yr)	2801.01	1490.14	1490.14
Total Potential Emissions (tons/yr)	11204.04	5960.55	5960.55

Methodology
Fluxing Process Rate derived from original TV permit# 003-11452-00286, issued on June 24, 2002.
PM and PM10 Emission Factors are from AP 42 Table 12.8-2.
PM2.5=PM10
Potential Emissions (lbs/hr) = Emission Factor (lbs/ton Chlorine) x Throughput (lb/hr) x (1/2000 (lbs/ton)
Potential Emissions (tons/year) = Potential Emissions (lbs/hr) x 8760 (hrs/yr) / 2000 (lbs/ton)

Limited Emission for all furnaces, combined
Combined Limited Throughput of all furnaces 300,000,000 lb/yr

Limited Emission	**PM**	**PM10**	**PM2.5**	**SOx**	**NOx**	**VOC**	**CO**	HCl
Emission Rate (lbs/ton metal charged	0.40	0.40	0.40	0.090	0.85	0.12	-	0.40
Limited Emission (tons/yr)	30.00	30.00	30.00	6.75	63.75	9.00	40.40	30.00

Methodology
PM, PM10, PM2.5 and Nox Emission rates are Permit Limits.
SOx, VOC and CO Emission Rates are uncontrolled emission rates of all furnaces.
HCl emission rates is from NESHAP, Subpart RRR.
Limited Emission (tons/yr) = Limited Throughput (lb/yr) x (1/2000 (lbs/ton) x Emission Rate (lbs/ton metal charged) / 2000 (lbs/ton)

Pouring/Casting

Emission Unit Description	Process Rate (lb/hr)	Process Rate (tons/hr)
Furnace #1 Pouring/Casting	28000	14
Furnace #2 Pouring/Casting	28000	14
Furnace #3 Pouring/Casting	28000	14
Furnace #4 Pouring/Casting	28000	14
Total Potential Throughput	112000	56

Combined Limited Throughput of Pouring/Casting (lb/yr) 300,000,000

Pouring/Casting

Pollutant	PM	PM_{10}	$PM_{2.5}$	SOx	NOx	VOC	CO
Emission Factor (lb/ton produced)	-	-	-	0.02	0.01	0.14	-
Potential Emissions (tons/yr)	-	-	-	4.91	2.45	34.34	-
Limited Emissions (tons/yr)	-	-	-	1.50	0.75	10.50	-

Methodology
Emission Factors are from SCC #3-04-001-04
Process Rate for pouring/casting is assumed to be the same process rate as furnace melting as conservative approach.
Combined Limited Throughput of Pouring/Casting is the same as Combined Limited Throughput of all furnaces.
Six pounds per hour (6 lb/hr) CO emission factor has not been used in the calculation because the source does not perform iron foundry operation.
Potential Emissions (tons/year) = Emission Factor (lbs/ton of Aluminum) x Total Potential Throughput (lb/hr) x (1/2000 (lbs/ton) x 8760 (hrs/yr) / 2000 (lbs/ton)
Limited Emissions (tons/yr) = Emission Factor (lbs/ton of Aluminum) x Combined Limited Throughput of Pouring/Casting (lb/yr) x (1/2000 (lbs/ton) / 2000 (lbs/ton)

Appendix A: Emissions Calculations

Company Name: Superior Aluminum Alloys, LLC
Address : 14214 Edgerton Road, New Haven, Indiana 46774
Part 70 Permit No: T003-33033-00286
Reviewer: Mehul Sura
Date: 4/1/2013

Scrap Shredder

Stack Flow Rate (acfm)	25,000	
Baghouse NESHAP, Subpart RRR grain loading limit (gr/dscf)	0.01	based on NESHAP, Subpart RRR
PM/PM10/PM2.5 PSD Minor Limit (lb/hr)	4.28	
Baghouse Efficiency	99%	
PM/PM10/PM2.5 Potential Emissions (tons/yr)	919.8	
PM/PM10/PM2.5 Limited PTE (tons/yr)	18.7464	

Methodology

PM=PM10=PM2.5

PM/PM10/PM2.5 Potential Emissions (tons/yr) = Baghouse NESHAP, Subpart RRR grain loading limit (gr/dscf) x Stack Flow Rate (acfm) x 0.00014 (lb/grain) x 60 (min/hr) x 8760 (hrs/yr)/[2000 (lb/ton) x (1-Baghouse Efficiency)]
PM/PM10/PM2.5 Limited PTE (tons/yr)=PSD Minor Limit (lb/hr) x 8760 (hrs/yr)/2000 (lb/ton)

Thermal Chip Dryer

Maximum Scrap Aluminum Rate (tons/hr) 6

	PM	PM10	PM2.5	SO2	NOx	VOC	CO	HCl
Uncontrolled Emission Rate (lb/ton)	35.9	35.9	35.9	0.42	0.9	-	-	0.612
Uncontrolled Emission Rate (lb/hr)	215.40	215.40	215.40	2.52	5.40	129.9	-	3.67
PSD Minor Limit (lb/hr)	4.188	4.188	4.188	-	-	-	-	-
control	Baghouse	Baghouse	Baghouse	-	-	After Burner	-	-
control efficiency (%)	99%	99%	99%	-	-	99%	-	-
Required control efficiency to comply with PSD Minor Limit (%)	98.06%	98.06%	98.06%			-	-	-
Potential Emissions (tons/yr)	943.45	943.45	943.45	11.04	23.65	568.96	-	16.08
Limited PTE (tons/yr)	18.34	18.34	18.34	-	-	-	-	-
Controlled PTE (tons/yr)	9.43	9.43	9.43	-	-	5.69	-	-
Controlled Emission Rate (lb/hr)	2.15	2.15	2.15	-	-	1.30	-	-

Methodology

PM and NOx Uncontrolled Emission Rates are derived from Part 70 Permit# T003-23683-00286, issued for this source on December 29, 2008.

PM=PM10=PM2.5

VOC Uncontrolled Emission Rate is based on the dryer compliance testing performed on 8/27/2012.

SOx Uncontrolled Emission Rate is based on the dryer compliance testing performed on 1/11/2000.

HCl emission factor is from EPA Secondary Aluminum Industry Emission Report (EPA 454/R-99-018).

Uncontrolled Emission Rate (lb/hr) = Uncontrolled Emission Rate (lb/ton) x Maximum Scrap Aluminum Rate (tons/hr)

Required control efficiency to comply with PSD Minor Limit (%) = 100 x (Uncontrolled Emission Rate (lb/hr) - PSD Minor Limit (lb/hr)) / Uncontrolled Emission Rate (lb/hr)

Potential Emissions (tons/yr) = Uncontrolled Emission Rate (lb/hr) x 8760 (hrs/yr) / 2000 (lbs/ton)

Limited PTE (tons/yr) = PSD Minor Limit (lb/hr) x 8760 (hrs/yr) / 2000 (lbs/ton)

Controlled Emission Rate (lb/hr) = Uncontrolled Emission Rate (lb/hr) x (1-Control Efficiency)

Appendix A: Emissions Calculations

Company Name: Superior Aluminum Alloys, LLC
Address City IN Zip: 14214 Edgerton Road, New Haven, Indiana 46774
Part 70 Permit No: T003-33033-00286
Reviewer: Mehul Sura
Date: 4/1/2013

Chip Sorting Operation

Emission Unit Description	Number of Emission Points	Nominal Capacity (tons/hr)	PM Uncontrolled Emission Factor (lb/ton)	Potential PM Emissions (ton/yr)	Uncontrolled PM Emissions (lb/hr)	Uncontrolled Emission Factor (lb/ton)	Potential PM10 Emissions (ton/yr)	PM2.5 Uncontrolled Emission Factor (lb/ton)	Potential PM2.5 Emissions (ton/yr)
Oscillator - Dry	3	1.5	0.025	0.49	0.11	0.0087	0.17	0.0011	0.02
Transfer Point - Dry	4	1.5	0.003	0.08	0.02	0.0011	0.03	0.0011	0.03
			Total:	0.57	0.13		0.20		0.05

METHODOLOGY

Uncontrolled PM and PM10 Emission Factors are taken from AP-42, Section 11.19.2-2 for Crushed Stone Processing Operations. These emission factors have E ratings. These emission factors are considered alternative emission factors for the chip sorting operation.

Baghouse Control Efficiency = 99%
PM10=PM2.5

Potential Emissions (tons/yr) = Emission Factor (lb/ton) x Capacity (ton/hr) x Number Emission Points x 8760 hrs/yr x 1 ton/2000 lbs

Uncontrolled PM Emissions (lb/hr) = Potential PM Emissions (ton/yr) x 2000 (lbs/ton) / 8760 (hrs/yr)

Controlled PM Emissions (lb/hr) = Potential PM Emissions (ton/yr) x (1-Control Efficiency) x 2000 (lbs/ton) / 8760 (hrs/yr)

Silos

	Lime consumption Rate for each baghouse (lb/hr)	Lime consumption Rate for each baghouse (tons/hr)	PM/PM10/PM2.5 Emission Factor (lb/ton of lime)	number of baghouses connected to silo	Uncontrolled PM/PM10/PM2.5 Emissions (lb/hr)	Uncontrolled PM/PM10/PM2.5 Emissions (tons/yr)
Silo 1	34.9	0.01745	2.20	2	0.038	0.17
Silo 2	34.9	0.01745	2.20	2	0.038	0.17

METHODOLOGY

PM emission factor is derived from AP 42 Table 11.17-4, Lime Product transfer and conveying.

PM=PM10=PM2.5

The PTE of these silos were initially determined using the emissions after controls, however, no integral determination was made (see Title AA 003-31838-00286 issued on June 7, 2012).
A different method of calculation was used for the PTE under this renewal by using alternative emission factor, which is rated E. Justification for the integral was initially submitted, however was abandoned when an alternative calculation was used that resulted in approximately the same PTE.

Lime consumption Rate for each baghouse (lb/hr) is derived from compliance stack test performed for Furnace #1 on June 15, 2011.

Lime consumption Rate for each baghouse (tons/hr) = Lime consumption Rate for each baghouse (lb/hr) / 2000 (lbs/ton)

Uncontrolled PM/PM10/PM2.5 Emissions (lb/hr) = PM/PM10/PM2.5 Emission Factor (lb/ton of lime) x Lime consumption Rate for each baghouse (tons/hr) x number of baghouses connected to silo

Uncontrolled PM/PM10/PM2.5 Emissions (tons/yr) = Uncontrolled PM/PM10/PM2.5 Emissions (lb/hr) x 8760 (hrs/yr) / 2000 (lbs/ton)

Dross Cooling Operation

Pollutant	Dross Cooling Rate (lb/hr)	Dross Cooling Rate (tons/yr)	Emission Factor (lbs/ton)	Potential Emission (tons/yr)	Potential Emissions (lb/hr)
PM	6,850	30,003	0.100	1.50	0.34
PM10	6,850	30,003	0.150	2.25	0.51
PM2.5	6,850	30,003	0.150	2.25	0.51

METHODOLOGY

There are no USEPA emission factors for dross cooling at secondary aluminum plants; therefore in order to be conservative, the dross handling emission factors are based upon FIRE SCC 3-03-010-09 (Lead Drossing).

Dross cooling rate 22,316 tons/yr was used in the calculation when the previous renewal number T003-23683-00286 was issued on December 29, 2008. However, the permit specifies 6,850 lb/hr (30,003 tons/yr) Dross cooling rate in the description. No explanation found in the previous approval on why 22,316 tons/yr dross cooling rate instead of 30,003 tons/yr was used in the calculations. Therefore, IDEM has used 30,003 tons/yr in this renewal as a conservative approach.

Dross Production rate is derived from Part 70 Renewal T003-23683-00286, issued for this source on December 29, 2008.

Dross Cooling Rate (tons/yr) = Dross Cooling Rate (lb/hr) x 8760 (hrs/yr) / 2000 (lbs/ton)

PM=PM10=PM2.5

Potential Emission (tons/yr) = Emission Factor (lbs/ton) x Dross Cooling Rate (tons/yr) / 2000 (lbs/ton)

Appendix A: Emissions Calculations
Natural Gas Combustion

Company Name: Superior Aluminum Alloys, LLC
Address City IN Zip: 14214 Edgerton Road, New Haven, Indiana 46774
Part 70 Permit No: T003-33033-00286
Reviewer: Mehul Sura
Date: 4/1/2013

	Heat Input Capacity MMBtu/hr	HHV mmBtu/mmscf	Potential Throughput MMCF/yr
Furnace #1	28.0	1020	240.5
Furnace #2	28.0	1020	240.5
Furnace #3	28.0	1020	240.5
Furnace #4	28.0	1020	240.5
Chip Dryer (process heat input plus after burner heat input)	18.0	1020	154.6
Melting Pot	27.5	1020	236.2

	Pollutant (tons/yr)							
	PM*	PM10*	direct PM2.5*	SO2	NOx	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **	50 **	5.5	84
Emission Rate in lb/MMBtu	0.0019	0.0075	0.0075	0.0006	0.0980	0.0490	0.0054	0.0824
Furnace #1	0.228	0.9	0.9	0.1	-	6.0	0.7	10.1
Furnace #2	0.228	0.9	0.9	0.1	-	6.0	0.7	10.1
Furnace #3	0.228	0.9	0.9	0.1	-	6.0	0.7	10.1
Furnace #4	0.228	0.9	0.9	0.1	-	6.0	0.7	10.1
Chip Dryer (process heat input plus after burner heat input)	0.147	0.6	0.6	0.0	7.7	-	0.4	6.5
Melting Pot	0.224	0.9	0.9	0.1	-	5.9	0.6	9.9
Total	**1.285**	**5.140**	**5.140**	**0.406**	**7.729**	**29.951**	**3.720**	**56.811**

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

Methodology
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Rate in lb/MMBtu = Emission Factor (lb/MMCF) / 1020 (MMBtu/MMCF)
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

HAPs Emissions

	HAPs - Organics (tons/yr)				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Furnace #1	2.525E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Furnace #2	2.525E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Furnace #3	2.525E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Furnace #4	2.525E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Chip Dryer (process heat input plus after burner hea	1.623E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Melting Pot	2.480E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
	0.001	**0.000**	**0.000**	**0.000**	**0.000**

	HAPs - Metals (tons/yr)				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Furnace #1	6.012E-05	1.323E-04	1.683E-04	4.569E-05	2.525E-04
Furnace #2	6.012E-05	1.323E-04	1.683E-04	4.569E-05	2.525E-04
Furnace #3	6.012E-05	1.323E-04	1.683E-04	4.569E-05	2.525E-04
Furnace #4	6.012E-05	1.323E-04	1.683E-04	4.569E-05	2.525E-04
Chip Dryer (process heat input plus after burner hea	3.865E-05	8.502E-05	1.082E-04	2.937E-05	1.623E-04
Melting Pot	5.904E-05	1.299E-04	1.653E-04	4.487E-05	2.480E-04
Total	**0.00034**	**0.00074**	**0.00095**	**0.00026**	**0.00142**

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

Greenhouse Gas Emissions

	Greenhouse Gas (tons/yr)		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Furnace #1	14,428	0.3	0.3
Furnace #2	14,428	0.3	0.3
Furnace #3	14,428	0.3	0.3
Furnace #4	14,428	0.3	0.3
Chip Dryer (process heat input plus after burner hea	9,275	0.2	0.2
Melting Pot	14,171	0.3	0.3

Furnace #1	14,516
Furnace #2	14,516
Furnace #3	14,516
Furnace #4	14,516
Chip Dryer (process heat input plus after burner heat input)	9,332
Melting Pot	14,257
Total	**81,653**

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

Appendix A: Emission Calculations
Reciprocating Internal Combustion Engines - Diesel Fuel
Output Rating (<=600 HP)

Company Name: Superior Aluminum Alloys, LLC
Address City IN Zip: 14214 Edgerton Road, New Haven, Indiana 46774
Part 70 Permit No: T003-33033-00286
Reviewer: Mehul Sura
Date: 4/1/2013

Generator ID	Output Horsepower Rating (hp)
EG1	23
EG2	23
EG3	23
Total	69.0
Maximum Hours Operated per Year	8760
Potential Throughput (hp-hr/yr)	604,440

These generators are considered nonroad engines, therefore, their PTE are not included in the summary.

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	0.0022	0.0022	0.0022	0.0021	0.0310	0.0025	0.0067
Potential Emission in tons/yr	0.66	0.66	0.66	0.62	9.37	0.76	2.02

*PM and PM2.5 emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.

Hazardous Air Pollutants (HAPs)

	Pollutant							
	Benzene	Toluene	Xylene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
Emission Factor in lb/hp-hr****	6.53E-06	2.86E-06	2.00E-06	2.74E-07	8.26E-06	5.37E-06	6.48E-07	1.18E-06
Potential Emission in tons/yr	1.97E-03	8.65E-04	6.03E-04	8.27E-05	2.50E-03	1.62E-03	1.96E-04	3.55E-04

***PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)
****Emission factors in lb/hp-hr were calculated using emission factors in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

Potential Emission of Total HAPs (tons/yr)	**8.19E-03**

Green House Gas Emissions (GHG)

	Pollutant		
	CO2	CH4	N2O
Emission Factor in lb/hp-hr	1.15E+00	4.63E-05	9.26E-06
Potential Emission in tons/yr	3.48E+02	1.40E-02	2.80E-03

Summed Potential Emissions in tons/yr	**3.48E+02**
CO2e Total in tons/yr	**3.49E+02**

Methodology
Emission Factors are from AP42 (Supplement B 10/96), Tables 3.3-1 and 3.3-2
CH4 and N2O Emission Factor from 40 CFR 98 Subpart C Table C-2.
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] * [Maximum Hours Operated per Year]
Potential Emission (tons/yr) = [Potential Throughput (hp-hr/yr)] * [Emission Factor (lb/hp-hr)] / [2,000 lb/ton]
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

Appendix A: Emission Calculations

Scrap Storage Pile

Company Name: Superior Aluminum Alloys, LLC
Address City IN Zip: 14214 Edgerton Road, New Haven, Indiana 46774
Part 70 Permit No: T003-33033-00286
Reviewer: Mehul Sura
Date: 4/1/2013

Ef = k(0.0032)*((U/5)^1.3)/((M/2)^1.4))
where Ef = emission factor (lb/ton)
M = 2.2 Moisture content (wt %)
U = 1 mean wind speed (m/s)
k= particle size multiplier (dimensionless)
PM = 0.74
PM10 = 0.35
PM2.5 = 0.053

Material	Throughput of Scrap (tpy)	EF for PM (lb/ton)	PTE of PM (tons/yr)	EF for PM10 (lb/ton)	PTE of PM10 (tons/yr)	EF for PM2.5 (lb/ton)	PTE of PM2.5 (tons/yr)
Scrap	490560	2.56E-04	**6.27E-02**	1.21E-04	**2.97E-02**	1.83E-05	**4.49E-03**

Methodology

Throughput of Scrap is assumed to have the same throughput rate as all furnaces, combined, to be conservative.
Emission factors are from AP-42 13.2.4.
Moisture content values obtained from AP-42 Table 13.2.4-1 (dated 11/06)
Potential PM Emissions (tons/yr) = [EF for PM (lb/ton))] x [Throughput of Scrap (tpy)] x (ton/2000 lbs)

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

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

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

TO: Brian Winters
Superior Aluminum Alloys, LLC
7575 W Jefferson Blvd
Fort Wayne, IN 46804

DATE: July 9, 2014

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

SUBJECT: Final Decision
Part 70 Operating Permit Renewal
003-33033-00286

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:
Denny Luma - President/CEO
David Hatchett – Hatchett & Hauck
OAQ Permits Branch Interested Parties List
If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Final Applicant Cover letter.dot 6/13/2013

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

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

July 9, 2014

TO: Allen County Public Library New Haven Branch

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

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

Applicant Name: Superior Aluminum Alloys, LLC
Permit Number: 003-33033-00286

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

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

Enclosures
Final Library.dot 6/13/2013

Mail Code 61-53

IDEM Staff	GHOTOPP 7/9/2014 Superior Aluminum Alloys LLC 003-33033-00286 Final		AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender	▶	Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: **CERTIFICATE OF MAILING ONLY**

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee Remarks
1		Brian Winters Superior Aluminum Alloys LLC 7575 W Jefferson Blvd Fort Wayne 46804 (Source CAATS) via confirmed delivery									
2		Denny Luma President / COO Superior Aluminum Alloys LLC 14214 Edgerton Rd New Haven 46774 *(RO CAATS)*									
3		Daniel & Sandy Trimmer 15021 Yellow River Road Columbia City IN 46725 *(Affected Party)*									
4		Duane & Deborah Clark Clark Farms 6973 E. 500 S. Columbia City IN 46725 *(Affected Party)*									
5		Mr. Jeff Coburn Plumbers & Steamfitters, Local 166 2930 W Ludwig Rd Fort Wayne IN 46818-1328 *(Affected Party)*									
6		New Haven City Council and Mayors Office P.O. Box 570 New Haven IN 46774 *(Local Official)*									
7		Allen County Public Library(New Haven Branch) 648 Green Street New Haven IN 46774 *(Library)*									
8		Allen Co. Board of Commissioners 200 E Berry Street Ste 410 Fort Wayne IN 46802 *(Local Official)*									
9		Mr. David Hatchett Hatchett & Hauck 111 Monument Circle Suite 301 Indianapolis IN 46204 *(Attorney)*									
10		Fort Wayne-Allen County Health Department 200 E Berry St Suite 360 Fort Wayne IN 46802 *(Health Department)*									
11											
12											
13											
14											
15											

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

FACSIMILIE OF PS Form 3877