INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

TO: Interested Parties / Applicant

DATE: December 22, 2006

RE: Wabash Alloys 169-6359-00010

FROM: Nisha Sizemore
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval – Effective Immediately

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

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

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

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

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

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

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

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

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

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

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

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

Enclosures
FNTVOP.dot 03/23/06

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PART 70 OPERATING PERMIT
OFFICE OF AIR QUALITY

Wabash Alloys, L.L.C.
4525 West Old 24
Wabash, Indiana 46992

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

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR, Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR, Part 70.6, IC 13-15 and IC 13-17. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-7-10.5, applicable to those conditions.

Operation Permit No.: T 169-6359-00010	
Issued by: Original Signed By: Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: December 22, 2006 Expiration Date: December 22, 2011

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SECTION A SOURCE SUMMARY

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

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

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

Responsible Official:	Plant Manager
Source Address:	c/o Plant Manager, 4525 West Old 24, Wabash, Indiana 46992
Mailing Address:	P.O. Box 0466, Wabash, Indiana 46992-0466
General Source Phone:	260 - 563 - 7461
SIC Code:	3341
County Location:	Wabash
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD 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(15)]

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

(a) One (1) scrap shredder and associated conveyors and screen, identified as EU S1, installed in 1970, equipped with two (2) baghouses, identified as SB1 and SB2, installed in September 1990, exhausting through Stacks 18 and 29, maximum capacity: 84 tons of scrap aluminum per hour.

(b) One (1) scrap dryer (#4), identified as EU D1, rated at 4 million British thermal units per hour, equipped with one (1) natural gas afterburner, rated at 24 million British thermal units per hour and one (1) lime-injected baghouse, identified as SDB1, installed in 1987, last modified in March 1996, exhausting through Stack 19, maximum capacity: 7.5 tons of aluminum scrap processed per hour, a minimum lime-injection rate of 20 pounds per hour and a minimum activated carbon injection rate of 10 pounds per hour.

(c) One (1) scrap dryer (#5), identified as EU D2, rated at 4 million British thermal units per hour, equipped with one (1) natural gas afterburner rated at 24 million British thermal units per hour and one (1) lime-injected baghouse, identified as SDB2, installed in 1989, exhausting through Stack 26, maximum capacity: 9.7 tons of aluminum scrap processed per hour and minimum lime injection rate of 20 pounds per hour.

(d) Three (3) reverberatory furnaces (#2, #5 and #8 of the East Group), collectively identified as EU EGF, rated at 24, 33 and 30 million British thermal units per hour, respectively, installed in pre-1971, equipped with a multi-compartment lime-injected baghouse, identified as EFB, installed in 1992, exhausting through combustion flue Stacks 2, 3 and 6 and baghouse Stack 35, maximum capacity: 10.6 tons of aluminum charge per hour, each and four (4) pots of molten metal per hour of five (5) tons of molten metal per pot each, East Group maximum capacity: 25.0 tons of aluminum charge per hour (East Group maximum total reactive flux injection rate of 32 pounds per ton of feed/charge and a

minimum lime injection rate of 46 pounds per hour). Under NESHAP Subpart RRR, these three (3) reverberatory furnaces are Group 1 furnaces.

(e) Three (3) reverberatory furnaces (#10, #11 and #14 of the Center Group), collectively identified as EU CGF, rated at 30 million British thermal units per hour each, furnaces #10 and #11 installed in pre-1971 and furnace #14 installed in pre-1973, equipped with a multi-compartment lime-injected baghouse, identified as CFB, installed in 1991, exhausting through combustion flue Stacks 8, 9 and 11 and baghouse Stack 33, maximum capacity: 12.3 tons of aluminum charge per hour, each, and four (4) pots of molten metal per hour of five (5) tons of molten metal per pot each, Center Group maximum capacity: 32.8 tons of aluminum charge per hour (Center Group maximum total reactive flux injection rate of 35 pounds per ton of feed/charge and a minimum lime injection rate of 51 pounds per hour). Under NESHAP Subpart RRR, these three (3) reverberatory furnaces are Group 1 furnaces.

(f) Two (2) reverberatory furnaces (#15 and #17 of the West Group), collectively identified as EU WGF, rated at 32 and 33 million British thermal units per hour, respectively, furnace #15 installed in 1974, replaced in 1995, and furnace #17 installed in 1979, equipped with a multi-compartment lime-injected baghouse, identified as WFB, installed in 1992, exhausting through combustion flue Stacks 12 and 14 and baghouse Stack 34, maximum capacity: 15.0 tons of aluminum charge per hour, each, and four (4) pots of molten metal per hour of five (5) tons of molten metal for furnaces #15 and #17, West Group maximum capacity: 28.5 tons of aluminum charge per hour (West Group maximum total reactive flux injection rate of 32 pounds per ton of feed/charge and a minimum lime injection rate of 25 pounds per hour). Under NESHAP Subpart RRR, these two (2) reverberatory furnaces are Group 1 furnaces.

(g) Three (3) rotary furnaces (#1, #2 and #3 of the Rotary Furnace Group), collectively identified as EU RF, Rotary Furnace Group maximum capacity: 7.1 tons of aluminum charge and dross products per hour, (Rotary Furnace Group maximum total reactive flux injection rate of 117 pounds per ton of feed/charge and a minimum lime injection rate of 37 pounds per hour), consisting of:

(1) Two (2) rotary furnaces (#1 and #2), rated at 6 million British thermal units per hour, each, installed in 1990, equipped with a hood enclosure capture system ducted to a spark arrestor and a lime-injected baghouse, identified as RFB, exhausting through Stack 43, maximum capacity: 1.9 tons of aluminum charge and dross products per hour, each, and

(2) One (1) rotary furnace (#3), rated at 7.5 million British thermal units per hour, installed in 1998, equipped with a lime-injected baghouse, identified as RFB, exhausting through Stack 43, maximum capacity: 3.3 tons of aluminum charge and dross products per hour.

Under NESHAP Subpart RRR, these three (3) rotary furnaces are Group 1 furnaces.

(h) One (1) dross mill building, identified as EU DMB, equipped with two (2) baghouses, identified as DMB-1 and DMB-2, consisting of storage bins, size reduction equipment, screens and shakers for sizing, conveying equipment for transporting materials to storage bins or silos located outside the dross mill building, that mill, crush, separate and convey dross, installed in 1969, exhausting through Stacks 30 and 41, maximum capacity: 60.0 tons of aluminum dross per hour.

(i) One (1) wastewater evaporator, identified as EU WWE, rated at 0.95 million British thermal units per hour, installed in 1996, exhausting through Stack 42, maximum capacity: 37 gallons of oil and waste water per hour, total.

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

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

(a) Natural gas-fired combustion sources (non-boiler) with heat input equal to or less than ten million (10,000,000) British thermal units per hour consisting of:

(1) One (1) furnace #4, rated at 7.0 million British thermal units per hour. Under NESHAP Subpart RRR, this holding furnace is Group 2 furnace.

(2) Two (2) ladle preheaters, rated at 4.0 million British thermal units per hour, each, total 8.0 million British thermal units per hour. When not preheating ladles, two (2) of these may be identified as Melt Pots A and B. Under NESHAP Subpart RRR, when operating in this manner, these two (2) melt pots are Group 2 furnaces.

(b) Any of the following structural steel and bridge fabrication activities: cutting 200,000 linear feet or less of one inch (1") plate or equivalent; using 80 tons or less of welding consumables [326 IAC 6-3-2].

(c) Paved and unpaved roads and parking lots with public access [326 IAC 6-4].

(d) Magnetic separation process [326 IAC 6-3-2]

(e) Aluminum Aelectric crusher #2", installed in 1984, capacity: 25 tons of scrap per hour. Under NESHAP Subpart RRR, this crusher is a shredder [NESHAP Subpart RRR].

(f) Indoor and outdoor scrap aluminum storage piles and handling [326 IAC 6-3-2].

(g) Dross transfer and storage [326 IAC 6-3-2].

(h) Pouring/casting aluminum sows and ingots [326 IAC 6-3-2].

(i) Ladle pouring - aluminum [326 IAC 6-3-2].

(j) Landfill activities [326 IAC 6-3-2].

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, T 169-6359-00010, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

(b) 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]

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. The submittal by the Permittee does require the certification by the Aresponsible official@ as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit.

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

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

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

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

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

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
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 the certification by the Aresponsible official@ as defined by 326 IAC 2-7-1(34).

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

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:

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

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

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

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204

The PMP extension notification does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) 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 Section), or
Telephone Number: 317-233-0178 (ask for Compliance Section)
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 Branch, Office of Air Quality
100 North Senate Avenue
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 the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

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

(e) 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)(9) be revised in response to an emergency.

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

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

(h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

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

(a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed 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 T 169-6359-00010 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 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

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

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation from permit conditions required to be reported pursuant to 40 CFR 63, Subparts A or RRR or from an applicable requirement that exists independent of this permit (including 40 CFR 63, Subparts A or RRR) shall be reported according to the schedule stated in 40 CFR 63, Subpart RRR or the applicable requirement and does not need to be included in this report.

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

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

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated non-compliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification

by the Permittee does require the certification by the Aresponsible official@ as defined by 326 IAC 2-7-1(34).

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

(1) That this permit contains a material mistake.

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

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

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

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

B.17 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 the certification by the Aresponsible official@ as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
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 in writing by IDEM, OAQ, any additional information identified as being needed to process the application.

B.18 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

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

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

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

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

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

B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12 (b)(2)]

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

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

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

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

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

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

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

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
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), (c), or (e). 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), (c)(1), and (e)(2).

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

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

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

(3) Any change in emissions; and

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

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

(c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade 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.21 Source Modification Requirement [326 IAC 2-7-10.5] [326 IAC 2-2-2]

(a) A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.

(b) Any modification at an existing major source is governed by the requirements of 326 IAC 2-2-2.

B.22 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.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

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

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

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

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

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

B.24 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, Licensing and Training Section (BLT)), to determine the appropriate permit fee.

B.25 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 5-1-3 (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 non-overlapping 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. 326 IAC 4-1-3 (a)(2)(A) and (B) are not federally enforceable.

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

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

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 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-1(3), 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4, and 326 IAC 1-7-5(a), (b) and (d) are not federally enforceable.

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

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of

326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

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

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

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

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

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

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

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

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

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

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

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
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 certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

C.10 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
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 the certification by the Aresponsible official@ as defined by 326 IAC 2-7-1(34).

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

C.11 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

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

C.12 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.

(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.13 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 prepared and submitted the most recent written emergency reduction plans (ERPs) consistent with safe operating procedures on July 29, 2003.

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

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

C.15 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) Upon detecting an excursion or exceedance, the Permittee shall 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 emissions.

(b) 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). Corrective actions may include, but are not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned 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 within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(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;

(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 maintain the following records:

(1) monitoring data;

(2) monitor performance data, if applicable; and

(3) corrective actions taken.

C.16 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 take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

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

The response action documents submitted pursuant to this condition do require the certification by the Aresponsible official@ as defined by 326 IAC 2-7-1(34).

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

C.17 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6]

(a) Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit by July 1 of each year 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
Indianapolis, Indiana 46204-2251

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

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

C.18 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2]

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

(c) If there is a reasonable possibility that a "project" (as defined in 326 IAC 2-2-1 (qq)) at an existing emissions unit other than projects at a Clean Unit which is not part of a "major modification" (as defined in 326 IAC 2-2-1 (ee)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1 (rr)), the Permittee shall comply with following:

(1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1 (qq)) at an existing emissions unit document and maintain the following records:

(A) A description of the project;

(B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project;

(C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:

(i) Baseline actual emissions;

(ii) Projected actual emissions;

(iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii); and

(iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.

(2) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and

(3) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

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

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

A deviation from permit conditions required to be reported pursuant to 40 CFR 63 Subparts A or any NESHAP or from an applicable requirement that exists independently from this permit, including 40 CFR 63 Subparts A or any NESHAP, shall be reported according to the schedule stated in the NESHAP or the applicable requirement and does not need to be included in this report.

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
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) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the Aresponsible official@ as defined by 326 IAC 2-7-1(34).

(e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit Acalendar year@ means the twelve (12) month period from January 1 to December 31 inclusive.

(f) If the Permittee is required to comply with the record keeping provisions of (c) in Section C - General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1

(qq)), at an existing emissions unit and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:

(1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C - General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (xx), for that regulated NSR pollutant, and

(2) The emissions differ from the preconstruction projection as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(ii).

(g) The report shall be submitted within sixty (60) days after the end of the year and contain the following:

(1) The name, address, and telephone number of the major stationary source.

(2) The annual emissions calculated in accordance with (c)(2) and (3) in Section C - General Record Keeping Requirements.

(3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3).

(4) Any other information that the Permittee deems fit to include in this report,

Reports required in this part shall be submitted to:

Indiana Department of Environmental Management
Air Compliance Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46206-6015

(h) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C - General Record Keeping Requirements available for review upon a request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.

Stratospheric Ozone Protection

C.20 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 the standards for recycling and emissions reduction:

(a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.

(b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

(c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 FACILITY OPERATION CONDITIONS

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

(a) One (1) scrap shredder and associated conveyors and screen, identified as EU S1, installed in 1970, equipped with two (2) baghouses, identified as SB1 and SB2, installed in September 1990, exhausting through Stacks 18 and 29, maximum capacity: 84 tons of scrap aluminum per hour.

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

This emission unit is subject to the requirements of 40 CFR 63, Subpart RRR and 326 IAC 20-70. The applicable requirements are included in Section E.

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SECTION D.2 FACILITY OPERATION CONDITIONS

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

(b) One (1) scrap dryer (#4), identified as EU D1, rated at 4 million British thermal units per hour, equipped with one (1) natural gas afterburner, rated at 24 million British thermal units per hour and one (1) lime-injected baghouse, identified as SDB1, installed in 1987, last modified in March 1996, exhausting through Stack 19, maximum capacity: 7.5 tons of aluminum scrap processed per hour, a minimum lime-injection rate of 20 pounds per hour and a minimum activated carbon injection rate of 10 pounds per hour.

(c) One (1) scrap dryer (#5), identified as EU D2, rated at 4 million British thermal units per hour, equipped with one (1) natural gas afterburner rated at 24 million British thermal units per hour and one (1) lime-injected baghouse, identified as SDB2, installed in 1989, exhausting through Stack 26, maximum capacity: 9.7 tons of aluminum scrap processed per hour and minimum lime injection rate of 20 pounds per hour.

(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 Limits [326 IAC 2-2]

(a) Pursuant to CP 169-00010, issued on February 23, 1996, the particulate matter emission rate from the scrap dryers (#4 and #5), identified as EU D1 and EU D2, shall not exceed 5.60 pounds per hour, each.

(b) Compliance with the following emission limits renders the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to scrap dryer #4, identified as EU D1.

(1) The PM_{10} emission rate shall not exceed 0.746 pounds per ton.

(2) The VOC emissions shall not exceed 0.475 pounds per ton.

(3) The SO_2 emissions shall not exceed 0.420 pounds per ton.

(4) The NO_X emissions shall not exceed 0.560 pounds per ton.

(c) Compliance with the following emission limits renders the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to scrap dryer #5, identified as EU D2.

(1) The PM_{10} emission rate shall not exceed 0.577 pounds per ton.

(2) The VOC emissions shall not exceed 0.475 pounds per ton.

(3) The SO_2 emissions shall not exceed 0.420 pounds per ton.

(4) The NO_X emissions shall not exceed 0.560 pounds per ton.

D.2.2 Opacity

Pursuant to PC (85) 1707 issued on November 2, 1988, the visible emissions from the scrap dryer (#5) identified as EU D2, baghouse stack (Stack 26) shall be limited to twenty percent

(20%) opacity during a six (6) minute period.

D.2.3 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6 (New facilities; general reduction requirements), Best Available Control Technology (BACT) for each of the scrap dryers (#4 and #5), identified as EU D1 and EU D2, has been determined to be an afterburner with a minimum three- (3-) hour average operating temperature of 1,400 degrees Fahrenheit and an emission rate not to exceed 0.260 pounds of VOC per ton of charge. Each afterburner shall be operated at all times when the associated scrap dryer is drying scrap.

D.2.4 Natural Gas Fuel

(a) Scrap dryer (#4) and its afterburner shall only burn natural gas.

(b) Pursuant to PC (85) 1707, issued on November 2, 1988, scrap dryer (#5) identified as EU D2, and its afterburner shall only burn natural gas.

D.2.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the scrap dryers (#4 and #5), their baghouses (SDB1 and SDB2) and their afterburners.

Compliance Determination Requirements

D.2.6 Particulate Control [326 IAC 2-7-6(6)]

(a) In order to comply with Condition D.2.1, the baghouse, identified as SDB1, for particulate control shall be in operation and control emissions from scrap dryer (#4), identified as EU D1, at all times that scrap dryer (#4) is in operation.

(b) In order to comply with Condition D.2.1, the baghouse, identified as SDB2, for particulate control shall be in operation and control emissions from scrap dryer (#5), identified as EU D2, at all times that scrap dryer (#5) is in operation.

(c) 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.2.7 Afterburner Temperature

(a) A continuous monitoring system shall be calibrated, maintained, and operated on each afterburner for measuring operating temperature. The output of this system shall be recorded as a three- (3-) hour average.

(b) On and after the date the approved stack test results are available, the Permittee shall operate the thermal oxidizer at or above the three- (3-) hour average temperature as observed during the compliant stack test.

D.2.8 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) To demonstrate compliance with Condition D.2.1, the Permittee shall perform PM and PM_{10} testing pursuant to 326 IAC 3-6-3(b) and utilizing methods as approved by the Commissioner for the scrap dryers (#4 and #5). Pursuant to 326 IAC 3-6-3(b), when testing, the scrap dryers (#4 and #5) shall be operated at 95% (ninety-five percent) or more of their maximum design capacity or under conditions representative of normal

operations or under a capacity or conditions specified and approved by the IDEM, OAQ. This test shall be performed prior to June 26, 2008 for scrap dryer #5 and prior to August 5, 2009 for scrap dryer #4 and shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

(b) To demonstrate compliance with Conditions D.2.1 and D.2.3, the Permittee shall perform VOC testing pursuant to 326 IAC 3-6-3(b) and utilizing methods approved by the Commissioner for scrap dryers (#4 and #5) afterburner and its operating temperature. Pursuant to 326 IAC 3-6-3(b), when testing, the scrap dryers (#4 and #5) shall be operated at 95% (ninety-five percent) or more of their maximum design capacity or under conditions representative of normal operations or under a capacity or conditions specified and approved by the IDEM, OAQ. This test shall be performed within five (5) years after the date of issuance of this permit and shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

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

D.2.9 Record Keeping Requirements

(a) To document compliance with Condition D.2.7, the Permittee shall maintain continuous temperature records (on a three- (3-) hourly average basis) for each afterburner and the hourly average temperature used to demonstrate compliance during the most recent compliant stack test for each afterburner.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

These emission units are subject to the requirements of 40 CFR 63, Subpart RRR and 326 IAC 20-70. The applicable requirements are included in Section E.

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SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Reverberatory & Rotary Furnaces

(d) Three (3) reverberatory furnaces (#2, #5 and #8 of the East Group), collectively identified as EU EGF, rated at 24, 33 and 30 million British thermal units per hour, respectively, installed in pre-1971, equipped with a multi-compartment lime-injected baghouse, identified as EFB, installed in 1992, exhausting through combustion flue Stacks 2, 3 and 6 and baghouse Stack 35, maximum capacity: 10.6 tons of aluminum charge per hour, each and four (4) pots of molten metal per hour of five (5) tons of molten metal per pot each, East Group maximum capacity: 25.0 tons of aluminum charge per hour (East Group maximum total reactive flux injection rate of 32 pounds per ton of feed/charge and a minimum lime injection rate of 46 pounds per hour). Under NESHAP Subpart RRR, these three (3) reverberatory furnaces are Group 1 furnaces.

(e) Three (3) reverberatory furnaces (#10, #11 and #14 of the Center Group), collectively identified as EU CGF, rated at 30 million British thermal units per hour each, furnaces #10 and #11 installed in pre-1971 and furnace #14 installed in pre-1973, equipped with a multi-compartment lime-injected baghouse, identified as CFB, installed in 1991, exhausting through combustion flue Stacks 8, 9 and 11 and baghouse Stack 33, maximum capacity: 12.3 tons of aluminum charge per hour, each, and four (4) pots of molten metal per hour of five (5) tons of molten metal per pot each, Center Group maximum capacity: 32.8 tons of aluminum charge per hour (Center Group maximum total reactive flux injection rate of 35 pounds per ton of feed/charge and a minimum lime injection rate of 51 pounds per hour). Under NESHAP Subpart RRR, these three (3) reverberatory furnaces are Group 1 furnaces.

(f) Two (2) reverberatory furnaces (#15 and #17 of the West Group), collectively identified as EU WGF, rated at 32 and 33 million British thermal units per hour, respectively, furnace #15 installed in 1974, replaced in 1995, and furnace #17 installed in 1979, equipped with a multi-compartment lime-injected baghouse, identified as WFB, installed in 1992, exhausting through combustion flue Stacks 12 and 14 and baghouse Stack 34, maximum capacity: 15.0 tons of aluminum charge per hour, each, and four (4) pots of molten metal per hour of five (5) tons of molten metal for furnaces #15 and #17, West Group maximum capacity: 28.5 tons of aluminum charge per hour (West Group maximum total reactive flux injection rate of 32 pounds per ton of feed/charge and a minimum lime injection rate of 25 pounds per hour). Under NESHAP Subpart RRR, these two (2) reverberatory furnaces are Group 1 furnaces.

(g) Three (3) rotary furnaces (#1, #2 and #3 of the Rotary Furnace Group), collectively identified as EU RF, Rotary Furnace Group, maximum capacity: 7.1 tons of aluminum charge and dross products per hour, (Rotary Furnace Group maximum total reactive flux injection rate of 117 pounds per ton of feed/charge and a minimum lime injection rate of 37 pounds per hour), consisting of:

(1) Two (2) rotary furnaces (#1 and #2), rated at 6 million British thermal units per hour, each, installed in 1990, equipped with a hood enclosure capture system ducted to a spark arrestor and a lime-injected baghouse, identified as RFB, exhausting through Stack 43, maximum capacity: 1.9 tons of aluminum charge and dross products per hour, each, and

(2) One (1) rotary furnace (#3), rated at 7.5 million British thermal units per hour, installed in 1998, equipped with a lime-injected baghouse, identified as RFB, exhausting through Stack 43, maximum capacity: 3.3 tons of aluminum charge and dross products per hour. Under NESHAP Subpart RRR, these three (3) rotary furnaces are Group 1 furnaces.

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

(a) Pursuant to CP (85) 1827, issued on March 7, 1990, the particulate matter emissions from rotary furnaces (#1 and #2), shall be captured by hooding over the emission points of each furnace and ducted to a baghouse.

(b) Compliance with the following emission limits renders the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to rotary furnaces (#1, #2 and #3), identified as EU RF.

(1) The particulate matter emissions shall not exceed 0.803 pounds per ton.

(2) The PM_{10} emissions shall not exceed 0.481 pounds per ton.

(3) The SO_2 emissions shall not exceed 1.28 pounds per ton.

(4) The VOC emissions shall not exceed 1.28 pounds per ton.

(5) The NO_X emissions shall not exceed 1.28 pounds per ton.

(c) Compliance with following limits for reverberatory furnace (#15 of the West Group), identified as EU WGF, renders the requirements of 326 IAC 2-2 not applicable:

(1) The throughput of metal shall not exceed 106,900 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(2) The particulate matter and PM_{10} emissions from the West Group baghouse Stack 34 shall not exceed 0.400 pounds per ton of metal.

D.3.2 Opacity

Pursuant to CP (85) 1827, issued March 7, 1990, the visible emissions from the rotary furnaces #1 and #2, Stack 43 shall be limited to twenty percent (20%) opacity during a six- (6-) minute period or forty percent (40%) opacity for a cumulative total of fifteen (15) minutes in a six- (6-) hour period.

D.3.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for each of the reverberatory furnaces (#2, #5, #8, #10, #11, #14, #15 and #17) as well as rotary furnaces (#1, #2 and #3) and their baghouses.

Compliance Determination Requirements

D.3.4 Particulate Control [326 IAC 2-7-6(6)]

(a) In order to comply with Condition D.3.1, the baghouses for particulate control shall be in operation and control emissions from the reverberatory furnaces (#2, #5, #8, #10, #11, #14, #15 and #17) as well as rotary furnaces (#1, #2 and #3), at all times that the furnaces are in operation.

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

(c) In the event of a baghouse malfunction or maintenance, in order to continue use of any of reverberatory furnaces #2, #5, #8, #10, #11, #14, #15, and #17, without controls, any such furnace must be operated in accordance with the requirements of NESHAP Subpart RRR and the OM & M plan for a Group 2 furnace with clean charge and no reactive fluxing. In order to operate any such furnace as a Group 2 furnace, the Permittee must:

(1) Properly label the furnace as a Group 2 / clean charge no reactive fluxing furnace;

(2) Cease operation of the furnace if there are any visible emissions from Group 2 furnace operations exhausting to the atmosphere; and

(3) Maintain records of the dates and times the furnace was operated at a Group 2 furnace.

D.3.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [326 IAC 8-1-6] [326 IAC 2-2]

(a) To demonstrate compliance with Conditions D.3.1(b)(1) and D.3.1(b)(2), the Permittee shall perform PM and PM_{10} testing pursuant to 326 IAC 3-6-3(b) and utilizing methods as approved by the Commissioner for rotary furnaces (#1, #2 and #3). Pursuant to 326 IAC 3-6-3(b), when testing, the rotary furnaces (#1, #2 and #3) shall be operated at 95% (ninety-five percent) or more of their maximum design capacity or under conditions representative of normal operations or under a capacity or conditions specified and approved by the IDEM, OAQ. This test shall be performed within five (5) years from the date of the most recent valid compliance demonstration. PM_{10} includes filterable and condensible PM_{10}. Testing shall be conducted in accordance with Section C - Performance Testing.

(b) To demonstrate compliance with Condition D.3.1(c), the Permittee shall perform PM_{10} testing pursuant to 326 IAC 3-6-3(b) and utilizing methods as approved by the Commissioner for reverberatory furnaces #15 and #17. Pursuant to 326 IAC 3-6-3(b), when testing, reverberatory furnace (#15) shall be operated at 95% (ninety-five percent) or more of its maximum design capacity or under conditions representative of normal operations or under a capacity or conditions specified and approved by the IDEM, OAQ. This test shall be performed within five (5) years from the date of the most recent valid compliance demonstration. PM_{10} includes filterable and condensible PM_{10}. Testing shall be conducted in accordance with Section C – Performance Testing.

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

D.3.6 Record Keeping Requirements

(a) To document compliance with Condition D.3.1(c)(1), the Permittee shall maintain records of the amount of metal throughput to reverberatory furnace #15 on a monthly basis.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.3.7 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.3.1(c)(1) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the Aresponsible official@ as defined by 326 IAC 2-7-1(34).

These emission units are subject to the requirements of 40 CFR 63, Subpart RRR and 326 IAC 20-70. The applicable requirements are included in Section E.

SECTION D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Dross Mill Building and Waste Water Evaporator

(h) One (1) dross mill building, identified as EU DMB, equipped with two (2) baghouses, identified as DMB-1 and DMB-2, consisting of storage bins, size reduction equipment, screens and shakers for sizing, conveying equipment for transporting materials to storage bins or silos located outside the dross mill building, that mill, crush, separate and convey dross, installed in 1969, exhausting through Stacks 30 and 41, maximum capacity: 60.0 tons of aluminum dross per hour.

(i) One (1) wastewater evaporator, identified as EU WWE, rated at 0.95 million British thermal units per hour, installed in 1996, exhausting through Stack 42, maximum capacity: 37 gallons of oil and waste water per hour, total.

(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 emission rate from the dross mill building shall not exceed 46.3 pounds per hour when operating at a process weight rate of 60 tons per hour.

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

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

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

D.4.2 Volatile Organic Compounds (VOC)

Pursuant to CP 169-4859-00010, issued January 31, 1996, any change or modification which may increase the VOC emissions to twenty-five (25) tons per year or more from the waste water evaporator shall require prior approval from IDEM, OAQ before such change may occur.

D.4.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the one (1) dross mill building and its two (2) baghouses.

Compliance Determination Requirements

D.4.4 Particulate Control [326 IAC 2-7-6(6)]

(a) In order to comply with Condition D.4.1, the two (2) baghouses for particulate control shall be in operation and control emissions from the dross mill building at all times that the dross mill building processes are in operation.

(b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also

include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.4.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Within 180 days after issuance of this Part 70 Operating Permit to demonstrate compliance with Condition D.4.1 the Permittee shall perform PM testing pursuant to 326 IAC 3-6-3(b) and utilizing methods as approved by the Commissioner for the dross mill building and the two (2) baghouses. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

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

D.4.6 Visible Emissions Notations

In order to evaluate continuous compliance with the PM limit set forth in Condition D.4.1:

(a) Visible emission notations of the dross mill building Stack exhausts 30 and 41 shall be performed once per day during normal daylight operations when exhausting to the atmosphere. 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.4.7 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

In order to evaluate continuous compliance with the PM limit set forth in Condition D.4.1, the Permittee shall record the pressure drop across each of the two (2) baghouses used in conjunction with the dross mill building processes, at least once per day when the dross mill building facilities are in operation. When for any one reading, the pressure drop across each baghouse is outside the normal range of 3.0 and 10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instruments 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.4.8 Broken or Failed Bag Detection

(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately

until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

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

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

D.4.9 Record Keeping Requirements

(a) To document compliance with Condition D.4.6, the Permittee shall maintain records of visible emission notations of the dross mill building stack exhausts once per day.

(b) To document compliance with Condition D.4.7, the Permittee shall maintain records once per day of the pressure drop during normal operation.

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.5 FACILITY OPERATION CONDITIONS

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

(a) Natural gas-fired combustion sources (non-boiler) with heat input equal to or less than ten million (10,000,000) British thermal units per hour consisting of:

(1) One (1) furnace #4, rated at 7.0 million British thermal units per hour. Under NESHAP Subpart RRR, this holding furnace is Group 2 furnace.

(2) Two (2) ladle preheaters, rated at 4.0 million British thermal units per hour, each, total 8.0 million British thermal units per hour. When not preheating ladles, two (2) of these may be identified as Melt Pots A and B. Under NESHAP Subpart RRR, when operating in this manner, these two (2) melt pots are Group 2 furnaces.

(b) Any of the following structural steel and bridge fabrication activities: cutting 200,000 linear feet or less of one inch (1") plate or equivalent; using 80 tons or less of welding consumables 9326 IAC 6-3-2).

(c) Paved and unpaved roads and parking lots with public access [326 IAC 6-4].

(d) Magnetic separation process [326 IAC 6-3-2].

(e) Aluminum Aelectric crusher #2", installed in 1984, capacity: 25 tons of scrap per hour. Under NESHAP Subpart RRR, this crusher is a shredder [NESHAP Subpart RRR].

(f) Indoor and outdoor scrap aluminum storage piles and handling [326 IAC 6-3-2].

(g) Dross transfer and storage [326 IAC 6-3-2].

(h) Pouring/casting aluminum sows and ingots [326 IAC 6-3-2].

(i) Ladle pouring - aluminum [326 IAC 6-3-2].

(j) Landfill activities [326 IAC 6-3-2].

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

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

D.5.1 Particulate [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the PM emission rate from the process operations listed in (b) through (j) above shall not exceed PM emission rate based on the following equation:

(b) 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

or

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

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

(c) Compliance with this condition may be determined by using AP-42 or other appropriate emission data or estimating methodologies.

D.5.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the Group 2 furnaces (holding furnace #4 and two (2) ladle preheaters, identified as Melt Pots A and B).

Compliance Determination Requirements

D.5.3 Fugitive Dust Emissions [326 IAC 6-4]

In the event that visible emissions from roadways are noted during the months of March through October, the Permittee shall treat any regularly traveled unpaved road if the Permittee observes road traffic creating visible emissions that exceed five percent (5%) opacity as averaged over any consecutive three- (3-)minute period. Permittee shall treat such roads promptly with either water spray or an approved dust suppressant. The driveway area of the monofill above natural grade is exempt from this monitoring and treatment requirement. All visible emission observations shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9, except as otherwise provided below:

(a) The observer will begin reading when a vehicle crosses his/her line of sight which shall be approximately perpendicular to the trajectory of that vehicle. The observer shall continue to observe and take opacity readings of visible emissions at fifteen- (15-)second intervals along the same line of sight until no less than twelve (12) consecutive readings have been obtained.

(b) If, during the three- (3-) minute evaluation period, another vehicle passes the observer=s line of sight on the roadway being evaluated, the observer will terminate the evaluation for the three- (3-) minute period and disregard the incomplete set of readings.

If IDEM inspectors, following the methods described above, observe visual emissions from the unpaved roads subject to this provision and determine that such visible emissions exceed the limits set forth herein, Permittee, within twenty-four (24) hours of notice shall provide supplemental dust suppressant treatment.

The holding furnace #4, the electric crusher #2 and melt pots are subject to the requirements of 40 CFR 63, Subpart RRR and 326 IAC 20-70. The applicable requirements are included in Section E.

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SECTION E NESHAP Subpart RRR FACILITY OPERATION CONDITIONS

NESHAP Subpart RRR

(a) One (1) scrap shredder and associated conveyors and screen, identified as EU S1, installed in 1970, equipped with two (2) baghouses, identified as SB1 and SB2, installed in September 1990, exhausting through Stacks 18 and 29, maximum capacity: 84 tons of scrap aluminum per hour.

(b) One (1) scrap dryer (#4), identified as EU D1, rated at 4 million British thermal units per hour, equipped with one (1) natural gas afterburner, rated at 24 million British thermal units per hour and one (1) lime-injected baghouse, identified as SDB1, installed in 1987, last modified in March 1996, exhausting through Stack 19, maximum capacity: 7.5 tons of aluminum scrap processed per hour, a minimum lime-injection rate of 20 pounds per hour and a minimum activated carbon injection rate of 10 pounds per hour.

(c) One (1) scrap dryer (#5), identified as EU D2, rated at 4 million British thermal units per hour, equipped with one (1) natural gas afterburner rated at 24 million British thermal units per hour and one (1) lime-injected baghouse, identified as SDB2, installed in 1989, exhausting through Stack 26, maximum capacity: 9.7 tons of aluminum scrap processed per hour and minimum lime injection rate of 20 pounds per hour.

(d) Three (3) reverberatory furnaces (#2, #5 and #8 of the East Group), collectively identified as EU EGF, rated at 24, 33 and 30 million British thermal units per hour, respectively, installed in pre-1971, equipped with a six (6) compartment lime-injected baghouse, identified as EFB, installed in 1992, exhausting through combustion flue Stacks 2, 3 and 6 and baghouse Stack 35, maximum capacity: 10.6 tons of aluminum charge per hour, each and four (4) pots of molten metal per hour of five (5) tons of molten metal per pot each, East Group maximum capacity: 25.0 tons of aluminum charge per hour (East Group maximum total reactive flux injection rate of 32 pounds per ton of feed/charge and a minimum lime injection rate of 46 pounds per hour). Under NESHAP Subpart RRR, these three (3) reverberatory furnaces are Group 1 furnaces.

(e) Three (3) reverberatory furnaces (#10, #11 and #14 of the Center Group), collectively identified as EU CGF, rated at 30 million British thermal units per hour each, furnaces #10 and #11 installed in pre-1971 and furnace #14 installed in pre-1973, each equipped with an eight (8) compartment lime-injected baghouse, identified as CFB, installed in 1991, exhausting through combustion flue Stacks 8, 9 and 11 and baghouse Stack 33, maximum capacity: 12.3 tons of aluminum charge per hour, each, and four (4) pots of molten metal per hour of five (5) tons of molten metal per pot each, Center Group maximum capacity: 32.8 tons of aluminum charge per hour (Center Group maximum total reactive flux injection rate of 35 pounds per ton of feed/charge and a minimum lime injection rate of 51 pounds per hour). Under NESHAP Subpart RRR, these three (3) reverberatory furnaces are Group 1 furnaces.

(f) Two (2) reverberatory furnaces (#15 and #17 of the West Group), collectively identified as EU WGF, rated at 32 and 33 million British thermal units per hour, respectively, furnace #15 installed in 1974, replaced in 1995, and furnace #17 installed in 1979, equipped with a six (6) compartment lime-injected baghouse, identified as WFB, installed in 1992, exhausting through combustion flue Stacks 12 and 14 and baghouse Stack 34, maximum capacity: 15.0 tons of aluminum charge per hour, each, and four (4) pots of molten metal per hour of five (5) tons of molten metal for furnaces #15 and #17, West Group maximum capacity: 28.5 tons of aluminum charge per hour (West Group maximum total reactive flux injection rate of 32 pounds per ton of feed/charge and a minimum lime injection rate of 25 pounds per hour). Under NESHAP Subpart RRR, these two (2) reverberatory furnaces are Group 1 furnaces.

SECTION E NESHAP Subpart RRR Units (continued)

(g) Three (3) rotary furnaces (#1, #2 and #3 of the Rotary Furnace Group), collectively identified as EU RF, Rotary Furnace Group, maximum capacity: 7.1 tons of aluminum charge and dross products per hour, (Rotary Furnace Group maximum total reactive flux injection rate of 117 pounds per ton of feed/charge and a minimum lime injection rate of 37 pounds per hour), consisting of:

(1) Two (2) rotary furnaces (#1 and #2), rated at 6 million British thermal units per hour, each, installed in 1990, equipped with a hood enclosure capture system ducted to a spark arrestor and a lime-injected baghouse, identified as RFB, exhausting through Stack 43, maximum capacity: 1.9 tons of aluminum charge and dross products per hour, each, and

(2) One (1) rotary furnace (#3), rated at 7.5 million British thermal units per hour, installed in 1998, equipped with a lime-injected baghouse, identified as RFB, exhausting through Stack 43, maximum capacity: 3.3 tons of aluminum charge and dross products per hour.

Under NESHAP Subpart RRR, these three (3) rotary furnaces are Group 1 furnaces.

Insignificant Activities

(h) One (1) holding furnace #4, rated at 7.0 million British thermal units per hour. Under NESHAP Subpart RRR, this holding furnace is Group 2 furnace.

(i) Two melt pots, identified as Melt Pots A and B, rated at 4.0 million British thermal units per hour, each, total 8.0 million British thermal units per hour. Under NESHAP Subpart RRR, these two (2) melt pots are Group 2 furnaces.

(j) Aluminum Aelectric crusher #2", installed in 1984, capacity: 25 tons of scrap per hour. Under NESHAP Subpart RRR, this crusher is a shredder.

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

E.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 20-70-1 for the scrap shredder and associated conveyors and screen, identified as EU S1, the two (2) scrap dryers (#4 and #5), identified as EU D1 and EU D2, the three (3) reverberatory furnaces (#2, #5 and #8 of the East Group), collectively identified as EU EGF, the three (3) reverberatory furnaces (#10, #11 and #14 of the Center Group), collectively identified as EU CGF, the two (2) reverberatory furnaces (#15 and #17 of the West Group), collectively identified as EU WGF, the three (3) rotary furnaces (#1, #2 and #3 of the Rotary Furnace Group), collectively identified as EU RF, the holding furnace #4, the Melt Pots A and B, and Aluminum Aelectric crusher #2" as specified in Appendix A of 40 CFR Part 63, Subpart RRR in accordance with schedule in 40 CFR 63 Subpart RRR.

E.2 National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production Requirements [40 CFR Part 63, Subpart RRR] [326 IAC 20-70]

Pursuant to CFR Part 63, Subpart RRR, the Permittee shall comply with the provisions of 40 CFR Part 63,1500, which are incorporated by reference as 326 IAC 20-70 for the scrap shredder and associated conveyors and screen, identified as EU S1, the two (2) scrap dryers (#4 and #5),

identified as EU D1 and EU D2, the three (3) reverberatory furnaces (#2, #5 and #8 of the East Group), collectively identified as EU EGF, the three (3) reverberatory furnaces (#10, #11 and #14 of the Center Group), collectively identified as EU CGF, the two (2) reverberatory furnaces (#15 and #17 of the West Group), collectively identified as EU WGF, the three (3) rotary furnaces (#1, #2 and #3 of the Rotary Furnace Group), collectively identified as EU RF, the holding furnace #4, the Melt Pots A and B, and Aluminum Aelectric crusher #2" as specified as follows:

§ 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;

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

(4) Each new and existing group 2 furnace;

(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:

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

(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.

§ 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.

§ 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 identified 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 1 1/4 inches 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 identified 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 identified 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).

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.

(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.

(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.

(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.

(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,

LtiPM = 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;

Tti = The feed/charge rate for individual emission unit I; and

LcPM = 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,

LtiHCl = 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

LcHCl = 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,

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

LcD/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.

(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.

§ 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.

(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.

(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.

(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.

(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.

(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.

(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.

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

(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.

(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.

(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

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

(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.

(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).

(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,

Eday = The daily PM, HCl, or D/F emission rate for the secondary aluminum processing unit for the 24-hour period;

Ti = The total amount of feed, or aluminum produced, for emission unit i for the 24-hour period (tons or Mg);

ERi = 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.

(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.

§ 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.

(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).

§ 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.

(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).

(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:

(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

(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.

(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,

Wt = Total chlorine usage, by weight;

F1 = Fraction of gaseous or liquid flux that is chlorine;

W1 = Weight of reactive flux gas injected;

F2 = Fraction of solid reactive chloride flux that is chlorine (e.g., F = 0.75 for magnesium chloride; and

W2 = Weight of solid reactive flux;

(4) Divide the weight of total chlorine usage (Wt) 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).

§ 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);

K1 = Conversion factor, 1 kg/1,000 g (1 lb/lb);

K2 = Conversion factor, 1,000 L/m 3 (1 ft 3 /ft 3);

Mv = 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);

K1 = 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).

(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 (EcPM) is less than or equal to the emission limit for the secondary aluminum processing unit (LcPM) 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,

EcPM = The mass-weighted PM emissions for the secondary aluminum processing unit;

EtiPM = Measured PM emissions for individual emission unit i;

Tti = 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 (EcHCl) is less than or equal to the emission limit for the secondary aluminum processing unit (LcHCl) 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,

EcHCl = The mass-weighted HCl emissions for the secondary aluminum processing unit; and

EtiHCl = 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 (LcD/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,

EcD/F = The mass-weighted D/F emissions for the secondary aluminum processing unit; and

EtiD/F = Measured D/F emissions for individual emission unit i.

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.

(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.

(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).

(10) Startup, shutdown, and malfunction plan, with revisions.

§ 63.1516 Reports.

(a) Startup, shutdown, and malfunction plan/reports. The owner or operator must develop and implement 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.

(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:

(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.”

(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.”

(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.

§ 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.

(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.

(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.

(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.

(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

(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.

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.

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

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.
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.
	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.
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
	Fabric filter inlet temperature.	Maintain average fabric filter inlet temperature for each 3-hour period at or below average temperature during the 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.
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.

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.
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.
	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 blockage during 3- day period, record feeder setting daily.
	Fabric filter inlet	Continous measurement device to meet

	temperature..	specifications in § 63.1510(h)(2); record temperatures in 15-minute block averages; determine and record 3-hr block averages.
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.
	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.
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.

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.	
§ 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 &	Yes	§ 63.1510

	Maintenance Requirements.		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.	.....
§ 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.	.....
§ 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.	.....

E.3 One Time Deadlines Relating to NESHAP RRR

(a) The Permittee must conduct the performance tests, performance evaluations, design evaluations, capture efficiency testing, and other initial compliance demonstrations by March 24, 2003.

(b) Pursuant to 40 CFR 63.1515(a)(6), as required by 40 CFR 63.9(e) and (f), the Permittee shall notify the IDEM, OAQ, of the intent to conduct an initial performance test and visible emission observations.

(c) Pursuant to 40 CFR 63.1515(b), the Permittee shall submit a notification of compliance status report within sixty (60) days after the compliance date of March 24, 2003. The notification shall be signed by the responsible official who must certify its accuracy. The report shall 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 one (1) second for each afterburner used to control emissions from a scrap dryer subject to alternative emission standards in §63.1505(e).

(8) Startup, shutdown, and malfunction plan, with revisions.

(d) On October 16, 2001, IDEM, OAQ approved an extension of the compliance standards and date of March 24, 2003 contained in 40 CFR Part 63, Subpart RRR for the scrap shredder, the two (2) scrap dryers as well as the eight (8) reverberatory and three (3) rotary Group 1 furnaces (total eleven (11) Group 1 furnaces). The termination date of this extension was March 23, 2004, which was the final compliance date.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

PART 70 OPERATING PERMIT
CERTIFICATION

Source Name: Wabash Alloys, L.L.C.
Source Address: c/o Plant Manager, 4525 West Old 24, Wabash, Indiana 46992
Mailing Address: P.O. Box 0466, Wabash, Indiana 46992-0466
Part 70 Permit No.: T 169-6359-00010

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

Please check what document is being certified:

Annual Compliance Certification Letter

Test Result (specify) _____

Report (specify) _____

Notification (specify) _____

Affidavit (specify) _____

Other (specify) _____

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

COMPLIANCE BRANCH
100 North Senate Avenue
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: Wabash Alloys, L.L.C.
Source Address: c/o Plant Manager, 4525 West Old 24, Wabash, Indiana 46992
Mailing Address: P.O. Box 0466, Wabash, Indiana 46992-0466
Part 70 Permit No.: T 169-6359-00010

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

This is an emergency as defined in 326 IAC 2-7-1(12)
The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
The Permittee must submit notice in writing or by facsimile within two (**2**) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

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

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

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

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

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

Part 70 Quarterly Report

Source Name: Wabash Alloys, L.L.C.
Source Address: c/o Plant Manager, 4525 West Old 24, Wabash, Indiana 46992
Mailing Address: P.O. Box 0466, Wabash, Indiana 46992-0466
Part 70 Permit No.: T 169-6359-00010
Facility: Reverberatory Furnace #15
Parameter: Amount of Metal Throughput
Limit: 106,900 tons per twelve (12) consecutive month period with compliance determined at the end of each month

YEAR: _____

Month	Amount of Metal (tons)	Amount of Metal (tons)	Amount of Metal (tons)
	This Month	Previous 11 Months	12 Month Total

No deviation occurred in this quarter.

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

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Wabash Alloys, L.L.C.
Source Address: c/o Plant Manager, 4525 West Old 24, Wabash, Indiana 46992
Mailing Address: P.O. Box 0466, Wabash, Indiana 46992-0466
Part 70 Permit No.: T 169-6359-00010

Months: _____ to _____ Year: _____

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. 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 ANo 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:	

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the
Technical Support Document for a Part 70 Operating Permit

Source Name:	**Wabash Alloys, L.L.C.**
Source Location:	**c/o Plant Manager, 4525 West Old 24, Wabash, Indiana 46992**
County:	**Wabash**
SIC Code:	**3341**
Operation Permit No.:	**T 169-6359-00010**
Permit Reviewer:	**Mark L. Kramer**

On May 4, 2006, the Office of Air Quality (OAQ) had a notice published in the Wabash Dealer, Wabash, Indiana, stating that Wabash Alloys, L.L.C. had applied for a Part 70 Operating Permit to operate a secondary aluminum production source utilizing scrap aluminum with baghouses for particulate control and afterburners for volatile organic compound control. The notice also stated that OAQ proposed to issue a Part 70 Operating Permit for this operation and provided information on how the public could review the proposed Part 70 Operating Permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this Part 70 Operating Permit should be issued as proposed.

On May 26, 2006 Patty Hemmelgarn of RMT, Inc., submitted comments on the proposed Part 70 Operating Permit and supplemental comments were submitted on June 6. The comments are as follows (the permit language, if changed, has deleted language as ~~strikeouts~~ and new language **bolded)**:

Comment 1:

Overall Comment. This permit includes many requirements that have been superseded by new, more stringent requirements. Wabash believes that where compliance with a new, more stringent requirement achieves compliance with a requirement contained in a previous permit or a less stringent state requirement, IDEM has the authority to state this fact in the Part 70 permit and remove the out-dated or less stringent requirement. Streamlining the permit language in this fashion is a good idea because including less stringent requirements is potentially confusing to members of the public and persons charged with overseeing compliance with the permit.

If IDEM believes it must continue to state the less stringent requirements in the permit, Wabash requests that the following language be added to appropriate permit sections:

"The _____ limitation in 40 CFR Part 63, Subpart RRR is more stringent that the limitation in this section. Therefore, compliance with the Subpart RRR limitation, as stated in Section E of this permit, may be used to demonstrate compliance with this section."

Response 1:

Although Wabash Alloys, L.L.C. may be in compliance with the requirements of Subpart RRR, the methodology utilized to verify continuing compliance with a SAPU based on an average does not necessarily ensure compliance with a given State rule. In addition, if Wabash Alloys wishes to pursue a streamlined permit, pursuant to 326 IAC 2-7-24 (Establishment of streamlined requirements for units subject to multiple requirements), Wabash Alloys would need to implement the following steps:

(a) The applicant shall submit a proposal for the streamlining of multiple requirements with the permit application required under 326 IAC 2-7-24-4 or any amendment thereof. The proposal for streamlining of multiple requirements may be submitted up to thirty (30) days after issuance of the draft permit.

(b) The applicant shall provide a side-by-side comparison of all requirements included in a streamlining proposal that are currently applicable and effective for each specific regulated air pollutant and emissions unit for which streamlining is being proposed. The applicant shall distinguish between requirements that are emissions standards or work practice standards, or both, and monitoring and compliance demonstration provisions in the streamlining proposal. The applicant shall provide any information the department determines is needed to evaluate the proposal.

(c) The applicant shall develop and provide a compliance schedule with the streamlining proposal to implement any new monitoring requirements or compliance requirements, or both, relevant to the streamlined limit, if the source is unable to comply with the streamlined limit upon permit issuance. The record keeping, monitoring, and reporting requirements of the applicable requirements being subsumed shall remain in effect, as well as any emission limits associated with those requirements, until the new monitoring requirements or compliance requirements, or both, become effective.

Therefore, no changes have been made to the language of any conditions in the proposed permit as a result of this comment.

Comment 2:

Section A – Source Summary. The last sentence of the first paragraph is misleading. It suggests that any change that would alter the description of the emission unit may be considered a "modification" requiring a permit or a permit modification. This is not required by any applicable requirement. Permits and permit modifications are only required if the change would result in an increase in potential to emit ("PTE"), see 326 IAC 1-2-42 and 326 IAC 2-7-10.5. Wabash requests that the following clarification be added to this paragraph:

> "Changes that would affect the description, but do not increase the potential to emit of the emissions unit or source are not "modifications" requiring additional permits or permit modifications."

Response 2:

The last sentence of the first paragraph of Section A states: "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."

For example, changing the type of control device or the stack configuration may affect the specific conditions in the D Sections of the permit. A different type of control device would have different compliance monitoring requirements. Re-directing effluent from multiple emission units into a single stack or venting emissions from a single stack to multiple stacks may necessitate revising the emission limits to show compliance with a State rule, for example, limits to render the requirements of 326 IAC 2-2 (PSD) not applicable. Therefore, a physical change or change in method of operation may trigger the requirement to modify the Part 70 Operating Permit.

Therefore, no changes have been made to Section A as a result of this comment.

Comment 3:

Section A.2(a) to (j) and A.3(e) – Equipment Summary. Wabash believes that the source description includes more detail than necessary. For example, dates of installation and modification of the emission units are unnecessary and create the prospect that these descriptions will become outdated

and confusing in the future. References to the "maximum capacity" of an emission unit are also a level of detail that is unnecessary in the permit. Historic information can be stated in the TSD. References to the stacks through which each emission source is exhausting are also unnecessary as this does not affect emissions. Descriptions of emission units should be limited to that information which is necessary to identify the emission unit and any associated air pollution control equipment or to determine applicable requirements.

Response 3:

The source description provides an historical timeline of the installation and modification of emission units. The installation dates are often the basis to decide whether or not a rule is applicable to a specific emission unit. The maximum capacity also allows IDEM to track whether or not the source has increased the capacity without obtaining the proper approval. The maximum capacity also provides guidance for stack testing. Reference to stacks are critical information that is used in the compliance monitoring conditions and provides a means to show compliance when multiple emission units are exhausted to a single stack. Therefore, since the information in the description is deemed necessary for IDEM and IDEM's inspectors, no changes have been made to Condition A.2 or the D Sections of the proposed permit.

Comments 4 and 5:

Sections A.2(d) to (f), D.3.(d) to (f), and E(d) to (f). Emission Units and Pollution Control Equipment Summary. Wabash appreciates that IDEM has replaced the term "aluminum scrap" with "aluminum charge" in some areas of these sections. However, IDEM did not make the same change for all instances to A.2(d) and E(d) to (f). We request that the same change be made to these sections. Please note, that if the descriptive information is removed pursuant to #2 above, this change will be unnecessary.

Sections A.2.(g)(1) and (2), D.3(g)(1) and (2), and E(g)(1) and (2). Emission Units and Pollution Control Equipment Summary. Wabash appreciated that IDEM has used the term "charge" instead of "scrap" to describe the maximum capacity. However, this description is still inaccurate. Salt is not an element of "charge," as defined in the applicable NESHAP rule (40 CFR §63.1503) (except for dross only furnaces, which these are not). Furthermore, salt was not included in calculation of the charge rate for the stack test used to determine compliance with the applicable NESHAP rule (40 CFR 63 Subpart RRR) ("Subpart RRR"). Therefore, including "salt" in the 1.9 and 3.3 ton per hour maximum capacities for these units is inappropriate because the amount of salt was not included in the "charge" that these capacities are based on. Therefore, Wabash requests that "salt" be removed from each of these sections to avoid confusion and inaccuracies. Please note, that if the descriptive information is removed pursuant to #3 above, this change will be unnecessary.

Responses 4 and 5:

The phrase "aluminum scrap" has been replaced with the phrase "aluminum charge" in Condition A.2(d) and in Section E, items (d) through (g). The word "salt" has been deleted from Condition A.2(g)(1) and (2) and in Sections D.3 and E, items (g)(1) and (2) as follows:

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

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

(d) Three (3) reverberatory furnaces (#2, #5 and #8 of the East Group), collectively identified as EU EGF, rated at 24, 33 and 30 million British thermal units per hour, respectively, installed in pre-1971, equipped with a multi-compartment lime-injected baghouse, identified as EFB, installed in 1992, exhausting through combustion flue Stacks 2, 3 and 6 and baghouse Stack 35, maximum capacity: 10.6 tons of aluminum **charge** ~~scrap~~ per hour, each and four (4) pots of molten metal per hour of five (5) tons of molten metal per pot each, East Group maximum

capacity: 25.0 tons of aluminum charge per hour (East Group maximum total reactive flux injection rate of 32 pounds per ton of feed/charge and a minimum lime injection rate of 46 pounds per hour). Under NESHAP Subpart RRR, these three (3) reverberatory furnaces are Group 1 furnaces.

(g) Three (3) rotary furnaces (#1, #2 and #3 of the Rotary Furnace Group), collectively identified as EU RF, Rotary Furnace Group, maximum capacity: 7.1 tons of aluminum charge~~,~~ **and** dross products ~~and salt~~ per hour, (Rotary Furnace Group maximum total reactive flux injection rate of 117 pounds per ton of feed/charge and a minimum lime injection rate of 37 pounds per hour), consisting of:

(1) Two (2) rotary furnaces (#1 and #2), rated at 6 million British thermal units per hour, each, installed in 1990, equipped with a hood enclosure capture system ducted to a spark arrestor and a lime-injected baghouse, identified as RFB, exhausting through Stack 43, maximum capacity: 1.9 tons of aluminum charge~~,~~ **and** dross products ~~and salt~~ per hour, each, and

(2) One (1) rotary furnace (#3), rated at 7.5 million British thermal units per hour, installed in 1998, equipped with a lime-injected baghouse, identified as RFB, exhausting through Stack 43, maximum capacity: 3.3 tons of aluminum charge~~,~~ **and** dross products ~~and salt~~ per hour.

Under NESHAP Subpart RRR, these three (3) rotary furnaces are Group 1 furnaces.

SECTION E NESHAP Subpart RRR FACILITY OPERATION CONDITIONS

NESHAP Subpart RRR

(d) Three (3) reverberatory furnaces (#2, #5 and #8 of the East Group), collectively identified as EU EGF, rated at 24, 33 and 30 million British thermal units per hour, respectively, installed in pre-1971, equipped with a six (6) compartment lime-injected baghouse, identified as EFB, installed in 1992, exhausting through combustion flue Stacks 2, 3 and 6 and baghouse Stack 35, maximum capacity: 10.6 tons of aluminum **charge** ~~scrap~~ per hour, each and four (4) pots of molten metal per hour of five (5) tons of molten metal per pot each, East Group maximum capacity: 25.0 tons of aluminum charge per hour (East Group maximum total reactive flux injection rate of 32 pounds per ton of feed/charge and a minimum lime injection rate of 46 pounds per hour). Under NESHAP Subpart RRR, these three (3) reverberatory furnaces are Group 1 furnaces.

(e) Three (3) reverberatory furnaces (#10, #11 and #14 of the Center Group), collectively identified as EU CGF, rated at 30 million British thermal units per hour each, furnaces #10 and #11 installed in pre-1971 and furnace #14 installed in pre-1973, each equipped with an eight (8) compartment lime-injected baghouse, identified as CFB, installed in 1991, exhausting through combustion flue Stacks 8, 9 and 11 and baghouse Stack 33, maximum capacity: 12.3 tons of aluminum **charge** ~~scrap~~ per hour, each, and four (4) pots of molten metal per hour of five (5) tons of molten metal per pot each, Center Group maximum capacity: 32.8 tons of aluminum charge per hour (Center Group maximum total reactive flux injection rate of 35 pounds per ton of feed/charge and a minimum lime injection rate of 51 pounds per hour). Under NESHAP Subpart RRR, these three (3) reverberatory furnaces are Group 1 furnaces.

(f) Two (2) reverberatory furnaces (#15 and #17 of the West Group), collectively identified as EU WGF, rated at 32 and 33 million British thermal units per hour, respectively, furnace #15 installed in 1974, replaced in 1995, and furnace #17 installed in 1979, equipped with a six (6) compartment lime-injected baghouse, identified as WFB, installed in 1992, exhausting through combustion flue

Stacks 12 and 14 and baghouse Stack 34, maximum capacity: 15.0 tons of aluminum **charge** ~~scrap~~ per hour, each, and four (4) pots of molten metal per hour of five (5) tons of molten metal for furnaces #15 and #17, West Group maximum capacity: 28.5 tons of aluminum charge per hour (West Group maximum total reactive flux injection rate of 32 pounds per ton of feed/charge and a minimum lime injection rate of 25 pounds per hour). Under NESHAP Subpart RRR, these two (2) reverberatory furnaces are Group 1 furnaces.

SECTION E NESHAP Subpart RRR Units (continued)

(g) Three (3) rotary furnaces (#1, #2 and #3 of the Rotary Furnace Group), collectively identified as EU RF, Rotary Furnace Group, maximum capacity: 7.1 tons of aluminum **charge** ~~scrap,~~ **and** dross products ~~and salt~~ per hour, (Rotary Furnace Group maximum total reactive flux injection rate of 117 pounds per ton of feed/charge and a minimum lime injection rate of 37 pounds per hour), consisting of:

(1) Two (2) rotary furnaces (#1 and #2), rated at 6 million British thermal units per hour, each, installed in 1990, equipped with a hood enclosure capture system ducted to a spark arrestor and a lime-injected baghouse, identified as RFB, exhausting through Stack 43, maximum capacity: 1.9 tons of aluminum charge~~,~~ **and** dross products ~~and salt~~ per hour, each, and

(2) One (1) rotary furnace (#3), rated at 7.5 million British thermal units per hour, installed in 1998, equipped with a lime-injected baghouse, identified as RFB, exhausting through Stack 43, maximum capacity: 3.3 tons of aluminum charge~~,~~ **and** dross products ~~and salt~~ per hour.

Under NESHAP Subpart RRR, these three (3) rotary furnaces are Group 1 furnaces.

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

Comment 6:

Sections A.3 and D.5. Specifically Regulated Insignificant Activities. Wabash notes that these sections include only a portion of the insignificant emissions units which are present at this facility. It is our understanding that other insignificant emission units present at the facility are permitted to operate under this permit, but are not subject to any specific regulations.

Response 6:

IDEM, OAQ confirms that the other insignificant activities listed in the Technical Support Document, but not listed in Condition A.3 and Section D.5, are permitted to operate under this permit and are not presently subject to any specific facility operation conditions that are included in Sections D and E.

Comment 7:

Section B.9(a). Annual Compliance Certification. It is our understanding that the compliance certification required under this condition and 326 IAC 2-7-6(5) is limited to the terms and conditions of this permit which include emission limitations, standards and work practices. We request your confirmation on this point.

Response 7:

IDEM confirms that Wabash Alloys, L.L.C. needs to certify compliance with all conditions in the

permit. IDEM requires that Wabash Alloys also include an annual certification for the MACT, NESHAP Subpart RRR covered in Section E in the proposed permit. IDEM, OAQ refers the source to IDEM's Nonrule Policy Air 003 on the web at www.in.gov/idem/rules/policies/air/nrpd003.pdf.

Comment 8:

Sections B.15(a) and C.19(a). Deviation Reporting Requirements. Wabash requests that the quarterly deviation reporting required under these two sections for "state only" requirements be changed to semiannual reporting, consistent with the semiannual NESHAP reporting requirement (40 CFR 63 Subparts A and RRR). We note that the applicable requirement is 326 IAC 2-7-5(3)(C)(i) and (ii). Under 326 IAC 2-7-5(3)(C)(i), deviation reports are required "at least every six(6) months." There is no applicable state requirement for quarterly reporting.

Furthermore, 326 IAC 2-7-5(3)(C)(ii) states "Notwithstanding requirements in this section, the reporting of deviations required by an applicable requirement shall follow the schedule stated in the applicable requirement." In the case of the Wabash facility, the great majority of the significant emission units regulated under this permit are subject to the specific deviation reporting requirements in the applicable NESHAP rules, including immediate and semi-annual deviation reporting requirements. The reporting for "state only" requirements under this provision should be stream-lined to be consistent with the federal applicable requirements, rather than burden Wabash with reporting twice as often for the few "state only" permit conditions contained in this permit.

We note that many of the "state only" permit conditions are less stringent than the federal conditions applicable to the same emission unit under Section E of this permit. As a general matter, the permit need not include the less stringent state emission limitations, standards, and work practices, and separate deviation reporting for these less stringent requirements should be not required.

Finally, we note that Section C.19 does not contain the language in Section B.15 that would make it clear that where the NESHAP applies, reports are to be filed pursuant to the NESHAP and not quarterly. If the quarterly reporting requirement is not removed from this permit entirely, the following language should be added to Section C.19:

"A deviation from permit conditions required to be reported pursuant to 40 CFR 63 Subparts A or RRR or from an applicable requirement that exists independently from this permit (including 40 CFR 63 Subparts A or RRR) shall be reported according to the schedule stated in 40 CFR 63 Subpart RRR or the applicable requirement and does not need to be included in this report."

Response 8:

IDEM, OAQ has reviewed Wabash Alloy's request to change the frequency from quarterly to semi-annual for the Quarterly Deviation and Compliance Monitoring Report under the "state only" requirements. IDEM OAQ agrees that a deviation from permit conditions required to be reported pursuant to 40 CFR 63 Subparts A or a NESHAP, in this case Subpart RRR, or from an applicable requirement that exists independently from this permit (including 40 CFR 63 Subparts A or Subpart RRR) shall be reported according to the schedule stated in the NESHAP or in this case in 40 CFR Part 63, Subpart RRR.

IDEM, OAQ has determined that quarterly deviation and compliance monitoring reporting under the "state only" requirements will not be changed to a semi-annual basis because any deviation from the State rules, such as 326 IAC 8-1-6, should be reported more frequently than twice per year. A recent court ruling has upheld the decision to require deviations reporting more frequently than semi-annually.

As suggested, IDEM, OAQ has added the requested clarification to Condition C.19(a) as follows:

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

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

A deviation from permit conditions required to be reported pursuant to 40 CFR 63 Subparts A or any NESHAP or from an applicable requirement that exists independently from this permit, including 40 CFR 63 Subparts A or any NESHAP, shall be reported according to the schedule stated in the NESHAP or the applicable requirement and does not need to be included in this report.

Comment 9:

Section B.21(b). Source Modification Requirement. 326 IAC 2-2-2 only applies to major modifications, please modify to read “any major modification at an existing major source…”

Response 9:

Condition B.21 is currently proposed as follows:

B.21 Source Modification Requirement [326 IAC 2-7-10.5] [326 IAC 2-2-2]

(a) A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.

(b) Any modification at an existing major source is governed by the requirements of 326 IAC 2-2-2.

This condition states that a source modification is required pursuant to 326 IAC 2-7-10.5 and is governed by the requirements of 326 IAC 2-2-2. IDEM, OAQ will determine if a source modification at an existing major source is a minor or major modification pursuant to 326 IAC 2-2. As such, the wording of Condition B.21(b) implies that IDEM, OAQ will be reviewing any modification at an existing major source to determine its PSD applicability pursuant to 326 IAC 2-2-2. Therefore, no changes have been made to Condition B.21(b).

Comment 10:

Section C.16(a). Actions related to Noncompliance Demonstrated by a Stack Test. Please modify this term as follows replacing the word “level” with the phase “emission limitations”:

> “When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the emission limitations specified in any condition of this permit, the Permittee shall take appropriate response actions…”

This revision is necessary because stack test results may yield compliant, but new and different operating parameters, such as temperature, flux injection rate, etc. Since the prior stack test parameters have, in some cases, been included in this permit, it is important to be more specific in this provision.

Response 10:

Condition C.16(a) has not been revised as suggested since the word “level” refers to any operating parameter, such as a temperature, specified in a permit condition and not just an emission limitation.

Comment 11:

Section D.2.1(a). Scrap Dryers – PSD Minor Limits. The 5.60 pound of PM per hour limit from CP 169-00010 is an example of a historic permit term that is less stringent than the 0.30 pound of PM per ton limit now required for the scrap dryers by 40 CFR §63.1505(e)(1)(ii). As discussed above, this confusing historic term should either be deleted or clarified by adding the following statement:

> "The PM emissions limitation in 40 CFR Part 63, Subpart RRR is more stringent that the limitation in this section. Therefore, compliance with the Subpart RRR limitation, as stated in Section E of this permit, may be used to demonstrate compliance with this section."

Response 11:

Although the NESHAP Subpart RRR PM emission limit of 0.30 pounds per ton is more stringent than the PSD minor particulate matter emission limit of 5.60 pounds per hour pursuant to CP 169-00010 issued on February 23, 1996, this PSD minor limit was required to render the requirements of 326 IAC 2-2 not applicable to the construction of scrap dryers #4 and #5. Hypothetically, if this condition is deleted, and Wabash Alloys conducted a stack test and did not comply with the NESHAP, Wabash Alloys would also be cited as violating 326 IAC 2-2, even if the stack test would have shown compliance with the PSD minor limit specified in Condition D.2.1(a).

Comment 12:

Section D.2.1(b). These dryers were never required to take a limit on emissions to avoid PSD applicability. Additionally, these limits were not included in any construction permit. The uncontrolled PTE of SO_2 and NO_X from Scrap Dryer #4 and Scrap Dryer #5 individually are (and were at the time of initial permitting) less than the PSD thresholds. Therefore, Wabash was not required to take an emission limitation on SO_2 and NO_X emissions from these units in order to remain below PSD thresholds. These limits (Sections D.2.1(b)(3) and (4)) should be removed from the Title V permit.

Additionally, Wabash does not agree with the method used to determine the emissions limit for PM_{10} for the scrap dryers. It appears that this emissions limit was calculated using the 5.60 pound per hour limit from the construction permit and dividing by the capacity of Dryer #5 (in tons per hour). Because the capacities of Dryer #4 and Dryer #5 are different (7.5 and 9.7 tons per hour, respectively), this would yield two different emissions limits, yet this permit only includes one. We believe that the emissions limit should be based on the calculations for the PSD/contemporaneous decrease analysis, which has been updated to reflect data from recent stack tests. This will change the PM_{10} emissions limit for the scrap dryers (Section D.2.1(b)(1)) from 0.577 to 0.747 pound per ton.

Response 12:

As stated in the TSD, the revised capacities based on recent stack test data for the scrap dryers are in fact different. Namely, scrap dryer (#4), identified as EU D1, has a capacity of 7.5 tons of aluminum scrap processed per hour and scrap dryer (#5), identified as EU D2, has a capacity of 9.7 tons of aluminum scrap processed per hour. As shown on page 21 of the TSD, each scrap dryer has a potential to emit of 24.5 tons of PM_{10} per year. After a netting credit of ten (10) tons per year is applied to each scrap dryer, the potential to emit PM_{10} is 14.5 tons per year, which is below the PSD significant level of fifteen (15) tons per year.

The PM_{10} emission limit for scrap dryer (#4), identified as EU D1, with a capacity of 7.5 tons of aluminum scrap processed per hour should have been calculated as follows:

24.5 tons/year * 2,000 lbs/ton * 1 year/8,760 hrs/yr / 7.5 tons/hr = 0.746 lbs/ton

The PM_{10} emission limit for scrap dryer (#5), identified as EU D2, with a capacity of 9.7 tons of aluminum scrap processed per hour should have been calculated as follows:

24.5 tons/year * 2,000 lbs/ton * 1 year/8,760 hrs/yr / 9.7 tons/hr = 0.577 lbs/ton

Therefore, the PM_{10} emission limits in Condition D.2.1(b) have been revised. In addition, although the capacities are different, the emission limits in Condition D.2.1(b)(2 through 4) do not need revision since the emission limits were calculated based on the potential to emit which is directly proportional to the capacity and then divided by that capacity and there was no netting credit for VOC, SO_2 or NO_X. For clarification, Condition D.2.1(b) has been split into (b) and (c) for each of the dryers as follows:

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

(a) Pursuant to CP 169-00010, issued on February 23, 1996, the particulate matter emission rate from the scrap dryers (#4 and #5), identified as EU D1 and EU D2, shall not exceed 5.60 pounds per hour, each.

(b) Compliance with the following emission limits renders the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to scrap dryer~~s~~ #4 ~~and #5~~, identified as EU D1~~ and EU D2~~.

(1) The PM_{10} emission rate shall not exceed **0.746** ~~0.577~~ pounds per ton.

(2) The VOC emissions shall not exceed 0.475 pounds per ton.

(3) The SO_2 emissions shall not exceed 0.420 pounds per ton.

(4) The NO_X emissions shall not exceed 0.560 pounds per ton.

(c) Compliance with the following emission limits renders the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to scrap dryer #5, identified as EU D2.

(1) The PM_{10} emission rate shall not exceed 0.577 pounds per ton.

(2) The VOC emissions shall not exceed 0.475 pounds per ton.

(3) The SO_2 emissions shall not exceed 0.420 pounds per ton.

(4) The NO_X emissions shall not exceed 0.560 pounds per ton.

Comment 13:

Section D.2.3. Scrap Dryers - Volatile Organic Compounds. Wabash disagrees with the Best Available Control Technology ("BACT") determination and this condition. The TSD document explains that US EPA's RACT, BACT, LAER clearinghouse ("RBLC") database provided no information on BACT determination for scrap dryers and, therefore, IDEM used information from stack testing at other secondary aluminum facilities to determine BACT. (See TSD pages 25 to 27 of 39 pages.) These stack tests were completed in 2001, 2002, and 2003. The scrap dryers were installed in 1987 and 1989. It is inappropriate to determine BACT for these units using data from dryers operated in 2001, 2002 and 2003 that may be using methods, equipments or techniques that were unavailable at the time of installation of scrap dryers #4 and #5. As there was no support for a destruction efficiency BACT requirement in the RBLC then or now and IDEM has no other evidence to support the proposed 99.5% destruction efficiency as BACT in 1987 and 1989. Therefore, the minimum destruction

efficiency should be removed from this condition. This unsupported BACT determination is also unnecessary because the use of an afterburner that complies with 40 CFR §63.1505 (Subpart RRR) and Section E of this permit is sufficient to comply with 326 IAC 8-1-6. By definition, a Maximum Achievable Control Technology (MACT) requirement (i.e. Subpart RRR) would be more stringent than a BACT requirement. In this case, Subpart RRR requires the use of an afterburner to reduce total hydrocarbon emissions (THC) as a surrogate for emissions of organic hazardous air pollutants. Any reduction in THC is analogous to a reduction in VOC. Therefore, Wabash requests that this condition to read as follows:

> "Pursuant to 326 IAC 8-1-6 (New facilities; general reduction requirements), Best Available Control Technology (BACT) for each of the scrap dryers (#4 and #5), identified as EU D1 and EU D2, could not be determined for the period of 1987 and 1989. Under this permit, an afterburner that complies with 40 CFR 63 Subpart RRR is deemed to meet the requirements of BACT."

The following supplemental information was provided by Wabash Alloys on June 5 and 9, 2006 to bolster Wabash Alloys initial BACT comment. In addition on July 25, 2006, Wabash Alloys provided pertinent sections from Scrap Dryer and Reverberatory Furnace Emissions Test Report, Wabash Alloys, Wabash, Indiana August 1996 dated November 13, 1996. This report provided the data to USEPA for the MACT floor analysis utilized in NESHAP Subpart RRR.

Section D.2.3 – Scrap Dryers - BACT For Volatile Organic Compounds

As indicated in our prior comments, Wabash believes the Best Available Control Technology ("BACT") analysis underlying this condition is flawed and does not represent BACT for the Wabash scrap dryers installed in 1986 and 1988, respectively.

Although the 1986 and 1988 construction permits for the dryers did not cite 326 IAC 8-1-6 as an applicable requirement, those permits were issued based on efficiencies and operating parameters stated in the permit applications. For the issuance of this Title V permit, IDEM has added new and different BACT requirements because, according to the TSD, BACT was "not addressed any of the previously issued permits" for these units. (See *TSD page 25 of 39.*)

In 2004, during the development of this permit, Wabash submitted a BACT analysis for these units at the request of IDEM. The analysis consisted of a comparison of the existing afterburners and operating requirements in US EPA's RACT, BACT, LAER clearinghouse ("RBLC") database. This analysis found no comparable BACT determinations for VOC control from any similar sources from 1978 to 2004. The TSD indicates that IDEM has also independently verified that the RBLC does not contain any comparable BACT determinations for either a period that is contemporaneous with the construction of the dryers or any period since then. (See *TSD page 27 of 39.*)

In the absence of RBLC data, IDEM has relied on information from stack testing at other secondary aluminum facilities completed in 2001, 2002, and 2003 to determine BACT. As stated in our prior comments, Wabash believes that evidence of technology that is available 15 years after the fact is not the best evidence of what was available at the time of construction. Although this subject has not been widely discussed in EPA interpretative guidance, EPA has agreed that in "after the fact" BACT determinations it is preferable to consider the technology which was actually "available" at the time of construction, over technology which is available at the time of the analysis.

While Wabash appreciates the difficulty of determining what was BACT at an earlier time, we think there are better sources of information than 2001-2003 era stack test data. Significantly, 1) the 2001-2003 stack test data was not the basis of the BACT determinations for those dryers; 2) the 2001-2003 stack tests appear to be MACT compliance stack tests, reflecting operation after the units would have been upgraded to achieve MACT compliance; and 3) at least some of the dryers at these facilities are substantially newer than the Wabash dryers.

IDEM's initial BACT determinations for these same facilities provides a better picture of what level of afterburner operation might have been deemed BACT in the 1980 - 1990 time period.

Looking at the permitted BACT determinations for the dryers at the facilities that IDEM has cited (as shown in the permit files for these facilities), our review indicates the following:

(a) Newco Metals Processing (f/k/a Mica Metals Incorporated): The dryer was constructed in 1990 – thus it is closer in age to the Wabash dryers than the dryers at Superior and provides a better picture of the technology in that era. The initial 1999 Title V permit for this facility indicates that the BACT compliant VOC destruction efficiency for the afterburner on which the Title V was based was 95.5%, not the 99.8% that IDEM cites from the 2002 stack test. Like Wabash's earlier permit, the 326 IAC 8-1-6 condition in the permit does not state a destruction efficiency, rather it simply states: "Pursuant to [the construction permit] issued January 12, 1990, the afterburner for VOC control is the best available control technology (BACT) for this facility and shall limit VOC emissions to no more than 9.93 pounds per hour, equivalent to 43.5 tons per year." The compliance methodology is continuous monitoring of the afterburner temperature which is required to be "maintained at no less than 1400 degrees Fahrenheit or another temperature determined by a stack test that verifies compliance with [the BACT condition]."

(b) Superior Aluminum Alloys, L.L.C: In this case, the dryer was installed in 1998 thus it is 10-12 years newer than the Wabash dryers. The BACT determination was also made in 1998. Furthermore, the data on which the 2002 Title V permit was issued indicates that the dryer afterburner destructions efficiency tested on January 11, 2000 was 98.4%, not the 99.7 achieved in the MACT compliance test in 2003.

(c) Aluminum Recovery Technologies, Inc. ("ART"): It is unclear when this dryer was constructed. The April 7, 2004 Title V permit simply says "prior to February 11, 1999." The TSD for the 2004 Title V permit indicates the afterburner VOC destruction efficiency was estimated to be 90%. Rather than include specific limits for BACT, the permit simply states that compliance with the NESHAP limitation constitutes BACT, and has no other 326 IAC 8-1-6 requirements for the dryer.

(d) M.C. Aluminum America Inc.: We could not find a permit for M.C. Aluminum America Inc. in the Region V Title V permit data base. Wabash requests that IDEM provide information to allow us to review that facility's permit file.

IDEM's new proposed BACT requirements would hold Wabash's older dryers to a higher BACT standard than other similar – in fact newer – dryers have been held. As stated above, IDEM has found as recently as 2002 that a destruction efficiency of 95.5% represents BACT for the Newco dryer and afterburner installed in 1990. Furthermore, IDEM did not require that the afterburner's destruction efficiency be made a BACT condition for this older unit. Rather, for the Newco facility, IDEM found that BACT consisted of maintenance of a 1,400 degree afterburner temperature, with continuous monitoring. For the ART facility, IDEM simply relied upon compliance with the NESHAP emission limitation.

Wabash does not know the destruction efficiency of its dryers before its MACT upgrades. In fact, Wabash cannot determine the destruction efficiency because it is physically impossible to test at the afterburner inlet. Therefore, holding these afterburners to a specific untested destruction efficiency exceeds the requirements of BACT.

Wabash does know, by way of testing after all MACT upgrades, that its dryers comply with the MACT limit for THC in 40 CFR §63.1505(e)(1)(i). While 2003 - 2004 era MACT testing should not constitute BACT for dryers installed in 1986 and 1988, a demonstration of compliance with the MACT THC

standard should be deemed to assure compliance with any 1986 or 1988 technology based-limits, as IDEM found in the ART permit in 2004.

Wabash requests that IDEM delete the language in the proposed Condition D.2.3 and replace it with either:

(a) The language it used in the ART 2004 permit which states: "Compliance with the requirements of 40 CFR 63, Subpart RRR shall also limit the potential to emit of VOC from the dryer to less than 25 tons per year, and the requirements of 326 IAC 8-1-6 shall not apply;" or

(b) A BACT requirement that the afterburners maintain a 1400 degree temperature, monitored continuously, and a statement that compliance with the scrap emission limitation for THC in 40 CFR §63.1505(e)(1)(i) assures compliance with VOC BACT for these units.

In the supplemental comments pertaining to BACT for the dryers submitted on June 5, 2006, Wabash Alloys requested that IDEM provide information which would allow us to identify the permit file for the M.C. Aluminum America, Inc. facility referenced in the TSD BACT discussion. Hence, an additional comment regarding dryer BACT based on information in the M.C. Aluminum permit file is provided as follows:

M.C. Aluminum America, Inc.'s facility in Bartholomew County has a FESOP permit which was renewed in 2002. The FESOP indicates that the facility has two dryers, one constructed in 1990 and one constructed in 1994. Section D.2.3 of the 2002 permit incorporated a BACT determination, as follows:

"Pursuant to 326 IAC 8-1-6 (New facilities; general reductions requirements), the Best Available Control Technology has been determined to be an afterburner on each chip dryer. The afterburner shall be in operation at all times that the associated chip dryer (#1 or #2), known as EU-04 or EU-05, is in operation. The afterburners shall each operate at a minimum VOC destruction efficiency of ninety-five percent (95%)."

To ensure compliance with the BACT standard, Section D.2.9, states:

"Pursuant to 326 IAC 8-1-6, the afterburners shall be in operation at all times that the chip dryers are in operation. The afterburner for chip dryers (#1 and #2), known as EU-04 and EU-05, shall maintain a minimum operating temperature of 1,300 and 1,200 degrees Fahrenheit respectively, or temperatures determined in the compliance tests to maintain at least ninety-five percent (95%) destruction of VOC captured."

Thus the permit file confirms that dryer BACT for three of the four facilities referenced by IDEM in the TSD was a destruction efficiency of: 95% (M.C.Aluminum); 95.5% (Newco); and 95.2% (A.R.T. based on 2003 MACT testing rather than the 90% estimated in the application). Only the 1998 dryers at the Superior facility - dryers that are 10 and 12 years newer than the Wabash dryers - were determined to have a BACT afterburner destruction efficiency higher than this 95-95.5% range.

Furthermore, the temperature ranges specified pursuant to 326 IAC 8-1-6 as necessary to achieve this BACT level of destruction were: 1200 F – 1300 F (M.C. Aluminum); 1400 F (Newco); and 1400 F (A.R.T. based on NESHAP requirements). Even the 1998 BACT determination for the Superior facility required only a 1300 F temperature.

All of the above, coupled with the fact that it is physically impossible to measure emissions at the afterburner inlet, supports the conclusion that BACT for the 1986 and 1988 Wabash dryers is afterburners operated at 1400 F with continuous monitoring, as required pursuant to the NESHAP. The extremely high destruction efficiency required in the draft permit is not BACT for these units, nor is it necessary to specify a destruction efficiency in the permit in order to ensure BACT is achieved.

Wabash requests that Section D.2.3 be revised to read as follows:

"Pursuant to 326 IAC 8-1-6 (New facilities; general reduction requirements), Best Available Control Technology (BACT) for each of the scrap dryers (#4 and #5), identified as EU D1 and EU D2, is an afterburner with a minimum operating temperature of 1,400 degrees Fahrenheit. The afterburner shall be operated at all times when the associated scrap dryer is drying scrap."

Response 13:

IDEM, OAQ has reviewed the original comment and all of the supplemental information provided by Wabash Alloys. IDEM, OAQ has determined that the scrap dryer #5 stack test results conducted in August 1996 for THC (VOC) of a total of 5.1 pounds per ton before controls can be utilized to determine a BACT emission limit. Using a 95% control efficiency would result in an after controlled VOC emission rate of 5.1 pounds per ton * (1-0.95) = 0.26 pounds per ton which can be utilized as a BACT VOC emission rate for each of the dryers. Therefore,

(a) The 0.26 pound per ton VOC emission rate is equivalent to 8.54 tons of VOC per year for scrap dryer #4, identified as EU D1, at full capacity of 7.5 tons per hour.

(b) The 0.26 pound per ton VOC emission rate is equivalent to 11.0 tons of VOC per year for scrap dryer #5, identified as EU D2, at full capacity of 9.7 tons per hour.

IDEM, OAQ has considered all of Wabash Alloys comments regarding the proposed BACT determination. IDEM OAQ has revised the BACT determination for each scrap dryer to be an afterburner with a minimum three- (3-) hour average operating temperature of 1,400 degrees Fahrenheit, an emission rate not to exceed 0.260 pounds of VOC per ton of charge and that each afterburner shall be operated at all times when the associated scrap dryer is drying scrap. Therefore, Condition D.2.3 has been revised to incorporate the revised BACT determination as follows:

D.2.3 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6 (New facilities; general reduction requirements), Best Available Control Technology (BACT) for each of the scrap dryers (#4 and #5), identified as EU D1 and EU D2, **has been determined to be an afterburner with a minimum three- (3-) hour average operating temperature of 1,400 degrees Fahrenheit and an emission rate not to exceed 0.260 pounds of VOC per ton of charge.** ~~is an afterburner with a minimum destruction efficiency of 99.5% and a minimum operating temperature of 1,400 degrees Fahrenheit or a temperature necessary to maintain a minimum ninety-nine and five-tenths (99.5%) percent destruction efficiency for volatile organic compounds (VOC). The~~ **Each** afterburner shall be operated at all times when the associated scrap dryer is drying scrap.

Comment 14:

Section D.2.7. Scrap Dryers – Afterburner Temperature. This section should be deleted. We note that no state applicable requirement is referenced for this permit condition. Wabash believes that the applicable requirement is actually found in Subpart RRR (40 CFR §63.1510(g)). This separate Section D.2.7 is unnecessary because all Subpart RRR requirements are covered in Section E of this permit. Minimally, Subpart RRR should be referenced as the applicable requirement here, to avoid any confusion that this is a "state only" requirement.

This comment also applies to Section D.2.9, as described below.

Response 14:

The compliance determination requirements to calibrate, maintain, and operate a continuous monitoring system in Condition D.2.7 are consistent with the State BACT requirements for the two (2) scrap dryers' afterburners in Condition D.2.3. Again, although the requirements of the NESHAP are somewhat similar to the BACT determination, these are two (2) separate applicable rules, and as such, IDEM, OAQ has addressed each rule under its own conditions in the proposed permit. Therefore as a result of this comment, no changes have been made to Condition D.2.7, especially in light of the revised BACT determination incorporated into Condition D.2.3, however, hyphens were inserted in the phrase "three- (3-) hour average" as follows:

D.2.7 Afterburner Temperature

(a) A continuous monitoring system shall be calibrated, maintained, and operated on each afterburner for measuring operating temperature. The output of this system shall be recorded as a three**-** (3**-**) hour average.

(b) On and after the date the approved stack test results are available, the Permittee shall operate the thermal oxidizer at or above the three**-** (3**-**) hour average temperature as observed during the compliant stack test.

Comments 15 and 16:

Section D.2.8(a). Scrap Dryers – Testing Requirements. These testing requirements for PM should be deleted. As discussed above in Section D.2.1(a), the 5.60 pound of PM per hour limit from CP169-00010 has been effectively superseded by the 0.30 pound per ton limit in 40 CFR §63.1505(e)(1)(ii). Compliance with the less stringent PM limit in D.2.1(a) is assured by the performance tests required pursuant to Subpart RRR and Section E of this permit.

Section D.2.8(b). Scrap Dryers – Testing Requirements. As stated above, BACT can be satisfied by compliance with Subpart RRR and Section E of this permit, including testing requirements. Therefore, please remove this requirement or replace it with the following language:

> "Compliance with the Subpart RRR and Section E of this permit, may be used to demonstrate compliance with BACT requirements."

Responses 15 and 16:

Since Condition D.2.1(a) has not been deleted as explained in Response 11, the testing requirements to verify compliance with the PM emission limit of 5.60 pounds per hour for each of the scrap dryers has not been deleted. IDEM, OAQ reminds Wabash Alloys that a single PM stack test of each scrap dryer can be used to demonstrate compliance with the PSD minor limit and the requirements of Subpart RRR.

Also refer to Responses 1 and 11 which explain why IDEM, OAQ, at this time, can not incorporate the suggested language that compliance with the NESHAP Subpart RRR assures compliance with the PM emission limit in Condition D.2.1(a). Therefore, no changes have been made to the testing requirements in Condition D.2.8(a).

Similarly, the VOC testing requirement in Condition D.2.8(b) can not be deleted since VOC emission testing is not required under NESHAP Subpart RRR and, as part of the revised BACT determination, a VOC emission limit of 0.260 pounds per ton has been incorporated in Condition D.2.3. Therefore, compliance with Subpart RRR does not ensure compliance with the PSD minor VOC emission limit specified in Condition D.2.1(b)(2) and the BACT VOC emission limit specified in Condition D.2.3. Therefore, no changes have been made to the testing requirements in Condition D.2.8(b).

Comment 17:

Section D.2.9(a). Scrap Dryers – Record Keeping Requirements. This section should be deleted. As discussed above, Section D.2.7, which is the premise for this section, should be deleted because it only restates a requirement that is derived from Subpart RRR. We note that 40 CFR §63.1517(b)(2), which is included in Section E of this permit, is the related Subpart RRR record keeping requirement. This section is duplicative of Section E record keeping requirements. It also misleadingly implies that there is a separate and possibly different "state only" requirement for afterburner continuous monitoring and recordkeeping.

If this subsection is not deleted, any record keeping required to demonstrate compliance with Subpart RRR conditions should reference Subpart RRR record keeping requirements and not impose a separate record keeping regime.

Response 17:

IDEM, OAQ can not incorporate the suggested language to reference Subpart RRR record keeping requirements in place of the record keeping required to demonstrate compliance with the State BACT and the compliance determinations in Conditions D.2.3 and D.2.7, respectively. If the record keeping requirements in Subpart RRR completely satisfy all of the record keeping required by the State conditions, then only one (1) record keeping regime would be necessary. Since none of the conditions, Conditions D.2.1, D.2.3 or D.2.7, have been deleted, Condition D.2.9(a) has not been deleted, but has been revised to reflect the required three- (3-) hour average in Condition D.2.7 as follows:

D.2.9 Record Keeping Requirements

(a) To document compliance with Condition D.2.7, the Permittee shall maintain continuous temperature records (on a~~n~~ **three- (3-)** hourly average basis) for each afterburner and the hourly average temperature used to demonstrate compliance during the most recent compliant stack test for each afterburner.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Comment 18:

Section D.3.1(b). Rotary Furnaces – Prevention of Significant Deterioration. Rotary furnaces #1 and #2 were installed in 1990. Rotary furnace #3 was installed in 1998. These were considered as two distinct projects for PSD applicability review purposes. This is confirmed in the TSD on page 19 of 39. Therefore, any applicable limits should not be additive for both projects and should be separated in the permit. Uncontrolled PTE of SO_2, VOC, and NO_X for both projects are (and were at the time of installation) below PSD thresholds. Therefore, these emissions limits (Sections D.3.1 (b)(3), (4), and (5)) should be deleted from the Title V permit.

Additionally, Wabash believes that emissions limitations for PM and PM_{10} should be established by IDEM using data from the PSD avoidance calculations provided by IDEM. Incorporating all of these comments, please modify this term as follows:

"Compliance with the following emission limits renders the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to rotary furnaces (#1, #2 and #3), identified as EU RF.

(1) The particulate matter emission shall not exceed 0.40 pound per ton from rotary furnaces #1 and #2.

The PM emissions limitation in 40 CFR Part 63, Subpart RRR is equivalent to the limitation in this section. Therefore, compliance with the Subpart RRR limitation, as stated in Section E of this permit, may be used to demonstrate compliance with this section.

(2) The particulate matter emission shall not exceed 0.40 pound per ton from rotary furnace #3.

The PM emissions limitation in 40 CFR Part 63, Subpart RRR is equivalent to the limitation in this section. Therefore, compliance with the Subpart RRR limitation, as stated in Section E of this permit, may be used to demonstrate compliance with this section.

(3) The PM_{10} emissions shall not exceed 0.64 pound per ton for rotary furnaces #1 and #2.

(4) The PM_{10} emissions shall not exceed 0.64 pound per ton for rotary furnace #3."

Wabash Alloys supplemented this comment with the following additional information:

Rotary furnaces #1 and #2 were installed in 1990. Rotary furnace #3 was installed in 1998. These were considered two distinct projects for PSD applicability review purposes. This is confirmed in the TSD on page 19 of 39. Therefore, any PSD emission limits should be stated as separate limits for each project.

Proposed Section D.3.1 arbitrarily imposes emission limitations that are twice as stringent as the emission limitations required by the applicable PSD regulations. This is contrary to the PSD regulations and is not justified by the "compliance assurance" rationale stated in the TSD. The TSD indicates that "In order to be able to verify that both of the modifications (rotary furnaces #1 and #2, constructed in 1990 and rotary furnace #3, constructed in 1998) are each minor modifications pursuant to 326 IAC 2-2, the *total emissions from all three (3) rotary furnaces have been limited to less than the PSD significant levels* of 25/15/40/40/40 tons per year for PM, PM_{10}, SO_2, NO_x and VOC, respectively, etc." [emphasis added]

We understand IDEM's view to be that separate modifications with units that are ducted to a common control device must be subject to a single PSD cap because emissions from the individual units cannot be determined either by testing the combined emissions or testing the units separately. The concern is that units from either modification could be operating in excess of their individual PSD limitations. IDEM is concerned that, even if they could be tested separately, for example, by testing while operating furnaces #1 and #2 and not furnace #3, such a test would not yield an accurate picture of baghouse efficiency because the baghouse would be operating at a lesser load. IDEM sees no alternative but to build a separate baghouse every time a Permittee installs a new furnace or take a PSD limit that essentially allows the Permittee no emissions for any new furnace.

Wabash does not agree that these are the only alternatives. A review of EPA Guidance and rulemaking demonstrates that EPA is quite comfortable that compliance can be assured for individual units ducted to a common control device and/or stack. Our research indicates that EPA has itself proposed this approach in the context of NSPS, NESHAP, the Acid Rain Program regulations, and the recent CAIR rule. EPA's proposed methods in each case are based on a combined emission measurement compared against the combined emission limits of the individual emission units, with each unit running at its maximum capacity. The compliance of the individual emission units with its individual emission limitation is assured either by monitoring the throughput of the individual units.

The Secondary Aluminum NESHAP, which is applicable to the rotary furnaces in this case, is an example of a NESHAP that directly addresses commonly-ducted and controlled emission units and prescribes a method for assuring compliance at the individual units. See Section E of the Title V permit or 40 CFR §63.1511(h) and (i).

In the 1999 Federal Register proposing the Secondary Aluminum NESHAP, EPA explained:

"Where multiple affected sources and/or emission units are exhausted through a common control device, and if the emission limit for all such units is in units of kg/Mg (lbs/ton) of feed, compliance may be demonstrated if measured emissions do not exceed the *combined emission limit for all units* that exhaust through the stack." [emphasis added]

Rotary furnaces #1, #2 and #3 are included in a Secondary Aluminum Process Unit ("SAPU") under the NESHAP. In a SAPU, where the underlying requirements for the units are the same, the compliance demonstration simply compares the combined emissions to the combined emission limits. Under these conditions, it is presumed that the baghouse will act equally efficiently on emissions generated by a ton of scrap regardless of which furnace generated the emissions. [1]

If a methodology is adequate to ensure NESHAP compliance on a per ton basis, it is difficult to understand why IDEM believes it is inadequate to ensure compliance with an annual PSD limit. In fact, in the ART 2004 Title V permit referenced above, IDEM expressly found that compliance with the NESHAP SAPU combined limits for the rotary furnaces at that facility, represented compliance with for purposes of 326 IAC 8-1-6. If it is simply the fact that the NESHAP limit is expressed in terms of lbs/ton of scrap and the PSD limit is in tons/year, the permit can require that emissions/ton of scrap data be converted to demonstrate total emissions over the period of a year. Note that PSD does not impose limitations on an hourly or per ton basis, but compliance can be calculated on a monthly basis to ensure that the annual PSD limit is not exceeded.

In this instance, rotary furnaces #1, #2 and #3 are subject to continuous monitoring under the NESHAP, thus there is a very complete record of each individual unit's charge and flux rate as well as the baghouse operating parameters. Any concern that furnaces that were installed in two different modifications could shift throughput from one to another, allowing one to operate in excess of its PSD limit can be dispelled by requiring that all furnaces be tested while operating at maximum capacity, as is required to demonstrate NESHAP compliance. Furthermore, if a furnace were to operate in excess of its individual PSD limit, as expressed in tons/year, a review of records of its total charge rate would reveal the exceedance.

Given that it is well-accepted that compliance can be assured for the individual rotary units with combined emission testing and combined limits, while operating at maximum capacity, and, indeed, that it is a common regulatory approach used by EPA, IDEM's proposed halving of the PSD emission limitations for these rotary furnaces is arbitrary and capricious.

We also reiterate our previous comment that uncontrolled PTE of SO_2, VOC, and NO_x for both projects are (and were at the time of installation) below PSD thresholds. Therefore, these emissions limits (Sections D.3.1(b)(3), (4), and (5)) are unnecessary and should be deleted from the Title V permit. We understand that IDEM has doubts about the efficacy of the emission factors, including AP-42 and FIRE factors that were available at the time PSD applicability was determined for these units. However, PSD applicability determinations cannot be re-made many years later based on emission limits that were not available at the time. If this were the case, every facility in the country would be in danger of PSD determinations being jettisoned in the future as new emission factors become available.

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1 For non-SAPU units, i.e. those with different underlying requirements (which is not the case here), emissions must be tested at both the outlet of the individual units and the outlet of the control device and at maximum representative capacity.

Finally, the PSD limits proposed by IDEM were established by dividing the PSD significant levels by 8760 hours per year, resulting in an hourly emissions limit. Hourly limits are inappropriate for batch processes such as the rotary furnaces. Wabash requests that the hourly limits be replaced with lb/ton limits, which more accurately reflect batch operations and their relationship to an annual PSD limit. Incorporating all of these comments, Wabash proposes that Section D.3.1 be modified as follows: "Compliance with the following emission limits renders the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to rotary furnaces (#1, #2 and #3), identified as EU RF.

1. The particulate matter emission shall not exceed 0.40 pound per ton from rotary furnaces #1 and #2.

2. The particulate matter emission shall not exceed 0.40 pound per ton from rotary furnace #3.

3. The PM_{10} emissions shall not exceed 0.64 pound per ton for rotary furnaces #1 and #2.

4. The PM_{10} emissions shall not exceed 0.64 pound per ton for rotary furnace #3."

Response 18:

IDEM, OAQ confirms that the construction of the two (2) rotary furnaces #1 and #2 in 1990 and rotary furnace #3 in 1998 were permitted and considered as two (2) distinct construction projects for PSD applicability review purposes. The emissions from three (3) rotary furnaces (#1, #2 and #3 of the Rotary Furnace Group), collectively identified as EU RF, exhaust through a common, single stack, identified as Stack 43. Therefore, in order for IDEM to be able to verify compliance with the PSD minor limits, for example, PM and PM_{10} of less than twenty-five (25) tons per year and fifteen (15) tons per year, for each modification of the source, IDEM requires that the emissions from the stack be limited to less than these PSD significant levels. These PSD significant levels are equated to hourly emission limits in Conditions D.3.1(b)(1-5).

IDEM, OAQ needs to be able to verify that each construction project is less than PSD significant levels, not that the total emissions from the stack are less than double the PSD significant levels. IDEM, OAQ can not state unequivocally that the total emissions controlled by a common baghouse, identified as RBF, are proportional to the sum of the operating capacities of rotary furnaces #1 and #2, plus rotary furnace #3. For example, even if rotary furnaces #1, #2 and #3 were all operating at the same capacity, does not always mean that the emissions from each furnace will be equal to that of the other furnaces. Therefore, IDEM, OAQ has again considered Wabash Alloys request, but has determined that any applicable limits should not be additive for both projects exhausting through a single common stack. If two (2) stacks had been employed, one for each construction project, then IDEM, OAQ would clearly be able to verify that each project individually complied with the PSD significant levels.

In addition as previously discussed in Responses 1 and 11, IDEM, OAQ, at this time, can not incorporate the suggested language that compliance with the NESHAP Subpart RRR assures compliance with the PM emission limit in Condition D.3.1(b)(1).

Therefore, IDEM, OAQ has not incorporated the suggested changes because they imply that compliance with double the PSD significance levels is the applicable limit for both projects combined, when in fact IDEM must be able to verify through testing that each construction project alone is less than the PSD significant levels. Therefore, the suggested changes have not been made to Condition D.3.1(b). However, IDEM, OAQ has converted the pound per hour limits for the single stack into pound per ton limits by dividing the pound per hour limits by the total capacity of rotary furnaces (#1, #2 and #3), identified as EU RF, [1.9 + 1.9 + 3.3 tons per hour = 7.1 tons per hour]. Therefore, the emission limits in Condition D.3.1(b) have been revised from pound per hour to pound per ton limits as follows:

D.3.1 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

(b) Compliance with the following emission limits renders the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to rotary furnaces (#1, #2 and #3), identified as EU RF.

(1) The particulate matter emissions shall not exceed **0.803 pounds per ton** ~~a total of 5.70 pounds per hour~~.

(2) The PM_{10} emissions shall not exceed **0.481 pounds per ton** ~~a total of 3.42 pounds per hour~~.

(3) The SO_2 emissions shall not exceed **1.28 pounds per ton** ~~a total of 9.13 pounds per hour~~.

(4) The VOC emissions shall not exceed **1.28 pounds per ton** ~~a total of 9.13 pounds per hour~~.

(5) The NO_X emissions shall not exceed **1.28 pounds per ton** a ~~total of 9.13 pounds per hour~~.

Comment 19:

Section D.3.1(c). Rotary Furnaces – Prevention of Significant Deterioration. Wabash appreciated that IDEM has incorporated the Subpart RRR limit of 0.40 pounds per ton of charge into this section. However, IDEM has not used the annual production limit of 109,000 tons established in the most recent testing which Wabash previously provided to IDEM together updated PSD emissions calculations for Furnace #15. Please correct this term to incorporate the applicable emissions limit and production limit (109,000 tons per year) as follows:

"(1) The throughput of metal shall not exceed 109,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month."

Response 19:

As explained in the TSD, in order for the modification to add reverberatory furnace #15 rated at 15 tons per hour to remain a minor PSD modification, a proposed throughput limit of 106,900 tons per twelve (12) consecutive month period with compliance determined at the end of each month is required to limit the potential to emit PM_{10} with netting credit to less than fifteen (15) tons per year and *VOC to less than forty (40) tons per year* (emphasis added). VOC is the limiting pollutant in establishing the throughput limit. The following table has been abstracted from page 20 of the TSD and the calculations are shown on page 13 of 13 of Appendix A to the TSD. The emissions from Furnace #6, removed from service in 1992, have been conservatively calculated using standard FIRES emission factors, since there is no way of knowing whether or not the actual emission factors were identical to Furnace #15. IDEM and Wabash Alloys have assumed that Furnace #15 complies with the requirements of Subpart RRR and utilizes stack test data from a different plant plus a safety factor. It is not a conservative analysis to use the smallest emission factors for Furnace #6.

Pollutant	**PM** (tons/yr)	**PM_{10}** (tons/yr)	**SO_2** (tons/yr)	**VOC** (tons/yr)	**CO** (tons/yr)	**NO_X** (tons/yr)
Furnace #15 (1995)	34.2	27.0	7.54	40.9	37.2	33.4

Contemporaneous Decreases (Furnace #6)	-20.6	-12.5	-4.32	-0.959	-1.55	-3.64
Net Emissions	13.6	14.5	3.22	39.97	35.6	29.8
PSD Significant Level	25	15	40	40	100	40

The addition of reverberatory furnace #15 in 1995 with a throughput limit of 106,900 tons per year and emission limits of 0.40 pounds per ton for PM and PM_{10} combined with the netting credit from the removal of furnace #6 makes the installation of reverberatory furnace #15 a minor PSD modification to a major PSD source. All of the net emissions increases are less than the PSD significant levels.

As shown in the above table, the limiting pollutant is VOC, not PM or PM_{10}. It should be noted that using a limited throughput of 106,900 tons per year to furnace #15 with a VOC emission factor of 0.752 pounds per ton based on the 1999 Dickson stack test plus 50% results in a potential to emit of:

106,900 tons/yr * 0.752 lbs/ton * 1 ton/2,000 lbs = 40.19 tons/yr

The contemporaneous decrease of 0.959 tons per year from Furnace 6 results in net VOC emissions of 39.97 tons per year which is less than the PSD significant level of forty (40) tons per year. Any increase in the limited throughput for Furnace #15 would result in the net emissions of VOC exceeding forty (40) tons per year.

The Wabash Alloys requested limited throughput of 109,000 tons is equivalent to:

109,000 tons/yr * 0.752 lbs/ton * 1 ton/2,000 lbs - 0.959 tons/yr = 40.03 tons/yr

which is greater than forty (40) tons per year, and thus the 109,000 tons is not justifiable. Therefore, the throughput limit in Condition D.3.1(c) has not been changed.

Condition D.3.1(c)(2) has been clarified to indicate that the emission limits are applicable to the West Group baghouse Stack 34 as follows:

D.3.1 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

(c) Compliance with following limits for reverberatory furnace (#15 of the West Group), identified as EU WGF, renders the requirements of 326 IAC 2-2 not applicable:

(1) The throughput of metal shall not exceed 106,900 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(2) The particulate matter and PM_{10} emissions **from the West Group baghouse Stack 34** shall not exceed 0.400 pounds per ton of metal.

Comments 20 and 21:

Section D.3.2(a). Rotary Furnace #3 – Volatile Organic Compounds. 326 IAC 8-1-6 is not applicable to rotary furnace #3 because it is not a "facility," as defined in 326 IAC 2-1-27, because it does not have a potential to emit 25 tons per year of VOC. The TSD refers to the 1997 TSD for the construction permit (CP 169-8475-00010) for the proposition that the PTE from rotary furnace #3 is 39.1 tons of VOC per year. However, Appendix A of the TSD shows that the uncontrolled emissions of VOC from rotary furnace #3 are actually 10.86 tons VOC per year. See Appendix A of the TSD, page 5 of 13. Wabash has calculated the true PTE from this source is (and was at the time of construction) 10.86 tons VOC per year. Thus, 326 IAC 8-1-6 is not an applicable requirement for rotary furnace #3 and should be removed from this permit.

Section D.3.2(b). Rotary Furnace #3 – Volatile Organic Compounds. This section should also be deleted. It is a historical reference to the 1997 construction permit, and pertains to the construction of the furnace rather than any operating requirement. Any physical change or change in the method of operation of rotary furnace #3 which resulted in an increase in emissions would be a modification subject to some level of permitting. Therefore this provision is unnecessary in this Title V permit. Furthermore, the capture and collection system requirements of 40 CFR §63.1506(c) are more stringent than and effectively supersede the requirements in Section D.3.2(b).

Responses 20 and 21:

After extensive review of the permitting history of rotary furnace #3, IDEM, OAQ agrees with Wabash Alloys that the potential to emit VOC from rotary furnace #3 is and should have been less than twenty-five (25) tons per year and therefore, the requirements of 326 IAC 8-1-6 do not apply. As pointed out in this comment, the potential VOC emissions are only 10.86 tons per year.

The VOC emission calculations that permitted the construction of rotary furnace #3 by CP 169-8475-00010, issued on November 7, 1997 are erroneous and erroneously calculated an after control potential to emit when in fact there is no additional VOC control device.

Therefore, since the requirements of 326 IAC 8-1-6 are not applicable the BACT requirements in Conditions D.3.2(a) and D.3.2(b) have been deleted as follows:

~~D.3.2 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]~~

~~(a) Pursuant to 326 IAC 8-1-6, the rotary furnace (#3) shall maintain a minimum operating temperature of 1,200 degrees Fahrenheit or a temperature determined in a stack test to achieve an emission limit of 0.236 pounds of VOC per ton of aluminum.~~

~~(b) Pursuant to CP 169-8475-00010, issued November 7, 1997, the rotary furnace (#3) system shall consist of a sealed door and refractory lined discharge duct.~~

Comments 22 and 23:

Sections D.3.6(a). Rotary Furnaces – Testing Requirements. Please remove all PM state testing requirements for rotary furnaces #1, #2 and #3. The PM limit is less stringent than Subpart RRR, therefore testing for compliance will ensure compliance with the PM limits in Section D.3.2.

We further note that there is no applicable requirement for two and a half year testing. Testing for compliance with PSD limitations (i.e. PM_{10}) every 2.5 years is unwarranted and burdensome. We note that IDEM has recently agreed that five year testing is acceptable to demonstrate compliance with PSD limitations at Wabash's Tipton, Indiana facility. (See Joint Motion to Amend Stipulation on Appeal in No. 04-A-J-3284 (February, 2006)) Therefore, please modify the rotary furnaces PM_{10} testing to every five (5) years. Additionally, Wabash requests that they be permitted to conduct PM_{10} testing at the same time testing is done to demonstrate compliance with Subpart RRR.

Section D.3.6(b). Rotary Furnace #3 – Testing Requirements. Please remove state VOC testing requirements for rotary furnace #3. As discussed above, no limits were required to be taken to avoid PSD and BACT limits don't apply. Additionally, because the uncontrolled PTE of VOC is well below PSD thresholds, Wabash believes that VOC testing is inappropriate. Therefore, there are no applicable VOC requirements and testing should not be required and this section should be deleted from this permit.

We further note that there is no applicable requirement for two and a half year testing. The rotary furnaces are subject to testing every five (5) years pursuant to Subpart RRR.

Responses 22 and 23:

The frequency of PM and PM_{10} testing required for the rotary furnaces (#1, #2 and #3) can be changed from once every 2½ years to once every five (5) years to be concurrent with the NESHAP Subpart RRR testing since as documented in the TSD on page 30, the most recent stack test verified compliance with the proposed PM and PM_{10} emission limits of 5.70 and 3.42 pounds per hour (now in pounds per ton). This latest test for the baghouse exhaust substantiated that each modification to add rotary furnaces was minor with respect to 326 IAC 2-2, PSD.

In addition, since rotary furnace #3 is not subject to the requirements of 326 IAC 8-1-6 as explained in Responses 20 and 21, the testing requirement in Condition D.3.6(b) (now D.3.5(b)) has been deleted. as follows:

D.3.~~5~~**6** Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [326 IAC 8-1-6] [326 IAC 2-2]

(a) To demonstrate compliance with Conditions **D.3.1(b)(1) and D.3.1(b)(2)** ~~D.3.2(b)(1) and D.3.2(b)(2)~~, the Permittee shall perform PM and PM_{10} testing pursuant to 326 IAC 3-6-3(b) and utilizing methods as approved by the Commissioner for rotary furnaces (#1, #2 and #3). Pursuant to 326 IAC 3-6-3(b), when testing, the rotary furnaces (#1, #2 and #3) shall be operated at 95% (ninety-five percent) or more of their maximum design capacity or under conditions representative of normal operations or under a capacity or conditions specified and approved by the IDEM, OAQ. This test shall be performed within **five (5)** ~~two and half (2 2)~~ years from the date of the most recent valid compliance demonstration. PM_{10} includes filterable and condensible PM_{10}. Testing shall be conducted in accordance with Section C - Performance Testing.

~~(b) Within 180 days after issuance of this Part 70 Operating Permit to demonstrate compliance with Condition D.3.2(a), the Permittee shall perform VOC and minimum temperature testing pursuant to 326 IAC 3-6-3(b) and utilizing methods approved by the Commissioner for rotary furnace (#3). Pursuant to 326 IAC 3-6-3(b), when testing, rotary furnace (#3) shall be operated at 95% (ninety five percent) or more of its maximum design capacity or under conditions representative of normal operations or under a capacity or conditions specified and approved by the IDEM, OAQ. This test shall be repeated at least once every two and half (2.5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.~~

Comment 24:

Section D.3.6(c). Furnace # 15 – Testing Requirements. Wabash requests that IDEM delete the requirement that only Furnace #15 be running during testing. As you know, Furnace #15 is controlled by a baghouse that also controls emissions from Furnace #17. Not being allowed to operate Furnace #17 at any time would have a significant negative impact on production. Results of any stack test performed while both Furnace #15 and Furnace #17 are running will be weighted based on actual throughput of each furnace during the test. Additionally, Wabash requests that they be permitted to conduct PM_{10} testing at the same time testing is done to demonstrate compliance with Subpart RRR.

Response 24:

Wabash Alloys can stack test reverberatory furnaces #15 and #17 operating simultaneously and exhausting through combustion flue Stacks 12 and 14 and baghouse Stack 34. However, the stack test would have to verify compliance with the emission limits for reverberatory furnace #15 alone. IDEM, OAQ does not believe that the emissions from the two (2) furnaces are necessarily proportional to their operating capacities during a stack test. One (1) of the furnaces may be cleaner than the other, and therefore a direct proportion may be an invalid assumption. Wabash Alloys can conduct PM_{10} testing at the same time as Subpart RRR testing as long as the time frame for verifying compliance is met. Therefore, Condition D.3.6(c) (now D.3.5(b)) has been revised to require Wabash

Alloys to operate both furnaces during the stack test, but verify compliance with the emission limit for reverberatory furnace #15 specified in Condition D.3.2(c) (now D.3.1(c)) as follows:

D.3.~~5~~6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [326 IAC 8-1-6] [326 IAC 2-2]

(**b**~~c~~) To demonstrate compliance with Condition~~s~~ **D.3.1(c)** ~~D.3.2(c)~~, the Permittee shall perform PM_{10} testing pursuant to 326 IAC 3-6-3(b) and utilizing methods as approved by the Commissioner for ~~only reverberatory furnace #15~~ **reverberatory furnaces #15 and #17**. Pursuant to 326 IAC 3-6-3(b), when testing, reverberatory furnace (#15) shall be operated at 95% (ninety-five percent) or more of its maximum design capacity or under conditions representative of normal operations or under a capacity or conditions specified and approved by the IDEM, OAQ. This test shall be performed within five (5) years from the date of the most recent valid compliance demonstration. PM_{10} includes filterable and condensible PM_{10}. Testing shall be conducted in accordance with Section C - Performance Testing.

Comment 25:

Section D.3.8. Furnaces – Reporting Requirements. This section should be deleted. We note that IDEM cited no applicable requirement supporting this singular reporting requirement. This requirement to submit a quarterly summary of information documenting compliance with one particular condition under this permit is unnecessary and burdensome. The deviation reports required pursuant to the general provisions of this permit (Sections B.15 and C.19) — which should be made on a semi-annual basis consistent with the NESHAP — and deviation reporting under Subpart RRR both require identification of any non-compliance with the parameters specified in Section D.3.1(c)(1) and will also include a certification of accuracy.

Response 25:

Condition D.3.8 (now D.3.7) is required to document compliance with Condition D.3.1(c)(1) which limits the throughput to reverberatory furnace #15 to 106,900 tons per twelve (12).consecutive month period with compliance determined at the end of each month. This throughput limit is unrelated to the requirements of the NESHAP. Therefore, Condition D.3.8 (now D.3.7) has not been revised or deleted.

Comment 26:

Section D.4.5. Dross Mill – Testing Requirements. For the reasons discussed above for Section D.3.6(a), Wabash requests that the stack testing frequency be changed to every five (5) years. We further notes that the TSD indicates that IDEM intended that the dross mill be tested every 5 years, see TSD page 35 of 39.

Response 26:

Condition D.4.5 has been revised to implement the five (5) testing frequency indicated in the TSD since the dross mill is not a furnace requiring more frequent testing as follows:

D.4.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Within 180 days after issuance of this Part 70 Operating Permit to demonstrate compliance with Condition D.4.1 the Permittee shall perform PM testing pursuant to 326 IAC 3-6-3(b) and utilizing methods as approved by the Commissioner for the dross mill building and the two (2) baghouses. This test shall be repeated at least once every **five (5)** ~~two and one half (2.2)~~ years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

Comment 27:

Section D.4.8(b). Dross Mill – Broken or Failed Bag Detection. The dross mill building is controlled by one single-compartment baghouse and one multi-compartment baghouse. The draft permit addresses only the single-compartment baghouse. Wabash requests that IDEM add to this term the language which is used in section D.3.5(b) to address the multi-compartment baghouse.

Response 27:

Condition D.4.4(b) already incorporated language addressing a bag failure in a multi-compartment baghouse as follows: "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."

Therefore, it is unnecessary to revise Condition D.4.8(b).

Comment 28:

Section E – General Comments. Wabash appreciates that IDEM has created a separate Section E that follows the language of the Federal Code of Regulations for the Secondary Aluminum NESHAP and does not paraphrase or otherwise alter that language. However, Wabash believes where there are both NESHAP and other applicable requirements affecting the same emission units and specifying different requirements, even different emission limitations, it would be helpful if the permit included a "roadmap" in the form of an Appendix which specifies the more stringent and thus controlling applicable requirement from the perspective of achieving compliance.

Response 28:

If Wabash Alloys wishes to pursue a streamlined permit, pursuant to 326 IAC 2-7-24 (Establishment of streamlined requirements for units subject to multiple requirements), Wabash Alloys would need to implement the steps outlined in Response 1. Therefore, no "roadmap" in the form of an Appendix has been prepared or incorporated into the proposed permit.

Comment 29:

Section E - §63.1501(a). Please note in this section that Wabash was granted an extension for initial NESHAP compliance until March 24, 2004.

Response 29:

The Technical Support Document duly noted that Wabash Alloys, L.L.C. was granted an extension for initial NESHAP Subpart RRR compliance until March 24, 2004. Section E of the proposed permit contains the unaltered applicable sections from the NESHAP Subpart RRR and IDEM, OAQ's policy is not to modify in any way the wording of the Federal Rule.

Therefore, although Wabash Alloys did obtain an extension, the proposed language in Condition E.2 has not been revised, Condition E.3(d) has added to incorporate the fact that an extension was granted as follows:

E.3 One Time Deadlines Relating to NESHAP RRR

(d) On October 16, 2001, IDEM, OAQ approved an extension of the compliance standards and date of March 24, 2003 contained in 40 CFR Part 63, Subpart RRR for the scrap shredder, the two (2) scrap dryers as well as the eight (8) reverberatory and three (3) rotary Group 1 furnaces (total eleven (11) Group 1 furnaces). The termination date of this extension was March 23, 2004, which was the final compliance date.

Comment 30:

General Comments. Wabash requests that IDEM reconsider and amend its comments, analysis, and calculations in the Technical Support Document (TSD) in light of the comments Wabash has provided above and the attached documents.

Response 30:

IDEM prefers to have the TSD provide the reasoning for the public noticed version of the permit. This addendum to the TSD explains any changes to the permit after public notice. This method provides documentation for each step in the permitting process. As a result, IDEM does not make changes to the TSD after public notice.

Comment 31:

Unpermitted Emission Units and Pollution Control Equipment. In this section of the TSD, IDEM states that three baghouse furnace natural gas-fired pre-heaters, rated at 10 million Btu/hr, are unpermitted sources. In the next section of the TSD, a similar source is described as being exempt from construction and operating permits. Wabash believes that all of these 10 million Btu/hr natural gas-fired pre-heaters qualify for the exemption under 326 IAC 2-1.1-3. The permitting exemption is for "new sources or modifications of existing sources that consist of only combustion related activities" including "natural gas-fired combustion sources with heat input equal to or less than 10 million British thermal units per hour."

Response 31:

Since the natural gas-fired pre-heaters were installed in 2003, they are subject to the Part 70 provisions found at 326 IAC 2-7 *et seq*. The exemption provisions of 326 IAC 2-1.1-3 do not apply.

The “insignificant activity” definition as it specifically relates to natural gas-fired pre-heaters is found at 326 IAC 2-7-1(21)(G)(i)(aa) which lists certain combustion related activities such as:

(AA) Space heaters, process heaters, heat treat furnaces, or boilers using the following fuels:

(aa) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour.

The ten (10) million British thermal unit per hour threshold applies to the aggregate of process heaters installed. Three (3) natural gas-fired process heaters (with individual heat inputs of ten (10) million British thermal units per hour, but totaling thirty (30) British thermal units per hour) that are installed at the same time cannot constitute an insignificant activity. This is the only logical interpretation of the rule since, for example, one (1) natural gas-fired process heater rated at fifteen (15) million British thermal units per hour would not be considered insignificant.

Comment 32:

TSD/Permit Inconsistencies. We have noted a number of inconsistencies between the proposed permit language and the TSD discussion of those provisions and calculation of emissions. For example, in the "Testing Requirements" Section (b) "Stack Tests," the TSD indicates that testing is required within the first 180 days after the permit for all of the units that were not recently tested. But it then applies the 180 day requirement to some units, such as reverberatory furnace #15, which had a PM_{10} test in 2003. Correctly, that 180 day testing requirement is not stated in the permit for Furnace #15. On the other hand, the TSD states the dross mill is to be tested every 5 years, and the permit states it is to be tested every 2.5 years. Wabash requests that the permit be corrected on this point. Also, as noted for several emission units, the TSD discussion and appended emission data support a conclusion that emissions were below PSD thresholds without taking limits, yet the permit includes PSD limits. We request that the permit be corrected on this point. In the case of rotary furnace #3, the TSD should also revised to make it clear that the 39.1 tons/year of VOC emissions stated in the construction permit was inaccurate and that the correct uncontrolled VOC emissions were actually 10.86 tons per year as shown in Appendix A. There may be additional inaccuracies in the TSD which should also be corrected."

Response 32:

All of the aforementioned inconsistencies or corrections have been addressed in this TSD Addendum. Specifically, the testing requirements for reverberatory furnace #15 in Condition D.3.6 (now D.3.5) have been addressed in Response 24, whereas the frequency of testing of the dross mill was addressed in Response 26. Although the PSD limits have been retained, the issues were discussed in Responses 11, 12, 15, 16, 18, 19, 22 and 23.

On May 26, 2006, Sam Portanova, of US EPA Region 5 submitted the following comment:

Comment 33:

Pg. 8 of the TSD, under "existing approvals", paragraph (d) regarding conditions from the September 21, 1989 synthetic minor permit. The TSD says that emission limits for rotary furnace #3, were 5.48 lb/hr of PM and 3.20 lb/hr of PM_{10}. While limits for rotary furnace #1 and #2 had limits of 5.70 lb/hr PM and 3.42 lb/hr PM_{10}. Since they exhaust to the same stack, the limit for all 3 furnaces have been adjusted to the higher 5.70 lb/hr PM and 3.42 lb/hr PM_{10}. If the tighter limit on #3 was relied upon to avoid PSD, how does IDEM justify its relaxation. Would this relaxation trigger a 52.21(r)(4) situation which would trigger PSD?

Response 33:

The emission limits of 5.48 pounds of PM per hour and 3.20 pounds of PM_{10} per hour in the 1989 approval are equivalent on an annual basis (8,760 hours) to 24.0 tons of PM per year and 14.0 tons of PM_{10} per year, respectively. IDEM, OAQ previously assigned limits with a one (1) ton margin of safety below the applicable PSD significant levels of twenty-five (25) tons of PM per year and fifteen (15) tons of PM_{10} per year. As there was no netting, these limits were adjusted upward without triggering PSD since emission rates of less than 5.70 pounds of PM per hour and less than 3.42 pounds of PM_{10} per hour are equivalent to emission rates less than the PSD significant levels of twenty-five (25) tons of PM per year and fifteen (15) tons of PM_{10} per year. The pound per hour limits have been changed to pound per ton limits as explained in Response 18. Therefore, no additional analyses or changes to the permit will be made as a result of this comment.

Upon further review, the OAQ has decided to make the following additional changes to the Part 70 Operating Permit: The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language is **bolded)**:

Change 1:

The telephone and fax numbers for the Compliance Branch at IDEM, OAQ have been changed from Phone: 317-233-5674 to 317-233-0178 and Fax: 317-233-5967 to 317-233-6865 throughout the permit.

Change 2:

The sentence, "326 IAC 9-1-2 is not federally enforceable." has been deleted because 326 IAC 9 was incorporated into the Indiana SIP on November 30, 2004, with an effective date of January 31, 2005 as follows:

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

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2. ~~326 IAC 9-1-2 is not federally enforceable.~~

Change 3:

Although a performance test for scrap dryer #4 was conducted on January 14, 2004, the last valid compliance performance test was conducted on August 4 - 5, 2004. Therefore, Condition D.2.8(a) has been revised to indicate that the next compliance performance test shall be performed prior to August 5, 2009 as follows:

D.2.8 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) To demonstrate compliance with Condition D.2.1, the Permittee shall perform PM and PM_{10} testing pursuant to 326 IAC 3-6-3(b) and utilizing methods as approved by the Commissioner for the scrap dryers (#4 and #5). Pursuant to 326 IAC 3-6-3(b), when testing, the scrap dryers (#4 and #5) shall be operated at 95% (ninety-five percent) or more of their maximum design capacity or under conditions representative of normal operations or under a capacity or conditions specified and approved by the IDEM, OAQ. This test shall be performed prior to June 26, 2008 for scrap dryer #5 and prior to **August 5, 2009** ~~January 14, 2009~~ for scrap dryer #4 and shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

Change 4:

Although referenced in Responses 4 and 5, Section D.3 was not revised in the permit to remove the word "salt" from the description for the three (3) rotary furnaces. Therefore, the Section D.3 facility description has been revised as follows:

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Reverberatory & Rotary Furnaces

(g) Three (3) rotary furnaces (#1, #2 and #3 of the Rotary Furnace Group), collectively identified as EU RF, Rotary Furnace Group, maximum capacity: 7.1 tons of aluminum charge~~,~~ **and** dross products ~~and salt~~ per hour, (Rotary Furnace Group maximum total reactive flux injection rate of 117 pounds per ton of feed/charge and a minimum lime injection rate of 37 pounds per hour), consisting of:

(1) Two (2) rotary furnaces (#1 and #2), rated at 6 million British thermal units per hour, each, installed in 1990, equipped with a hood enclosure capture system ducted to a spark arrestor and a lime-injected baghouse, identified as RFB, exhausting through Stack 43, maximum capacity: 1.9 tons of aluminum charge~~,~~ **and** dross products ~~and salt~~ per hour, each, and

(2) One (1) rotary furnace (#3), rated at 7.5 million British thermal units per hour, installed in 1998, equipped with a lime-injected baghouse, identified as RFB, exhausting through Stack 43, maximum capacity: 3.3 tons of aluminum charge~~,~~ **and** dross products ~~and salt~~ per hour. Under NESHAP Subpart RRR, these three (3) rotary furnaces are Group 1 furnaces.

Clarification 1:

The supplemental information provided by Wabash Alloys dated August 8, 2006 was utilized in Response 13, but was not specifically incorporated into Comment 13. Response 13 and the permit are not revised due to this clarification. Therefore, for completeness, IDEM, OAQ has abstracted the supplemental information of August 8, 2006 as follows:

IDEM, OAQ and Wabash Alloys agreed that a 95% destruction efficiency represents BACT for the Wabash dryer afterburner. The physical layout of the dryer and afterburner does not allow for a direct determination of the afterburner efficiency. Therefore, Wabash Alloys requested and IDEM, OAQ agreed that BACT could be expressed as an emission limit, rather than an afterburner efficiency. The August 1996 test of the Wabash dryer was performed to assist USEPA in the development of the Secondary Aluminum NESHAP, Subpart RRR. That testing event included testing the dryer with the afterburner turned off to obtain information on uncontrolled emissions.

Based on this test data, an emission limit reflecting the 95% control that IDEM, OAQ has determined to be BACT can be calculated and expressed as 0.26 pounds of VOC per ton of charge. Therefore, Wabash Alloys requested that Condition D.2.3 be amended as follows: "Pursuant to 326 IAC 8-1-6 (New facilities; general reduction requirements), Best Available Control Technology (BACT) for each of the scrap dryers (#4 and #5), identified as EU D1 and EU D2, has been determined to be an afterburner with a minimum three- (3-) hour average operating temperature of 1,400 degrees Fahrenheit and an emission rate not to exceed 0.26 lbs VOC per ton of charge. Each afterburner shall be operated at all times when the associated scrap dryer is drying scrap."

Condition D.2.3 has been abstracted from the permit and shows that no additional changes are necessary due to this clarification.

D.2.3 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6 (New facilities; general reduction requirements), Best Available Control Technology (BACT) for each of the scrap dryers (#4 and #5), identified as EU D1 and EU D2, has been determined to be an afterburner with a minimum three- (3-) hour average operating temperature of 1,400 degrees Fahrenheit and an emission rate not to exceed 0.260 pounds of VOC per ton of charge. Each afterburner shall be operated at all times when the associated scrap dryer is drying scrap.

Indiana Department of Environmental Management
Office of Air Quality

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

Source Background and Description

Source Name:	**Wabash Alloys, L.L.C.**
Source Location:	**4525 West Old 24, Wabash, Indiana 46992**
County:	**Wabash**
SIC Code:	**3341**
Operation Permit No.:	**T 169-6359-00010**
Permit Reviewer:	**Mark L. Kramer**

The Office of Air Quality (OAQ) has reviewed a Part 70 Operating Permit application from Wabash Alloys, L.L.C. relating to the operation of a stationary secondary aluminum production source utilizing scrap aluminum.

As a result of the stack tests conducted in the spring of 2004 to verify compliance with the NESHAP Subpart RRR, the maximum capacities for the emission units have been stated to reflect the maximum capacities calculated based on the stack test at 95% capacity rather than those stated in the original construction permits. As no modifications or reconstructions of any of the permitted emission units have taken place, no further analysis is required for those emission units constructed before the applicability date of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)). Those constructed after the PSD applicability date of August 7, 1977 have been re-assessed for compliance with all rules and if necessary, limits have been adjusted or incorporated to account for increases in capacities.

The following table shows the capacities from previous construction permits compared to those measured in the stack tests. In addition, the capacities incorporated into the proposed permit are shown in this table. Note that the stack performance tests were to be conducted at a capacity that was at least 95% of the maximum capacity. Therefore, an adjustment factor (1/0.95) has been applied to the average maximum capacities reported in the stack tests.

Furthermore, Wabash Alloys has requested that the highest production rate of any "commonly-ducted" furnace as determined during the initial NESHAP Subpart RRR compliance tests, be used as the capacity for any furnace within the "commonly-ducted" group. The NESHAP compliance testing required that Wabash Alloys conduct the testing under conditions that represent the highest production level, using representative scrap and at the highest flux injection rate. By careful planning and production scheduling, Wabash Alloys was able to meet these stack testing requirements for the group of "commonly-ducted" furnaces. If the products had been interchanged between furnaces of similar design, within the same group, the furnace with the maximum capacity would have been different. More simply put, scheduling the same product, with the same scrap mix, with similar furnace design would result in the same production rate regardless of the furnace. Therefore, the maximum capacity was then adjusted by 1/0.95 for each emission unit in the equipment list. Note that rotary furnaces #1 and #2 were permitted together and rotary furnace #3 was permitted separately several years later. So the maximum charge was derived from either rotary furnace #1 or #2. Rotary furnace #3 was kept separate.

Comparison of Charge/Throughput from Stack Tests Versus Stated Capacities

SUMMARY	East Furnace Group			Center Furnace Group			West Furnace Group		Rotary Furnace Group		
	#2	#5	#8	#10	#11	#14	#15	#17	#1	#2	#3
Stated Charge in Prior Permits, TPH	7.50	7.50	7.50	7.50	7.50	7.50	10.00	10.00	1.475	1.475	3.95
Total Group Charge in Prior Permits, TPH	22.50			22.50			20.00		6.90		
3-Run Avg. Stack Test Charge, TPH	10.1	4.10	9.50	9.09	11.7	10.4	12.9	14.2	1.81	1.73	3.17
Total Group Charge, TPH	23.7			31.2			27.1		6.70		
Proposed Equipment List Maximum Charge, TPH	10.6	10.6	10.6	12.3	12.3	12.3	15.0	15.0	1.9	1.9	3.3
Proposed Total Group Charge, TPH	25.0			32.8			28.5		7.1		

	Scrap Dryer #4	Scrap Dryer #5	Shredder
Stated Charge/Capacity in Prior Permits, TPH	15.6	15.6	25.0
3-Run Avg. Stack Test Charge/Capacity Throughput, TPH	7.17	9.22	79.8
Proposed Equipment List Maximum Charge/Capacity, TPH	7.5	9.7	84.0

A proposed Part 70 Permit was originally submitted to public comment from October 23 through November 22, 1998, but was never issued due to extensive changes by IDEM, OAQ and requests by Wabash Alloys, L.L.C.

Permitted Emission Units and Pollution Control Equipment

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

(a) One (1) scrap shredder and associated conveyors and screen, identified as EU S1, installed in 1970, equipped with two (2) baghouses, identified as SB1 and SB2, installed in September 1990, exhausting through Stacks 18 and 29, maximum capacity: 84 tons of scrap aluminum per hour.

(b) One (1) scrap dryer (#4), identified as EU D1, rated at 4 million British thermal units per hour, equipped with one (1) natural gas afterburner, rated at 24 million British thermal units per hour and one (1) lime-injected baghouse, identified as SDB1, installed in 1987, last modified in March 1996, exhausting through Stack 19, maximum capacity: 7.5 tons of aluminum scrap processed per hour, a minimum lime-injection rate of 20 pounds per hour and a minimum activated carbon injection rate of 10 pounds per hour.

(c) One (1) scrap dryer (#5), identified as EU D2, rated at 4 million British thermal units per hour, equipped with one (1) natural gas afterburner rated at 24 million British thermal units per hour and one (1) lime-injected baghouse, identified as SDB2, installed in 1989, exhausting through Stack 26, maximum capacity: 9.7 tons of aluminum scrap processed per hour and minimum lime injection rate of 20 pounds per hour.

(d) Three (3) reverberatory furnaces (#2, #5 and #8 of the East Group), collectively identified as EU EGF, rated at 24, 33 and 30 million British thermal units per hour, respectively, installed in pre-1971, equipped with a multi-compartment lime-injected baghouse, identified as EFB,

installed in 1992, exhausting through combustion flue Stacks 2, 3 and 6 and baghouse Stack 35, maximum capacity: 10.6 tons of aluminum charge per hour, each and four (4) pots of molten metal per hour of five (5) tons of molten metal per pot each, East Group maximum capacity: 25.0 tons of aluminum charge per hour (East Group maximum total reactive flux injection rate of 32 pounds per ton of feed/charge and a minimum lime injection rate of 46 pounds per hour). Under NESHAP Subpart RRR, these three (3) reverberatory furnaces are Group 1 furnaces.

(e) Three (3) reverberatory furnaces (#10, #11 and #14 of the Center Group), collectively identified as EU CGF, rated at 30 million British thermal units per hour each, furnaces #10 and #11 installed in pre-1971 and furnace #14 installed in pre-1973, equipped with a multi-compartment lime-injected baghouse, identified as CFB, installed in 1991, exhausting through combustion flue Stacks 8, 9 and 11 and baghouse Stack 33, maximum capacity: 12.3 tons of aluminum charge per hour, each, and four (4) pots of molten metal per hour of five (5) tons of molten metal per pot each, Center Group maximum capacity: 32.8 tons of aluminum charge per hour (Center Group maximum total reactive flux injection rate of 35 pounds per ton of feed/charge and a minimum lime injection rate of 51 pounds per hour). Under NESHAP Subpart RRR, these three (3) reverberatory furnaces are Group 1 furnaces.

(f) Two (2) reverberatory furnaces (#15 and #17 of the West Group), collectively identified as EU WGF, rated at 32 and 33 million British thermal units per hour, respectively, furnace #15 installed in 1974, replaced in 1995, and furnace #17 installed in 1979, equipped with a multi-compartment lime-injected baghouse, identified as WFB, installed in 1992, exhausting through combustion flue Stacks 12 and 14 and baghouse Stack 34, maximum capacity: 15.0 tons of aluminum charge per hour, each, and four (4) pots of molten metal per hour of five (5) tons of molten metal for furnaces #15 and #17, West Group maximum capacity: 28.5 tons of aluminum charge per hour (West Group maximum total reactive flux injection rate of 32 pounds per ton of feed/charge and a minimum lime injection rate of 25 pounds per hour). Under NESHAP Subpart RRR, these two (2) reverberatory furnaces are Group 1 furnaces.

(g) Three (3) rotary furnaces (#1, #2 and #3 of the Rotary Furnace Group), collectively identified as EU RF, Rotary Furnace Group, maximum capacity: 7.1 tons of aluminum charge, dross products and salt per hour, (Rotary Furnace Group maximum total reactive flux injection rate of 117 pounds per ton of feed/charge and a minimum lime injection rate of 37 pounds per hour), consisting of:

(1) Two (2) rotary furnaces (#1 and #2), rated at 6 million British thermal units per hour, each, installed in 1990, equipped with a hood enclosure capture system ducted to a spark arrestor and a lime-injected baghouse, identified as RFB, exhausting through Stack 43, maximum capacity: 1.9 tons of aluminum charge, dross products and salt per hour, each, and

(2) One (1) rotary furnace (#3), rated at 7.5 million British thermal units per hour, installed in 1998, equipped with a lime-injected baghouse, identified as RFB, exhausting through Stack 43, maximum capacity: 3.3 tons of aluminum charge, dross products and salt per hour.

Under NESHAP Subpart RRR, these three (3) rotary furnaces are Group 1 furnaces.

(h) One (1) dross mill building, identified as EU DMB, equipped with two (2) baghouses, identified as DMB-1 and DMB-2, consisting of storage bins, size reduction equipment, screens and shakers for sizing, conveying equipment for transporting materials to storage bins or silos located outside the dross mill building, that mill, crush, separate and convey dross, installed in 1969, exhausting through Stacks 30 and 41, maximum capacity: 60.0 tons of aluminum dross per hour.

(i) One (1) wastewater evaporator, identified as EU WWE, rated at 0.95 million British thermal units per hour, installed in 1996, exhausting through Stack 42, maximum capacity: 37 gallons of oil and waste water per hour, total.

Note: Dross cooling occurs within the furnace enclosure until visible emissions initially cease, not within the dross mill building.

Unpermitted Emission Units and Pollution Control Equipment

The source also consists of the following unpermitted emission units:

(j) Three (3) baghouse furnace natural gas-fired pre-heaters, rated at 10.0 million British thermal units per hour, each, installed in 2003 (deemed insignificant activities).

New Emission Units and Pollution Control Equipment Exempt From Advanced Source Modification Approval

Information received on January 30, 2006 includes information relating to the construction and operation of the following exempt equipment pursuant to 326 IAC 2-1.1-3:

(k) One (1) baghouse furnace natural gas-fired pre-heater, rated at 10.0 million British thermal units per hour, to be installed in 2006 on the rotary furnace baghouse, identified as RFB, (deemed an insignificant activity).

Emission Units and Pollution Control Equipment Changed from West to Center Group

IDEM, OAQ was informed via correspondence dated March 24, 2003 from Wabash Alloys that reverberatory furnace (#14) which was formerly part of the West Group with a capacity of 15.0 tons of aluminum charge per hour and exhausted to the WFB baghouse, rated at 30 million British thermal units per hour became part of the Center Group in March 2003. Furnace (#14) now has a capacity of 12.3 tons of aluminum charge per hour and now exhausts to the CFB baghouse. Reverberatory furnace (#14) was originally exhausted to the WFB baghouse in 1998.

Emission Units and Pollution Control Equipment Removed From Service

(l) Two (2) electric aluminum furnaces.

(m) One (1) reverberatory furnace (#12 of the Center Group), identified as EU CGF, rated at 30 million British thermal units per hour, installed in pre-1971, equipped with a multi-compartment baghouse, identified as CFB, installed in 1991, exhausted through combustion flue Stack 10 and baghouse Stack 33, capacity: 7.5 tons of aluminum charge per hour, (maximum 350 pounds of chlorine per hour per furnace and solid fluxes of a maximum of 12% of the scrap amount per hour per furnace in addition).

Insignificant Activities

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

(a) Natural gas-fired combustion sources (non-boiler) with heat input equal to or less than ten million (10,000,000) British thermal units per hour with a total rating of 134.245 million British thermal units per hour consisting of:

(1) One (1) furnace #4, rated at 7.0 million British thermal units per hour. Under NESHAP Subpart RRR, this holding furnace is Group 2 furnace.

(2) Twelve (12) ladle preheaters, rated at 4.0 million British thermal units per hour, each, total 48.0 million British thermal units per hour. When not preheating ladles, two (2) of these may be identified as Melt Pots A and B. Under NESHAP Subpart RRR, when operating in this manner, these two (2) melt pots are Group 2 furnaces.

(3) Seven (7) Mobile Shop space heaters, rated at 1.36 million British thermal units per hour, total.

(4) Three (3) Maintenance Shop space heaters, rated at 0.15 million British thermal units per hour, each.

(5) One (1) Pump Repair Shop space heater, rated at 0.525 million British thermal units per hour.

(6) Two (2) Shipping space heaters, rated at 0.40 million British thermal units per hour, each.

(7) Two (2) Shipping space heaters, rated at 0.25 million British thermal units per hour, each.

(8) Four (4) space heaters located in the Trailer Drainage building, rated at 0.15 million British thermal units per hour, each.

(9) Two (2) storeroom space heaters, rated at 0.18 million British thermal units per hour, each.

(10) Two (2) refractory shop space heaters, rated at 0.25 million British thermal units per hour, each.

(11) Two (2) ingot conveyor preheaters, rated at 0.80 million British thermal units per hour, each.

(12) One (1) steam Jenny, rated at 0.40 million British thermal units per hour.

(13) Three (3) scrap pre-heaters, rated at 0.40 million British thermal units per hour, each.

(14) Four (4) furnace baghouse pre-heaters, rated at 10.0 million British thermal units per hour, each, three (3) installed in 2003 and one (1) to be installed in 2006.

(15) Six (6) inspirator burners, rated at 5 million British thermal units per hour, each.

(16) One (1) assay crucible in the laboratory, rated at 0.95 million British thermal units per hour.

(b) Each combustion source flame has safety purging on startup.

(c) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month, consisting of: one (1) 6,000 in-plant diesel fuel tank, one (1) 10,000 over the road diesel tank, one (1) 300 gallon gasoline tank behind the maintenance shop, one (1) 550 gallon hammermill diesel tank, and one (1) 175 gallon back-up diesel generator tank.

(d) The following VOC and HAP storage containers: storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons; vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids, consisting of various 55

gallon drums and 375 gallon totes.

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

(f) Any of the following structural steel and bridge fabrication activities: cutting 200,000 linear feet or less of one inch (1") plate or equivalent; using 80 tons or less of welding consumables (326 IAC 6-3-2).

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

(h) Paved and unpaved roads and parking lots with public access (326 IAC 6-4).

(i) Purging of gas lines and vessels that is related to routine maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.

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

(k) Purge double block and bleed valves.

(l) Mold release agents using low volatile products (vapor pressure less than or equal to 2 kiloPascals measured at 38°C). The mold release currently used on the ingot casting line contains no volatile products.

(m) A laboratory as defined in 326 IAC 2-7-1(21)(D) consisting of an assay furnace which melts aluminum and has a brim capacity of less than 450 cubic inches and other equipment allowed by the rule.

(n) Farm operations, including growing corn and beans and horse grazing, but are subject to change since the land is leased.

(o) Refractory storage not requiring air pollution control equipment.

(p) Magnetic separation process [326 IAC 6-3-2].

(q) Aluminum Aelectric crusher #2", installed in 1984, capacity: 25 tons of scrap per hour. Under NESHAP Subpart RRR, this crusher is a shredder [NESHAP Subpart RRR].

(r) Indoor and outdoor scrap aluminum storage piles and handling [326 IAC 6-3-2].

(s) Dross transfer and storage [326 IAC 6-3-2].

(t) Pouring/casting aluminum sows and ingots [326 IAC 6-3-2].

(u) Ladle pouring - aluminum [326 IAC 6-3-2].

(v) Landfill activities [326 IAC 6-3-2].

Existing Approvals

The source has constructed or has been operating under the following previous approvals:

(a) PC (85) 1620, issued on September 24, 1986;

(b) PC (85) 1707, issued on November 2, 1988;

(c) CP (85) 1827 & OP 4320-0010, issued on March 7, 1990;

(d) Registration CP 169-00010, issued on September 4, 1990;

(e) Registration CP 169-2179-00010, issued on September 20, 1991;

(f) CP 169-2581-00010, issued on July 13, 1993;

(g) CP 169-3256-00010, issued on November 19, 1993;

(h) Exemption CP 169-3438-00010, issued on January 10, 1994;

(i) Exemption CP 169-4335-00010, issued on April 24, 1995;

(j) Amendment to CP 169-2581-00010, issued on December 11, 1995;

(k) Registration CP 169-4859 -00010, issued on January 31, 1996;

(l) OP 169-00010, issued on February 23, 1996;

(m) CP 169-8475-00010, issued on November 7, 1997;

(n) Cause No. 97-A-J-1916, issued on April 3, 1998; and

(o) Amendment A 169-9950, issued on September 21, 1998.

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 proposed permit. All previous registrations and permits are superseded by this permit.

The following terms and conditions from previous approvals have been revised in this Part 70 Operating Permit:

(a) PC (85) 1620 issued on September 24, 1986

Condition 1(a): The particulate matter from scrap dryer #4 shall be limited to an emission rate of 8.3 pounds per hour.

PC (85) 1707) issued on November 2, 1988

Condition 1(a): The particulate matter from scrap dryer #5 shall be limited to an emission rate of 25.9 pounds per hour pursuant to 326 IAC 6-3-2.

Reason not incorporated: Since the requirements of NESHAP Subpart RRR are more stringent than the requirements of 326 IAC 6-3-2, the allowable PM emission rate for the scrap dryer #4 has not been incorporated into the proposed permit.

(b) CP (85) 1827 issued on March 7, 1990

Condition 4: The particulate matter emissions from the two (2) rotary furnaces (#1 and #2), identified as EU RF, shall not exceed a total of 5.70 pounds per hour which would satisfy the

requirements of 326 IAC 6-3-2. The allowable PM emission rate for each furnace is 8.6 pounds per hour pursuant to 326 IAC 6-3-2.

Reason not incorporated: Since the requirements of NESHAP Subpart RRR are more stringent than the requirements of 326 IAC 6-3-2, the allowable PM emission rate for the three (3) rotary furnaces combined has not been incorporated into the proposed permit.

(c) CP 169-2581-00010, issued on July 13, 1993

Condition 4: The particulate matter emissions from the furnace (#15) shall be limited to 10.73 pounds per hour. This will also satisfy 326 IAC 6-3-2.

Reason not incorporated: The PM emission rate of 10.73 pounds per hour was based on netting with contemporaneous decreases calculated using allowable PM emissions pursuant to 326 IAC 6-3-2 rather than average annual actual emissions. Note: there was no PM_{10} emission limit contained in that permit.

Based on the information provided by Wabash Alloys, a throughput limit for furnace #15 has been proposed coupled with the documentation provided for netting credit due to the removal of furnace #6 which was uncontrolled.

Since the requirements of NESHAP Subpart RRR are more stringent than the requirements of 326 IAC 6-3-2, the allowable PM emission rate for the reverberatory furnace #15 has not been incorporated into the proposed permit.

(d) CP (85) 1827 issued on March 7, 1990

Condition 4: The particulate matter emissions from the two (2) rotary furnaces (#1 and #2), identified as EU RF, shall not exceed a total of 5.70 pounds per hour to render the requirements of 326 IAC 2-2 not applicable.

CP 169-8475-00010, issued on November 7, 1997

Condition 11: Pursuant to 326 IAC 2-2 (PSD), the particulate matter emissions shall not exceed 5.48 pounds per hour and PM_{10} shall not exceed 3.20 pounds per hour.

A 169-9950, issued on September 21, 1998

Condition 1: The particulate matter emissions from the rotary furnace #3, identified as EU RF, shall not exceed 5.48 pounds per hour, that the outlet grain loading from the baghouse, identified as RFB, shall not exceed 0.018 grains per dry standard cubic foot and that the PM_{10} emissions from the rotary furnace #3, identified as EU RF, shall not exceed 3.20 pounds per hour to render the requirements of 326 IAC 2-2 not applicable.

Reason not incorporated: The emission limits have been replaced by a combined hourly PM limit that shall not exceed 5.70 pounds per hour, equivalent to less than twenty-five (25) tons per year as well as a combined hourly PM_{10} limit that shall not exceed 3.42 pounds per hour, equivalent to less than fifteen (15) tons per year for all three (3) rotary furnaces. Although the three (3) rotary furnaces were installed in two (2) different years, they exhaust through the same baghouse stack, and therefore the limits for each modification can not be added together to render the requirements of 326 IAC 2-2 not applicable since compliance can not be verified for each modification. The grain loading limit of 0.018 grains per dry standard cubic foot of outlet air has not been incorporated.

(e) CP 169-8475-00010, issued on November 7, 1997
A 169-9950-00010, issued on September 21, 1998

Condition 11: The particulate matter emissions from the rotary furnace #3 shall not exceed 5.48 pounds per hour. This limit will also satisfy the requirements of 326 IAC 6-3-2.

Reason not incorporated: Since the requirements of NESHAP Subpart RRR are more stringent than the requirements of 326 IAC 6-3-2, an allowable PM emission rate for the rotary furnace #3 shall not be incorporated into the proposed permit.

(f) CP 169-8475-00010, issued on November 7, 1997

Condition 17: Pursuant to 326 IAC 8-1-6, the afterburner system shall operate at all times that the rotary furnace (#3) is in operation, maintain a minimum operating temperature of 1,200°F and a minimum ninety percent (90%) overall VOC control efficiency.

Reason not incorporated: Rotary furnace #3 was designed to maintain a minimum temperature sufficient to control the VOC emissions without requiring an add-on afterburner control device. Therefore, BACT for rotary furnace #3 is operating with the minimum operating temperature of 1,200 degrees Fahrenheit or a temperature determined in a stack test to achieve an emission limit of 0.236 pounds of VOC per ton of aluminum. Therefore, this limit and a minimum temperature have been incorporated as BACT into the proposed permit.

All conditions from previous approvals were incorporated into this Part 70 permit except those superceded by those conditions listed in OP 169-00010, issued on February 23, 1996, those listed in Cause No. 97-A-J-1916, issued on April 3, 1998 and except those permit conditions cited above.

Enforcement Issue

There are no enforcement actions pending.

The source had the following enforcement actions which have all been resolved:

(a) Notice of Violation (NOV) and Cause No. A-4498 or 1999-3483-A

Designated representatives of the IDEM conducted an inspection of the source on February 4, 1999. The source was determined to have violated two (2) permit conditions. Wabash Alloys had not kept records of afterburner temperature for dryer #4 as required by Conditions 4 and 8 of OP 169-00010, issued on February 23, 1996.

(b) Agreed Order AO-3483, signed on July 6, 2000

(1) Wabash Alloys shall maintain the number four (#4) dryer's afterburner temperature records. The temperature shall be recorded on a continuous recording chart. The records for the previous twelve (12) months shall be maintained at the plant.

(2) Wabash Alloys shall order and store on-site spare parts and supplies necessary to maintain the recording equipment in working order. Wabash Alloys shall repair the recording equipment when necessary and refill charting supplies as appropriate.

(3) This Agreed Order shall remain in effect for either a period of two (2) years after the Effective Date of this Agreed Order, or until all Part 70 permit conditions relating to compliance monitoring of the Respondent's number four (#4) dryer and associated

afterburners are in effect and any appeals of such conditions have been resolved, whichever occurs first.

Therefore, this Agreed Order is no longer in effect since it is now after July 2002.

(c) Notice of Violation (NOV) and Case # 2001-11053-A

Designated representatives of the IDEM conducted an inspection of the source on October 31, 2001. The source violated 326 IAC 6-4, regarding fugitive dust emissions. The source allowed fugitive emissions generated at the open top dross bin to cross property lines at ground level. A Notice of Violation (NOV) was signed on September 5, 2003.

(d) Agreed Order AO-11053A signed on November 2003

Wabash Alloys constructed a roof over the dross bin in December 2001.

Recommendation

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

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

An administratively complete Part 70 Operating Permit application for the purposes of this review was received on August 1, 1996. Additional information was received on July 10, August 6 and October 13, 1998, May 6, 2002, as well as March 24 and 28, April 23, June 5, September 3 and 11, October 8, 13, 16, 22 and 24, November 7 and 25, December 12, 14, 29, and 30, 2003 and June 1, 2004. Following the compliance stacks in spring of 2004, additional information was received between June and December 2004 was summarized and received on December 8, 2004. In addition, information was received on January 17 and 30, 2006.

A notice of completeness letter was mailed to the source on December 6, 1996.

Emission Calculations

See pages 1 through 13 of 13 of Appendix A of this document for detailed emissions calculations.

Potential To Emit of the Source

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	**Potential To Emit** (tons/year)
PM	9,236
PM_{10}	8,480
SO_2	90.3

Pollutant	Potential To Emit (tons/year)
VOC	1,517
CO	285
NO_X	260

HAPs	Potential To Emit (tons/year)
Lead	8.21
HCL	461
HF	105
D/F	0.001
Benzene	0.004
Dichlorobenzene	0.002
Formaldehyde	0.144
Hexane	3.46
Toluene	0.007
Cadmium Compounds	0.002
Chromium Compounds	0.003
Manganese Compounds	0.0007
Nickel Compounds	0.004
Other HAPs from Insignificant Activities	5.0
TOTAL	582

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM_{10}, VOC, CO, and NO_X are equal to or greater than one hundred (100) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is equal to or greater than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination HAPs is greater than or equal to twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(c) Fugitive Emissions

Since this type of operation is one (1) of the twenty-eight (28) listed source categories under 326 IAC 2-2, the fugitive emissions are counted toward determination of PSD applicability.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2003 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
$PM_{2.5}$	39
PM_{10}	60
SO_2	20
VOC	79
CO	122
NO_X	117
Lead	0.67

Potential to Emit After Issuance

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

	Limited Potential to Emit (tons/year)						
Process/facility (year installed) - EU	**PM**	**PM_{10}**	**SO_2**	**VOC**	**CO**	**NO_X**	**HAPs**
Scrap Shredder S1 (1970)	34.3	34.3	-	-	-	-	-
Scrap Dryer #4 D1 (1987, m96)	24.5	24.5	13.8	15.6	3.93	18.4	105
Scrap Dryer #5 D2 (1989)	24.5	24.5	17.8	20.2	3.93	23.8	136
Reverberatory Furnaces EGF (#2, 5 & 8) (pre 1971)	70.4	87.4	15.5	82.1	53.1	41.0	87.2
Reverberatory Furnaces CGF (#10, 11 & 14) (pre 1971, pre 1971 & 1973)	92.0	115.0	20.3	108.0	69.8	53.9	114.6
Reverberatory Furnace - WGF (#15) (1974)	21.4	21.4	7.22	40.2	26.0	20.0	42.4
Reverberatory Furnace - WGF (#17) (1979)	26.3	26.3	8.87	49.4	31.9	24.6	52.1
Reverberatory Furnaces Flue - WGF (#15 & #17) (1974 & 1979)	0.000	0.000	0.749	0.000	0.000	0.000	0.449
RF (#1&2) (1990) RF (#3) (1998)	<25.0 combined	<15 combined	<40 combined	<40 combined	8.09 7.03	<40 combined	13.3 11.5

	Limited Potential to Emit (tons/year)						
Process/facility (year installed) - EU	**PM**	**PM_{10}**	**SO_2**	**VOC**	**CO**	**NO_X**	**HAPs**
Dross Mill Building DMB (1969)	72.2	72.2	0.000	0.000	0.000	0.000	0.000
Waste Water Evaporator	0.008	0.032	0.002	10.1	0.350	0.416	0.512
Insignificant Activities	71.9	56.6	0.993	8.25	47.0	64.1	8.63
Total Emissions	462	477	125	374	251	286	563

Notes: (1) The R 169-00010 was issued on September 4, 1990 for the installation of a baghouse dust collector to the existing aluminum scrap shredder (EU S1) constructed in 1970. Therefore, this registration did not contain any PM and/or PM_{10} emission limits to render the requirements of 326 IAC 2-2 not applicable and none are required due to the original construction date which precedes the PSD applicability date.

(2) The three (3) rotary furnaces (#1, #2 and #3), identified as EU RF, shall not exceed a total of 5.70 pounds of PM per hour, equivalent to less than twenty-five (25) tons per year to render the requirements of 326 IAC 2-2 not applicable.

(3) The PM_{10} emissions from the three (3) rotary furnaces (#1, #2 and #3), identified as EU RF, shall not exceed a total of 3.42 pounds of PM_{10} per hour, equivalent to less than fifteen (15) tons per year to render the requirements of 326 IAC 2-2 not applicable.

(4) The SO_2 emissions from the three (3) rotary furnaces (#1, #2 and #3), identified as EU RF, shall not exceed a total of 9.13 pounds per hour, equivalent to less than forty (40) tons per year to render the requirements of 326 IAC 2-2 not applicable.

(5) The VOC emissions from the three (3) rotary furnaces (#1, #2 and #3), identified as EU RF, shall not exceed a total of 9.13 pounds per hour, equivalent to less than forty (40) tons per year to render the requirements of 326 IAC 2-2 not applicable. In addition, VOC emission from rotary furnace #3 alone shall not exceed 0.236 pounds per ton of aluminum as BACT.

(6) The NO_X emissions from the three (3) rotary furnaces (#1, #2 and #3), identified as EU RF, shall not exceed a total of 9.13 pounds per hour, equivalent to less than forty (40) tons per year to render the requirements of 326 IAC 2-2 not applicable.

(7) Pursuant to CP 169-00010, issued on February 23, 1996, the particulate matter (PM) from scrap dryers (#4 and #5), identified as EU D1 and EU D2, shall not exceed 5.60 pounds per hour, each, equivalent to less than twenty-four and a half (24.5) tons per year each to render the requirements of 326 IAC 2-2 not applicable.

(8) The PM_{10} emissions from the scrap dryers (#4 and #5), identified as EU D1 and EU D2, shall not exceed 5.60 pounds per hour each, equivalent to less than twenty-four and a half (24.5) tons per year each to render the requirements of 326 IAC 2-2 not applicable. See 326 IAC 2-2, PSD section for discussion of netting credit.

(9) In order to ensure that the addition of the scrap dryers are a minor PSD modification, the following emission limits shall apply:

(a) The VOC emissions from the scrap dryers (#4 and #5), identified as EU D1 and EU D2, shall not exceed 0.475 pounds per ton, equivalent to a total of 35.8 tons per year each to render the requirements of 326 IAC 2-2 not applicable. Note that a netting credit of 196.8 tons per year has not been utilized.

(b) The SO_2 emissions from the scrap dryers (#4 and #5), identified as EU D1 and EU D2, shall not exceed 0.420 pounds per ton, equivalent to total of 19.3 tons per year each to render the requirements of 326 IAC 2-2 not applicable.

(c) The NO_X emissions from the scrap dryers (#4 and #5), identified as EU D1 and EU D2, shall not exceed 0.560 pounds per ton, equivalent to a total of 42.2 tons per year each to render the requirements of 326 IAC 2-2 not applicable. Note that only 2.3 tons of the available netting credit of 11.41 tons per year has been incorporated to make the total net NO_X emissions from the modification less than forty (40) tons per year without a throughput limit.

(10) The throughput to reverberatory furnace #15 shall be limited to no more than 106,900 tons per twelve (12) consecutive month period with compliance demonstrated at the end of each month coupled with PM and PM_{10} emission limits of 0.4 pounds per ton of metal to render the requirements of 326 IAC 2-2 not applicable. See 326 IAC 2-2, PSD section for discussion of netting credit.

County Attainment Status

The source is located in Wabash County.

Pollutant	Status
$PM_{2.5}$	attainment
PM_{10}	attainment
SO_2	attainment
NO_2	attainment
1-Hour Ozone	attainment
8-Hour Ozone	attainment
CO	attainment
Lead	attainment

(a) 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. Wabash 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. See the State Rule Applicability - Entire Source section of this document.

(b) Wabash County has been classified as unclassifiable or attainment for $PM_{2.5}$. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for $PM_{2.5}$ emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for $PM_{2.5}$ emissions, it has directed states to regulate PM_{10} emissions as a surrogate for $PM_{2.5}$ emissions. See the State Rule Applicability - Entire Source section of this document.

(c) Wabash County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these 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 of this document.

Part 70 Permit Conditions

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

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

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

Federal Rule Applicability

(a) This Part 70 source is not now subject to the requirements of 40 CFR Part 64, Compliance Assurance Monitoring because the Part 70 application received on August 1, 1996 is prior to the April 20, 1998 applicability date of the Compliance Assurance Monitoring rule.

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

(c) The screening and conveying operations in the dross building are not subject to the requirements of NSPS Subpart OOO because secondary aluminum is not a nonmetallic mineral as defined by this Subpart. In addition, the insignificant activity, electric crusher #2, is also not subject to NSPS Subpart OOO for the same reason.

(d) The dross mill building, identified as EU DMB, equipped with two (2) baghouses, consisting of facilities that mill, crush, separate and convey dross, are not subject to the National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production, 326 IAC 14, (40 CFR 63, Subpart RRR) because the dross building is neither a dross only furnace nor a rotary dross cooler.

(e) The insignificant activities, identified as electric crusher #2 and the Group 2 ladle stations (Melt Pots A and B), are subject to the requirements of National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production, 326 IAC 14, (40 CFR 63, Subpart RRR). The Group 2 ladle stations melt clean scrap, use non-reactive flux and melt scrap in the ladle. The scrap is melted at one (1) of the two (2) stations which consist of a ladle preheater.

(f) In addition, the insignificant activity, holding furnace #4, is subject to the requirements of NESHAP Subpart RRR because it holds clean charge metal that has been melted at another furnace. Therefore, holding furnace #4 is a Group 2 furnace even though it does not process aluminum that contains paint, lubricants, coatings, etc., and no fluxing occurs. The holding furnace does not process clean charge.

(g) The insignificant activity, assay furnace, is not subject to the requirements of NESHAP Subpart RRR because the assay furnace is used for investigation and research of purchased scrap materials and does not produce a saleable product. The primary function of the furnace is to insure the purchased scrap meets Wabash Alloys specifications. The samples produced from the assay furnace are not sold.

(h) On October 16, 2001, IDEM, OAQ approved an extension of the compliance standards and date of March 24, 2003 contained in 40 CFR Part 63, Subpart RRR for the scrap shredder, the two (2) scrap dryers as well as the eight (8) reverberatory and three (3) rotary Group 1 furnaces (total eleven (11) Group 1 furnaces). The termination date of this extension was March 23, 2004, which was the final compliance date.

IDEM, OAQ required the following milestones to be completed by the specified dates and reported within thirty (30) days thereafter.

(1) Construction contracts issued - May 31, 2002.

(2) Initiate onsite construction - August 31, 2002.

(3) Complete construction and initiate debugging - December 31, 2003.

(4) Operate all facilities in compliance with emission limits - March 23, 2004.

The extension also applied to:

(1) Submission of the site specific test plan and notice for conducting the initial performance test.

(2) Conducting the initial performance test.

(3) Submission of the initial notification of the compliance status report.

(4) Submission of the operation, maintenance, and monitoring (OM&M) plans and the start-up, shutdown and malfunction plan.

(i) Wabash Alloys, L.L.C. is an existing secondary aluminum production facility which is a major source of HAPs, constructed prior to February 11, 1999. Therefore, this is an existing affected source. The specific facilities subject to the National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production (40 CFR 63.1500, Subpart RRR), which is incorporated by reference as 326 IAC 20-70-1 include the following:

(1) One (1) scrap shredder and associated conveyors and screen, identified as EU S1.

(2) One (1) scrap dryer (#4), identified as EU D1.

(3) One (1) scrap dryer (#5), identified as EU D2.

(4) Three (3) reverberatory furnaces (#2, #5 and #8 of the East Group), collectively identified as EU EGF.

(5) Three (3) reverberatory furnaces (#10, #11 and #14 of the Center Group), collectively identified as EU CGF.

(6) Two (2) reverberatory furnaces (#15 and #17 of the West Group), collectively identified as EU WGF.

(7) Three (3) rotary furnaces (#1, #2 and #3 of the Rotary Furnace Group), collectively identified as EU RF.

(8) One (1) holding furnace #4.

(9) Melt Pots A and B.

(10) Magnetic separation process: Aluminum Aelectric crusher #2".

(j) Nonapplicable portions of the NESHAP will not be included in the permit. The scrap shredder and associated conveyors and screen, identified as EU S1, the two (2) scrap dryers (#4 and #5), identified as EU D1 and EU D2, the three (3) reverberatory furnaces (#2, #5 and #8 of the East Group), collectively identified as EU EGF, the three (3) reverberatory furnaces (#10, #11 and #14 of the Center Group), collectively identified as EU CGF, the three (3) rotary furnaces (#1, #2 and #3 of the Rotary Furnace Group), collectively identified as EU RF, the holding furnace #4, the Melt Pots A and B, and Aluminum Aelectric crusher #2" are subject to the following portions of Subpart RRR:

(a) 63.1500(a), (b)(1, 3, 4 and 8), (c)(2 and 4) and (d)

(b) 63.1501(a)

(c) 63.1502

(d) 63.1503

(e) 63.1505(a), (b), (e)(1), (i)(1 - 4 and 6) and (k)(1 - 4 and 6)

(f) 63.1506(a)(1 and 4), (b), (c), (d), (e)(1), (g)(1, 2, 4 and 5), (m)(1, 3, 4, 5 and 6), (o) and (p)

(g) 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), (n), (r), (s), (t) and (w)

(h) 63.1511(a), (b), (c), (d), (e), (g) and (h)

(i) 63.1512(a), (c), (d)(1), (j)(2)(i), (k), (m), (n), (o), (p), (q), (r) and (s)

(j) 63.1513(a), (b), (d) and (e)(1 - 3)

(k) 63.1515(a)(6) and (b)(1 - 7 and 10)

(l) 63.1516(a), (b)(1)(i and iv - vii), (b)(2)(iii and v), (b)(3) and (c)

(m) 63.1517(a), (b)(1)(i), 2, 3, 4(i and ii), 5, 6, 7, 10, 12, 13, 14, 15, 16(i and ii) and 17)

(n) 63.1518

(o) 63.1519

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

State Rule Applicability - Entire Source

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

This source is one (1) of the twenty-eight (28) listed source categories and since the potential to emit PM, PM_{10}, CO, VOC and NO_X emissions are greater than one hundred (100) tons per year, it is an existing major PSD source that was constructed before the PSD applicability date of August 7, 1977 and as such did not undergo PSD review. Subsequent modifications that were constructed after the PSD applicability date have been issued as minor modifications. However, IDEM, OAQ has imposed

new conditions on the scrap dryers, rotary furnaces and reverberatory furnace #15 to ensure that these modifications were minor and that the minor PSD status of each modification can be verified.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit pursuant to 326 IAC 2-7, Part 70. Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit by July 1 of each year 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).

326 IAC 5-1 (Opacity Limitations)

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

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

(b) Opacity will not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR Part 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.

The opacity limitations for rotary furnaces (#1 and #2), identified as EU RF and scrap dryer (#5), identified as EU D2 will be as follows:

(a) Pursuant to CP (85) 1827 issued on March 7, 1990, the visible emissions from the rotary furnaces (#1 and #2), identified as EU RF, baghouse stacks will be limited to twenty (20) percent opacity during a six (6) minute period or forty percent (40%) opacity for a cumulative total of fifteen (15) minutes in a six (6) hour period.

(b) Pursuant to PC (85) 1707 issued on November 2, 1988, the visible emissions from the scrap dryer (#5), identified as EU D2, baghouse stack (Stack 26) will be limited to twenty percent (20%) opacity during a six (6) minute period as determined by Method 9 of the U.S. EPA.

326 IAC 6-4 (Fugitive Dust Emissions)

Fugitive dust is not allowed 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.

State Rule Applicability - Individual Facilities

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

(a) Rotary Furnaces (#1, #2 and #3), identified as EU RF

The following limits are necessary to render the requirements of 326 IAC 2-2 not applicable since the three (3) rotary furnaces exhaust to a single stack. In order to be able to verify that both of the modifications (rotary furnaces #1 and #2, constructed in 1990 and rotary furnace #3, constructed in 1998) are each minor modifications pursuant to 326 IAC 2-2, the total emissions from all three (3) rotary furnaces have been limited to less than the PSD significant levels of 25/15/40/40/40 tons per year for PM, PM_{10}, SO_2, NO_X and VOC, respectively, etc.

(1) Pursuant to CP (85) 1827 issued on March 7, 1990, the particulate matter emissions

from each of the two (2) rotary furnaces (#1 and #2), identified as EU RF, shall be captured by hooding over the emission points of each furnace and ducted to a baghouse.

(2) The particulate matter emissions from the three (3) rotary furnaces (#1, #2 and #3), identified as EU RF, shall not exceed a total of 5.70 pounds per hour.

(3) The PM_{10} emissions from the three (3) rotary furnaces (#1, #2 and #3), identified as EU RF, shall not exceed a total of 3.42 pounds per hour.

(4) The VOC emissions from the three (3) rotary furnaces (#1, #2 and #3), identified as EU RF, shall not exceed a total of 9.13 pounds of VOC per hour.

(5) The SO_2 emissions from the three (3) rotary furnaces (#1, #2 and #3), identified as EU RF, shall not exceed a total of 9.13 pounds of SO_2 per hour.

(6) The NO_X emissions from the three (3) rotary furnaces (#1, #2 and #3), identified as EU RF, shall not exceed a total of 9.13 pounds of NO_X per hour.

(b) Reverberatory Furnace (#15), identified as EU WGF

Although CP 169-2581-00010, issued on July 13, 1993 stated that the particulate matter (PM) from reverberatory furnace (#15), identified as EU WGF, shall be limited to 10.73 pounds per hour, this emission limit was based on netting that determined contemporaneous decreases using the allowable emission rate pursuant to 326 IAC 6-3-2 instead of actual emissions. Therefore, the emission rate for reverberatory furnace #15 and thus also from the baghouse exhausted to Stack 34, which also includes emissions from reverberatory furnace #17 has been re-evaluated and limited as follows.

(1) Background Information

Wabash Alloys stated that furnace #6 was removed from service on February 3, 1992 which was within the contemporaneous period. Note that furnace #6 was not equipped with any emission control device. Reverberatory furnace #15 was constructed in 1995.

(2) Contemporaneous Decreases for PM, PM_{10} and VOC

IDEM, OAQ has utilized some of the information provided by Wabash Alloys to compute the contemporaneous decreases from the removal of furnace #6. The computations utilized are based on the following information and are shown on pages 12 and 13 of 13 of Appendix A.

(A) Actual average production of 9,590 tons per year for 1990 and 1991 for furnace #6.

(B) Uncontrolled emission factors of 4.3, 2.6 and 0.20 pounds per ton of PM, PM_{10} and VOC for Furnace #6, respectively. These emission factors are from Fires v.6.25 and AIRs.

(C) In order for the modification to add reverberatory furnace #15 rated at 15 tons per hour to remain a minor PSD modification, a proposed throughput limit of 106,900 tons per twelve (12) consecutive month period with compliance determined at the end of each month is required to limit the potential to emit PM_{10} with netting credit to less than fifteen (15) tons per

year and VOC to less than forty (40) tons per year.

Pollutant	PM (tons/yr)	PM_{10} (tons/yr)	SO_2 (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NO_X (tons/yr)
Furnace #15 (1995)	34.2	27.0	7.54	40.9	37.2	33.4
Contemporaneous Decreases (Furnace #6)	-20.6	-12.5	-4.32	-0.959	-1.55	-3.64
Net Emissions	13.6	14.5	3.22	39.97	35.6	29.8
PSD Significant Level	25	15	40	40	100	40

The addition of reverberatory furnace #15 in 1995 with a throughput limit of 106,900 tons per year and emission limits of 0.40 pounds per ton for PM and PM_{10} combined with the netting credit from the removal of furnace #6 makes this a minor PSD modification to a major PSD source. All of the net emissions increases are less than the PSD significant levels.

(c) Scrap Dryers (#4 and #5), identified as EU D1 and EU D2

(1) Background Information

Wabash Alloys has provided the best available information regarding the dates that establish contemporaneous period and shutdown dates for the dryers.

(A) Dryer #1 shutdown in January 1987

(B) Dryer #2 shutdown in June 1987

(C) Dryer #3 shutdown in June 1987

(D) Dryer 4 began construction in 1987, and operation began in May 1987

(E) Dryer 5 began construction in 1989, and operation began in March 1989

Note that stack testing was never performed on Dryers #1, #2 or #3.

(2) Contemporaneous Decreases for PM/PM_{10}

Wabash Alloys has computed the contemporaneous decreases from the removal of dryers #1, #2 and #3 which were equipped with afterburners for VOC control that were assumed to be 50% efficient and assumed no PM/PM_{10} control. Wabash Alloys utilized the following information which is shown on page 11 of 13 of Appendix A.

(A) Actual natural gas usage.

(B) Actual hours of operation based on 1985 and 1986 production plant records.

(C) The emissions were based on the allowable PM emission rate of 16.5 pounds of PM per hour divided by the 8 ton per hour production rate, equivalent to an emission factor of 2.06 pounds of PM per ton of metal processed.

Wabash Alloys provided the following additional justification that using allowable PM emission rates do not overestimate the contemporaneous decreases. Although similar to the calculations used in CP 169-2581, issued on December 11, 1995, the 2.06 pound per ton emission factor does not inflate the decreases because if one considers a very conservative bag-

house control efficiency of 90%, and the data presented in Table 6 of the proposed NESHAP Subpart RRR [64 FR 6968] which listed two (2) scrap dryers with after controlled PM emission factors of 0.167 and 0.214 pounds per ton of feed, the average PM emission factor of 0.191 pounds per ton of feed would be equivalent to a 2.06 pound per ton emission factor with a control of 91%.

Page 11 of 13 of the TSD Appendix A emission calculations presents the 1985 and 1986 monthly dryer production and the number of British thermal units per pound of production in order to calculate the total average natural gas consumption for 1985 and 1986 of 228 million cubic feet per year. Based on these averages, the actual emissions were calculated at the bottom of page 11 of 13 of Appendix A.

The actual average calculated emissions for 1985 and 1986 are as follows:

Contemporaneous Decreases	**Average Actual Emissions** (tons/year)						
Process/Facilities	**PM**	**PM_{10}**	**SO_2**	**VOC**	**CO**	**NO_X**	**Lead**
Scrap Dryers #1, #2 and #3	50.67	50.67	0.068	196.76	9.59	11.41	0.00006

The addition of scrap dryer # 4 in 1987 originally rated at 15.6 tons per hour is not a major PSD modification because the net emissions for all of the pollutants are less than the PSD significant levels as shown in the following table:

Pollutant	**PM** (tons/yr)	**PM_{10}** (tons/yr)	**SO_2** (tons/yr)	**VOC** (tons/yr)	**CO** (tons/yr)	**NO_X** (tons/yr)
Dryer #4 (1987)	24.5	24.5	28.7	32.4	3.93	38.3
Contemporaneous Decreases Applied to Dryer #4	0	-10.0 of -50.67	0	0	0	0
Net Emissions	24.5	14.5	28.7	32.4	3.93	38.3
PSD Significant Level	25	15	40	40	100	40

Similarly, the addition of scrap dryer # 5 in 1989 originally rated at 15.6 tons per hour is not a major PSD modification. The net emissions plus the remainder of the available contemporaneous decreases, if needed, for the addition of dryer #4 have been applied toward dryer #5 and all of the net pollutant emissions are less than the PSD significant levels as shown in the following table:

Pollutant	**PM** (tons/yr)	**PM_{10}** (tons/yr)	**SO_2** (tons/yr)	**VOC** (tons/yr)	**CO** (tons/yr)	**NO_X** (tons/yr)
Dryer #5 (1989)	24.5	24.5	28.7	32.4	3.93	38.3
Remaining Contemporaneous Decreases	0	-10.0 of -40.67	0	0	0	0
Net Emissions	24.5	14.5	28.7	32.4	3.93	38.3

Pollutant	**PM** (tons/yr)	**PM_{10}** (tons/yr)	**SO_2** (tons/yr)	**VOC** (tons/yr)	**CO** (tons/yr)	**NO_X** (tons/yr)
PSD Significant Level	25	15	40	40	100	40

Note as explained at the beginning of the TSD, the throughput capacities of 15.6 tons per hour for each of the scrap dryers (#4 and #5), identified as EU D1 and EU D2, have been shown to be only 7.5 and 9.7 tons per hour, respectively. Therefore, as shown below the potential to emit with the emission factors stated above (see page 1 of 13 of Appendix A) is still a minor modification pursuant to 326 IAC 2-2, PSD with the netting credits incorporated as shown in the following table.

Pollutant	**PM** (tons/yr)	**PM_{10}** (tons/yr)	**SO_2** (tons/yr)	**VOC** (tons/yr)	**CO** (tons/yr)	**NO_X** (tons/yr)
Dryer #4 (1987)	24.5	24.5	13.8	15.6	3.93	18.4
Contemporaneous Decreases Applied to Dryer #4	0	-10.0 of -50.67	0	0	0	0
Net Emissions	24.5	14.5	13.8	15.6	3.93	18.4
PSD Significant Level	25	15	40	40	100	40

and

Pollutant	**PM** (tons/yr)	**PM_{10}** (tons/yr)	**SO_2** (tons/yr)	**VOC** (tons/yr)	**CO** (tons/yr)	**NO_X** (tons/yr)
Dryer #5 (1989)	24.5	24.5	17.8	20.2	3.93	23.8
Remaining Contemporaneous Decreases	0	-10.0 of -40.67	0	0	0	0
Net Emissions	24.5	14.5	17.8	20.2	3.93	23.8
PSD Significant Level	25	15	40	40	100	40

Thus, either way one examines the addition of the two (2) scrap dryers, with the original as permitted capacities or the current capacities, the construction of both scrap dryers were minor modifications to an existing major source.

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

(a) Dross Mill Building

Pursuant to 326 IAC 6-3-2, the particulate from the dross processing conducted in the dross mill building, identified as EU DMB, equipped with two (2) baghouses, identified as DMB-1 and DMB-2, EU DMB shall not exceed a total 46.3 pounds per hour when operating at 60.0 tons per hour total.

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

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

The control equipment shall be in operation at all times the dross processing facilities are in operation, in order to comply with these limits.

(b) All Emission Units Subject to a NESHAP, Subpart RRR

Pursuant to 326 IAC 6-3-1(c)(6) since the NESHAP particulate limitations in 326 IAC 20-70 (Secondary Aluminum) are more stringent than those contained in 326 IAC 6-3, the requirements of 326 IAC 6-3 shall not apply to the scrap shredder and associated conveyors and screen, identified as EU S1, the two (2) scrap dryers (#4 and #5), identified as EU D1 and EU D2, the three (3) reverberatory furnaces (#2, #5 and #8 of the East Group), collectively identified as EU EGF, the three (3) reverberatory furnaces (#10, #11 and #14 of the Center Group), collectively identified as EU CGF, the three (3) rotary furnaces (#1, #2 and #3 of the Rotary Furnace Group), collectively identified as EU RF, the holding furnace #4, the Melt Pots A and B, and aluminum Aelectric crusher #2."

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

(a) The requirements of 326 IAC 8-1-6 were not addressed in the any of the previously issued permits which included either or both scrap dryers (#4 and #5), identified as EU D1 and EU D2. Since both scrap dryers were constructed after the January 1, 1980 applicability date of 326 IAC 8-1-6 and each individual scrap dryer has a potential to emit greater than twenty-five (25) tons per year, the requirements of 326 IAC 8-1-6 are applicable to both scrap dryers.

(1) IDEM, OAQ has reviewed stack test data from secondary aluminum sources as of September 2004. The most recent stack tests from a secondary aluminum source where either or both a destruction and/or overall control efficiency for VOC was/were determined yielded the following information:

(A) M.C. Aluminum America Inc.

2001 stack test on a chip dryer equipped with an afterburner

95.0% overall VOC control and 99.57% destruction efficiency

(B) Newco Metals Processing

2002 stack test on a rotating drum dryer, equipped with an afterburner to verify compliance with 326 IAC 8-1-6.

99.8% destruction efficiency based upon an assumed VOC input rate of 156.78 pounds per hour (15.82 lbs/ton * 9.91 tons per hour) and a measured VOC emission rate after controls of 0.32 pounds per hour.

(C) Superior Aluminum Alloys, LLC

2003 stack test on a scrap dryer equipped with an afterburner to verify compliance with NESHAP Subpart RRR.

99.7% destruction efficiency based upon a previous stack test VOC input rate of 87 pounds per ton and a measured VOC emission rate after controls of 0.24 pounds per hour.

In 1998, BACT was determined to be an afterburner with a minimum VOC efficiency of 99% and a minimum operating temperature of 1,300°F.

(D) Aluminum Recovery Technologies, Inc.

2003 stack test on a chip dryer equipped with an afterburner to verify

compliance with NESHAP Subpart RRR.

95.2% destruction efficiency based upon an assumed VOC input rate of 41.61 pounds per hour (15.82 lbs/ton * 2.63 tons per hour) and a measured VOC emission rate after controls of 2.01 pounds per hour.

(2) A review of the technology determinations was made for secondary aluminum sources utilizing the U.S. EPA's RACT, BACT, LAER clearinghouse (RBLC) data base.

The RBLC search results yielded eight (8) sources with varying emission units, but none of the emission units at these secondary aluminum sources were chip/scrap dryers. The sources and the specific emission units cited were as follows:

(A) United Aluminum Corporation (CT) - cold rolling mills

(B) ALCOA Engineered Products (PA) - melters

(C) ALCOA Foil Products and ALCOA Aluminum Sheet, Plate & Foil (TX) - Hot mill, annealers, cold mill, coil storage monitor, clean and dirty cold mill tanks, sidewell melters, lab exhaust, cold mill filter press and remelt stack

(D) General Motors (GM), Powertrain, Saginaw Metal Casting Operations (MI) - casting pouring, cooling shakeout and sand handling.

(E) AlCHEM Aluminum, Inc. (MI) - crusher and sidewells

(F) Norandal USA, Inc. (TN) - casting, rolling mill, annealing ovens, casting line and homogenizing ovens

(G) Nichols Aluminum Casting Company (IA) - natural gas-fired rotary barrel furnace

(H) J.W. Aluminum (SC) - rolling mill

Typically, the afterburner or thermal oxidizer achieves one of the highest VOC destruction efficiencies compared to other add-on VOC controls. Based on the aforementioned stack test data since the RBLC provided no insight into BACT determinations for scrap dryers, IDEM, OAQ has determined that BACT for each of the scrap dryers (#4 and #5), identified as EU D1 and EU D2, is an afterburner with a minimum destruction efficiency of 99.5% and a minimum operating temperature of 1,400 degrees Fahrenheit or a temperature necessary to maintain a minimum ninety-nine and five tenths (99.5%) percent destruction efficiency for volatile organic compounds (VOC).

The stack tests completed in 2004 on scrap dryers (#4 and #5) in August 2004 demonstrate compliance with these BACT requirements of a 99.5% destruction efficiency and a minimum temperature of 1,400 degrees Fahrenheit.

(b) BACT for the rotary furnace #3 requires a minimum operating temperature of 1,200 degrees Fahrenheit or a temperature determined in a stack test to achieve an emission limit of 0.236 pounds of VOC per ton of aluminum. The VOC emission limit of 0.236 pounds per ton of aluminum is based on the calculations that permitted the construction of rotary furnace #3 by CP 169-8475-00010, issued on November 7, 1997. The emission calculations were reported in the Technical Support Document and clarified in the Addendum to the Technical Support Document for CP 169-8475-00010.

The Technical Support Document documented that the potential to emit VOC from rotary furnace #3 was 39.1 tons per year, of which 0.2 tons per year were directly attributed to the combustion of natural gas. Since the original calculations in that TSD assumed a 90% control efficiency, the potential to emit after controls was 4.09 tons of VOC per year. The potential to emit of the process was (39.1 - 0.2 = 38.9 tons per year) and controlled by 90% is equivalent to 3.89 tons of VOC per year. Adding back the VOC combustion emissions of 0.2 tons per year to the 3.89 tons per year equals 4.09 tons of VOC per year. Therefore, the equivalent after control emission rate was 4.09 tons per year / 3.95 tons of aluminum per hour = 0.236 pounds of VOC per ton of aluminum.

(c) Since the potential to emit VOC from each of the two (2) rotary furnaces (#1 and #2), collectively identified as EU RF, equipped with a hood enclosure capture system ducted to a spark arrestor and a baghouse, identified as RFB, installed in 1990 is less than twenty-five (25) tons per year, the two (2) rotary furnaces are not subject to the requirements of 326 IAC 8-1-6.

(d) The three (3) reverberatory furnaces (#2, #5 and #8 of the East Group), collectively identified as EU EGF, and the three (3) reverberatory furnaces (#10, #11 and #14 of the Center Group), collectively identified as EU CGF were all installed prior to 1971 and 1973. The two (2) reverberatory furnaces (#15 and #17 of the West Group), collectively identified as EU WGF, were installed in 1974 and in 1979. Since all eight (8) reverberatory furnaces were installed prior to the January 1, 1980 applicability date of 326 IAC 8-1-6, none of the reverberatory furnaces are subject to the requirements of this rule.

(e) Since the potential to emit VOC from the one (1) wastewater evaporator, identified as EU WWE, installed in 1996 is less than twenty-five (25) tons per year, the wastewater evaporator is not subject to the requirements of 326 IAC 8-1-6.

326 IAC 8-6 (Organic Solvent Emission Limitations)

The six (6) reverberatory furnaces #2, #5, #8, #10, #11 and #12 commenced operation before the October 7, 1974 applicability date of the rule. Reverberatory furnaces #15 and #17 commenced operation after October 7, 1974 and prior to January 1, 1980. Since none of the reverberatory furnace emissions are from organic solvents which are VOC and which are liquids at standard conditions, and include diluents which are used as dissolvers, viscosity reducers, carrying agents, and cleaning agent, neither reverberatory furnace #15 or #17 is subject to the requirements of this rule.

326 IAC 2-1 (Applicability of rule)

Pursuant to CP 169-4859-00010 issued on January 31, 1996, any change or modification which may increase in VOC emissions to twenty-five (25) tons per year or more from the waste evaporator (EU-WWE) must be approved by the Office of Air Quality (OAQ) before such change may occur.

State Rule Applicability - Insignificant Activities

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

Pursuant to 326 IAC 6-3-2, the particulate rates from the insignificant activities listed as structural steel and bridge fabrication activities: cutting 200,000 linear feet or less of one inch (1") plate or equivalent; using 80 tons or less of welding consumables and magnetic separation process; scrap aluminum storage piles and handling; dross transfer and storage; pouring/casting aluminum sows and ingots; ladle pouring, holding and heating - aluminum; assay area; landfill activities shall not exceed the pound per hour values calculated with their process weight rates using the following equations.

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

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

or

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

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

326 IAC 6-4 (Fugitive Dust Emissions)

Pursuant to OP 169-0010 issued on February 23, 1996, in the event that visible emissions from any regularly traveled unpaved road will exceed five percent (5%) opacity as averaged over any consecutive three- (3-)minute period, Respondent shall treat such road promptly with either water spray or an approved dust suppressant. The treatment of the roads shall not be required during the months of November through February. Although not required, Respondent agrees to make a good faith effort to treat the roads during this November to February period if and when Respondent finds that the weather conditions make treatment feasible. The driveway area of the monofill above natural grade is exempt from this monitoring and treatment requirement. All visible emission observations will be determined in accordance with 40 CFR Part 60, Appendix A, Method 9, except as otherwise provided below:

(a) The observer will begin reading when a vehicle crosses his/her line of sight which will be approximately perpendicular to the trajectory of that vehicle. The observer will continue to observe and take opacity readings of visible emissions at fifteen- (15-)second intervals along the same line of sight until no less than twelve (12) consecutive readings have been obtained.

(b) If, during the three- (3-) minute evaluation period, another vehicle passes the observer=s line of sight on the roadway being evaluated, the observer will terminate the evaluation for the three- (3-) minute period and disregard the incomplete set of readings.

If IDEM inspectors, following the methods described above, observe visual emissions from the unpaved roads subject to this provision and determine that such visible emissions exceed the limits set forth herein, Permittee, within twenty-four (24) hours of notice will provide supplemental dust suppressant treatment.

Testing Requirements

(a) Previous Stack Tests

(1) PM stack testing of scrap dryer #4 was performed on April 28, 1987. Scrap dryer #4 was in compliance with the allowable PM emission rate pursuant to 326 IAC 6-3-2.

(2) PM stack testing of scrap dryer #5 was performed on July 6, 1989. Scrap dryer #5 was not in compliance for the test with light borings, but the scrap dryer #5 was in compliance for the additional stack tests conducted with diecast AZ@ borings and miscellaneous automobile castings. These stack tests showed compliance with the allowable PM emission rate of 5.6 pounds per hour pursuant to 326 IAC 6-3-2.

(3) Pursuant to 169-2581-00010, issued on July 13, 1993, PM stack testing of reverberatory furnace #15 of the West Group was performed on March 20 - 23, 1996. Reverberatory furnace #15 was in compliance with the PM emission limit of 10.73

pounds per hour to render the requirements of 326 IAC 2-2 not applicable. The actual PM emission rates were 1.7 pounds per hour for furnace #15 and 3.8 pounds per hour from the baghouse for a total of 5.5 pounds per hour.

(4) The VOC emission factor of 15.82 pounds per ton for the scrap dryers resulted from a stack test at Wabash Alloys, Wabash Plant conducted on April 3, 1995, to determine the VOC emission factor for the development of NESHAP Subpart RRR in conjunction with U.S. EPA, OAQ and the Aluminum Association.

(5) Pursuant to 169-8475-00010, issued on November 7, 1997, PM stack testing of rotary furnace #3 was performed on January 19, 1999. Rotary furnace #3 was in compliance with the PM emission limit of 5.48 pounds per hour and the 0.018 grains per dry standard cubic foot of outlet air to render the requirements of 326 IAC 2-2 not applicable. The actual PM emission rates were 1.68 pounds per hour for rotary furnace #3 and 0.004 grains per dry standard cubic foot of outlet air.

(6) NESHAP, Subpart RRR Stack Tests Arranged in the Order of the Equipment List

(A) Scrap Shredder and Associated Conveyors and Screen,

The scrap shredder and associated conveyors and screen, identified as EU S1, equipped with two (2) baghouses, identified as SB1 and SB2, exhausted through Stacks 18 and 29, was stack tested for PM emissions on June 11, 2003 at an average operating rate of 79.8 tons per hour. The PM emission rates of 0.0012 and 0.0015 grains per dry standard cubic foot of exhaust for the two (2) baghouses complied with the 0.01 grain per dry standard cubic foot of exhaust emission limit.

The baghouse pressure drop during this test ranged between 3 and 7 inches of water.

(B) Scrap Dryer #4

Scrap dryer (#4), identified as EU D1, equipped with one (1) natural gas afterburner and one (1) baghouse, identified as SDB1, exhausted through Stack 19 was stack tested for PM, HCL, D/F, and THC emissions on January 13 - 15, 2004, March 3 - 5, 2004 and August 4 - 5, 2004.

The January and March 2004 stack test of 36.967 and 12.178 micrograms of D/F per megagram of feed charge did not verify compliance with the Subpart RRR D/F emission limit of 5.0 micrograms of D/F per megagram of feed charge. Scrap dryer (#4) was temporarily removed from service prior to the March 24, 2004 date to verify compliance with the requirements of Subpart RRR. The January and March failures are not considered violations of Subpart RRR.

IDEM, OAQ approved a re-test of scrap dryer (#4) with an average operating rate of 7.2 tons per hour conducted on August 4 and 5, 2004 which showed a D/F emission rate of 1.88 micrograms per megagram of feed charge.

In addition, the August 2004 stack test showed compliance with all remaining emission rate standards and the opacity limit pursuant to Subpart RRR. Specifically, the scrap dryer (#4) VOC emission rate was measured at 0.081 pounds of VOC per ton of aluminum which complied with the 0.20 pounds of

THC as propane per ton of aluminum emission limit. The PM emission rate was 0.059 pounds of PM per ton of aluminum charged which complied with the 0.30 pounds of PM per ton of aluminum charged emission limit. The HCL emission rate of 1.044 pounds of per ton of aluminum charged complies with the 1.50 pounds of per ton of aluminum charged emission limit standard. In addition, the opacity measured during this stack test was 0% which complied with the required opacity of less than 10%.

The baghouse pressure drop during this test ranged between 2.5 and 5.3 inches of water. The average afterburner temperature was 1,440°F.

Note that the measured PM_{10} emission rate was 0.207 pounds per ton of aluminum charged.

(C) Scrap Dryer #5

Scrap dryer (#5), identified as EU D2, equipped with one (1) natural gas afterburner and one (1) baghouse, identified as SDB2, exhausted through Stack 26 was stack tested for PM, HCL, D/F, and THC emissions on June 24 - 26, 2003 at an average operating rate of 9.2 tons per hour. The VOC emission rate was measured at 0.019 pounds of VOC per ton of aluminum which complied with the 0.20 pounds of THC as propane per ton of aluminum emission limit. The PM emission rate was 0.067 pounds of PM per ton of aluminum charged which complied with the 0.30 pounds of PM per ton of aluminum charged emission limit. The HCl emission rate of 1.12 pounds of per ton of aluminum charged complies with the 1.50 pounds of per ton of aluminum charged emission limit standard. In addition, the opacity measured during this stack test was 0% which complied with the required opacity of less than 10%.

The baghouse pressure drop during this test ranged between 3.8 and 6.7 inches of water. The average afterburner temperature was 1,426°F.

(D) East Furnace Baghouse

The east furnace baghouse, controlling the three (3) reverberatory furnaces (#2, #5 and #8 of the East Group), collectively identified as EU EGF, was stack tested for PM, dioxin/furan (D/F) and HCL emissions on June 10 and 11, 2003. IDEM, OAQ approved the results of these stack tests. The D/F emission rate from the east furnace baghouse tested at 12.25 micrograms per megagram of feed charge compared to the standard of 15.0 micrograms per megagram of feed charge. The PM emission rate from the east furnace baghouse of 0.021 pounds per ton of aluminum charged verified compliance with the standard of 0.40 pounds per ton of aluminum charged. The HCl emission rate from the east furnace baghouse of 0.409 pounds per ton of aluminum charged did not verify compliance with the standard of 0.40 pounds per ton of aluminum charged. In addition, the opacity measured during this stack test was 0% which complied with the required opacity of less than 10%.

Therefore, since the HCl emission rate exceeded the standard, Wabash Alloys shall use 40 CFR 63.1505(k) to determine compliance with the HCl limit.

The baghouse pressure drop during this test ranged between 7.5 and 10.0 inches of water. The lime injection rate was 46 pounds per hour during the test.

(E) Center Furnace Baghouse

The center furnace baghouse, controlling the three (3) reverberatory furnaces (#10, #11 and #14 of the Center Group), collectively identified as EU CGF, was stack tested for D/F, PM, and HCl emissions and opacity on November 18 - 20, 2003 operating at an average of 31.3 tons per hour. IDEM, OAQ approved the results of these stack tests. The D/F emission rate from the center furnace baghouse tested at 9.82 micrograms per megagram of feed charge compared to the standard of 15.0 micrograms per megagram of feed charge. The PM emission rate from the center furnace baghouse of 0.022 pounds per ton of aluminum charged verified compliance with the standard of 0.40 pounds per ton of aluminum charged. The HCl emission rate from the center furnace baghouse of 0.333 pounds per ton of aluminum charged verified compliance with the standard of 0.40 pounds per ton of aluminum charged. In addition, the opacity measured during this stack test was 0% which complied with the required opacity of less than 10%.

Note that the measured PM_{10} emission rate was 0.065 pounds per ton of aluminum charged.

The lime injection rate was 51 pounds per hour during the test.

(F) West Furnace Baghouse

The west furnace baghouse, controlling the two (2) reverberatory furnaces (#15 and #17 of the West Group), collectively identified as EU WGF, was stack tested for PM, D/F and HCL emissions and opacity on June 24 - 26, 2003 operating at an average of 27.1 tons per hour. IDEM, OAQ approved the results of these stack tests. The D/F emission rate from the west furnace baghouse tested at 11.89 micrograms per megagram of feed charge compared to the standard of 15.0 micrograms per megagram of feed charge. The PM emission rate from the west furnace baghouse of 0.018 pounds per ton of aluminum charged verified compliance with the standard of 0.40 pounds per ton of aluminum charged. The HCl emission rate from the west furnace baghouse of 0.413 pounds per ton of aluminum charged did not verify compliance with the standard of 0.40 pounds per ton of aluminum charged. In addition, the opacity measured during this stack test was 0% which complied with the required opacity of less than 10%.

Therefore, since the HCl emission rate exceeded the standard, Wabash Alloys shall use 40 CFR 63.1505(k) to determine compliance with the HCl limit.

The baghouse pressure drop during this test ranged between 7.5 and 10.2 inches of water. The lime injection rate was 25 pounds per hour during the test.

(G) Rotary Furnace Baghouse

The rotary furnace baghouse, controlling the three (3) rotary furnaces (#1, #2 and #3), collectively identified as EU RF, was stack tested for PM, D/F and HCL emissions and opacity on November 18 - 20, 2003 at an average operating rate of 6.7 tons per hour. The D/F emission rate from the rotary furnace baghouse tested at 6.39 micrograms per megagram of feed charge

compared to the standard of 15.0 micrograms per megagram of feed charge. The PM emission rate from the rotary furnace baghouse of 0.262 pounds per ton of aluminum charged verified compliance with the standard of 0.40 pounds per ton of aluminum charged. The HCl emission rate from the rotary furnace baghouse of 0.342 pounds per ton of aluminum charged verified compliance with the standard of 0.40 pounds per ton of aluminum charged. In addition, the opacity measured during this stack test was 0% which complied with the required opacity of less than 10%.

Note that the measured PM_{10} emission rate was 0.407 pounds per ton of aluminum charged.

The lime injection rate was 37 pounds per hour during the test.

This test also verified compliance with the proposed PM and PM_{10} emission limits of 5.70 and 3.42 pounds per hour for the baghouse exhaust to substantiate that each modification to add rotary furnaces was minor with respect to 326 IAC 2-2, PSD.

(H) Crusher #2, an insignificant activity, was tested for opacity on November 20, 2003 which documented zero percent (0%) opacity. This test provided the documentation to allow George Czerniak of U.S. EPA on January 7, 2004 to waive the PM performance test requirement pursuant to NSPS, Subpart RRR.

(i) On September 19, 2003, Christopher Rowland of RMT Integrated Environmental Solutions requested that IDEM, OAQ waive the performance testing of the crusher. IDEM, OAQ requested that U.S. EPA respond to that request. On November 18, 2003, U.S. EPA Region V responded to that request agreeing that the crusher is subject to Subpart RRR and that the General Provisions of 40 CFR Part 63 (Subpart A) pursuant to 40 CFR 63.7(h) provides for waivers of performance tests. Pursuant to 40 CFR 63.7 (h)(2), AIndividual performance tests may be waived upon written application to the administrator if in the administrator=s judgment, the source is meeting the relevant standards on a continuous basis.@

Mr. Rowland stated that the crusher is not a true shredder and is used to process scrap aluminum turnings and other light gauge materials that are received in a form that cannot be processed through the furnaces. The crusher processes these materials into small individual pieces of aluminum turnings or chips that can be directly melted in the furnaces or dryers. The crusher is totally enclosed and any visible emissions that occur appear at the transition from the crusher to the discharge conveyor. U.S. EPA agreed with Wabash Alloys that the artificial draft that would be necessary to capture and test PM emissions from the crusher may actually entrain small light weight pieces of aluminum and artificially skew the test results. Therefore, U.S. EPA requested a Method 9 documentation of visible emissions at the transition point from the crusher to the discharge conveyor.

(ii) On January 7, 2004, U.S. EPA responded to Rowland=s December 7, 2003 correspondence documenting the results of the Method 9 visible emission tests conducted on November 20, 2003. Visible

emissions were observed to be zero percent (0%) during all three (3) test runs with an average operating rate of 28.5 tons per hour. Therefore, this opacity test provided U.S. EPA the assurance that the crusher is in continuous compliance with the relevant standard. Thus, U.S. EPA approved the waiver of PM performance testing under Subpart RRR.

(b) Proposed Stack Tests

All previous stack tests on emission units not subject to the requirements of Subpart RRR were performed more than five (5) years ago to verify compliance with the state rules. All emission units subject to the requirements of Subpart RRR were tested within the past three (3) years. Therefore, the following stack tests are proposed 180 days after the date of issuance of this Part 70 Operating Permit. All Subpart RRR stack tests shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration.

(1) On October 16, 2001, IDEM, OAQ approved an extension of the final compliance standards including the date contained in 40 CFR Part 63, Subpart RRR for the scrap shredder, the eight (8) group 1 reverberatory furnaces, three (3) rotary furnaces and two (2) scrap dryers and electric crusher #2 (insignificant activity). The termination date of this extension was March 23, 2004, which is the final compliance date.

(2) The PM stack performance tests recently completed to verify compliance with Subpart RRR also served to satisfy the stack testing requirements for the following:

PM stack tests on both dryers, identified as EU D1 and EU D2, to show compliance with 326 IAC 2-2.

(3) PM_{10} tests shall be performed prior to June 26, 2008 for scrap dryer #5 and prior to January 14, 2009 for scrap dryer #4 and shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration

(4) Within 180 days after the date of issuance of this Part 70 Operating Permit and shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration to show compliance with 326 IAC 2-2, 326 IAC 6-3-2, the following stack tests are proposed:

PM stack tests on the dross mill building to show compliance with 326 IAC 6-3-2.

(5) Within 180 days after the date of issuance of this Part 70 Operating Permit and shall be repeated at least once every two and one half (2 2) years from the date of the most recent valid compliance demonstration to show compliance with 326 IAC 8-1-6, the following stack test is proposed:

VOC testing of rotary furnace (#3), identified as EU RF to show compliance with the minimum temperature requirements and an emission limit pursuant to the 326 IAC 8-1-6 determination. According to Wabash Alloys, it is technically feasible to stack test rotary furnace #3 for VOC emissions because the duct from the furnace to the baghouse does meet the criteria in 40 CFR 60, Appendix A Method 1 (two (2) duct diameters from the nearest upstream disturbance).

(6) Within 180 days after the date of issuance of this Part 70 Operating Permit and shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration to show compliance with 326 IAC 8-1-6, the following stack test is proposed:

VOC testing of scrap dryers= (#4 and #5) afterburner and its operating temperature. Pursuant to 326 IAC 3-6-3(b), when testing, the scrap dryers (#4 and #5) shall be operated at 95% (ninety-five percent) or more of their maximum design capacity or under conditions representative of normal operations or under a capacity or conditions specified and approved by the IDEM, OAQ.

(7) Within 180 days after the date of issuance of this Part 70 Operating Permit and shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration to show compliance with 326 IAC 2-2, the following stack test is proposed:

PM_{10} testing of just reverberatory furnace #15. PM_{10} includes filterable and condensible PM_{10}.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source=s failure to take the appropriate corrective actions within a specific time period.

(a) The compliance monitoring requirements for the following emission units are contained within the NESHAP Subpart RRR compliance monitoring requirements:

(1) One (1) scrap shredder and associated conveyors and screen, identified as EU S1.

(2) One (1) scrap dryer (#4), identified as EU D1.

(3) One (1) scrap dryer (#5), identified as EU D2.

(4) Three (3) reverberatory furnaces (#2, #5 and #8 of the East Group), collectively identified as EU EGF.

(5) Three (3) reverberatory furnaces (#10, #11 and #14 of the Center Group), collectively identified as EU CGF.

(6) Two (2) reverberatory furnaces (#15 and #17 of the West Group), collectively identified as EU WGF.

(7) Three (3) rotary furnaces (#1, #2 and #3 of the Rotary Furnace Group), collectively identified as EU RF.

These monitoring conditions are necessary because the baghouses and afterburners for the scrap shredder, scrap dryers, and reverberatory and rotary furnaces must operate properly to ensure compliance with NESHAP Subpart RRR and 326 IAC 2-7 (Part 70).

(b) Additional compliance monitoring requirements applicable to this source are as follows:

The dross mill building processes, identified as EU DMB, have applicable compliance monitoring conditions as specified below:

(1) Visible emission notations of the dross mill building baghouses stack exhausts 30 and 41 shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal. 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. 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. 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. 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.

(2) The Permittee shall record the pressure drop across each of the two (2) baghouses used in conjunction with the dross mill building processes at least once per day when the dross mill building facilities are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, 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.

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

For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the

requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

These monitoring conditions are necessary because the baghouses for the dross mill building processes must operate properly to ensure compliance with 326 IAC 6-3-2, and 326 IAC 2-7 (Part 70).

Conclusion

The operation of this stationary secondary aluminum production source utilizing scrap aluminum shall be subject to the conditions of this **Part 70 Operating Permit T 169-6359-00010.**

Appendix A: Potential Emission Calculations

Company Name: Wabash Alloys, L.L.C.
Address City IN Zip: 4525 West Old 24, Wabash, Indiana 46992
Part 70: T 169-6359
Plt ID: 169-00010
Reviewer: Mark L. Kramer
Application Date: August 1, 1996

Emission Unit **EU S1** **Scrap Shredder - 1970** TYPE OF MATERIAL		Throughput lbs/hr	1 ton/2000 lbs	tons/hr	PM/PM-10 Control Efficiency %	PM/PM-10 Capture Efficiency %
Aluminum		**168000**	2000	**84.00**	98.00%	99.00%
	Outlet Grain Loading gr/dscf	Flow Rate @ 70F acfm	**PM**	**PM-10**	**PM/PM-10 Emission Factor**	
	0.01	71,000			**2.083 lb/ton From Stack Test Before Controls**	
Potential Emissions based on 1998 Tipton Stack Tests Before Controls tons/year			766.38	766.38		
Fugitive Uncaptured based on 1998 Tipton Stack Tests tons/year			7.66	7.66		
Potential Stack Emissions based on 1998 Tipton Stack Tests After Controls tons/year			15.17	15.17		
Total After Controls based on 1998 Stack Tests tons/year			22.84	22.84		
Stack Emissions tons/year after Controls Based on Grain Loading			26.7	26.7		
Total After Controls based on grain loading tons/year			34.3	34.3		
Total After Controls based on grain loading pounds/hour			6.09			
MACT Standard is a grain loading of 0.01 gr/dscf pursuant to Subpart RRR Compliance.						

Emission Unit **EU D1 - 1987 M 1996**
Scrap Dryer #4

Pollutant	Maximum Rate (tons/hr)	Emission Factor (lbs/tons)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Baghouse SDB1 Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)		Limited Emission Rate (lbs/hr)	Emission Factor
PM	7.5	74.67	560.00	2452.8	99.0%	5.600	24.5		5.6	A
PM-10	7.5	74.67	560.00	2452.8	99.0%	5.600	24.5		CP 169-00010	A
SO2	7.5	0.420	3.15	13.80	0.0%	3.150	13.8			M
NOx	7.5	0.560	4.20	18.40	0.0%	4.200	18.4			B
VOC	7.5	15.820	118.65	519.69	97.0%	3.560	15.6			A
CO	7.5	0.598	4.49	19.65	80.0%	0.897	3.929			B
Lead	7.5	0.0014	0.0105	0.046	99.0%	0.000	0.000			B
HCl	7.5	3.200	24.000	105.1	0.0%	24.000	105.1			
HF	7.5	0.00296	0.022	0.097	0.0%	0.022	0.097			
D/F	7.5	1.45E-06	1.09E-05	4.76E-05	0.0%	1.09E-05	4.76E-05			

PM = PM-10 and Emission Factor back calculated from the limited hourly emission rate.
SO2 emission factor from material balance (M) and combustion
VOC emission factor of 15.82 lbs/ton from a 1995 stack test including combustion conducted in conjunction with USEPA, OAQ & the Aluminum Association for MACT standard development.

A = Stack test factors from Wabash Alloys Dryer #4, B = AP-42 factors
NOx emission factors from Fires V6.23 SCC 03-04-001-09
CO = 168.0 lbs/MMCF AP-42 Table 1.4-1 & 1.4-2 (0.0267 mmcf/hr)
HCl and D/F emission factors are the MACT standard

Emission Unit **EU D2 - 1989**
Scrap Dryer #5

Pollutant	Maximum Rate (tons/hr)	Emission Factor (lbs/tons)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Baghouse SDB2 Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)		Limited Emission Rate (lbs/hr)	Emission Factor
PM	9.7	57.73	560.00	2452.8	99.0%	5.600	24.5		5.60	A
PM-10	9.7	57.73	560.00	2452.8	99.0%	5.600	24.5		CP 169-00010	A
SO2	9.7	0.420	4.07	17.8	0.0%	4.074	17.844			B
NOx	9.7	0.560	5.43	23.8	0.0%	5.432	23.792			B
VOC	9.7	15.820	153.45	672.1	97.0%	4.604	20.164			B
CO	9.7	0.462	4.49	19.6	80.0%	0.897	3.929			B
Lead	9.7	0.001	0.01358	0.059	99.0%	0.000	0.001			B
HCl	9.7	3.200	31.040	136.0	0.0%	31.040	136.0			
HF	9.7	0.00296	0.029	0.126	0.0%	0.029	0.126			
D/F	9.7	1.45E-06	1.41E-05	6.16E-05	0.0%	1.41E-05	6.16E-05			

PM = PM-10 and Emission Factor back calculated from the limited hourly emission rate.
SO2 emission factor from material balance (M) and combustion
VOC emission factor of 15.82 lbs/ton from a 1995 stack test including combustion conducted in conjunction with USEPA, OAQ & the Aluminum Association for MACT standard development.

A = Stack test factors from Wabash Alloys Dryer #4, B = AP-42 factors
NOx emission factors from Fires V6.23 SCC 03-04-001-09
CO = 168.0 lbs/MMCF AP-42 Table 1.4-1 & 1.4-2 (0.0267 mmcf/hr)
HCl and D/F emission factors are the MACT standard

Emission Unit **EU EGF - Pre-1971**
Reverberatory Furnaces # 2, #5 and #8 at furnace maximum of 10.6 tons/hr and a total of 25 tons/hr for the group

Pollutant	Maximum Rate (tons/hr)	Emission Factor (lbs/tons)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)	
PM	25.0	4.300	107.294	469.9	90.7%	10.0	43.7	
PM-10	25.0	2.600	64.875	284.2	69.2%	20.0	87.4	
SO2	25.0	0.135	3.369	14.8	0.0%	3.369	14.8	
NOx	25.0	0.375	9.357	41.0	0.0%	9.357	41.0	
VOC	25.0	0.752	18.751	82.1	0.0%	18.8	82.1	
CO	25.0	0.486	12.127	53.1	0.0%	12.1	53.1	
Lead	25.0	0.01871	0.467	2.044	90.7%	0.043	0.190	
HCl	25.0	0.537	13.399	58.7	0.0%	13.399	58.7	
HF	25.0	0.255	6.363	27.869	0.0%	6.363	27.869	
D/F	25.0	9.72E-07	2.43E-05	1.06E-04	0.00E+00	2.43E-05	1.06E-04	

PM10 = PM and VOC & CO emission factors from 1999 stack test from Wabash Alloys Dickson Plant + 50%
SO2 and NOx emission factors from 1994 stack test of Dickson Plant +50% and Lead emission factor from the 1996 stack test of Wabash Plant + 50%.
HCl emission factor from Wabash Plant 1996 stack test + 50%, HF & D/F from Wabash Plant 1995 stack test + 50%.

Emission Unit **EU CGF - Pre-1971, Pre 1971 and Pre 1973**
Reverberatory Furnaces #10, #11 and #14 at furnace maximum of 12.3 tons/hr and a total of 32.8 tons/hr for the group

Pollutant	Maximum Rate (tons/hr)	Emission Factor (lbs/tons)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)	
PM	32.8	4.300	141.1	618.0	90.7%	13.1	57.5	
PM-10	32.8	2.600	85.3	373.6	69.2%	26.2	115.0	
SO2	32.8	0.135	4.43	19.4	0.0%	4.43	19.4	
NOx	32.8	0.375	12.3	53.9	0.0%	12.3	53.9	
VOC	32.8	0.752	24.7	108.0	0.0%	24.7	108.0	
CO	32.8	0.486	15.95	69.8	0.0%	15.9	69.8	
Lead	32.8	0.00935	0.31	1.344	81.4%	0.057	0.250	
HCl	32.8	0.537	17.619	77.2	0.0%	17.6	77.2	
HF	32.8	0.255	8.367	36.646	0.0%	8.367	36.646	
D/F	32.8	9.72E-07	3.19E-05	1.40E-04	0.00E+00	3.19E-05	1.40E-04	

PM10 = PM and VOC & CO emission factors from 1999 stack test from Wabash Alloys Dickson Plant + 50%
SO2 and NOx emission factors from 1994 stack test of Dickson Plant +50% and Lead emission factor from the 1996 stack test of Wabash Plant + 50%.
HCl emission factor from Wabash Plant 1996 stack test + 50%, HF & D/F from Wabash Plant 1995 stack test + 50%.

Emission Unit **EU WGF - 1974 + 1979**
Reverberatory Furnaces #15 and #17 at furnace maximum of 15.0 tons/hr and a total of 28.5 tons/hr for the group

Reverberatory Furnaces #15 & #17 Pollutant	Maximum Rate (tons/hr)	Emission Factor (lbs/tons)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)		Limited Emission Rate (tons/yr)
PM	28.50	4.300	122.6	536.8	90.7%	11.4	49.9		
PM-10	28.50	2.600	74.1	324.6	84.6%	11.4	49.9		
SO2	28.50	0.135	3.848	16.852	0.0%	3.85	16.9		
NOx	28.50	0.375	10.688	46.811	0.0%	10.7	46.8		
VOC	28.50	0.752	21.418	93.810	0.0%	21.4	93.8		
CO	28.50	0.486	13.851	60.667	0.0%	13.9	60.7		
Lead	28.50	0.01871	0.533	2.335	90.7%	0.050	0.217		
HCl	28.50	0.537	15.305	67.0	0.0%	15.3	67.0		
HF	28.50	0.255	7.268	31.832	0.0%	7.27	31.8		
D/F	28.50	9.72E-07	2.77E-05	1.21E-04	0.0%	2.77E-05	1.21E-04		
Reverberatory Furnace #15	**Throughput Limit**	**106900**	**tons/yr**			Furnaces 15 or 17			Furnace #15
PM	15.00	4.300	64.5	282.5	90.7%	6.0	26.3		21.4
PM-10	15.00	2.600	39.0	170.8	84.6%	6.0	26.3		21.4
SO2	15.00	0.135	2.025	8.870	0.0%	2.0	8.9		7.22
NOx	15.00	0.375	5.625	24.6	0.0%	5.625	24.6		20.04
VOC	15.00	0.752	11.273	49.374	0.0%	11.27	49.4		40.2
CO	15.00	0.486	7.290	31.930	0.0%	7.29	31.9		26.0
Lead	15.00	0.01871	0.281	1.229	90.7%	0.026	0.1		0.093
HCl	15.00	0.537	8.055	35.281	0.0%	8.06	35.28		28.7
HF	15.00	0.255	3.825	16.754	0.0%	3.825	16.754		13.63
D/F	15.00	9.72E-07	1.46E-05	6.39E-05	0.0%	1.46E-05	6.39E-05		0.000052

See Page 13 of 13 for determination of throughput limit
PM10 = PM = Subpart RRR PM of 0.4 lbs/ton and VOC & CO emission factors from 1999 stack test from Wabash Alloys Dickson Plant + 50%
SO2 and NOx emission factors from 1994 stack test of Dickson Plant +50% and Lead emission factor from the 1996 stack test of Wabash Plant + 50%.
HCl emission factor from Wabash Plant 1996 stack test + 50%, HF & D/F from Wabash Plant 1995 stack test + 50%.
Note the controlled emission rate column entitled furnace 15 or 17 provides the controlled PTE for either furnace at capacity of 15 tons per hour.

Natural Gas = 1050.000 Btu/CF

Emission Unit **EU EGF Flue Emissions**
Reverberatory Furnaces # 2, #5 and #8, total 25.0 tons/hr, rated at 24, 33 and 30 mmBtu/hr

Pollutant	Maximum Rate (tons/hr) or (mmBtu/hr)	Emission Factor	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)
PM (EF = lb/ton)	25.00	0.240	6.00	26.28	0.0%	6.00	26.28
PM-10 (EF = lb/mmCF)	87.00	0.000	0.000	0.000	0.0%	0.000	0.000
SO2 (EF = lb/ton)	25.00	0.006	0.150	0.657	0.0%	0.150	0.657
NOx (EF = lb/mmCF)	87.00	0.000	0.000	0.0	0.0%	0.00	0.0
VOC (EF = lb/mmCF)	87.00	0.000	0.000	0.00	0.0%	0.000	0.00
CO (EF = lb/mmCF)	87.00	0.000	0.000	0.0	0.0%	0.00	0.0
Lead (EF = lb/ton)	25.00	0.00360	0.090	0.394	0.0%	0.090	0.394

PM-10, NOx, VOC and CO (combustion emissions) are accounted for in the reverberatory process emission factors above
PM, SO2 and Lead lb/ton EF are from Dickson Stack test 1999

Natural Gas = 1050.000 Btu/CF

Emission Unit **EU CGF Flue Emissions**
Reverberatory Furnaces #10, #11 and #14 total 32.8 tons/hr

Pollutant	Maximum Rate (tons/hr) or (mmBtu/hr)	Emission Factor	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)
PM (EF = lb/ton)	32.80	0.240	7.87	34.48	0.0%	7.87	34.48
PM-10 (EF = lb/mmCF)	90.00	0.000	0.000	0.000	0.0%	0.000	0.000
SO2 (EF = lb/ton)	32.80	0.006	0.197	0.862	0.0%	0.197	0.862
NOx (EF = lb/mmCF)	90.00	0.000	0.000	0.0	0.0%	0.00	0.0
VOC (EF = lb/mmCF)	90.00	0.000	0.000	0.00	0.0%	0.000	0.00
CO (EF = lb/mmCF)	90.00	0.000	0.000	0.0	0.0%	0.00	0.0
Lead (EF = lb/ton)	32.80	0.00360	0.118	0.517	0.0%	0.118	0.517

PM-10, NOx, VOC and CO (combustion emissions) are accounted for in the reverberatory process emission factors above
PM, SO2 and Lead lb/ton EF are from Dickson Stack test 1999

Natural Gas = 1050.000 Btu/CF

Emission Unit **EU WGF Flue Emissions**
Reverberatory Furnaces #15 and #17 total 28.5 tons/hr rated at 32 and 33 mmBtu/hr

Pollutant	Maximum Rate (tons/hr) or (mmBtu/hr)	Emission Factor	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)
PM (EF = lb/ton)	28.50	0.240	6.84	29.96	0.0%	6.84	29.96
PM-10 (EF = lb/mmCF)	65.00	0.000	0.000	0.000	0.0%	0.000	0.000
SO2 (EF = lb/ton)	28.50	0.006	0.171	0.749	0.0%	0.171	0.749
NOx (EF = lb/mmCF)	65.00	0.000	0.000	0.0	0.0%	0.00	0.0
VOC (EF = lb/mmCF)	65.00	0.000	0.000	0.00	0.0%	0.000	0.00
CO (EF = lb/mmCF)	65.00	0.000	0.000	0.0	0.0%	0.00	0.0
Lead (EF = lb/ton)	28.50	0.00360	0.103	0.449	0.0%	0.103	0.449

PM-10, NOx, VOC and CO (combustion emissions) are accounted for in the reverberatory process emission factors above
PM, SO2 and Lead lb/ton EF are from Dickson Stack test 1999

EU EGF
Reverberatory Furnaces # 2, #5 and #8 , rated at 24, 33 and 30 mmBtu/hr **1050.000 Btu/CF**
Total Rating (mmBtu/hr) 87.00 **725.8 mmCF/yr**

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	0.002	0.001	0.075	1.80	0.003
Potential Emission in tons/yr	0.00076	0.00044	0.02722	0.65325	0.00123

HAPs - Metals

		Cadmium	Chromium	Manganese	Nickel	**Total HAPs**
Emission Factor in lb/MMcf		0.001	0.001	0.0004	0.002	
Potential Emission in tons/yr		0.00040	0.00051	0.00014	0.00076	0.685

EU CGF
Reverberatory Furnaces #10, #11 and #14, rated at 30 mmBtu/hr each **1050.000 Btu/CF**
Total Rating (mmBtu/hr) 90.00 **750.9 mmCF/yr**

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	0.002	0.001	0.075	1.80	0.003
Potential Emission in tons/yr	0.00079	0.00045	0.02816	0.67577	0.00128

HAPs - Metals

		Cadmium	Chromium	Manganese	Nickel	**Total HAPs**
Emission Factor in lb/MMcf		0.001	0.001	0.0004	0.002	
Potential Emission in tons/yr		0.00041	0.00053	0.00014	0.00079	0.708

EU WGF
Reverberatory Furnaces #15 and #17, rated at 32 and 33 mmBtu/hr **1050.000 Btu/CF**
Total Rating (mmBtu/hr) 65.00 **542.3 mmCF/yr**

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	0.002	0.001	0.075	1.80	0.003
Potential Emission in tons/yr	0.00057	0.00033	0.02034	0.48806	0.00092

HAPs - Metals

		Cadmium	Chromium	Manganese	Nickel	Total HAPs
Emission Factor in lb/MMcf		0.001	0.001	0.0004	0.002	
Potential Emission in tons/yr		0.00030	0.00038	0.00010	0.00057	0.512

Emission Unit
EU DMB - 1969
Dross Mill Building Processing

Throughput lbs/hr	1 ton/2000 lbs	tons/hr	PM/PM-10 Control Efficiency %	PM/PM-10 Capture Efficiency %
120000	2000	60.00	95.00%	99.00%

Outlet Grain Loading gr/dscf	Flow Rate @ 70F acfm
0.008	200,000

Allowable PM (lbs/hr)

	PM (lbs/hr)	**PM** (tons/yr)	PM-10 (lbs/hr)	PM-10 (tons/yr)
Potential Emissions After Control (stack)	13.7	60.1	13.7	60.1
Potential Emissions (fugitive)		12.1		12.1
Total Potential Emissions After Control		72.2		72.2
Potential Emissions Before Controls	277.1	1213.506		1213.506

46.290

Allowable PM emissions pursuant to 326 IAC 6-3-2 are PM = 55(P)^0.11-40, where P is Process Rate in tons per hour & PM is in pounds per hour

Emission Unit
EU RF - 1990
Rotary Furnaces #1 and #2 , 1.9 tons per hour each

Throughput lbs/hr	1 ton/2000 lbs	tons/hr	PM/PM-10 Control Efficiency %	PM/PM-10 Capture Efficiency %
7600	2000	**3.80**	95.00%	99.00%

Outlet Grain Loading gr/dscf	Flow Rate @ 70F acfm
0.01	48,182

Limited Emission Rate (lbs/hr)
5.70
CP (85) 1827
326 IAC 2-2
or
25.0 TPY

	PM (lbs/hr)	**PM** (tons/yr)	**PM-10** (lbs/hr)	**PM-10** (tons/yr)
Potential Emissions After Control (stack)	4.13	18.09	4.13	18.09
Potential Emissions Before Controls	83.4	365.431		365.431

Pollutant	Maximum Rate (tons/hr)	Emission Factor (lbs/tons)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)
SO2	3.80	0.135	0.513	2.25	0.0%	0.513	2.25
NOx	3.80	0.375	1.425	6.24	0.0%	1.425	6.24
VOC	3.80	0.752	2.856	12.51	0.0%	2.86	12.51
CO	3.80	0.486	1.847	8.09	0.0%	1.85	8.09
Lead	3.80	0.02924	0.111	0.487	94.1%	0.007	0.0290
HCl	3.80	0.537	2.041	8.94	0.0%	2.041	8.94
HF	3.80	0.255	0.969	4.24	0.0%	0.969	4.24
D/F	3.80	9.72E-07	3.69E-06	1.62E-05	0.00E+00	3.69E-06	1.62E-05

VOC and CO emission factors from Dickson 1999 stack test + 50%
SO2 and NOx emission factor from Dickson 1994 stack test +50%, Lead emission factor from Wabash 1996 stack test

Natural Gas = 1050.000 Btu/CF

Emission Unit **EU RF** **Flue Emissions**
Rotary Furnaces #1 and #2 , 1.9 tons per hour each, and 6 mmBtu per hour each

Pollutant	Maximum Rate (tons/hr) or (mmBtu/hr)	Emission Factor	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)
PM (EF = lb/ton)	3.80	0.240	0.91	3.99	0.0%	0.91	3.99
PM-10 (EF = lb/mmCF)	12.00	0.000	0.000	0.000	0.0%	0.000	0.000
SO2 (EF = lb/ton)	3.80	0.006	0.023	0.100	0.0%	0.023	0.100
NOx (EF = lb/mmCF)	12.00	0.000	0.000	0.00	0.0%	0.00	0.00
VOC (EF = lb/mmCF)	12.00	0.000	0.000	0.000	0.0%	0.000	0.000
CO (EF = lb/mmCF)	12.00	0.000	0.000	0.00	0.0%	0.00	0.00
Lead (EF = lb/ton)	3.80	0.00360	0.014	0.060	0.0%	0.014	0.060

PM-10, NOx, VOC and CO (combustion emissions) are accounted for in the rotary process emission factors above
PM, SO2 and Lead lb/ton EF are from Dickson stack test 1999

EU RF
Rotary Furnaces #1 and #2 , 6 mmBtu per hour each **1050.000** **Btu/CF**
Total Rating (mmBtu/hr) 12.00 100.1143 mmCF/yr

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	0.002	0.001	0.075	1.80	0.003
Potential Emission in tons/yr	0.00011	0.00006	0.00375	0.09010	0.00017

HAPs - Metals

		Cadmium	Chromium	Manganese	Nickel	Total HAPs
Emission Factor in lb/MMcf		0.001	0.001	0.0004	0.002	
Potential Emission in tons/yr		0.00006	0.00007	0.00002	0.00011	0.094

Emission Unit
EU RF
Rotary Furnace #3 , 3.3 tons per hour

Throughput lbs/hr	1 ton/2000 lbs	tons/hr	PM/PM-10 Control Efficiency %	PM/PM-10 Capture Efficiency %
6600	2000	**3.30**	95.00%	99.00%

Outlet Grain Loading gr/dscf	Flow Rate @ 70F acfm
0.01	24,091

	PM (lbs/hr)	**PM** (tons/yr)	PM-10 (lbs/hr)	PM-10 (tons/yr)
Potential Emissions After Control (stack)	2.06	9.04	2.06	9.04
Potential Emissions Before Controls	41.7	182.715		182.715

Pollutant	Maximum Rate (tons/hr)	Emission Factor (lbs/tons)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)	Limited Controlled Emission Rate (tons/yr)
SO2	3.30	0.135	0.446	1.95	0.0%	0.446	1.95	1.95
NOx	3.30	0.375	1.238	5.42	0.0%	1.238	5.42	5.42
VOC	3.30	0.752	2.480	10.86	0.0%	2.48	10.9	3.41
CO	3.30	0.486	1.604	7.02	0.0%	1.60	7.02	7.02
Lead	3.30	0.02924	0.097	0.423	94.1%	0.006	0.025	0.03
HCl	3.30	0.537	1.772	7.76	0.0%	1.772	7.76	7.76
HF	3.30	0.255	0.842	3.69	0.0%	0.842	3.69	3.69
D/F	3.30	9.72E-07	3.21E-06	1.40E-05	0.00E+00	3.21E-06	1.40E-05	1.405E-05

Limited VOC emission limit is 0.236 lbs/ton. See TSD for derivation.
VOC and CO emission factors from Dickson 1999 stack test + 50%
SO2 and NOx emission factor from Dickson 1994 stack test +50%, Lead emission factor from Wabash 1996 stack test

Natural Gas = **1050.000** **Btu/CF**

Emission Unit **EU RF** **Flue Emissions**
Rotary Furnace #3, 3.3 tons per hour, and 7.5 mmBtu per hour

Pollutant	Maximum Rate (tons/hr) or (mmBtu/hr)	Emission Factor	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)
PM (EF = lb/ton)	3.30	0.240	0.79	3.47	0.0%	0.792	3.47
PM-10 (EF = lb/mmCF)	7.50	0.000	0.000	0.000	0.0%	0.000	0.000
SO2 (EF = lb/ton)	3.30	0.006	0.020	0.087	0.0%	0.020	0.087
NOx (EF = lb/mmCF)	7.50	0.000	0.000	0.00	0.0%	0.000	0.00
VOC (EF = lb/mmCF)	7.50	0.000	0.000	0.000	0.0%	0.000	0.000
CO (EF = lb/mmCF)	7.50	0.000	0.000	0.00	0.0%	0.000	0.00
Lead (EF = lb/ton)	3.30	0.00360	0.012	0.052	0.0%	0.012	0.052

PM-10, NOx, VOC and CO (combustion emissions) are accounted for in the rotary process emission factors above
PM, SO2 and Lead lb/ton EF are from Dickson stack test 1999

EU RF
Rotary Furnace #3 , 7.5 mmBtu per hour **1050.000** **Btu/CF**
Total Rating (mmBtu/hr) 7.50 **62.57 mmCF/yr**

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	0.002	0.001	0.075	1.80	0.003
Potential Emission in tons/yr	0.00007	0.00004	0.00235	0.05631	0.00011

HAPs - Metals

		Cadmium	Chromium	Manganese	Nickel	**Total HAPs**
Emission Factor in lb/MMcf		0.001	0.001	0.0004	0.002	
Potential Emission in tons/yr		0.00003	0.00004	0.00001	0.00007	0.059

Emission Unit **EU WWE - 1996 Wastewater Evaporator**

Pollutant	Maximum Rate (gal/hr)	Emission Factor (lbs/tons)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)	Allowable Emission Rate (lbs/hr)		Emission Factor
PM	37.0	0.000	0.00	0.00	0.0%	0.000	0.00	1.2		
PM-10	37.0	0.000	0.00	0.00	0.0%	0.000	0.00			
SO2	37.0	0.000	0.00	0.00	0.0%	0.000	0.000			
NOx	37.0	0.000	0.00	0.00	0.0%	0.000	0.000			
VOC	37.0	0.062	2.29	10.05	0.0%	2.294	10.048			A
CO	37.0	0.000	0.00	0.00	0.0%	0.000	0.000			
Lead	37.0	0.000	0.00	0.00	0.0%	0.000	0.000			

Allowable PM emissions pursuant to 326 IAC 6-3-2 are PM = 4.1(P)^0.67, where P is Process Rate in tons per hour & PM is in pounds per hour
A = waste water sample from Wabash Alloys analyzed by EPA-600 Method 413.1

Emission Unit **EU WWE** Combustion Only - Unknown **Wastewater Evaporator, 0.95 mmBtu/hr**

Pollutant	Maximum Rate (MMcf/hr)	Emission Factor (lbs/MMCF)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)			Emission Factor
PM	0.00095	1.900	0.002	0.008	0.0%	0.002	0.008			A
PM-10	0.00095	7.600	0.007	0.032	0.0%	0.007	0.032			A
SO2	0.00095	0.600	0.001	0.002	0.0%	0.001	0.002			A
NOx	0.00095	100.000	0.095	0.416	0.0%	0.095	0.416			A
VOC	0.00095	5.500	0.005	0.023	0.0%	0.005	0.023			A
CO	0.00095	84.000	0.080	0.350	0.0%	0.080	0.350			A
Lead	0.00095	0.000	0.000	0.000	0.0%	0.000	0.000			A

1050.000 **Btu/CF**

Total Rating (mmBtu/hr) 0.95 **7.926 mmCF/yr**

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	0.002	0.001	0.075	1.80	0.003
Potential Emission in tons/yr	0.00057	0.00033	0.02034	0.48806	0.00092

HAPs - Metals

		Cadmium	Chromium	Manganese	Nickel	**Total HAPs**
Emission Factor in lb/MMcf		0.001	0.001	0.0004	0.002	
Potential Emission in tons/yr		0.00030	0.00038	0.00010	0.00057	0.512

Insignificant Activities

Electric Crusher #2

Pollutant	Maximum Rate (tons/hr)	Emission Factor (lbs/tons)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)	
PM	25.0	0.04167	1.0	4.6	0.0%	1.042	4.56	
PM-10	25.0	0.04167	1.0	4.6	0.0%	1.042	4.56	

PM = PM-10, Emission factor from highest run (run 1) of the 1998 Tipton stack test.

See below worst case for 2 ladle preheaters as Melt Pots rated at 4.0 mmBtu/hr each

Insignificant Activities
Natural Gas Combustion Consisting of:

	Each mmBtu/hr	Total mmBtu/hr
7 mobile shop space heaters		1.36
3 maintenance shop space heaters	0.15	0.45
10 ladle preheaters	4.0	40.00
1 holding furnace #4	7.00	7.00
1 pump repair shop space heater	0.525	0.525
2 shipping space heaters	0.4	0.800
2 shipping space heaters	0.25	0.50
4 space heaters - drainage building	0.15	0.60
2 storeroom space heaters	0.18	0.36
2 refractory shop spaceheaters	0.25	0.50
2 ingot conveyor preheaters	0.8	1.60
1 steam Jenny	0.4	0.40
1 assay crucible	0.95	0.95
3 scrap preheaters	0.4	1.20
4 furnace baghouse pre-heaters	10	40
6 inspirator burners	5	30
	Total	**126.245**

Heat Input Capacity MMBtu/hr **126.245**

Potential Throughput MMCF/yr **1053.24**

Pollutant

	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.90	7.60	0.600	100 **see below	5.50	84.0
Potential Emission in tons/yr	1.00	4.00	0.316	52.7	2.90	44.2

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

Methodology

Natural Gas = 1050.000 Btu/CF

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
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 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Melt Pot A 2.14 tons/hr and 4.0 mmBtu/hr - Unknown

Natural Gas = 1050.000 Btu/CF

Pollutant	Maximum Rate (tons/hr) or (mmBtu/hr)	Emission Factor	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)
PM (EF = lb/ton)	2.14	0.520	1.11	4.88	0.0%	1.114	4.88
PM-10 (EF = lb/ton)	2.14	0.520	1.11	4.881	0.0%	1.114	4.881
SO2 (EF = lb/mmCF)	4.00	0.600	0.002	0.010	0.0%	0.002	0.0100
NOx (EF = lb/ton)	2.14	0.590	1.26	5.54	0.0%	1.264	5.54
VOC (EF = lb/ton)	2.14	0.040	0.09	0.375	0.0%	0.086	0.375
CO (EF = lb/mmCF)	4.00	84.000	0.320	1.40	0.0%	0.320	1.40
Lead (EF = lb/mmCF)	4.00	0.00050	0.000	0.000	0.0%	0.000	0.000008

Melt Pot B 2.14 tons/hr and 4.0 mmBtu/hr

Natural Gas = 1050.000 Btu/CF

Pollutant	Maximum Rate (tons/hr) or (mmBtu/hr)	Emission Factor	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)
PM (EF = lb/ton)	2.14	0.520	1.11	4.88	0.0%	1.114	4.88
PM-10 (EF = lb/ton)	2.14	0.520	1.11	4.881	0.0%	1.114	4.881
SO2 (EF = lb/mmCF)	4.00	0.600	0.002	0.010	0.0%	0.002	0.0100
NOx (EF = lb/ton)	2.14	0.590	1.26	5.54	0.0%	1.264	5.54
VOC (EF = lb/ton)	2.14	0.040	0.09	0.375	0.0%	0.086	0.375
CO (EF = lb/mmCF)	4.00	84.000	0.320	1.40	0.0%	0.320	1.40
Lead (EF = lb/mmCF)	4.00	0.00050	0.000	0.000	0.0%	0.000	0.000008

PM = PM-10, NOx and VOC emission factors from testing on similar operations, SO2 CO and Lead from AP-42 Chapter 1.4

Insignificant Activities **126.25** **mmBtu/hr**
Plus
Melt Pots A & B @4.0 mmBtu/hr each **8.00** **1050.000** **Btu/CF**
Total Rating (mmBtu/hr) **134.25**
1120.0 **mmCF/yr**

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	0.002	0.001	0.075	1.80	0.003
Potential Emission in tons/yr	0.00118	0.00067	0.04200	1.00799	0.00190

HAPs - Metals

		Cadmium	Chromium	Manganese	Nickel	Total
Emission Factor in lb/MMcf		0.001	0.001	0.0004	0.002	HAPs
Potential Emission in tons/yr		0.00062	0.00078	0.00021	0.00118	1.057

Aluminum Storage and Handling

* * aggregate handling * *

The following calculations determine the amount of emissions created by truck
loading and unloading of aggregate, based on 8760 hours of use and AP-42, Ch 13.2.4 (Fifth edition, 1/95).

Ef = k*(0.0032)* (U/5)^1.3/(M/2)^1.4
= 0.0042 lb/ton
where k = 0.74 (particle size multiplier) PM
U = 10 mile/hr mean wind speed
M = 2.525 % material moisture content

Ef = k*(0.0032)* (U/5)^1.3/(M/2)^1.4
= 0.0020 lb/ton
where k = 0.35 (particle size multiplier) 0.35 for PM-10
U = 10 mile/hr mean wind speed
M = 2.525 % material moisture content

Capacity (tons/hr) 71.90

Pollutant	Maximum Rate (tons/hr)	Emission Factor (lbs/ton)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)
PM	71.90	0.0042	0.303	1.32	0.0%	0.303	1.32
PM-10	71.90	0.0020	0.143	0.627	0.0%	0.143	0.627

Assay Furnace (electric) - unknown

Pollutant	Maximum Rate (tons/hr)	Emission Factor (lbs/ton)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)
PM (EF = lb/ton)	0.0000469	0.520	0.00	0.00	0.0%	0.000	0.00011
PM-10 (EF = lb/ton)	0.0000469	0.520	0.00	0.000	0.0%	0.000	0.00011
NOx (EF = lb/ton)	0.0000469	0.590	0.00	0.00	0.0%	0.000	0.00012
VOC (EF = lb/ton)	0.0000469	0.040	0.00	0.000	0.0%	0.000	0.00001

PM = PM-10, NOx and VOC emission factors from testing on similar operations.

Pouring & Cooling Ingot, 7.5 tons/hr - unknown

Pollutant	Maximum Rate (tons/hr)	Emission Factor (lbs/ton)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)
SO2	7.50	0.0200	0.150	0.66	0.0%	0.150	0.657
NOx	7.50	0.0100	0.075	0.329	0.0%	0.075	0.329
VOC	7.50	0.1400	1.050	4.599	0.0%	1.050	4.60

SO2, NOx and VOC emission factors are from Fires v. 6.23 for SCC 03-04-001-14

Plant Roadways and Parking Areas
Paved Road Emission Calculation
AP-42 (10/97 Version) Ch. 13.2.1

E = k * (sL/2) ^ 0.65 * (W/3) ^ 1.5

E = particulate emission factor (lb/VMT)
k = Base emission factor (lb/VMT)
sL = Silt loading (g/m2)
W = Mean vehicle weight (tons)

Area	k lb/VMT	sL g/m2	W tons	E lb/VMT	365 # of trips per year	1-way # of feet per trip	Total miles per year	Control Efficiency	PM = PM10 Emissions (TPY)
Vendors & Deliveries									
Cars & Light Trucks	0.082	9.7	2	0.125	3650	530	732.8	0	0.046
Cars & Light Trucks	0.082	9.7	2	0.125	7300	1920	5309.1	0	0.331
Parking									
Salaried Employees	0.082	9.7	2	0.125	38690	520	7620.8	0	0.475
Union Employees	0.082	9.7	2	0.125	82855	1140	35778.3	0	2.228
Ingot & Molten Al Delivery Trucks									
Empty Semi	0.082	9.7	15	2.56	10950	1060	2198.3	0	2.812
Full Semi	0.082	9.7	32	7.97	10950	1060	2198.3	0	8.763
Scrap Deliveries									
Full Semi	0.082	9.7	32	7.97	5840	820	907.0	0	3.615
Empty Semi	0.082	9.7	15	2.56	5840	820	907.0	0	1.160
Scrap & Misc. Bulk Deliveries									
Full Semi	0.082	9.7	32	7.97	5475	840	871.0	0	3.472
Empty Semi	0.082	9.7	15	2.56	5475	840	871.0	0	1.114
Scrap Deliveries									
Full Semi	0.082	9.7	32	7.97	4380	1100	912.5	0	3.637
Empty Semi	0.082	9.7	15	2.56	4380	400	331.8	0	0.424
Dross Deliveries									
Full Semi	0.082	9.7	32	7.97	3650	1140	788.1	0	3.141
Empty Semi	0.082	9.7	15	2.56	3650	340	235.0	0	0.301
Waste Transporter									
Heavy Duty Trucks	0.082	9.7	15	2.56	2555	1140	551.6	0	0.706
Heavy Duty Trucks	0.082	9.7	32	7.97	2555	340	164.5	0	0.656

AP-42 (Version 9/98) Table 13.2.1-3 **32.882**

Unpaved Roads

The following calculations determine the amount of emissions created by unpaved roads,
based on 8760 hours of use and AP-42, Ch 13.2.2 (Supplement E, 9/98).

Ef = {k*[(s/12)^0.8]*[(W/3)^b]/[(Mdry/0.2)^c]}*[(365-p)/365]

		PM	PM-10
Where	k =	10	2.6
	s (%) =	6	6
	b =	0.5	0.4
	c =	0.4	0.3
	p =	125	125
	m =	0.2	0.2

Area	W ton	E (PM) lb/VMT	E (PM-10) lb/VMT		365 # of trips per year	1-way # of feet per trip	Total miles per year	Control Efficiency	PM Emissions (TPY)	PM-10 Emissions (TPY)
Vendors & Deliveries										
Cars & Light Trucks	2	3.08	0.835		3650	0	0.0	0	0.000	0.000
Cars & Light Trucks	2	3.08	0.835		7300	0	0.0	0	0.000	0.000
Parking										
Salaried Employees	2	3.08	0.835		38690	0	0.0	0	0.000	0.000
Union Employees	2	3.08	0.835		82855	0	0.0	0	0.000	0.000
Ingot & Molten Al Delivery Trucks										
Empty Semi	15	8.44	1.869		10950	0	0.0	0	0.000	0.000
Full Semi	32	12.33	2.531		10950	0	0.0	0	0.000	0.000
Scrap Deliveries										
Full Semi	32	12.33	2.531		5840	0	0.0	0	0.000	0.000
Empty Semi	15	8.44	1.869		5840	0	0.0	0	0.000	0.000
Scrap & Misc. Bulk Deliveries										
Full Semi	32	12.33	2.531		5475	0	0.0	0	0.000	0.000
Empty Semi	15	8.44	1.869		5475	0	0.0	0	0.000	0.000
Scrap Deliveries										
Full Semi	32	12.33	2.531		4380	140	116.1	0	0.716	0.147
Empty Semi	15	8.44	1.869		4380	140	116.1	0	0.490	0.109
Dross Deliveries										
Full Semi	32	12.33	2.531		3650	1680	1161.4	0	7.162	1.470
Empty Semi	15	8.44	1.869		3650	1680	1161.4	0	4.904	1.085
Waste Transporter										
Heavy Duty Trucks	15	8.44	1.869		2555	1800	871.0	0	3.678	0.814
Heavy Duty Trucks	32	12.33	2.531		2555	1800	871.0	0	5.372	1.102

Numbers derived from AP-42 (Version 9/98) Table 13.2.2-1 for Iron and Steel Production Facilities **22.322** **4.727**

Summary of
Uncontrolled Potential Emissions

	PM (tons/yr)	PM-10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Lead (tons/yr)	HCL (tons/yr)	HF (tons/yr)	D/F (tons/yr)
Significant Emission Units										
Scrap Shredder	774.0	774.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00000
Scrap Dryer #4	2452.8	2452.8	13.80	18.40	519.69	19.647	0.046	105.120	0.097	0.00005
Scrap Dryer #5	2452.8	2452.8	17.84	23.79	672.13	19.647	0.059	135.955	0.126	0.00006
Reverberatory Furnaces # 2, #5 and #8 at furnace maximum of 10.6 tons/hr and a total of 25 tons/hr for the group	469.9	284.2	14.75	40.98	82.13	53.1	2.044	58.7	27.87	0.00011
Reverberatory Furnaces #10, #11 and #14 at furnace maximum of 12.3 tons/hr and a total of 32.8 tons/hr for the group	618.0	373.6	19.40	53.89	108.00	69.8	1.344	77.2	36.65	0.00014
Reverberatory Furnaces #15 and #17 at furnace maximum of 15.0 tons/hr and a total of 28.5 tons/hr for the group	536.8	324.6	16.85	46.81	93.81	60.7	2.335	67.0	31.83	0.00012
Reverberatory Furnace #15 or 17 at 15 tons/hr for info only	282.5	170.8	8.87	24.64	49.37	31.9	1.229	35.3	16.75	0.00006
Reverberatory Furnaces #2, #5 and #8 Flue	26.3	0.0	0.657	0.000	0.000	0.000	0.394	0.000	0.000	0.00000
Reverberatory Furnaces #10, #11 and #14 Flue	34.5	0.0	0.86	0.00	0.00	0.000	0.517	0.000	0.000	0.00000
Reverberatory Furnaces #15 and #17 Flue	30.0	0.0	0.75	0.00	0.00	0.000	0.449	0.000	0.000	0.00000
Dross Mill Building Processing	1213.5	1213.5	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.00000
Rotary Furnaces #1 and #2 , 1.9 tons per hour each	365.431	365.431	2.247	6.242	12.51	8.089	0.487	8.938	4.244	0.00002
Rotary Furnaces #1 and #2 Flue	3.995	0.000	0.100	0.000	0.00	0.000	0.060	0.000	0.000	0.00000
Rotary Furnace #3 , 3.3 tons per hour	182.715	182.715	1.951	5.420	10.86	7.025	0.423	7.762	3.686	0.00001
Rotary Furnace #3 Flue	3.469	0.000	0.087	0.000	0.00	0.000	0.052	0.000	0.000	0.00000
Wastewater Evaporator	0.000	0.000	0.000	0.000	10.048	0.000	0.000	0.000	0.000	0.00000
Wastewater Evaporator Combustion	0.008	0.032	0.002	0.416	0.023	0.350	0.000	0.000	0.000	0.00000
Subtotal Significant Emission Units	**9164.2**	**8423.7**	**89.3**	**196.0**	**1509.2**	**238.4**	**8.2**	**460.7**	**104.5**	**0.0005**
Insignificant Activities										
Electric Crusher #2	4.563	4.563	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Natural Gas Combustion	1.001	4.002	0.316	52.662	2.896	44.236	0.000	0.000	0.000	0.000
Melt Pot A	4.881	4.881	0.010	5.538	0.375	1.402	0.000	0.000	0.000	0.000
Melt Pot B	4.881	4.881	0.010	5.538	0.375	1.402	0.000	0.000	0.000	0.000
Aluminum Storage and Handling	1.325	0.627	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Assay Furnace (Electric)	0.00011	0.00011	0.000	0.00012	0.00001	0.000	0.000	0.000	0.000	0.000
Pouring & Cooling Ingot	0.00000	0.00000	0.657	0.32850	4.59900	0.000	0.000	0.000	0.000	0.000
Paved Roads	32.9	32.9	0.000	0.00000	0.00000	0.000	0.000	0.000	0.000	0.000
Unpaved Roads	22.32	4.73	0.000	0.00000	0.00000	0.000	0.000	0.000	0.000	0.000
Subtotal Insignificant Activities	**71.9**	**56.6**	**0.993**	**64.1**	**8.25**	**47.0**	**0.000**	**0.000**	**0.000**	**0.000**
Grand Total	**9236.0**	**8480.2**	**90.3**	**260.0**	**1517.4**	**285.4**	**8.21**	**460.7**	**104.5**	**0.001**

Summary of
Controlled Potential Emissions

	PM (tons/yr)	PM-10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Lead (tons/yr)	HCL (tons/yr)	HF (tons/yr)	D/F (tons/yr)
Significant Emission Units										
Scrap Shredder	34.3	34.3	0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Scrap Dryer #4	24.5	24.5	13.8	18.4	15.6	3.929	0.000	105.120	0.097	0.000
Scrap Dryer #5	24.5	24.5	17.8	23.8	20.2	3.929	0.001	135.955	0.126	0.000
Reverberatory Furnaces # 2, #5 and #8 at furnace maximum of 10.6 tons/hr and a total of 25 tons/hr for the group	43.7	87.4	14.75	41.0	82.1	53.1	0.190	58.7	27.87	0.00011
Reverberatory Furnaces #10, #11 and #14 at furnace maximum of 12.3 tons/hr and a total of 32.8 tons/hr for the group	57.5	115.0	19.40	53.9	108.0	69.8	0.250	77.2	36.65	0.00014
Reverberatory Furnaces #15 and #17 at furnace maximum of 15.0 tons/hr and a total of 28.5 tons/hr for the group	49.9	49.9	16.85	46.8	93.8	60.7	0.217	67.0	31.83	0.00012
Reverberatory Furnace #15 or 17 at 15 tons/hr for info only	26.3	26.3	8.87	24.6	49.4	31.9	0.114	35.3	16.8	0.00006
Reverberatory Furnaces #2, #5 and #8 Flue	26.3	0.0	0.657	0.000	0.000	0.000	0.394	0.000	0.000	0.000
Reverberatory Furnaces #10, #11 and #14 Flue	34.5	0.00	0.86	0.00	0.00	0.00	0.517	0.000	0.000	0.000
Reverberatory Furnaces #15 and #17 Flue	30.0	0.0	0.75	0.00	0.00	0.00	0.449	0.000	0.000	0.000
Dross Mill Building Processing	72.2	72.2	0.000	0.000	0.0	0.000	0.000	0.000	0.000	0.000
Rotary Furnaces #1 and #2 , 1.9 tons per hour each	18.1	18.1	2.247	6.242	12.508	8.089	0.029	8.938	4.244	0.000016
Rotary Furnaces #1 and #2 Flue	3.995	0.000	0.100	0.000	0.000	0.000	0.060	0.000	0.000	0.001
Rotary Furnace #3 , 3.3 tons per hour	9.044	9.044	1.951	5.420	10.862	7.025	0.025	7.762	3.686	0.000
Rotary Furnace #3 Flue	3.469	0.000	0.087	0.000	0.000	0.000	0.052	0.000	0.000	0.000
Wastewater Evaporator	0.000	0.000	0.000	0.000	10.048	0.000	0.000	0.000	0.000	0.000
Wastewater Evaporator Combustion	0.008	0.032	0.002	0.416	0.023	0.350	0.000	0.000	0.000	0.000
Subtotal Significant Emission Units	**432.0**	**435.1**	**89.3**	**196.0**	**353.1**	**206.9**	**2.2**	**460.7**	**104.5**	**0.0011**
Insignificant Activities										
Electric Crusher #2	4.56	4.56	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Natural Gas Combustion	1.001	4.002	0.316	52.662	2.896	44.236	0.000	0.000	0.000	0.000
Melt Pot A	4.881	4.881	0.010	5.538	0.375	1.402	0.000	0.000	0.000	0.000
Melt Pot B	4.881	4.881	0.010	5.538	0.375	1.402	0.000	0.000	0.000	0.000
Aluminum Storage and Handling	1.325	0.627	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Assay Furnace (Electric)	0.00011	0.00011	0.000	0.00012	0.000	0.000	0.000	0.000	0.000	0.000
Pouring & Cooling Ingot	0.000	0.000	0.657	0.329	4.60	0.000	0.000	0.000	0.000	0.000
Paved Roads	32.9	32.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Unpaved Roads	22.3	4.73	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Subtotal Insignificant Activities	**71.9**	**56.6**	**0.993**	**64.1**	**8.25**	**47.0**	**0.000**	**0.000**	**0.000**	**0.000**
Grand Total	**503.9**	**491.6**	**90.3**	**260.0**	**361.4**	**254.0**	**2.19**	**460.7**	**104.5**	**0.001**

Summary of
Controlled & Limited Potential Emissions

	PM (tons/yr)	PM-10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Lead (tons/yr)	HCL (tons/yr)	HF (tons/yr)	D/F (tons/yr)
Significant Emission Units										
Scrap Shredder	34.3	34.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Scrap Dryer #4	24.5	24.5	13.8	18.4	15.6	3.93	0.000	105.1	0.0972	0.0000
Scrap Dryer #5	24.5	24.5	17.8	23.8	20.2	3.93	0.001	136.0	0.126	0.0001
Reverberatory Furnaces # 2, #5 and #8 at furnace maximum of 10.6 tons/hr and a total of 25 tons/hr for the group	43.7	87.4	14.8	41.0	82.1	53.1	0.190	58.7	27.9	0.0001
Reverberatory Furnaces #10, #11 and #14 at furnace maximum of 12.3 tons/hr and a total of 32.8 tons/hr for the	57.5	115.0	19.4	53.9	108.0	69.8	0.250	77.2	36.6	0.0001
Reverberatory Furnace #15 maximum of 15 tons/hr	21.4	21.4	7.22	20.0	40.2	26.0	0.093	28.70	13.630	0.00005
Reverberatory Furnace #17 maximum of 15 tons/hr	26.3	26.3	8.87	24.64	49.4	31.9	0.114	35.28	16.754	0.00006
Reverberatory Furnaces #2, #5 and #8 Flue	26.3	0.000	0.657	0.000	0.000	0.000	0.394	0.000	0.000	0.000
Reverberatory Furnaces #10, #11 and #14 Flue	34.5	0.000	0.862	0.000	0.000	0.000	0.517	0.000	0.000	0.000
Reverberatory Furnaces #15 and #17 Flue	0.0	0.000	0.749	0.000	0.000	0.000	0.449	0.000	0.000	0.000
Dross Mill Building Processing	72.204	72.204	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Rotary Furnaces #1 and #2 , 1.9 tons per hour each	25.0	15.0	40.0	40.0	40.0	8.089	0.029	8.938	4.244	0.000
Rotary Furnaces #1 and #2 Flue						0.000	0.060	0.000	0.000	0.001
Rotary Furnace #3 , 3.3 tons per hour						7.025	0.025	7.762	3.686	0.000
Rotary Furnace #3 Flue						0.000	0.052	0.000	0.000	0.000
Wastewater Evaporator	0.0	0.000	0.000	0.000	10.048	0.000	0.000	0.000	0.000	0.000
Wastewater Evaporator Combustion	0.0	0.032	0.002	0.416	0.023	0.350	0.000	0.000	0.000	0.000
Subtotal Significant Emission Units	**390.2**	**420.7**	**124.2**	**222.2**	**365.5**	**204.2**	**2.18**	**457.6**	**103.1**	**0.001**
Insignificant Activities										
Electric Crusher #2	4.563	4.563	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Natural Gas Combustion	1.001	4.002	0.316	52.662	2.896	44.236	0.000	0.000	0.000	0.000
Melt Pot A	4.881	4.881	0.010	5.538	0.375	1.402	0.000	0.000	0.000	0.000
Melt Pot B	4.881	4.881	0.010	5.538	0.375	1.402	0.000	0.000	0.000	0.000
Aluminum Storage and Handling	1.325	0.627	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Assay Furnace (Electric)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Pouring & Cooling Ingot	0.000	0.000	0.657	0.329	4.599	0.000	0.000	0.000	0.000	0.000
Paved Roads	32.882	32.882	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Unpaved Roads	22.322	4.727	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Subtotal Insignificant Activities	**71.854**	**56.562**	**0.993**	**64.066**	**8.246**	**47.039**	**0.000**	**0.000**	**0.000**	**0.000**
Grand Total	**462.1**	**477.2**	**125.1**	**286.2**	**373.7**	**251.2**	**2.18**	**457.6**	**103.1**	**0.001**

HAPs Summary
From Natural Gas Combustion

Significant Emission Units	Benzene (tons/yr)	Dichlorobenzene (tons/yr)	Formaldehyde (tons/yr)	Hexane (tons/yr)	Toluene (tons/yr)	Cadmium (tons/yr)	Chromium (tons/yr)	Manganese (tons/yr)	Nickel (tons/yr)	Total HAPs (tons/yr)
Reverberatory Furnaces # 2, #5 and #8 , rated at 24, 33 and 30 mmBtu/hr	0.0008	0.0004	0.0272	0.6532	0.0012	0.0004	0.0005	0.0001	0.0008	0.6847
Reverberatory Furnaces #10, #11 and #14, rated at 30 mmBtu/hr each	0.0008	0.0005	0.0282	0.6758	0.0013	0.0004	0.0005	0.0001	0.0008	0.7083
Reverberatory Furnaces #15 and #17, rated at 32 and 33 mmBtu/hr	0.0006	0.0003	0.0203	0.4881	0.0009	0.0003	0.0004	0.0001	0.0006	0.5116
Rotary Furnaces #1 and #2 , 6 mmBtu per hour each	0.0001	0.0001	0.0038	0.0901	0.0002	0.0001	0.0001	0.00002	0.0001	0.0944
Rotary Furnace #3 , 7.5 mmBtu per hour	0.0001	0.0000	0.0023	0.0563	0.0001	0.0000	0.0000	0.00001	0.0001	0.0590
Wastewater Evaporator, 0.95 mmBtu/hr	0.0006	0.0003	0.0203	0.4881	0.0009	0.0003	0.0004	0.0001	0.0006	0.5116
Subtotal Significant Emission Units	**0.0029**	**0.0016**	**0.1021**	**2.4515**	**0.0046**	**0.0015**	**0.0019**	**0.0005**	**0.0029**	**2.5696**
Insignificant Activities										
Natural Gas Combustion including Melt Pots	0.0012	0.0007	0.0420	1.0080	0.0019	0.0006	0.0008	0.0002	0.0012	1.0565
Grand Total Natural Gas Combustion	**0.0040**	**0.0023**	**0.1441**	**3.4595**	**0.0065**	**0.0021**	**0.0027**	**0.0007**	**0.0040**	**3.6261**

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Reviewer: Mark L. Kramer
Application Date: August 1, 1996

WABASH ALLOYS OPERATION OF DRYERS 1 - 3

The Operation of Dryers 1, 2 and 3 in 1985

Month	Dryer 1 Production (lbs)	Dryer 1 (Btu/lb)	Dryer 2 Production (lbs)	Dryer 2 (Btu/lb)	Dryer 3 Production (lbs)
January	2,121,342	3,396	1,776,636	3,168	3,518,656
February	1,612,983	4,552	2,443,806	2,521	2,890,719
March	2,309,127	3,716	3,074,743	2,495	3,195,812
April	1,519,357	3,996	2,200,858	2,918	3,885,806
May	2,399,766	3,927	2,359,314	2,847	3,221,534
June	2,447,294	3,751	3,676,500	2,379	1,858,253
July	1,392,172	4,102	1,951,455	3,734	2,610,105
August	2,439,042	2,361	0	0	3,788,109
September	2,265,135	4,671	1,799,461	3,000	3,120,731
October	2,761,591	3,742	1,728,686	3,299	3,474,919
November	2,494,969	4,018	1,259,516	3,244	4,170,940
December	1,705,197	3,786	2,271,544	2,957	2,335,086

Emission Unit	1985 Actual Production (lbs)	1985 Actual Avg (Btu/lb)	1985 Actual mmBtu
Dryer 1	25,467,975	3,835	97,665
Dryer 2	24,542,519	2,714	66,596
Dryer 3	38,070,670	2,227	84,783
Total	88,081,164	**Total**	249,045
Production (tons)	44,041	Total Gas Consumption (mmcf)	244
Average Dryer Recovery Percentage (%)	80.00%		
Throughput (tons)	55,051		

The Operation of Dryers 1, 2, and 3 in 1986

Month	Dryer 1 Production (lbs)	Dryer 1 (Btu/lb)	Dryer 2 Production (lbs)	Dryer 2 (Btu/lb)	Dryer 3 Production (lbs)
January	1,568,536	4,656	2,385,052	3,362	3,387,709
February	1,180,018	4,510	2,111,248	3,074	2,486,007
March	1,465,675	4,350	1,108,946	5,617	2,485,096
April	1,375,356	3,878	1,772,463	2,903	2,260,360
May	1,505,626	4,014	1,918,885	2,803	2,402,442
June	1,454,036	4,164	1,577,522	2,709	1,798,931
July	637,693	4,969	1,916,043	2,601	1,918,576
August	1,245,611	4,135	2,655,166	2,428	2,984,417
September	1,190,436	4,862	2,616,582	2,580	2,195,333
October	978,539	4,627	2,647,242	3,025	2,769,109
November	678,880	5,235	2,307,688	2,684	2,489,462
December	879,805	4,717	2,318,135	3,101	2,654,637

Note: February 1986 values estimated based on average of other 1986 months - data not available.
Data for 1984 not found and would likely be similar to 1985 data

Emission Unit	1986 Actual Production (lbs)	1986 Actual Avg (Btu/lb)	1986 Actual mmBtu
Dryer 1	14,160,211	4,510	63,859
Dryer 2	25,334,972	3,074	77,878
Dryer 3	29,832,079	2,512	74,931
Total	69,327,262	**Total**	216,667
Production (tons)	34,664	Total Gas Consumption (mmcf)	212
Average Dryer Recovery Percentage (%)	80.00%		
Throughput (tons)	43,330		

2 Year Average Throughput (tons/year)	49,190	2 Year Average Consumption (mmcf/yr)	228

Methodology
All data obtained from fuel consumption & cost monthly reports prepared by David Rish for Tommy Aviles (Plant Manager)
Production (lbs) For Each Dryer = The Sum of the Productions For Each Month
Average (Btus/lb) For Each Dryer = The Sum of the Btu's/lb For Each Month / 12 months
Total Production in Pounds = Dryer 1 + Dryer 2 + Dryer 3
Total Production in Tons = Total Production in Pounds / (2000lbs/ton)
Total Throughput in Tons = Total Production in Tons / 80% Average Recovery of Dryer
2 Year Average Throughput = (Total Throughput in 1985 + Total Throughput in 1986) / 2

Gas Consumption in mmBtus = Production in Pounds * Average (Btu/lb) * 1 mmBtu/1 E 06 Btus
Total Gas Consumption in mmBtus = Dryer 1 + Dryer 2 + Dryer 3
Total Gas Consumption in mmcf = Total Gas Consumption in mmBtus /1020 mmBtu/mmcf

1985 and 1986 Average Actual Emissions

Actual Average (1985-86) Thoughput (tons/year)	Average Actual Hours of Operation (hours/year)	Average Thoughput (tons/hour)	Average Consumption (mmcf/year)	Average Actual Hours of Operation (hours/year)	Average Consumption (mmcf/hour)
49,190	5460	9.01	228	5460	0.042

Pollutant	Emission Factor (lbs/ton)	Emission Factor (lbs/mmcf)	Control Efficiency (%)	Average Actual Emissions (lbs/hour)	Average Actual Emissions (tons/year)
PM	2.06		0.00%	18.56	**50.67**
PM-10	2.06		0.00%	18.56	**50.67**
SO2		0.6	0.00%	0.025	**0.068**
NOx		100	0.00%	4.18	**11.41**
VOC	16		50.00%	72.07	**196.76**
CO		84	0.00%	3.51	**9.59**
Pb		0.0005	0.00%	0.00002	**0.00006**

Note that the lbs/ton emission factors are based on existing permits and lbs/mmcf emission factors are based on AP-42 Section 1.4, Table 1-4-1 & 1-4-2

Methodology
Average Throughput (tons/hour) = Average Throughput (tons/year) / Average Actual Hours of Operation (hours/year)
Average Consumption (mmcf/hour) = Average Consumption (mmcf/yr) / Average Actual Hours of Operation (hours/year)
Average Actual Emissions (lbs/hour) = Average Throughput (tons/hour) * Emission Factor (lbs/ton) * (1 - Control Efficiency %)
Average Actual Emissions (lbs/hour) = Average Consumption (mmcf/hour) * Emission Factor (lbs/mmcf) * (1 - Control Efficiency %)
Average Actual Emission (tons/year) = Average Actual Emissions (lbs/hour) * Average Actual Hours of Operation (hours/year) * (1 ton/2000 lbs)
Assumed the afterburner had a 50% control efficiency for VOC only.

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PSD Analysis of Furnaces 15 and 6

Emission Unit — **Potential to Emit Furnace 15 Process**

Pollutant	Capacity (tons/hr)	Emission Factor After Control (lbs/ton)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)
PM	10.0	0.8	8.00	35.0
PM-10	10.0	0.8	8.00	35.0
SO2	10.0	0.135	1.35	5.91
NOx	10.0	0.375	3.75	16.4
VOC	10.0	0.752	7.52	32.9
CO	10.0	0.486	4.86	21.3
Lead	10.0	0.002	0.020	0.0876

PM, PM-10, VOC and CO Emission Factors From Dickson 1999 stack test plus 50% safety factor
SO2 and NOx Emission Factors From Dickson 1996 stack test plus 50% safety factor
Lead Emission Factor from Wabash Alloys - Wabash Plant plus 50% safety factor

Emission Unit — **Potential to Emit Furnace 15 Flue**

Pollutant	Capacity (tons/hr) (mmcf/hr)	Emission Factor After Control (lbs/ton) (lbs/mmcf)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)
PM	10.0	**0.24**	2.40	10.5
PM-10	0.03048	42	1.28	5.61
SO2	10.0	**0.006**	0.06	0.263
NOx	0.03048	100	3.05	13.4
VOC	0.03048	5.5	0.17	0.734
CO	0.03048	84	2.56	11.2
Lead	10.0	0.004	0.04	0.175

PM, SO2 and Lead Emission factors from Dickson 1999 stack test
PM-10 Emission Factor 1994 from Dickson stack test
NOX, VOC and CO from AP-42 Table 1.4-1 and 1.4-2

Furnace #6 emissions were not controlled and was shutdown in February 3, 1992

Emission Unit — **Furnace 6 Actual**

Pollutant	Average Production (tons/yr)	Emission Factor (lbs/ton)	Emission Rate (lbs/yr)	Emission Rate (tons/yr)
PM	9590.0	4.3	41237.00	20.62
PM-10	9590.0	2.6	24934.00	12.47
SO2	9590.0	0.135	1294.650	0.647
NOx	9590.0	0.375	3596.25	1.80
VOC	9590.0	0.752	7211.68	3.61
CO	9590.0	0.486	4660.74	2.33
Lead	9590.0	0.002	19.180	0.010

Average actual production for Furnace #6 in 1990 - 1991 was 9590 tons per year.
airs
PM, PM-10, VOC and CO Emission Factors From Dickson 1999 stack test plus 50% safety factor
SO2 and NOx Emission Factors From Dickson 1996 stack test plus 50% safety factor
Lead Emission Factor from Wabash Alloys - Wabash Plant plus 50% safety factor

Pollutant	Furnace 15 Process Controlled PTE (tons/yr)	Furnace 15 Flue PTE (tons/yr)	Furnace 6 Actual Emissions (tons/yr)	Net Emissions Increase Furnace 15 Process + Flue - Furnace 6 Actual (tons/yr)	PSD Significant Levels (tons/yr)
PM	35.0	10.5	20.62	24.934	25
PM-10	35.0	5.61	12.47	**28.180**	15
SO2	5.91	0.263	0.647	5.528	40
NOx	16.4	13.4	1.80	27.977	40
VOC	32.9	0.734	3.61	30.066	40
CO	21.3	11.2	2.33	30.171	100
Lead	0.088	0.175	0.010	0.253	0.60

Therefore, Reverberatory Furnace #15 needs to be limited such that the modification is less than the PSD significant levels

Dryer 3 (Btu/lb)
2,132
2,423
2,096
1,959
2,894
2,658
2,511
2,587
1,592
2,049
2,141
1,682

Dryer 3 (Btu/lb)
2,091
2,512
3,256
2,708
2,500
2,678
2,396
2,213
2,790
2,314
2,218
2,465

Not less than 15

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Derivation of Production Limit for Furnace #15 for PM-10 to be a Minor Modification

PSD Analysis of Furnaces 15 and 6

Emission Unit	Potential to Emit Furnace 15 Process	Production Limit (tons/yr) 106900		Limited
Pollutant	**Capacity (tons/hr)**	**Emission Factor After Control (lbs/ton)**	**Controlled Emission Rate (lbs/hr)**	**Controlled Emission Rate (tons/yr)**
PM	12.20320	0.4	4.88	21.4
PM-10	12.20320	0.4	4.88	21.4
SO2	12.20320	0.135	1.65	7.22
NOx	12.20320	0.375	4.58	20.0
VOC	12.20320	0.752	9.18	40.2
CO	12.20320	0.486	5.93	26.0
Lead	12.20320	0.002	0.024	0.107

PM and PM-10 Emission factors are set = to Subpart RRR, VOC and CO Emission Factors From Dickson 1999 stack test plus 50% safety factor
SO2 and NOx Emission Factors From Dickson 1996 stack test plus 50% safety factor
Lead Emission Factor from Wabash Alloys - Wabash Plant plus 50% safety factor

Emission Unit	Potential to Emit Furnace 15 Flue	Production Limit (tons/yr) 106900		
Pollutant	**Capacity (tons/hr) (mmcf/hr)**	**Emission Factor After Control (lbs/ton) (lbs/mmcf)**	**Controlled Emission Rate (lbs/hr)**	**Controlled Emission Rate (tons/yr)**
PM	12.20320	**0.24**	2.93	12.8
PM-10	0.03048	42	1.28	5.61
SO2	12.20320	**0.006**	0.07	0.321
NOx	0.03048	100	3.05	13.4
VOC	0.03048	5.5	0.17	0.734
CO	0.03048	84	2.56	11.2
Lead	12.20320	0.004	0.05	0.214

PM, SO2 and Lead Emission factors from Dickson 1999 stack test
PM-10 Emission Factor 1994 from Dickson stack test
NOX, VOC and CO from AP-42 Table 1.4-1 and 1.4-2

Furnace #6 emissions were not controlled and was shutdown in February 3, 1992

Emission Unit	Furnace 6 Actual Average			
Pollutant	**Capacity (tons/yr)**	**Emission Factor (lbs/ton)**	**Emission Rate (lbs/yr)**	**Emission Rate (tons/yr)**
PM	9590.0	4.30	41237.00	20.62
PM-10	9590.0	2.60	24934.00	12.47
SO2	9590.0	0.900	8631.000	4.316
NOx	9590.0	0.760	7288.40	3.64
VOC	9590.0	0.200	1918.00	0.959
CO	9590.0	0.324	3107.16	1.55
Lead	9590.0	0.001	12.787	0.006

PM, PM-10, VOC & NOx Emission Factors From FIRES v. 6.25/AIRS
CO emission factor is from the Dickson 1999 stack test
Lead Emission Factor from Wabash Alloys - Wabash Plant stack test which included a 50% safety factor of 0.002 has been reverted back to the actual stack test result to the actual stack test results to conservatively assess decreases in actual emissions.

	Furnace 15 Process Controlled PTE (tons/yr)	Furnace 15 Flue PTE (tons/yr)	Furnace 6 Actual Emissions (tons/yr)	Net Emissions Increase Furnace 15 Process + Flue - Furnace 6 Actual (tons/yr)	PSD Significant Levels (tons/yr)
Pollutant					
PM	21.4	12.83	20.6	13.59	25
PM-10	21.4	5.61	12.5	14.52	15
SO2	7.22	0.321	4.32	3.221	40
NOx	20.0	13.4	3.64	29.7	40
VOC	40.2	0.734	0.959	39.97	40
CO	26.0	11.2	1.55	35.6	100
Lead	0.107	0.214	0.006	0.314	0.60

VOC is the controlling pollutant in determining the required throughput limit