



Joseph E. Kernan  
Governor

Lori F. Kaplan  
Commissioner

August 6, 2004

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

TO: Interested Parties / Applicant

RE: Citation Corporation / 033-17659-00016

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

### Notice of Decision: Approval – Effective Immediately

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

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

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

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

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

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

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

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

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

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

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

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

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



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## PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY

**Citation Corporation  
600 West Main Street  
Butler, Indiana 46721**

(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.: T033-17659-00016	
Issued by: Original Signed by Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: August 6, 2004  Expiration Date: August 6, 2009

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## SECTION A SOURCE SUMMARY

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

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

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The Permittee owns and a stationary secondary aluminum foundry and die casting operation plant.

Responsible Official:	General Manager
Source Address:	600 West Main Street, Butler, Indiana 46721
Mailing Address:	P.O. Box 80, Butler, Indiana 46721
General Source Phone Number:	(260)868-2168
SIC Code:	3365, 3363, 3341
County Location:	Dekalb
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Minor Source, under PSD Rules; Minor Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

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

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

- (a) One (1) reverberatory melt furnace identified as A1 with a maximum melt capacity of 3.83 tons of aluminum per hour, installed in August 2002, equipped with four (4) natural gas fired burners rated at 9.2 million (MM) British thermal units (Btu) per hour total, exhausting through one (1) stack identified as E-1.
- (b) One (1) reverberatory melt furnace identified as A2 with a maximum melt capacity of 3.28 tons of aluminum per hour, installed in August 2002, equipped with three (3) natural gas fired burners rated at 7.86 MMBtu per hour total, exhausting through one (1) stack identified as E-2.
- (c) One (1) reverberatory melt furnace identified as A3 with a maximum melt capacity of 6.0 tons of aluminum per hour, installed in July 2003, equipped with two (2) natural gas fired burners rated at 24.0 MMBtu per hour total, exhausting through one (1) stack identified as E-3.
- (d) One (1) reverberatory melt furnace identified as A4 with a maximum melt capacity of 1.25 tons of aluminum per hour, installed in 1974, equipped with three (3) natural gas fired burners rated at 10.05 MMBtu per hour total, exhausting through one (1) stack identified as E-4.
- (e) One (1) reverberatory melt furnace identified as A5 with a maximum melt capacity of 1.25 tons of aluminum per hour, installed in 1976, equipped with two (2) natural gas fired burners rated at 6.7 MMBtu per hour total, exhausting through one (1) stack identified as E-5.

- (f) One (1) reverberatory melt furnace identified as A6 with a maximum melt capacity of 1.25 tons of aluminum per hour, installed in 1978, equipped with three (3) natural gas fired burners rated at 10.05 MMBtu per hour total, exhausting through one (1) stack identified as E-6.
- (g) One (1) reverberatory melt furnace identified as A7 with a maximum melt capacity of 1.0 ton of aluminum per hour, installed in 1982, equipped with two (2) natural gas fired burners rated at 5.2 MMBtu per hour total, exhausting through one (1) stack identified as E-7.
- (h) One (1) reverberatory melt furnace identified as A8 with a maximum melt capacity of 0.25 tons of aluminum per hour, installed in 1993, equipped with one (1) natural gas fired burner rated at 2.5 MMBtu per hour, exhausting through one (1) stack identified as E-8.
- (i) One (1) reverberatory melt furnace identified as A9 with a maximum melt capacity of 2.5 tons of aluminum per hour, installed 1994, equipped with four (4) natural gas fired burners rated at 10.6 MMBtu per hour total, exhausting through one (1) stack identified as E-9.
- (j) One (1) reverberatory melt furnace identified as A10 with a maximum melt capacity of 2.5 tons of aluminum per hour, installed 1995, equipped with six (6) natural gas fired burners rated at 9.0 MMBtu per hour total, exhausting through one (1) stack identified as E-10.
- (k) One (1) reverberatory melt furnace identified as A11 with a maximum melt capacity of 0.9 tons of aluminum per hour, installed 1996, equipped with six (6) natural gas fired burners rated at 15.9 MMBtu per hour total, exhausting through one (1) stack identified as E-11.
- (l) One (1) reverberatory melt furnace identified as A12 with a maximum melt capacity of 3.5 tons of aluminum per hour, installed in June 1998, equipped with two (2) natural gas fired burners rated at 12.5 million British thermal units (MMBtu) per hour total, exhausting through one (1) stack identified as E-12.
- (m) One (1) reverberatory melt furnace identified as A13 with a maximum melt capacity of 3.5 tons of aluminum per hour, installed in June 1998, equipped with two (2) natural gas fired burners rated at 12.5 MMBtu per hour total, exhausting through one (1) stack identified as E-13.
- (n) The maximum solid reactive flux injection rate at each of reverberatory furnaces A1 through A13 is ten (10) pounds of flux per 10,000 pounds of aluminum melted.
- (o) Source aluminum casting operations, including:
  - (1) Aluminum pouring and casting operations for furnaces A1 through A11, excluding A3, rated at 18.01 tons of melted aluminum per hour, using holding furnaces listed in paragraph (4).
  - (2) Aluminum pouring and casting operation for furnace A3, identified as FLCA, rated at 6.0 tons of melted aluminum per hour, using holding furnaces listed in paragraph (4).
  - (3) Aluminum pouring and casting operation for furnaces A12 and A13, identified as ME Cell, rated at 7.0 tons of melted aluminum per hour, using holding furnaces listed in paragraph (4).
  - (4) Holding furnaces used in source casting operations, performing additional molten metal degassing and/or rotofluxing as indicated, each exhausting inside the building except as indicated, including:

- (A) Twenty-seven (27) “basic holding furnaces”, including:
- (i) Two (2) natural gas-fired holding furnaces identified as S1 and S2, each with a maximum heat input rating of 5.8 MMBtu per hour and a nominal holding capacity of 5,000 pounds molten metal, exhausting through one (1) common stack. Each furnace performs degassing as needed using argon or nitrogen;
  - (ii) One (1) natural gas-fired holding furnace identified as H1 with a maximum heat input rating of 1.48 MMBtu per hour and a nominal holding capacity of 7,000 pounds molten metal. This furnace performs degassing as needed using argon or nitrogen;
  - (iii) Four (4) natural gas-fired holding furnaces respectively identified as Pots 1A, 1B, 8 and 9, each with a maximum heat input rating of 0.5 MMBtu per hour and a nominal holding capacity of 1,000 pounds molten metal. Each furnace performs degassing as needed using argon or nitrogen;
  - (iv) Two (2) natural gas-fired holding furnaces respectively identified as Pots 44 and 45, each with a maximum heat input rating of 0.5 MMBtu per hour and a nominal holding capacity of 1,000 pounds molten metal. As needed, each furnace performs degassing, using argon or nitrogen, and rotofluxing, using up to one (1) pound of solid reactive flux per treatment;
  - (v) Two (2) natural gas-fired holding furnaces respectively identified as Pots 46 and 47, each with a maximum heat input rating of 0.5 MMBtu per hour and a nominal holding capacity of 1,000 pounds molten metal, performing no additional degassing or rotofluxing;
  - (vi) Six (6) natural gas-fired holding furnaces respectively identified as Pots 17 through 20, 30 and 31, each with a total maximum heat input rating of 0.5 MMBtu per hour and a nominal holding capacity of 1,500 pounds molten metal. As needed, each furnace performs degassing, using argon or nitrogen, and rotofluxing, using up to one (1) pound of solid reactive flux per treatment; and
  - (vii) Ten (10) electric holding furnaces respectively identified as Pots 34 through 43, each with a nominal holding capacity of 2,000 pounds molten metal. As needed, each furnace performs degassing, using argon or nitrogen, and rotofluxing, using up to one (1) pound of solid reactive flux per treatment.
- (B) Three (3) “special holding furnaces” as follows:
- (i) One (1) electric holding furnace, identified as SP1, with a total nominal holding capacity of 7,000 pounds molten metal and consisting of a receiving-holding pot, an electric heat transfer, and a pouring-holding supply pot. The furnace performs degassing as needed using argon or nitrogen; and

- (ii) Two (2) electric holding furnaces, identified as SP2 and SP3, each with a nominal holding capacity of 14,000 pounds molten metal and each consisting of a receiving-holding pot, an electric heat transfer, and a pouring-holding supply pot. Each furnace performs degassing as needed using argon or nitrogen.

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

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

Trimmers that do not produce fugitive emissions and that are equipped with a dust collection trim material recovery device such as a bag filter or cyclone, including:

- (a) two (2) sawing and trimming operations for furnaces A1 through A13, excluding A3, individually identified as C-1 and C-2, installed in 1964, processing up to a total of 3.8 tons aluminum per hour; and
- (b) sawing and trimming operation for furnace A3, installed in 2003, processing up to 3.0 tons aluminum per hour,

utilizing two (2) cyclones for particulate matter control each exhausting through one (1) stack respectively identified as E-14 and E-15. [326 IAC 6-3-2]

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

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

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

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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]

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

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

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

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

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

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

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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)]

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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)]

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- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

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

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- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

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

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

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

and

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

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

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

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

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) 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.
- (b) The Permittee shall implement the PMPs, including any required record keeping as necessary to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

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

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
  - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
  - (2) The permitted facility was at the time being properly operated;
  - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
  - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, and the IDEM Northern Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

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

IDEM Northern Regional Office:  
Telephone Number: 574-245-4870  
Facsimile Number: 574-245-4877

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

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

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

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

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

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
  - (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
  - (e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.
  - (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
  - (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
  - (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

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

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

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

- (b) 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]

- (a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either
- (1) incorporated as originally stated,
  - (2) revised, or
  - (3) deleted
- by this permit.
- (b) All previous registrations and permits are superseded by this permit.

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

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

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

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

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

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

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

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, determines any of the following:
- (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

- (c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

**B.16 Permit Renewal [326 IAC 2-7-4]**

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

Request for renewal shall be submitted to:

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

- (b) Timely Submittal of Permit Renewal [326 IAC 2-7-4(a)(1)(D)]
  - (1) A timely renewal application is one that is:
    - (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
    - (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
  - (2) If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.
- (c) Right to Operate After Application for Renewal [326 IAC 2-7-3]

If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as being needed to process the application.
- (d) United States Environmental Protection Agency Authority [326 IAC 2-7-8(e)]

If IDEM, OAQ, fails to act in a timely way on a Part 70 permit renewal, the U.S. EPA may invoke its authority under Section 505(e) of the Clean Air Act to terminate or revoke and reissue a Part 70 permit.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(4) The Permittee notifies the:

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

and

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

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

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

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

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

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

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

- (c) Emission Trades [326 IAC 2-7-20(c)]  
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

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

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

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

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

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

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

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:  
  
Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
  
The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

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

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

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

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Notwithstanding the conditions of this permit that state specific methods that may be used to demonstrate compliance with, or a violation of, applicable requirements, any person (including the Permittee) may also use other credible evidence to demonstrate compliance with, or a violation of, any term or condition of this permit.

## SECTION C

## SOURCE OPERATION CONDITIONS

Entire Source

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

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [40 CFR 52 Subpart P][326 IAC 6-3-2]

- (a) Pursuant to 40 CFR 52 Subpart P, particulate matter emissions from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.
- (b) Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour. This condition is not federally enforceable.

C.2 Opacity [326 IAC 5-1]

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

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

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

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

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

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

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

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

C.6 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule, or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

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

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

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- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
- (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
- (2) If there is a change in the following:
- (A) Asbestos removal or demolition start date;
- (B) Removal or demolition contractor; or
- (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

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

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

- (f) Demolition and renovation  
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) Indiana Accredited Asbestos Inspector  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

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

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

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

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

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

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

#### **C.10 Compliance Requirements [326 IAC 2-1.1-11]**

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

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

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

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

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

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

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

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

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

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

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

### **C.13 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]**

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

### **C.14 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-7-5] [326 IAC 2-7-6]**

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(a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. If a Permittee is required to have an Operation, Maintenance and Monitoring (OMM) Plan or Start-up, Shutdown, and Malfunction (SSM) Plan under 40 CFR 60/63, such plans shall be deemed to satisfy the requirements for a CRP for those compliance monitoring conditions. A CRP shall be submitted to IDEM upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:

- (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.

- (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan or Start-up, Shutdown, and Malfunction (SSM) Plan) and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan or Start-up, Shutdown, and Malfunction (SSM) Plan to include such response steps taken.

The OMM Plan and SMM Plan shall be submitted within the time frames specified by 40 CFR Part 63, Subpart RRR.

- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
  - (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan or Start-up, Shutdown, and Malfunction (SSM) Plan); or
  - (2) If none of the reasonable response steps listed in the Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan or Start-up, Shutdown, and Malfunction (SSM) Plan) is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
  - (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, and it will be ten (10) days or more until the unit or device will be shut down, then the Permittee shall promptly notify the IDEM, OAQ of the expected date of the shut down. The notification shall also include the status of the applicable compliance monitoring parameter with respect to normal, and the results of the response actions taken up to the time of notification.
  - (4) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
  - (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
  - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for a minor permit modification to the permit, and such request has not been denied.
  - (3) An automatic measurement was taken when the process was not operating.
  - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.

- (d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.
- (e) The Permittee shall record all instances when, in accordance with Section D, response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

**C.15 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 "responsible official" as defined by 326 IAC 2-7-1(34).

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

**C.16 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) In accordance with the compliance schedule specified in 326 IAC 2-6-3(b)(1), starting in 2004 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:
  - (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
  - (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1 (32) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

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

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

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

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.18 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

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

## **Stratospheric Ozone Protection**

### **C.19 Compliance with 40 CFR 82 and 326 IAC 22-1**

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

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

## SECTION D.1 FACILITY OPERATION CONDITIONS

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

- (a) One (1) reverberatory melt furnace identified as A1 with a maximum melt capacity of 3.83 tons of aluminum per hour, installed in August 2002, equipped with four (4) natural gas fired burners rated at 9.2 million (MM) British thermal units (Btu) per hour total, exhausting through one (1) stack identified as E-1.
- (b) One (1) reverberatory melt furnace identified as A2 with a maximum melt capacity of 3.28 tons of aluminum per hour, installed in August 2002, equipped with three (3) natural gas fired burners rated at 7.86 MMBtu per hour total, exhausting through one (1) stack identified as E-2.
- (c) One (1) reverberatory melt furnace identified as A3 with a maximum melt capacity of 6.0 tons of aluminum per hour, installed in July 2003, equipped with two (2) natural gas fired burners rated at 24.0 MMBtu per hour total, exhausting through one (1) stack identified as E-3.
- (d) One (1) reverberatory melt furnace identified as A4 with a maximum melt capacity of 1.25 tons of aluminum per hour, installed in 1974, equipped with three (3) natural gas fired burners rated at 10.05 MMBtu per hour total, exhausting through one (1) stack identified as E-4.
- (e) One (1) reverberatory melt furnace identified as A5 with a maximum melt capacity of 1.25 tons of aluminum per hour, installed in 1976, equipped with two (2) natural gas fired burners rated at 6.7 MMBtu per hour total, exhausting through one (1) stack identified as E-5.
- (f) One (1) reverberatory melt furnace identified as A6 with a maximum melt capacity of 1.25 tons of aluminum per hour, installed in 1978, equipped with three (3) natural gas fired burners rated at 10.05 MMBtu per hour total, exhausting through one (1) stack identified as E-6.
- (g) One (1) reverberatory melt furnace identified as A7 with a maximum melt capacity of 1.0 ton of aluminum per hour, installed in 1982, equipped with two (2) natural gas fired burners rated at 5.2 MMBtu per hour total, exhausting through one (1) stack identified as E-7.
- (h) One (1) reverberatory melt furnace identified as A8 with a maximum melt capacity of 0.25 tons of aluminum per hour, installed in 1993, equipped with one (1) natural gas fired burner rated at 2.5 MMBtu per hour, exhausting through one (1) stack identified as E-8.
- (i) One (1) reverberatory melt furnace identified as A9 with a maximum melt capacity of 2.5 tons of aluminum per hour, installed 1994, equipped with four (4) natural gas fired burners rated at 10.6 MMBtu per hour total, exhausting through one (1) stack identified as E-9.
- (j) One (1) reverberatory melt furnace identified as A10 with a maximum melt capacity of 2.5 tons of aluminum per hour, installed 1995, equipped with six (6) natural gas fired burners rated at 9.0 MMBtu per hour total, exhausting through one (1) stack identified as E-10.
- (k) One (1) reverberatory melt furnace identified as A11 with a maximum melt capacity of 0.9 tons of aluminum per hour, installed 1996, equipped with six (6) natural gas fired burners rated at 15.9 MMBtu per hour total, exhausting through one (1) stack identified as E-11.
- (l) One (1) reverberatory melt furnace identified as A12 with a maximum melt capacity of 3.5 tons of aluminum per hour, installed in June 1998, equipped with two (2) natural gas fired burners rated at 12.5 million British thermal units (MMBtu) per hour total, exhausting through one (1) stack identified as E-12.
- (m) One (1) reverberatory melt furnace identified as A13 with a maximum melt capacity of 3.5 tons of aluminum per hour, installed in June 1998, equipped with two (2) natural gas fired burners rated at 12.5 MMBtu per hour total, exhausting through one (1) stack identified as E-13.
- (n) The maximum solid reactive flux injection rate at each of reverberatory furnaces A1 through A13 is ten (10) pounds of flux per 10,000 pounds of aluminum melted.
- (o) Source aluminum casting operations:
  - (1) Aluminum pouring and casting operations for furnaces A1 through A11, excluding A3, rated at 18.01 tons of melted aluminum per hour, using holding furnaces listed in paragraph (4).
  - (2) Aluminum pouring and casting operation for furnace A3, identified as FLCA, rated at 6.0 tons of melted aluminum per hour, using holding furnaces listed in paragraph (4).
  - (3) Aluminum pouring and casting operation for furnaces A12 and A13, identified as ME Cell, rated at 7.0 tons of melted aluminum per hour, using holding furnaces listed in paragraph (4).
  - (4) Holding furnaces used in source casting operations, each exhausting inside the building except as indicated, and including:
    - (A) Twenty-seven (27) "basic holding furnaces", including:
      - (i) Two (2) natural gas-fired holding furnaces identified as S1 and S2, each with a maximum heat input rating of 5.8 MMBtu per hour and a nominal holding capacity of 5,000 pounds molten metal, exhausting through one (1) common stack. Each furnace performs degassing as needed using argon or nitrogen;
      - (ii) One (1) natural gas-fired holding furnace identified as H1 with a maximum heat input rating of 1.48 MMBtu per hour and a nominal holding capacity of 7,000 pounds molten metal. This furnace performs degassing as needed using argon or nitrogen;
      - (iii) Four (4) natural gas-fired holding furnaces respectively identified as Pots 1A, 1B, 8 and 9, each with a maximum heat input rating of 0.5 MMBtu per hour and a

- nominal holding capacity of 1,000 pounds molten metal. Each furnace performs degassing as needed using argon or nitrogen;
- (iv) Two (2) natural gas-fired holding furnaces respectively identified as Pots 44 and 45, each with a maximum heat input rating of 0.5 MMBtu per hour and a nominal holding capacity of 1,000 pounds molten metal. As needed, each furnace performs degassing, using argon or nitrogen, and rotofluxing, using up to one (1) pound of solid reactive flux per treatment;
  - (v) Two (2) natural gas-fired holding furnaces respectively identified as Pots 46 and 47, each with a maximum heat input rating of 0.5 MMBtu per hour and a nominal holding capacity of 1,000 pounds molten metal, performing no additional degassing or rotofluxing;
  - (vi) Six (6) natural gas-fired holding furnaces respectively identified as Pots 17 through 20, 30 and 31, each with a total maximum heat input rating of 0.5 MMBtu per hour and a nominal holding capacity of 1,500 pounds molten metal. As needed, each furnace performs degassing, using argon or nitrogen, and rotofluxing, using up to one (1) pound of solid reactive flux per treatment; and
  - (vii) Ten (10) electric holding furnaces respectively identified as Pots 34 through 43, each with a nominal holding capacity of 2,000 pounds molten metal. As needed, each furnace performs degassing, using argon or nitrogen, and rotofluxing, using up to one (1) pound of solid reactive flux per treatment.
- (B) Three (3) "special holding furnaces" as follows:
- (i) One (1) electric holding furnace, identified as SP1, with a total nominal holding capacity of 7,000 pounds molten metal and consisting of a receiving-holding pot, an electric heat transfer, and a pouring-holding supply pot. The furnace performs degassing as needed using argon or nitrogen; and
  - (ii) Two (2) electric holding furnaces, identified as SP2 and SP3, each with a nominal holding capacity of 14,000 pounds molten metal and each consisting of a receiving-holding pot, an electric heat transfer, and a pouring-holding supply pot. Each furnace performs degassing as needed using argon or nitrogen.

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

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

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

Pursuant to Significant Permit Revision No. 033-17746, issued on January 14, 2004, and revised by this Title V permit, the source shall limit the total aluminum production in reverberatory melt furnaces A1 through A13 as follows:

- (a) The total aluminum produced in reverberatory furnaces A2, A3, A4, A6, A7, A8, A10, A11, and A12 shall not exceed 28,910.3 tons per twelve (12) consecutive month period with compliance demonstrated at the end of each month, based on the following:
  - (1) PM emissions from each furnace shall not exceed 4.3 pounds of PM emitted per ton of metal produced which includes the aluminum refining (i.e., flux addition) stage at the end of the melt cycle; and
  - (2) PM-10 emissions from each furnace shall not exceed 2.6 pounds of PM-10 emitted per ton of metal produced which includes the aluminum refining (i.e., flux addition) stage at the end of the melt cycle.

This material usage limit is equivalent to limiting PM and PM10 emissions to 62.16 and 37.58 tons per year, respectively.

- (b) The total aluminum produced in reverberatory furnaces A1, A5, A9, and A13 shall not exceed 16,072.5 tons per twelve (12) consecutive month period with compliance demonstrated at the end of each month, based on the following:

- (1) PM emissions from each furnace shall not exceed 3.0 pounds of PM emitted per ton of metal produced which includes the aluminum refining (i.e., flux addition) stage at the end of the melt cycle; and
- (2) PM-10 emissions from each furnace shall not exceed 2.6 pounds of PM-10 emitted per ton of metal produced which includes the aluminum refining (i.e., flux addition) stage at the end of the melt cycle.

This material usage limit is equivalent to limiting PM and PM10 emissions to 24.11 and 20.89 tons per year, respectively.

These usage limits are required to limit the source-wide potential to emit both PM and PM-10 to less than 100 tons per twelve (12) consecutive month period. Compliance with this condition shall make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

D.1.2 Hazardous Air Pollutants (HAPs) [326 IAC 2-8][40 CFR 63, Subpart RRR]

Pursuant to Significant Permit Revision No. 033-16745, issued on June 24, 2003, the Permittee shall limit flux usage as follows:

- (a) For chlorine-based fluxing:
  - (1) The total hexachloroethane input usage at the source, including all reverberatory and holding furnaces, shall not exceed 21,645 pounds per twelve (12) consecutive month period with compliance demonstrated at the end of each month.
  - (2) Hydrochloric acid (HCl) emissions from each furnace shall not exceed 0.924 pounds of HCl emitted per pound of hexachloroethane used.

This material usage limit is equivalent to limiting single HAP (as HCl) emissions to less than 10 tons per year.

- (b) For fluorine-based fluxing:
  - (1) The total SF-350 type flux input usage at the source, including all reverberatory and holding furnaces, shall not exceed 82,425 pounds per twelve (12) consecutive month period with compliance demonstrated at the end of each month.
  - (2) Hydrogen fluoride (HF) emissions from each furnace shall not exceed 0.2276 pounds of HF emitted per pound of flux used.
  - (3) The fluorine content in the flux shall not exceed 21.614 percent (%) by weight.

This material usage limit is equivalent to limiting single HAP (as HF) emissions to less than 10 tons per year.

- (c) These usage limits are required to limit the potential to emit of a single HAP to less than 10 tons per twelve (12) consecutive month period. Compliance with (a) and (b) of this condition shall also limit the source-wide potential to emit combined HAPs to less than 25 tons per 12 consecutive month period. Compliance with this condition shall satisfy the requirements of 326 IAC 2-8-4 and the area source definition of 40 CFR 63, Subpart A.

**D.1.3 Particulate [326 IAC 6-3-2]**

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the facilities listed below shall be limited as specified when operating at the respective process weight:

Emission Unit/Activity	Process Weight Rate (tons/hr)	Allowable Particulate Emission Rate (326 IAC 6-3-2) (lb/hr)
Reverberatory furnace A1	3.83	10.08
Reverberatory furnace A2	3.28	9.09
Reverberatory furnace A3	6.00	13.62
Reverberatory furnace A4	1.25	4.76
Reverberatory furnace A5	1.25	4.76
Reverberatory furnace A6	1.25	4.76
Reverberatory furnace A7	1.00	4.10
Reverberatory furnace A8	0.25	1.62
Reverberatory furnace A9	2.50	7.58
Reverberatory furnace A10	2.50	7.58
Reverberatory furnace A11	0.90	3.82
Reverberatory furnace A12	3.50	9.49
Reverberatory furnace A13	3.50	9.49
pouring and casting for furnaces A1 through A11 (excludes A3)	18.01	28.44
FLCA pouring and casting for furnace A3	6.00	13.61
ME Cell pouring and casting for furnaces A12 & A13	7.00	15.10

The pounds per hour allowable particulate emission rates were calculated with the following equation:

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

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

**D.1.4 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR Part 63, Subpart A]**

The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-1, apply to the thirteen (13) reverberatory furnaces A1 - A13, each as a Group 1 furnace, except when otherwise specified in 40 CFR Part 63, Subpart RRR. These requirements become applicable to the Group 1 furnaces, excluding A3, on March 24, 2003. These requirements become applicable to reverberatory furnace A3 upon startup. Compliance with D.1.2 makes this source an area source under Clean Air Act Section 112. Therefore, only the area source requirements of Subpart RRR apply to these facilities.

D.1.5 Secondary Aluminum Production Facility NESHAP [40 CFR Part 63, Subpart RRR]

The thirty (30) holding furnaces at this source are not subject to the requirements of 40 CFR 63, Subpart RRR, *National Emission Standards for Hazardous Air Pollutants, for Secondary Aluminum Production*. On April 28, 2004, U.S. EPA, Office of Enforcement and Compliance Assurance, issued an applicability determination that concluded that the holding furnaces, which are located at this area source for HAP emissions, and which use only clean charge, are not subject to the requirements of the rule, pursuant to 40 CFR 63.1500(c)(3).

Any change or modification to this source which may alter this determination for the holding furnaces, including the melting, holding or processing of any material other than clean charge, as defined at 40 CFR Part 63, Subpart RRR, or changing from an area source to a major source of HAP emissions (i.e., elimination of Condition D.1.2), shall require prior approval from the Office of Air Quality (OAQ) before such change can occur.

D.1.6 Secondary Aluminum Production Limits [40 CFR Part 63, Subpart RRR]

Effective March 23, 2004 for reverberatory furnaces A1, A2, A4 through A13, and upon startup for reverberatory furnace A3, and pursuant to 40 CFR 63.1505(k), the Permittee shall comply with the following emission limitations:

- (a) Pursuant to 40 CFR 1505(k)(3), for each secondary aluminum processing unit, the Permittee shall not discharge or allow to be discharged to the atmosphere any 3-day, 24-hour rolling average emissions of total tetra-, penta-, hexa-, and octachlorinated dibenzo dioxins and furans (D/F) in excess of:

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

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

$T_i$  = the feed/charge rate for individual Group 1 furnace "i"; and

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

- (b) Pursuant to 40 CFR 63.1505(k)(5), the Permittee may demonstrate compliance with the emission limits of paragraph (a) by demonstrating that each Group 1 furnace in the secondary aluminum processing unit is in compliance with the applicable emission limit for an individual Group 1 furnace specified as  $L_{iDF}$  in paragraph (a) of this condition.
- (c) With prior approval from IDEM, Permittee may redesignate any existing Group 1 furnace at a secondary aluminum production facility as a new emission unit. Any emission unit so redesignated may thereafter be included in a new SAPU at that facility. Any such redesignation will be solely for the purpose of 40 CFR Part 63, Subpart RRR and will be irreversible.

D.1.7 Labeling [40 CFR Part 63.1506(b)]

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

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

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

The Permittee shall prepare and implement a written Operation, Maintenance, and Monitoring (OM&M) plan for each reverberatory furnace and shall submit the plan to IDEM, OAQ, for review and approval. The OM&M plan shall be submitted by the compliance date established at 40 CFR Part 63.1501(a) for the existing furnaces, and within ninety (90) days of the successful initial performance test for new furnace A3. The plan must be accompanied by a written certification by the Permittee that the OM&M plan satisfies all requirements of 40 CFR Part 63.1510 and is otherwise consistent with the requirements of 40 CFR Part 63, Subpart RRR. The Permittee must comply with all of the provisions of the OM&M plan as submitted to IDEM, unless and until the plan is revised in accordance with the following procedures. If IDEM determines at any time after receipt of the OM&M plan that any revisions of the plan are necessary to satisfy the requirements of 40 CFR Part 63.1510 or Subpart RRR, the Permittee must promptly make all necessary revisions and resubmit the revised plan. If the Permittee determines that any other revisions of the OM&M plan are necessary, such revisions will not become effective until the Permittee submits a description of the changes and a revised plan incorporating them to IDEM. Each plan must contain the following information:

- (a) Process and control device parameters to be monitored to determine compliance, along with established operating levels or ranges, as applicable, for each process and control device.
- (b) A monitoring schedule for each affected source and emission unit.
- (c) Procedures for the proper operation and maintenance of each process unit and add-on control device used to meet the applicable emission limits or standards in 40 CFR Part 63.1505.
- (d) Procedures for the proper operation and maintenance of monitoring devices or systems used to determine compliance, including:
  - (1) Calibration and certification of accuracy of each monitoring device, at least once every 6 months, according to the manufacturer's instructions; and
  - (2) Procedures for the quality control and quality assurance of continuous emission or opacity monitoring systems as required by the general provisions in 40 CFR 63, Subpart A.
- (e) 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.

- (f) 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 (a) of this condition, including:
  - (1) Procedures to determine and record the cause of an deviation or excursion, and the time the deviation or excursion began and ended; and
  - (2) Procedures for recording the corrective action taken, the time corrective action was initiated, and the time/date corrective action was completed.
- (g) A maintenance schedule for each process and control device that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance.
- (h) Documentation of the work practice and pollution prevention measures used to achieve compliance with the applicable emission limits and a site-specific monitoring plan as required in 40 CFR Part 63.1510(o) for each group 1 furnace not equipped with an add-on air pollution control device (i.e., reverberatory furnaces A1 through A13).

D.1.9 Site-Specific Monitoring Plan [40 CFR Part 63.1510(o)]

The Permittee shall develop, in consultation with IDEM, OAQ, a written site-specific monitoring plan for each furnace not equipped with an add-on air pollution control device (i.e., reverberatory furnaces A1 through A13). The site-specific monitoring plan shall be submitted to IDEM, OAQ, as part of the OM&M plan. The site-specific monitoring plan must contain sufficient procedures to ensure continuing compliance with all applicable emission limits and must demonstrate, based on documented test results, the relationship between emissions of D/F and the proposed monitoring parameters for that pollutant. Test data must establish the highest level of D/F that will be emitted from each furnace. This may be determined by conducting performance tests and monitoring operating parameters while charging the furnace with feed/charge materials containing the highest anticipated levels of oils and coatings and fluxing at the highest anticipated rate. If IDEM, OAQ, determines that any revisions of the site-specific monitoring plan are necessary to meet the requirements of this section or this subpart, the Permittee must promptly make all necessary revisions and resubmit the revised plan to IDEM, OAQ. The site-specific monitoring plan shall include the following information:

- (a) Each site-specific monitoring plan shall document each work practice, equipment/design practice, pollution prevention practice, or other measure used to meet the applicable emission standards.
- (b) Each site-specific monitoring plan shall include provisions for unit labeling as required in 40 CFR Part 63.1510(c), feed/charge weight measurement (or production weight measurement) as required in 40 CFR Part 63.1510(e), and flux weight measurement as required in 40 CFR Part 63.1510(j).
- (c) If a continuous emission monitoring system is included in a site-specific monitoring plan, the plan shall include provisions for the installation, operation, and maintenance of the system to provide quality-assured measurements in accordance with all applicable requirements of the general provisions in 40 CFR 63, Subpart A.
- (d) If a continuous opacity monitoring system is included in a site-specific monitoring plan, the plan shall include provisions for the installation, operation, and maintenance of the system to provide quality-assured measurements in accordance with all applicable requirements of this subpart.

- (e) If a site-specific monitoring plan includes a scrap inspection program for monitoring the scrap contaminant level of furnace feed/charge materials, the plan shall include provisions for the demonstration and implementation of the program in accordance with all applicable requirements in 40 CFR Part 63.1510(p).
- (f) If a site-specific monitoring plan includes a calculation method for monitoring the scrap contaminant level of furnace feed/charge materials, the plan shall include provisions for the demonstration and implementation of the program in accordance with all applicable requirements in 40 CFR Part 63.1510(q).

D.1.10 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 these facilities and any control devices.

**Compliance Determination Requirements**

D.1.11 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Pursuant to Significant Permit Revision No. 033-17746, issued on January 14, 2004, in order to demonstrate compliance with Conditions D.1.1 and D.1.3, the following shall apply:

- (a) For purposes of PM and PM10 compliance stack testing, the thirteen (13) furnaces at this source are grouped as follows:

**Group A:**

<u>Furnace ID</u>	<u>Melt Rate (ton/hr)</u>	<u>Total Burner Rating (MMBtu/hr)</u>
A8	0.25	2.5 (1 burner)
A11	0.9	15.9 (6 burners, total)
A7	1.0	5.2 (2 burners, total)

**Group B:**

<u>Furnace ID</u>	<u>Melt Rate (ton/hr)</u>	<u>Total Burner Rating (MMBtu/hr)</u>
A4	1.25	10.05 (3 burners, total)
A5	1.25	6.7 (2 burners, total)
A6	1.25	10.05 (3 burners, total)

**Group C:**

<u>Furnace ID</u>	<u>Melt Rate (ton/hr)</u>	<u>Total Burner Rating (MMBtu/hr)</u>
A9	2.5	10.6 (4 burners, total)
A10	2.5	9.0 (6 burners, total)
A2	3.28	9.2 (4 burners, total)
A12	3.5	12.5 (2 burners, total)

**Group D:**

<u>Furnace ID</u>	<u>Melt Rate (ton/hr)</u>	<u>Total Burner Rating (MMBtu/hr)</u>
A13	3.5	12.5 (2 burners, total)
A1	3.83	9.2 (4 burners, total)
A3	6.0	24.2 (2 burners, total)

- (b) The Permittee shall perform PM and PM10 testing on one (1) furnace from each of Groups A, B, C and D by December 31, 2005. The tests shall be conducted during metal melting and metal fluxing utilizing methods as approved by the Commissioner. This test shall be repeated every twenty-one (21) months from the date of the prior valid compliance demonstration, but shall not be repeated on any one (1) furnace in a group until all furnaces in the respective group are tested. The first complete PM/PM10 testing of Groups A, B and C shall not include furnaces A11, A5, A6, A9 and A2.

D.1.12 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11][40 CFR 63, Subpart RRR]

In order to demonstrate compliance with Condition D.1.5 and 40 CFR 63, Subpart RRR, the Permittee shall:

- (a) For existing reverberatory furnaces, perform D/F testing by the 40 CFR Part 63.1501(a) compliance date (i.e., March 24, 2003), and no later than one-hundred eighty (180) days after initial startup for new facilities, in accordance with the requirements in 40 CFR 63, Subpart A and 40 CFR 63, Subpart RRR. The Permittee shall use Method 23 in Appendix A to 40 CFR 60 or an alternative method approved by the Commissioner to measure the concentration of D/F. Testing shall be conducted in accordance with Section C - Performance Testing.
- (b) With the prior approval of IDEM, the Permittee may utilize emission rates obtained by testing a particular type of group 1 furnace which is not controlled by any add-on control device, or by testing an in-line flux box which is not controlled by any add-on control device, to determine the emission rate for other units of the same type at the same facility. Such emission test results may only be considered to be representative of other units if all of the following criteria are satisfied [40 CFR 63.1511(f)]:
  - (1) The tested emission unit must use feed materials and charge rates which are comparable to the emission units that it represents;
  - (2) The tested emission unit must use the same type of flux materials in the same proportions as the emission units it represents;
  - (3) The tested emission unit must be operated utilizing the same work practices as the emission units that it represents;
  - (4) The tested emission unit must be of the same design as the emission units that it represents; and
  - (5) The tested emission unit must be tested under the highest load or capacity reasonably expected to occur for any of the emission units that it represents.
- (c) The Permittee shall establish a minimum or maximum operating parameter value, or an operating parameter range for each parameter to be monitored as required by 40 CFR 63.1510 that ensures compliance with the applicable emission limit for D/F. To establish the minimum or maximum value or range, the Permittee shall use the appropriate procedures in 40 CFR 63.1511(g) and submit the information required by 40 CFR 63.1515(b)(4) in the notification of compliance status report. The Permittee may use existing data in addition to the results of the performance test to establish operating parameter values for compliance monitoring provided the requirements of 40 CFR 63.1511(g) are met. [40 CFR 63.1511(g)]
- (d) Pursuant to 40 CFR 63.1512(e), the site-specific monitoring plan required by 40 CFR 63.1510(o) and Condition D.1.9 shall include data and information demonstrating compliance with the applicable emission limits for each Group 1 furnace (i.e., each reverberatory furnace).
- (e) Pursuant to 40 CFR 63.1512(j), the results of the performance tests required by paragraph (a) of this condition shall be used to establish emission rates in  $F_g$  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 40 CFR 63.1510(t).

- (f) Pursuant to paragraphs (k) and (n) of 40 CFR 63.1512, during the performance tests the Permittee shall comply with the requirements and use the procedures in these sections of 40 CFR 63.1512 respectively for:
  - (1) Measuring or otherwise determining feed/charge weight to the affected emission unit (i.e., each reverberatory furnace); and
  - (2) Establishing an operating parameter value or range for the total reactive chlorine flux injection rate.
- (g) Pursuant to Paragraphs (b), (d), and (e) of 40 CFR 63.1513, the Permittee shall comply with the requirements and use the applicable equations, references, and/or procedures in these sections of 40 CFR 63.1513 respectively for:
  - (1) Determining compliance with an emission limit for D/F;
  - (2) Conversion of D/F measurements to TEQ units; and
  - (3) Determining compliance with emission limits for a secondary aluminum processing unit.

D.1.13 Feed/Charge Determination [40 CFR Part 63.1506(d)]

Pursuant to 40 CFR 63.1506, the Permittee shall 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. The Permittee shall operate each measurement system or other weight determination procedure in accordance with the Operation, Maintenance, and Monitoring Plan. Alternatively, the Permittee may choose to measure and record aluminum production weight from an affected emission unit rather than feed/charge weight provided that the aluminum production weight is measured for all emission units within a secondary aluminum processing unit and all calculations to demonstrate compliance with the emission limits for secondary aluminum processing units are based on aluminum production weight rather than feed/charge weight.

D.1.14 Secondary Aluminum Production Compliance Determination [40 CFR Part 63, Subpart RRR]

Pursuant to 40 CFR Part 63.1510, the following conditions shall apply to each reverberatory furnace:

- (a) For each furnace, the Permittee shall [63.1506(m)]:
  - (1) Maintain the total reactive flux injection rate for each operating cycle or time period used in the performance test at or below the average rate established during the performance test.
  - (2) Operate each furnace in accordance with the work practice/pollution prevention measures documented in the Operation, Maintenance, and Monitoring (OM&M) plan and within the parameter values or ranges established in the OM&M plan.
- (b) Pursuant to 40 CFR 63.1510(j), for each furnace the Permittee shall comply as follows:
  - (1) Record, for each fifteen (15) minute time 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 reactive flux.
  - (2) Calculate and record the total reactive flux injection rate for each operating cycle or time period used in the performance test using the procedure in 40 CFR 63.1512(o).

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

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

### D.1.15 Visible Emissions Notations

- (a) Visible emission notations of the reverberatory melt furnaces' exhaust stacks (E-1 through E-13) shall be performed once per shift during normal daylight operations when metal melting and fluxing is occurring and 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) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

### D.1.16 Labeling [40 CFR Part 63.1510(c)]

The Permittee shall inspect the labels for each furnace required by Condition D.1.7 at least once per calendar month to confirm that posted labels as required by the operational standard in 40 CFR Part 63.1506(b) are intact and legible.

### D.1.17 Feed/Charge Determination [40 CFR Part 63.1510(e)]

The Permittee shall install, calibrate, operate, and maintain a device to measure and record the total weight of feed/charge to, or the aluminum production from, each reverberatory furnace 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 Permittee may use a procedure acceptable to IDEM to determine the total weight of feed/charge or aluminum production to the affected source or emission unit.

- (a) The accuracy of the weight measurement device or procedure must be  $\pm 1$  percent of the weight being measured. The Permittee 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 Permittee provides assurance through data and information that the affected source will meet the relevant emission standard.
- (b) The Permittee 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.

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

When a process parameter deviates from the value or range established during the performance test and incorporated in the Operation, Maintenance, and Monitoring Plan, the Permittee shall initiate corrective action. The corrective action shall restore operation of the affected 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 shall 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 the deviation.

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

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

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

$$E_{day} = \frac{\sum_{i=1}^n (T_i \times ER_i)}{\sum_{i=1}^n (T_i)}$$

where,

$E_{day}$  = The daily D/F emission rate for the secondary aluminum processing unit for the 24-hour period;

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

$ER_i$  = The measured emission rate for emission unit "i" as determined in the performance test (lb/ton or  $\mu\text{g}/\text{Mg}$  of feed/charge); and

n = The number of emission units in the secondary aluminum processing unit.

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

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

#### D.1.20 Record Keeping Requirements

- (a) To document compliance with Condition D.1.1, the Permittee shall maintain records in accordance with (1) through (3) below. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
  - (1) Calendar dates covered in the compliance determination period;
  - (2) Total aluminum produced in furnaces A2, A3, A4, A6, A7, A8, and A10 - A12 for each month; and
  - (3) Total aluminum produced in furnaces A1, A5, A9, and A13 for each month.
- (b) To document compliance with Condition D.1.2, the Permittee shall maintain records in accordance with (1) through (4) below. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
  - (1) Calendar dates covered in the compliance determination period;
  - (2) Total hexachloroethane input usage at the source for each month;
  - (3) Total SF-350 type flux input usage at the source for each month, and weight percent of fluorine in the SF-350 type flux; and
  - (4) The total weight of HCl and HF, each as a single HAP, emitted for each compliance period. This determination shall be based on complete (100%) chemical conversion of chlorine in the hexachloroethane in the flux to HCl emitted, and complete (100%) chemical conversion of fluorine in the flux to HF emitted based on a maximum of 21.614 weight percent fluorine in the flux.
- (c) To document compliance with Condition D.1.15, the Permittee shall maintain records of once per shift visible emission notations of the reverberatory melt furnace exhaust stacks.
- (d) To document compliance with Condition D.1.10, the Permittee shall maintain of records of any additional inspections prescribed by the Preventive Maintenance Plan.
- (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.21 Secondary Aluminum Production Record Keeping Requirements [40 CFR Part 63, Subpart RRR]  
Pursuant to 40 CFR Part 63.1517, the Permittee shall comply with the following:

- (a) As required by 40 CFR 63.10(b), the Permittee shall maintain files of all information (including all reports and notifications) required by the general provisions and 40 CFR Part 63, Subpart RRR.
- (b) The Permittee shall 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.
- (c) The Permittee may retain records on microfilm, computer disks, magnetic tape, or microfiche; and report required information on paper or on a labeled computer disk using commonly available and EPA-compatible computer software.
- (d) In addition to the general records required by 40 CFR 63.1510(b), the Permittee of an affected unit, including an emission unit in a secondary aluminum processing unit (i.e., furnaces A1 through A13), must maintain records of:
  - (1) For each group 1 furnace at this source, records of 15-minute block average weights of total reactive flux injection rate and calculations (including records of the identity, composition, and weight of each addition of solid reactive flux), including records of any period the rate exceeds the compliant operating parameter value and corrective action taken.
  - (2) For each continuous monitoring system, records required by 40 CFR 63.10(c).
  - (3) For each furnace as a 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.
  - (4) Approved site-specific monitoring plan for each furnace, as a group 1 furnace without an add-on pollution control device, with records documenting conformance with the plan.
  - (5) Records of monthly inspections for proper unit labeling for each affected source and emission unit subject to labeling requirements.
  - (6) Records for any approved alternative monitoring or test procedure.
  - (7) Current copy of all required plans, including any revisions, with records documenting conformance with the applicable plan, including:
    - (A) Startup, shutdown, and malfunction plan;
    - (B) OM&M plan; and
    - (C) Site-specific secondary aluminum processing unit emission plan.
  - (8) For each secondary aluminum processing unit, records of total charge weight, or if the Permittee chooses to comply on the basis of aluminum production, total aluminum produced for each 24-hour period and calculations of 3-day, 24-hour rolling average emissions.

D.1.22 Secondary Aluminum Production Reporting Requirements [40 CFR Part 63, Subpart RRR]

- (a) Pursuant to 40 CFR 63.1515 and 63.1516, the Permittee shall provide notification of the anticipated date for conducting performance tests. The Permittee shall notify IDEM, OAQ, of the intent to conduct a performance test at least 60 days before the performance test is scheduled.
- (b) Pursuant to 40 CFR 63.1515(b), the Permittee shall submit a notification of compliance status report within 60 days after the compliance date specified in 40 CFR 63.1501, except within 90 days after conducting the initial performance test required by 40 CFR Part 63.1511(b) for furnace A3. The notification must be signed by the responsible official who must certify its accuracy. A complete notification of compliance status report must include the information specified in paragraphs (1) through (8) below. The required information may be submitted in an operating permit application, in an amendment to an operating permit application, in a separate submittal, or in any combination. The Permittee must provide duplicate notification to the U.S. EPA Region V, Regional Administrator. If a Permittee submits the information specified in this section at different times or in different submittals, later submittals may refer to earlier submittals instead of duplicating and resubmitting the information previously submitted. A complete notification of compliance status report must include:
- (1) All information required in 40 CFR 63.9(h). The Permittee shall provide a complete performance test report for each furnace 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.
  - (3) Unit labeling as described in 40 CFR 63.1506(b), including process type or furnace classification and operating requirements.
  - (4) The compliant operating parameter value or range established per Condition D.1.12(f) for each furnace, with supporting documentation and a description of the procedure used to establish the value, including the operating cycle or time period used in the performance test.
  - (5) If applicable, design information and analysis, with supporting documentation, demonstrating conformance with the requirements for capture/collection systems in 40 CFR 63.1506(c).
  - (6) If applicable, analysis and supporting documentation demonstrating conformance with EPA guidance and specifications for bag leak detection systems in 40 CFR 63.1510(f).
  - (7) The OM&M plan.
  - (8) Startup, shutdown, and malfunction plan, with revisions.
- (c) Pursuant to 40 CFR 63.1516(a), the Permittee shall develop and implement a written plan that contains specific procedures to be followed for operating and maintaining the source during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the standard. The Permittee shall also keep records of each event as required by 40 CFR 63.10(b) and record and report if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the plan as described in 40 CFR 63.6(e)(3). In addition to the information required in 40 CFR 63.6(e)(3), the plan must

include:

- (1) Procedures to determine and record the cause of the malfunction and the time the malfunction began and ended; and
  - (2) Corrective actions to be taken in the event of a malfunction of a process or control device, including procedures for recording the actions taken to correct the malfunction or minimize emissions.
- (d) Pursuant to 40 CFR 63.1516(b), the Permittee shall submit semiannual reports within 60 days after the end of each 6-month period. Each report must contain the information specified in 40 CFR 63.10(c). When no deviations of parameters have occurred, the Permittee must submit a report stating that no excess emissions occurred during the reporting period.

A report must be submitted if any of these conditions occur during a 6-month reporting period:

- (1) An excursion of a compliant process or operating parameter value or range, as listed at Condition D.1.12(f).
  - (2) An action taken during a startup, shutdown, or malfunction was not consistent with the procedures in the plan as described in 40 CFR 63.6(e)(3).
  - (3) An affected source (including an emission unit in a secondary aluminum processing unit) was not operated according to the requirements of 40 CFR 63, Subpart RRR.
  - (4) A deviation from the 3-day, 24-hour rolling average emission limit for a secondary aluminum processing unit.
- (e) The Permittee shall 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. [40 CFR 63.1516(b)]
- (f) Pursuant to 40 CFR 63.1516(c), for the purpose of annual certifications of compliance required by 40 CFR Part 70 or 71, the Permittee shall certify continuing compliance based upon, but not limited to, the following conditions:
- (1) Any period of excess emissions, as defined in the semiannual report, that occurred during the year were reported as required by this subpart; and
  - (2) All monitoring, record keeping, and reporting requirements were met during the year.

#### D.1.23 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.1 and D.1.2 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 calendar quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

## SECTION D.2 FACILITY OPERATION CONDITIONS

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

The following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

Trimmers that do not produce fugitive emissions and that are equipped with a dust collection trim material recovery device such as a bag filter or cyclone, including:

- (a) two (2) sawing and trimming operations for furnaces A1 through A13, excluding A3, individually identified as C-1 and C-2, installed in 1964, processing up to a total of 3.8 tons aluminum per hour; and
- (b) sawing and trimming operation for furnace A3, installed in 2003, processing up to 3.0 tons aluminum per hour,

utilizing two (2) cyclones for particulate matter control each exhausting through one (1) stack respectively identified as E-14 and E-15. [326 IAC 6-3-2]

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

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

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

- (a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the sawing and trimming operations identified as C-1 and C-2 shall not exceed 10.0 pounds per hour when operating at a process weight rate of 3.8 tons per hour.
- (b) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the sawing and trimming operation for furnace A3 shall not exceed 8.6 pounds per hour when operating at a process weight rate of 3.0 tons per hour.

The pounds per hour allowable particulate emission rates were calculated with the following equation:

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

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

### Compliance Determination Requirements

#### D.2.2 Particulate Control

In order to comply with condition D.2.1, the cyclones for particulate control shall be in operation and control emissions from the saw/trim facilities at all times that these facilities are in operation.

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

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

## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

### PART 70 OPERATING PERMIT CERTIFICATION

Source Name: Citation Corporation  
Source Address: 600 West Main Street, Butler, IN 46721  
Mailing Address: P.O. Box 80, Butler, IN 46721  
Part 70 Permit No.: T033-17659-00016

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

Please check what document is being certified:

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

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

Signature:

Printed Name:

Title/Position:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH  
100 North Senate Avenue  
P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
Phone: 317-233-5674  
Fax: 317-233-5967**

**PART 70 OPERATING PERMIT  
EMERGENCY OCCURRENCE REPORT**

Source Name: Citation Corporation  
Source Address: 600 West Main Street, Butler, IN 46721  
Mailing Address: P.O. Box 80, Butler, IN 46721  
Part 70 Permit No.: T033-17659-00016

**This form consists of 2 pages**

**Page 1 of 2**

- |  |
|--|
| <input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12) <ul style="list-style-type: none"><li>C The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and</li><li>C The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16.</li></ul> |
|--|

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

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

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

**Page 2 of 2**

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

Form Completed by: \_\_\_\_\_

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

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

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

A certification is not required for this report.

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

### Part 70 Quarterly Report

Source Name: Citation Corporation  
 Source Address: 600 West Main Street, Butler, IN 46721  
 Mailing Address: P.O. Box 80, Butler, IN 46721  
 Part 70 No.: T033-17659-00016  
 Facility: Reverberatory melt furnaces A1 through A13  
 Parameter: Aluminum produced  
 Limit (a) total aluminum produced in reverberatory furnaces A2, A3, A4, A6, A7, A8, A10, A11, and A12 shall not exceed 28,910.3 tons per 12 consecutive month period with compliance determined at the end of each month  
 (b) total aluminum produced in reverberatory furnaces A1, A5, A9, and A13 shall not exceed 16,072.5 tons per twelve (12) consecutive month period with compliance determined at the end of each month

YEAR: \_\_\_\_\_

Month	Aluminum Produced This Month (tons)		Aluminum Produced Previous 11 Months (tons)		12 Month Aluminum Produced (tons)	
	A2, A3, A4, A6, A7, A8, A10, A11, A12(total)	A1, A5, A9, A13 (total)	A2, A3, A4, A6, A7, A8, A10, A11, A12(total)	A1, A5, A9, A13 (total)	A2, A3, A4, A6, A7, A8, A10, A11, A12(total)	A1, A5, A9, A13 (total)
Month 1						
Month 2						
Month 3						

9 No deviation occurred in this quarter.  
 9 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 Quarterly Report

Source Name: Citation Corporation  
 Source Address: 600 West Main Street, Butler, IN 46721  
 Mailing Address: P.O. Box 80, Butler, IN 46721  
 Part 70 No.: T033-17659-00016  
 Facility: Entire source  
 Parameter: Hexachloroethane input usage in the chlorine-based fluxing process; and SF-350 type flux input usage in the fluorine-based fluxing process  
 Limit: (a) For chlorine-based fluxing:  
 total hexachloroethane input usage at the source, including all reverberatory and holding furnaces, shall not exceed 21,645 pounds per twelve (12) consecutive month period with compliance demonstrated at the end of each month  
 (b) For fluorine-based fluxing:  
 total SF-350 type flux input usage at the source, including all reverberatory and holding furnaces, shall not exceed 82,425 pounds per twelve (12) consecutive month period with compliance demonstrated at the end of each month

YEAR: \_\_\_\_\_

Month	Input Usage at Source This Month (tons)		Input Usage at Source Previous 11 Months (tons)		12 Month Input Usage at Source (tons)	
	hexachloroethane	SF-350 flux	hexachloroethane	SF-350 flux	hexachloroethane	SF-350 flux
Month 1						
Month 2						
Month 3						

- 9 No deviation occurred in this quarter.
- 9 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: Citation Corporation  
Source Address: 600 West Main Street, Butler, IN 46721  
Mailing Address: P.O. Box 80, Butler, IN 46721  
Part 70 No.: T033-17659-00016

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

Page 1 of 2

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

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

Form Completed by: \_\_\_\_\_

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

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

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

Attach a signed certification to complete this report.

## Indiana Department of Environmental Management Office of Air Quality

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

#### Source Background and Description

<b>Source Name:</b>	<b>Citation Corporation</b>
<b>Source Location:</b>	<b>600 West Main Street, Butler, Indiana, 46721</b>
<b>County:</b>	<b>Dekalb</b>
<b>SIC Code:</b>	<b>3365,3363,3341</b>
<b>Operation Permit No.:</b>	<b>F033-7938-00016</b>
<b>Operation Permit Issuance Date:</b>	<b>January 26, 1999</b>
<b>Part 70 Permit No.:</b>	<b>T033-17659-00016</b>
<b>Permit Reviewer:</b>	<b>Michael Hirtler/EVP</b>

On May 12, 2004, the Office of Air Quality (OAQ) had a notice published in the Auburn Evening Star, Auburn, Indiana, stating that Citation Corporation had applied for a Part 70 operating permit to operate a secondary aluminum foundry and die casting source. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

No comments were received on the proposed permit. However, upon further consideration, IDEM, OAQ has decided to make changes to the permit as indicated below. Changes made to the permit are shown in bold and deleted permit language is shown with a line through it. Any permit changes affecting the permit's Table of Contents are also revised without replication herein.

- On April 15, 2004, the United States Environmental Protection Agency (U.S. EPA) named twenty-three (23) Indiana counties and one partial county nonattainment for the new 8-hour ozone standard. The designations became effective on June 15, 2004. Dekalb County has been designated as attainment for the 8-hour ozone standard. Therefore, no changes to this permit are necessary.

Although the TSD itself will not be revised as it is a historical document and the TSD was correct at the time of public notice, the following is being provided to show how the Dekalb County attainment status has been affected as a result of the 8-hour ozone standard designations. The county attainment status regarding other pollutants remains unchanged; therefore such pollutants will not be shown below other than in the following table.

#### County Attainment Status

The source is located in Dekalb County.

<b>Pollutant</b>	<b>Status</b>
PM-10	Attainment
SO <sub>2</sub>	Attainment
NO <sub>2</sub>	Attainment
1-hour Ozone	Attainment
8-hour Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) 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 emissions and NOx are considered when evaluating the rule applicability relating to the ozone standards. Dekalb County has been designated as attainment or unclassifiable for the ozone standards. Therefore, VOC emissions and NOx and were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

2. Condition B.23(c) is changed to reflect the newly revised OAQ section name as follows:

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

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

3. In accordance with the credible evidence rule (62 Fed. Reg. 8314, Feb 24, 1997); Section 113(a) of the Clean Air Act, 42 U.S. C. § 7413 (a); and a letter from the United States Environmental Protection Agency (USEPA) to IDEM, OAQ dated May, 18 2004, all permits must address the use of credible evidence; otherwise, USEPA will object to the permits. The following language is incorporated into the permit as new Condition B.24 to address credible evidence:

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

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**Notwithstanding the conditions of this permit that state specific methods that may be used to demonstrate compliance with, or a violation of, applicable requirements, any person (including the Permittee) may also use other credible evidence to demonstrate compliance with, or a violation of, any term or condition of this permit.**

4. The third sentence on the Quarterly Deviation and Compliance Monitoring Report form is revised to be consistent with Condition B.14 (Deviations from Permit Requirements and Conditions). This change, which is shown at the end of this document, clarifies that the deviations that are not required to be reported on the form are those deviations required to be reported pursuant to an applicable requirement that exists independent of the permit.

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

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

Source Name: Citation Corporation  
Source Address: 600 West Main Street, Butler, IN 46721  
Mailing Address: P.O. Box 80, Butler, IN 46721  
Part 70 No.: T033-17659-00016

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

Page 1 of 2

<p>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. <del>Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report.</del> <b>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.</b> Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".</p>	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

## Indiana Department of Environmental Management Office of Air Quality

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

#### Source Background and Description

<b>Source Name:</b>	<b>Citation Corporation</b>
<b>Source Location:</b>	<b>600 West Main Street, Butler, Indiana, 46721</b>
<b>County:</b>	<b>Dekalb</b>
<b>SIC Code:</b>	<b>3365,3363,3341</b>
<b>Operation Permit No.:</b>	<b>F033-7938-00016</b>
<b>Operation Permit Issuance Date:</b>	<b>January 26, 1999</b>
<b>Part 70 Permit No.:</b>	<b>T033-17659-00016</b>
<b>Permit Reviewer:</b>	<b>Michael Hirtler / EVP</b>

The Office of Air Quality (OAQ) has reviewed a Part 70 Operating Permit application from Citation Corporation relating to the operation of a stationary secondary aluminum foundry and die casting plant.

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

#### History

On April 24, 2003, IDEM, OAQ received an application from Citation Corporation requesting approval for a renewal to their existing FESOP No. 033-7938-00016, issued on January 26, 1999. As an existing area source of hazardous air pollutants subject to the requirements of 40 CFR 63, Subpart RRR, this source is required to apply for a Part 70 operating permit no later than December 9, 2005. This requirement is specified in the existing FESOP at Condition D.1.5. As such, Citation has requested that this application for operating permit renewal be considered as the requisite first-time Part 70 permit application. OAQ agrees with this request and this permit is being reviewed pursuant to the requirements of 326 IAC 2-7 (Part 70), satisfying existing Condition D.1.5.

#### Permitted Emission Units and Pollution Control Equipment

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

- (a) One (1) reverberatory melt furnace identified as A1 with a maximum melt capacity of 3.83 tons of aluminum per hour, installed in August 2002, equipped with four (4) natural gas fired burners rated at 9.2 million (MM) British thermal units (Btu) per hour total, exhausting through one (1) stack identified as E-1.
- (b) One (1) reverberatory melt furnace identified as A2 with a maximum melt capacity of 3.28 tons of aluminum per hour, installed in August 2002, equipped with three (3) natural gas fired burners rated at 7.86 MMBtu per hour total, exhausting through one (1) stack identified as E-2.
- (c) One (1) reverberatory melt furnace identified as A3 with a maximum melt capacity of 6.0 tons of aluminum per hour, installed in July 2003, equipped with two (2) natural gas fired burners rated at 24.0 MMBtu per hour total, exhausting through one (1) stack identified as E-3.

- (d) One (1) reverberatory melt furnace identified as A4 with a maximum melt capacity of 1.25 tons of aluminum per hour, installed in 1974, equipped with three (3) natural gas fired burners rated at 10.05 MMBtu per hour total, exhausting through one (1) stack identified as E-4.
- (e) One (1) reverberatory melt furnace identified as A5 with a maximum melt capacity of 1.25 tons of aluminum per hour, installed in 1976, equipped with two (2) natural gas fired burners rated at 6.7 MMBtu per hour total, exhausting through one (1) stack identified as E-5.
- (f) One (1) reverberatory melt furnace identified as A6 with a maximum melt capacity of 1.25 tons of aluminum per hour, installed in 1978, equipped with three (3) natural gas fired burners rated at 10.05 MMBtu per hour total, exhausting through one (1) stack identified as E-6.
- (g) One (1) reverberatory melt furnace identified as A7 with a maximum melt capacity of 1.0 ton of aluminum per hour, installed in 1982, equipped with two (2) natural gas fired burners rated at 5.2 MMBtu per hour total, exhausting through one (1) stack identified as E-7.
- (h) One (1) reverberatory melt furnace identified as A8 with a maximum melt capacity of 0.25 tons of aluminum per hour, installed in 1993, equipped with one (1) natural gas fired burner rated at 2.5 MMBtu per hour, exhausting through one (1) stack identified as E-8.
- (i) One (1) reverberatory melt furnace identified as A9 with a maximum melt capacity of 2.5 tons of aluminum per hour, installed 1994, equipped with four (4) natural gas fired burners rated at 10.6 MMBtu per hour total, exhausting through one (1) stack identified as E-9.
- (j) One (1) reverberatory melt furnace identified as A10 with a maximum melt capacity of 2.5 tons of aluminum per hour, installed 1995, equipped with six (6) natural gas fired burners rated at 9.0 MMBtu per hour total, exhausting through one (1) stack identified as E-10.
- (k) One (1) reverberatory melt furnace identified as A11 with a maximum melt capacity of 0.9 tons of aluminum per hour, installed 1996, equipped with six (6) natural gas fired burners rated at 15.9 MMBtu per hour total, exhausting through one (1) stack identified as E-11.
- (l) One (1) reverberatory melt furnace identified as A12 with a maximum melt capacity of 3.5 tons of aluminum per hour, installed in June 1998, equipped with two (2) natural gas fired burners rated at 12.5 million British thermal units (MMBtu) per hour total, exhausting through one (1) stack identified as E-12.
- (m) One (1) reverberatory melt furnace identified as A13 with a maximum melt capacity of 3.5 tons of aluminum per hour, installed in June 1998, equipped with two (2) natural gas fired burners rated at 12.5 MMBtu per hour total, exhausting through one (1) stack identified as E-13.
- (n) The maximum solid reactive flux injection rate at each of reverberatory furnaces A1 through A13 is ten (10) pounds of flux per 10,000 pounds of aluminum melted.
- (o) Source aluminum casting operations, including:
  - (1) Aluminum pouring and casting operations for furnaces A1 through A11, excluding A3, rated at 18.01 tons of melted aluminum per hour, using holding furnaces listed in paragraph (4).

- (2) Aluminum pouring and casting operation for furnace A3, identified as FLCA, rated at 6.0 tons of melted aluminum per hour, using holding furnaces listed in paragraph (4).
- (3) Aluminum pouring and casting operation for furnaces A12 and A13, identified as ME Cell, rated at 7.0 tons of melted aluminum per hour, using holding furnaces listed in paragraph (4).
- (4) Holding furnaces used in source casting operations, performing additional molten metal degassing and/or rotofluxing as indicated, each exhausting inside the building except as indicated, including:
  - (A) Twenty-seven (27) "basic holding furnaces", including:
    - (i) Two (2) natural gas-fired holding furnaces identified as S1 and S2, each with a maximum heat input rating of 5.8 MMBtu per hour and a nominal holding capacity of 5,000 pounds molten metal, exhausting through one (1) common stack. Each furnace performs degassing as needed using argon or nitrogen;
    - (ii) One (1) natural gas-fired holding furnace identified as H1 with a maximum heat input rating of 1.48 MMBtu per hour and a nominal holding capacity of 7,000 pounds molten metal. This furnace performs degassing as needed using argon or nitrogen;
    - (iii) Four (4) natural gas-fired holding furnaces respectively identified as Pots 1A, 1B, 8 and 9, each with a maximum heat input rating of 0.5 MMBtu per hour and a nominal holding capacity of 1,000 pounds molten metal. Each furnace performs degassing as needed using argon or nitrogen;
    - (iv) Two (2) natural gas-fired holding furnaces respectively identified as Pots 44 and 45, each with a maximum heat input rating of 0.5 MMBtu per hour and a nominal holding capacity of 1,000 pounds molten metal. As needed, each furnace performs degassing, using argon or nitrogen, and rotofluxing, using up to one (1) pound of solid reactive flux per treatment;
    - (v) Two (2) natural gas-fired holding furnaces respectively identified as Pots 46 and 47, each with a maximum heat input rating of 0.5 MMBtu per hour and a nominal holding capacity of 1,000 pounds molten metal, performing no additional degassing or rotofluxing;
    - (vi) Six (6) natural gas-fired holding furnaces respectively identified as Pots 17 through 20, 30 and 31, each with a total maximum heat input rating of 0.5 MMBtu per hour and a nominal holding capacity of 1,500 pounds molten metal. As needed, each furnace performs degassing, using argon or nitrogen, and rotofluxing, using up to one (1) pound of solid reactive flux per treatment; and

- (vii) Ten (10) electric holding furnaces respectively identified as Pots 34 through 43, each with a nominal holding capacity of 2,000 pounds molten metal. As needed, each furnace performs degassing, using argon or nitrogen, and rotofluxing, using up to one (1) pound of solid reactive flux per treatment.
- (B) Three (3) "special holding furnaces" as follows:
  - (i) One (1) electric holding furnace, identified as SP1, with a total nominal holding capacity of 7,000 pounds molten metal and consisting of a receiving-holding pot, an electric heat transfer, and a pouring-holding supply pot. The furnace performs degassing as needed using argon or nitrogen; and
  - (ii) Two (2) electric holding furnaces, identified as SP2 and SP3, each with a nominal holding capacity of 14,000 pounds molten metal and each consisting of a receiving-holding pot, an electric heat transfer, and a pouring-holding supply pot. Each furnace performs degassing as needed using argon or nitrogen.

### **Unpermitted Emission Units and Pollution Control Equipment**

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

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

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

### **Insignificant Activities**

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

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour, as follows:
  - Two (2) natural gas-fired heat treat furnaces, individually identified as HT1 and HT2, each with a maximum heat input rating of 0.3 MMBTU per hour.
- (b) Combustion source flame safety purging pump.
- (c) Machining where an aqueous cutting coolant continuously floods the machining interface.
- (d) Noncontact cooling tower systems with forced and induced draft cooling tower system not regulated under a NESHAP.
- (e) Quenching operations used with heat treating processes.
- (f) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (g) Heat exchanger cleaning and repair.
- (h) Process vessel degassing and cleaning to prepare for internal repairs.

- (i) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection trim material recovery device such as a bag filter or cyclone, including:
  - (1) two (2) sawing and trimming operations for furnaces A1 through A13, excluding A3, individually identified as C-1 and C-2, installed in 1964, processing up to a total of 3.8 tons aluminum per hour; and
  - (2) sawing and trimming operation for furnace A3, installed in 2003, processing up to 3.0 tons aluminum per hour,utilizing two (2) cyclones for particulate matter control each exhausting through one (1) stack respectively identified as E-14 and E-15.
- (j) Paved and unpaved roads and parking lots with public access.
- (k) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (l) Mold release agents using low volatile products (vapor pressure less than or equal to 2 kilopascals measured at 38 degrees Celsius).
- (m) A laboratory as defined in 326 IAC 2-7-1(21)(D).
- (n) Three (3) Safety-Kleen type cold cleaning units using a non-solvent aqueous detergent cleaner.

### Existing Approvals

The source has been operating under the following previous approvals:

- (a) FESOP No. 033-7938-00016, issued on January 6, 1999.
- (b) First Administrative Amendment No. 033-14004, issued on May 14, 2001.
- (c) First Significant Permit Revision No. 033-14732, issued on October 29, 2001.
- (d) Second Significant Permit Revision No. 033-14858, issued on January 4, 2002.
- (e) Third Significant Permit Revision No. 033-15396, issued on August 7, 2002.
- (f) Interim Significant Permit Revision No. I-033-16754, denied on March 20, 2003.
- (g) Fourth Significant Permit Revision No. 033-16754, issued on June 24, 2003.
- (h) Fifth Significant Permit Revision No. 033-17746, issued on January 14, 2004.

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

The following terms and conditions from previous approvals have been determined no longer applicable; therefore, they were not incorporated into this Part 70 permit:

- (a) All construction conditions from all previously issued permits.

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

- (b) FESOP No. 033-7938-00016, issued on January 6, 1999.

Reason not incorporated: The three (3) Safety-Kleen type cold cleaning units at this source have been changed from a solvent-based cleaner to a non-solvent aqueous detergent cleaner. Therefore, 326 IAC 8-3-2 and related Condition D.2.2 (Volatile Organic Compounds) for cold cleaners are no longer applicable and the condition is not included in this approval.

- (c) Fifth Significant Permit Revision No. 033-17746, issued on January 14, 2004:

Reason not incorporated: Condition D.1.5 requires the Permittee to apply for a Part 70 operating permit no later than December 9, 2005, pursuant to 40 CFR 63.1500(e) and 326 IAC 2-7-4(a). The Part 70 permit application received on April 24, 2003 satisfies D.1.5 and the condition is now removed from the permit.

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

- (a) All FESOP conditions.

Reason changed: The source is transitioning from an existing FESOP to a Part 70 permit as discussed in this document. This notwithstanding, the Permittee has requested that the production and material usage limits established in the FESOP be retained in the Part 70 permit, such that the source continues to be considered both a minor source under the Prevention of Significant Deterioration (PSD) program and a minor HAP source under 40 CFR 63, Subpart RRR. Therefore, while the existing FESOP is superceded by this Part 70 permit, the minor source PSD and HAP emission limits are retained herein.

- (b) Fifth Significant Permit Revision No. 033-17746, issued on January 14, 2004:

Reason changed: The allowable particulate emission limit at Condition D.1.3 (Particulate Emission Limitations for Manufacturing Processes) for furnace A8 is revised. The existing allowable rate was incorrectly computed to be 1.08 pounds per hour and is corrected herein to 1.62 pounds per hour, based on a process weight rate of 0.25 tons per hour.

- (c) Fifth Significant Permit Revision No. 033-17746, issued on January 14, 2004:

Reason changed: As explained in the **Federal Rule Applicability** section of this document, EPA has provided further clarification on the applicability of 40 CFR 63, Subpart RRR to the 30 source holding furnaces. While SPR No. 033-17746 determined that Subpart RRR was applicable to these units, such determination is incorrect. Conditions throughout Section D.1 have been revised to remove reference to the holding furnaces when such are specified as being subject to a requirement pursuant to Subpart RRR.

- (d) Fifth Significant Permit Revision No. 033-17746, issued on January 14, 2004:

Reason changed: Condition D.1.1 (PSD minor limit) has been adjusted to correct two (2) computational errors made by IDEM while processing Significant Permit Revision No. 16754 issued in June 2003. The errors were contained in the emissions calculations that served as the basis for that approval, and included overstating the hourly metal production rate by 1.25 tons per hour (i.e., the metal production rate of old furnace A3, which was removed from this source during SPR 17746), and incorrectly computing the annual particulate emission rate for sawing/trimming (i.e., such was computed as pounds per hour instead of tons per year). Correcting for these errors reduces the allowable PM emission rate for metal processing from 89.4 tpy to 86.3 tpy, thereby altering the related existing metal production limits of Condition D.1.1, as shown below. Since SPR No. 16754 was only issued in June 2003, the Permittee has confirmed that they have not exceeded the reduced allowable metal production rate limit shown below.

D.1.1 PSD Minor and FESOP Limits [326 IAC 2-2][326 IAC 2-8]

**Pursuant to Significant Permit Revision No. 033-17746, issued on January 14, 2004, and revised by this Title V permit**, the source shall limit the total aluminum production in reverberatory melt furnaces A1 through A13 as follows:

- (a) The total aluminum produced in reverberatory furnaces A2, A3, A4, A6, A7, A8, A10, A11, and A12 shall not exceed ~~30,474~~ **28,910.3** tons per twelve (12) consecutive month period with compliance demonstrated at the end of each month, based on the following:
- (1) PM emissions from each furnace shall not exceed 4.3 pounds of PM emitted per ton of metal produced which includes the aluminum refining (i.e., flux addition) stage at the end of the melt cycle; and
  - (2) PM-10 emissions from each furnace shall not exceed 2.6 pounds of PM-10 emitted per ton of metal produced which includes the aluminum refining (i.e., flux addition) stage at the end of the melt cycle.

This material usage limit is equivalent to limiting PM and PM10 emissions to ~~65.52~~ **62.16** and ~~39.62~~ **37.58** tons per year, respectively.

- (b) The total aluminum produced in reverberatory furnaces A1, A5, A9, and A13 shall not exceed ~~15,942~~ **16,072.5** tons per twelve (12) consecutive month period with compliance demonstrated at the end of each month, based on the following:
- (1) PM emissions from each furnace shall not exceed 3.0 pounds of PM emitted per ton of metal produced which includes the aluminum refining (i.e., flux addition) stage at the end of the melt cycle; and
  - (2) PM-10 emissions from each furnace shall not exceed 2.6 pounds of PM-10 emitted per ton of metal produced which includes the aluminum refining (i.e., flux addition) stage at the end of the melt cycle.

This material usage limit is equivalent to limiting PM and PM10 emissions to ~~23.94~~ **24.11** and ~~20.72~~ **20.89** tons per year, respectively.

These usage limits are required to limit the source-wide potential to emit both PM and PM-10 to less than 100 tons per twelve (12) consecutive month period. Compliance with this condition shall ~~satisfy the requirements of 326 IAC 2-8-4 and also make the requirements of 326 IAC 2-2~~ **(Prevention of Significant Deterioration)** not applicable.

## Enforcement Issue

During the preparation of Significant Permit Revision (SPR) No. 033-17746, issued on January 14, 2004, U.S. EPA provided a determination which concluded that the existing small electric and natural gas fired holding furnaces are subject to the requirements of 40 CFR 63, Subpart RRR (see **Federal Rule Applicability** section of this document). As such, SPR No. 033-17746 incorporated the applicable Subpart RRR requirements for the holding furnaces. This included a requirement to conduct initial stack testing for these holding units, where such testing should have been completed by the applicable existing source compliance date of March 24, 2003, pursuant to 40 CFR 63.1511.

On April 6, 2004, IDEM, OAQ, Compliance Data Section, visited the plant to witness the planned holding furnace emissions test for D/F. However, after viewing the operations and speaking with plant representatives, IDEM decided to postpone the test in favor of obtaining greater detail from the Permittee on the operation of each holding furnace, including any additional treatment (i.e., degassing and/or fluxing) conducted at each unit. IDEM was concerned that the prior determination of Subpart RRR applicability to the source holding furnaces, including the test requirement, was inaccurate based on the observed operation of these units.

IDEM received the requested detailed holding furnace information from the Permittee on April 22, 2004 (see **Federal Rule Applicability** section of this document). Each holding furnace processes only clean charge (i.e., receives processed molten metal from the reverberatory furnaces), and 18 of the 30 holders perform degassing and reactive fluxing as needed. Pursuant to 40 CFR 63.1503 (*Definitions*), these 18 holding furnaces are considered as Group 1 furnaces, while the remaining furnaces that perform degassing or no additional processing are considered as Group 2 furnaces.

The above notwithstanding, this source is also an area source for HAPs and, pursuant to 40 CFR 63.1500(c)(4), the requirements of Subpart RRR for area sources apply to "each new and existing secondary aluminum processing unit, containing one or more group 1 furnace emission units processing other than clean charge." 40 CFR 63.1505 (*Emission Standards for Affected Sources and Emission Units*) also specifies that the emission limit for D/F does not apply to furnaces that process only clean charge. Since the holding units process only clean charge, the D/F emission limit; the related emissions testing requirement; and the other related Subpart RRR requirements, all as stated in SPR No. 033-17746, issued on January 14, 2004, are not applicable. This revised applicability determination was confirmed by EPA on April 28, 2004. Therefore, this Part 70 permit corrects this determination and no further review or action that will be taken by IDEM with respect to the 30 existing holding furnaces.

## Recommendation

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

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

The existing FESOP for this source will be transitioned to a Part 70 permit during this approval. An administratively complete operating permit renewal application for the purposes of this review was received on April 24, 2003. IDEM decided to issue SPR No. 033-17746 before processing this Part 70 permit application. IDEM considers such to be additional information received on the SPR issuance date, January 14, 2004. Other information was also received on March 8, 2004. Information was received from U.S. EPA on April 28, 2004.

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

### Emission Calculations

See Appendix A of this document for detailed emission calculations (Appendix A, pages 1 through 5).

### 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 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 source was issued FESOP No. 033-7938-00016 on January 6, 1999. The source is now transitioning to a Part 70 permit, and the enforceable emission limits established in the FESOP will be retained in the Part 70 permit. The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered enforceable only after issuance of the original operating permit (i.e., FESOP in this instance) and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process/emission unit	Potential to Emit (tons/year)						
	PM	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
metal production at furnaces A1-A13	<86.27 <sup>(1)</sup>	58.48 <sup>(1)</sup>	0.0	0.9	0.0	0.0	<10 (single) <sup>(2)</sup> 22.1 (total)
metal pouring/casting and sawing/trimming of metal castings	12.4	12.4	0.5	3.2	0.0	0.2	0.0
natural gas combustion as insignificant activity	1.3	5.2	0.4	3.8	57.5	68.4	1.2 (single) 1.3 (total)
Total Potential to Emit	<100	<100	0.9	7.9	57.5	68.4	<10 (single) <sup>(2)</sup> <25 (total)

1. Based on Condition D.1.1, established in SPR No. 033-17659, issued June 24, 2003, and revised herein.  
 2. Based on Condition D.1.2, established in SPR No. 033-17659, issued June 24, 2003.

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of each criteria pollutant is less than 100 tons per year. Also, 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/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is equal to or greater than twenty-five (25) tons per year. Therefore, the source is not a major source as defined in 326 IAC 2-7-1(22).
- (b) The source is subject to the provisions of 40 CFR 63, Subpart RRR, as a minor source of HAPs. Pursuant to 40 CFR 63.1500(e), the Permittee is required to apply for a Part 70 operating permit no later than December 9, 2005. This review and permit approval will satisfy this requirement. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (c) Fugitive Emissions  
 Since this type of operation is one of the twenty-eight (28) listed source categories under 326 IAC 2-2 (i.e., secondary metal production plant), the fugitive emissions are counted toward determination of PSD applicability.

On December 4, 1998, U.S. EPA issued a memorandum clarifying that die casting operations are not considered as secondary aluminum production plants for purposes of PSD, provided two (2) criteria are met. These criteria include plant use of a feedstock that is of a specified alloy and purity (e.g., ingots) or scrap of a specified quality for which little fluxing or alloying is required; and the plant cannot produce intermediate forms of feedstock for sale or use by other sources. The Citation Butler plant does not use clean charge as their sole reverberatory furnace feedstock and, therefore, the plant die casting operation is considered a *secondary metal production plant*.

### Actual Emissions

There was no prior requirement in the FESOP to report actual emissions and no previous emissions data has been received for this source.

### County Attainment Status

The source is located in DeKalb County.

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

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

### Part 70 Permit Conditions

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

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

### Federal Rule Applicability

- (a) The requirements of 40 CFR Part 64, Compliance Assurance Monitoring, are not applicable to this source. Such requirements apply to a pollutant-specific emissions unit (PSEU), as defined in 40 CFR 64.1, at a major source that is required to obtain a Part 70 or 71 permit if the PSEU meets the following criteria:

- (1) the unit is subject to an emission limitation or standard for an applicable regulated air pollutant,
- (2) the unit uses a control device as defined in 40 CFR 64.1 to comply with that emission limitation or standard, and
- (3) the unit has a potential to emit (PTE) before controls equal to or greater than 100 percent of the amount (tons per year) of the pollutant required for a source to be classified as a Part 70 major source.

As a minor source of HAPs, this source is required to obtain a Part 70 permit pursuant to 40 CFR 63.1500(e). However, the source is not a Part 70 major source and no PSEU has the PTE at or above the Part 70 major source threshold. Therefore, the requirements of 40 CFR 64, Compliance Assurance Monitoring, are not applicable.

- (b) This source is not subject to the requirements of the New Source Performance Standard (NSPS), 326 IAC 12, 40 CFR 60.191, Subpart S (Primary Aluminum Reduction), because the source does not perform primary aluminum reduction as defined in 40 CFR 60.191. This source is a secondary aluminum foundry plant, therefore the requirements under 326 IAC 12, (40 CFR 60.191, Subpart S) do not apply.

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

- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14 and 40 CFR Part 61) applicable to this source.
- (d) This aluminum die casting source is subject to the National Emission Standards for Hazardous Air Pollutants, for Secondary Aluminum Production, 40 CFR 63.1500 (Subpart RRR), and 326 IAC 20-1-1. This rule applies to each *secondary aluminum production facility* that is located at a major or area source of hazardous air pollutants (HAPs), as defined at 40 CFR Part 63.2. Since this die casting source uses raw materials in its reverberatory furnace operations that are not exclusively clean charge, customer returns or internal scrap, the source is considered as a *secondary aluminum production facility*. This notwithstanding, pursuant to 40 CFR 63.1500(f) (*Applicability*); FESOP No. 033-7938-00016, issued on January 6, 1999; and Significant Permit Revision No. 033-16745, issued on June 24, 2003, this source is an area source of HAP emissions because it has the potential to emit less than 10 tons per year of any single HAP and less than 25 tons per year of any combination of HAPs. Therefore, only the area source requirements of Subpart RRR apply to the affected facilities.

Pursuant to 40 CFR 63.1503 (*Definitions*), each of the thirteen (13) reverberatory furnaces (A1 - A13) at this source is considered as a Group 1 furnace, as defined, since they each process aluminum that can contain coatings or other foreign materials and they use reactive flux. Reverberatory furnaces A1-A13 are subject to the area source requirements of Subpart RRR.

This source also contains thirty (30) electric and natural gas fired holding furnaces that are part of the die casting operations. As stated earlier in this document, SPR No. 033-17746, issued on January 14, 2004, determined the holding units to be subject to the requirements of Subpart RRR. This was based on descriptive information supplied by the Permittee to IDEM, which in turn was provided to EPA on November 11, 2003. After reviewing the descriptive information, EPA concluded on November 12, 2003 that the holding units would be either a group 1 or 2 furnace pursuant to Subpart RRR, and subject to the requirements of the rule.

Based on the above, SPR No. 033-17746 was issued on January 14, 2004 and it incorporated holding furnace Subpart RRR requirements. This included a testing requirement to determine compliance with the applicable D/F emission limit. A test protocol was developed and approved by IDEM, and on April 6, 2004, IDEM visited the plant to witness the emissions test. However, after viewing the operations and speaking with plant representatives, IDEM decided to postpone the test in favor of obtaining greater detail from the Permittee on the operation and additional treatment (i.e., degassing and/or fluxing) performed at each holding furnace. IDEM was concerned that the determination of Subpart RRR applicability to the source holding furnaces, including the D/F emissions testing requirement, was inaccurate based on the observed operation of these units.

IDEM received the requested detailed holding furnace information from the Permittee on April 22, 2004, summarized as follows:

Holding Furnace ID	Metal Holding Capacity (lbs)	Heat Source (Gas/Electric)	Treatment*	Holding Furnace ID	Metal Holding Capacity (lbs)	Heat Source (Gas/Electric)	Treatment*
S1	5000	G	DG	Pot 36	2000	E	DG & RF
S2	5000	G	DG	Pot 37	2000	E	DG & RF
H1	7000	G	DG	Pot 38	2000	E	DG & RF
Pot 1A	1000	G	DG	Pot 39	2000	E	DG & RF
Pot 1B	1000	G	DG	Pot 40	2000	E	DG & RF
Pot 8	1000	G	DG	Pot 41	2000	E	DG & RF
Pot 9	1000	G	DG	Pot 42	2000	E	DG & RF
Pot 17	1500	G	DG & RF	Pot 43	2000	E	DG & RF
Pot 18	1500	G	DG & RF	Pot 44	1000	G	DG & RF
Pot 19	1500	G	DG & RF	Pot 45	1000	G	DG & RF
Pot 20	1500	G	DG & RF	Pot 46	1000	G	None
Pot 30	1500	G	DG & RF	Pot 47	1000	G	None
Pot 31	1500	G	DG & RF	SP1	7000	E	DG
Pot 34	2000	E	DG & RF	SP2	14000	E	DG
Pot 35	2000	E	DG & RF	SP3	14000	E	DG

\* DG refers to degassing and RF refers to rotofluxing (reactive fluxing with agitation).

Each holding furnace processes only clean charge (i.e., molten metal received from the reverberatory furnaces), and 18 of the 30 units perform degassing and reactive fluxing as needed. Pursuant to 40 CFR 63.1503 (*Definitions*), these 18 holding furnaces are considered as Group 1 furnaces, while the remaining twelve (12) furnaces that perform either no additional processing or only degassing, which is not reactive, are considered as Group 2 furnaces.

The above notwithstanding, this source is also an existing area source for HAPs. Pursuant to 40 CFR 63.1500(c)(4), the requirements of Subpart RRR for area sources apply to "each new and existing secondary aluminum processing unit, containing one or more group 1 furnace emission units processing other than clean charge." Since the 30 holding units at this area source process only clean charge, the Subpart RRR requirements stated in SPR No. 033-17746, issued on January 14, 2004, are incorrect and do not apply. U.S. EPA, Office of Enforcement and Compliance Assurance, confirmed this revised determination on April 28, 2004, and clarified that the Subpart RRR applicability criteria for area sources does not refer to fluxing nor does the definition of clean charge (i.e., a charge can still be considered "clean", even if reactive fluxing is performed in a furnace). As such, this Part 70 permit corrects the prior determination for the holding furnaces and removes all Subpart RRR conditions pertaining to these units. This decision does not affect the existing Subpart RRR conditions relating to the 13 reverberatory furnaces.

Based on the above, the thirteen (13) reverberatory furnaces A1-A13 are subject to the National Emission Standards for Hazardous Air Pollutants, for Secondary Aluminum Production, 40 CFR 63.1500 (Subpart RRR), and 326 IAC 20-1-1. Following is a summary of the requirements:

- (1) The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-1, apply to the thirteen (13) reverberatory furnaces, each as a Group 1 furnace, except when otherwise specified in 40 CFR Part 63, Subpart RRR. These requirements become applicable to the Group 1 furnaces, excluding A3, on March 24, 2003. These requirements become applicable to reverberatory furnace A3 upon startup. Compliance with D.1.2 makes this source an area source under Clean Air Act Section 112. Therefore, only the area source requirements of Subpart RRR apply to these facilities.
  - (2) The total dioxins/furans (D/F) emissions from each of the reverberatory furnaces shall not exceed that required for a secondary aluminum processing unit, based on 15 micrograms per megagram (F/g/Mg) of feed for a group 1 furnace.
  - (3) Identification, emission limits and means of compliance shall be posted on all affected sources and emission units.
  - (4) A reactive flux injection rate monitoring system shall be installed and operated.
  - (5) A scale or scales with an accuracy of plus or minus one (1%) percent shall be installed and utilized to record the weight of each charge and of the reactive flux injection rate.
  - (6) An operations, malfunction, and maintenance (OM&M) plan shall be developed for any emission capture and collection system, and the charge monitoring system and reactive flux injection system, and include a written site-specific monitoring plan for each furnace not equipped with an add-on air pollution control device (i.e., reverberatory furnaces A1 through A13).
  - (7) The secondary metal production operations and furnaces shall be subject to the testing, record keeping and reporting requirements as indicated in the secondary aluminum production NESHAP.
- (e) The requirements of Section 112(j) of the Clean Air Act (40 CFR Part 63.50 through 63.56) are not applicable to this source because (1) the source is not a major source of hazardous air pollutant (HAP) emissions (i.e., the source does not have the potential to emit 10 tons per year or greater of a single HAP or 25 tons per year or greater of a combination of HAPs), and (2) the source does not include one or more units that belong to one or more source categories affected by the Section 112(j) MACT Hammer date of May 15, 2002.

#### **State Rule Applicability – Entire Source**

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

This existing minor stationary source was initially constructed on or before 1974, prior to the August 7, 1977 rule applicability date. As explained earlier in this document, this die casting operation does not exclusively use clean charge at its reverberatory furnaces and, therefore, this source is considered a secondary metal production plant which is one of the 28 listed source categories. This source, which was issued FESOP No. 033-7938-00016 on January 6, 1999, is not a major source because it has limited its metal production such that the potential to emit of

any criteria pollutant, including PM and PM10, is less than 100 tons per year after enforceable controls and limitations. The following modifications have occurred at this source:

- (a) Significant Permit Revision No. 033-14858, issued January 4, 2002, incorporated new reverberatory furnaces A12 and A13 (i.e., the modification) under the source-wide metal production limit, such that the total source PTE of PM and PM10 continued to be limited to less than the FESOP and PSD minor source threshold of 100 tons per year. Therefore, the requirements of 326 IAC 2-2 did not apply to the modification.
- (b) Significant Permit Revision No. 033-15396, issued August 7, 2002, incorporated new replacement reverberatory furnaces A1 and A2 (i.e., the modification) under the source metal production limit, such that the total source PTE of PM and PM10 continued to be limited to less than the FESOP and PSD minor source threshold of 100 tons per year. Therefore, the requirements of 326 IAC 2-2 did not apply to the modification.
- (c) Significant Permit Revision No. 033-16754, issued July 24, 2003, incorporated new replacement reverberatory furnace A3 (i.e., the modification) under the source metal production limit, such that the total source PTE of PM and PM10 continued to be limited to less than the FESOP and minor stationary source threshold of 100 tons per year. Therefore, the requirements of 326 IAC 2-2 did not apply to the modification.

Pursuant to 40 CFR Part 63.1500(e), this approval will result in this source becoming a Part 70 source; however, the Permittee has opted to retain the source-wide metal production limit such that the PTE of PM and PM10 is less than 100 tons per year. This source shall continue to be a minor stationary source and, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

#### 326 IAC 1-5-2 (Emergency Reduction Plans)

The source does not have the potential to emit any pollutant at 100 tons per year or more, after enforceable limits. Therefore, the requirements of 326 IAC 1-5-2 (Emergency Reduction Plans) are not applicable to this source.

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

Since this source is required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program, this source is subject to 326 IAC 2-6 (Emission Reporting). In accordance with the compliance schedule in 326 IAC 2-6-3, an emission statement must be submitted triennially by July 1 beginning in 2004 and every 3 years after. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

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

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

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

**326 IAC 6-4 (Fugitive Dust Emissions)**

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). Further, 326 IAC 6-4-2(4) is federally enforceable, since this requirement was a condition of original FESOP F033-7938-00016, issued January 6, 1999, which is part of a permit program that is federally enforceable because it is approved into the Indiana SIP.

**State Rule Applicability – Individual Facilities**

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

The operation of this source will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

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

Pursuant to Significant Permit Revision 033-17746-00016, issued on January 14, 2004, the allowable particulate emission rate from the facilities listed below shall be limited as specified when operating at the respective process weight rate:

Emission Unit/Activity	Process Weight Rate (tons/hr)	Controlled/Limited Particulate Emission Rate (lb/hr)	Allowable Particulate Emission Rate (326 IAC 6-3-2) (lb/hr)
reverberatory furnace A1	3.83	2.23	10.08
reverberatory furnace A2	3.28	9.09	9.09
reverberatory furnace A3	6.00	13.62	13.62
reverberatory furnace A4	1.25	4.76	4.76
reverberatory furnace A5	1.25	1.35	4.76
reverberatory furnace A6	1.25	4.76	4.76
reverberatory furnace A7	1.00	4.10	4.10
reverberatory furnace A8	0.25	1.08	1.62
reverberatory furnace A9	2.50	1.30	7.58
reverberatory furnace A10	2.50	7.58	7.58
reverberatory furnace A11	0.90	3.82	3.82
reverberatory furnace A12	3.50	9.49	9.49
reverberatory furnace A13	3.50	2.43	9.49
pouring and casting for furnaces A1 through A11 (excludes A3)	18.01	1.04	28.44
FLCA pouring and casting for furnace A3	6.00	0.32	13.61
ME Cell pouring and casting for furnaces A12 & A13	7.00	0.54	15.10
Saw/trim A3 die cast parts	3.00	1.81	8.56
Saw/trim A1 through A11 (excludes A3) die cast parts	3.79	2.28	10.01

The pounds per hour allowable particulate emission rates were calculated with the following equation:

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

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

Based on the calculations made, these facilities are in compliance with these requirements (see page 5 of TSD, Appendix A). A performance test shall be conducted on all reverberatory furnaces to confirm compliance with the above limits, pursuant to the existing test requirements of SPR No. 033-17746, issued January 14, 2004. Further, the cyclones shall be in operation at all times the saw/trim facilities are in operation, in order to comply with the stated limits.

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

This rule applies to facilities located anywhere in the state that were constructed on or after January 1, 1980, which have a PTE VOC at 25 tons per year or more, and which are not otherwise regulated by another provision of Article 8. No facility at this source has a PTE VOC at 25 tons per year or more. Therefore, 326 IAC 8-1-6 is not applicable to this source.

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

Pursuant to 326 IAC 11-1-1, particulate matter emission limitations for foundries established in 326 IAC 11-1-2 are not applicable to this source because the source does not operate a cupola.

## **Testing Requirements**

Except for furnace A8, the uncontrolled particulate emission rate for each reverberatory furnace exceeds the corresponding allowable emission rate, based on the use of AP-42 particulate emission factors for reverberatory furnace melting (see Appendix A, page 5). As such, IDEM has required in prior approvals that each furnace be tested for PM and PM10 to demonstrate compliance with the corresponding allowable pollutant emission rates. The Permittee has already conducted IDEM verified compliant PM/PM10 testing at furnaces A1, A5, A9 and A13.

During July 2003, the Permittee submitted a request to IDEM to allow the 13 reverberatory furnaces to be grouped according to capacity, and to test a representative furnace in each group. In considering this request and the fact that the furnaces use a common raw material supplier, and they operate with similar burner configurations, batch melt times and fluxing procedures, and differ generally in batch scrap melt volume (i.e., capacity), IDEM agreed to establish four source groups and required one furnace from each group be tested on a rotating basis. In so deciding, IDEM believed it was necessary to vary the time of year when testing would take place to account for possible seasonal variability of scrap contamination. Therefore, the pre-existing testing frequency (i.e., once every 2.5 years) was reduced to 21 months such that successive tests would not occur during the same calendar season. Also, testing would not be repeated on any one furnace in a group until all furnaces in that group were tested. This PM/PM10 stack testing method was approved in Significant Permit Revision (SPR) No. 033-17746, issued on January 14, 2004.

In response to SPR No. 033-17746, the Permittee conducted PM/PM10 testing of furnaces A2, A3, and A11 on March 10 and 11, 2004, and furnace A6 on March 23, 2004. Testing of these same furnaces for dioxins and furans (D/F) was done between March 16 and March 31, 2004. The testing requirement is retained in this approval, adjusted for the next requisite test date of December 31, 2005 (i.e., 21 months after the prior valid test).

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

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

The thirteen (13) reverberatory furnaces have applicable compliance monitoring conditions as specified below:

- (a) For each furnace, the Permittee shall [63.1506(m)]:
  - (1) Maintain the total reactive flux injection rate for each operating cycle or time period used in the performance test at or below the average rate established during the performance test.
  - (2) Operate each furnace in accordance with the work practice/pollution prevention measures documented in the Operation, Maintenance, and Monitoring (OM&M) plan and within the parameter values or ranges established in the OM&M plan.
- (b) Pursuant to 40 CFR 63.1510(j), for each furnace the Permittee shall comply as follows:
  - (1) Record, for each fifteen (15) minute time 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 reactive flux.
  - (2) Calculate and record the total reactive flux injection rate for each operating cycle or time period used in the performance test using the procedure in 40 CFR 63.1512(o).
  - (3) The Permittee may apply to IDEM 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 Permittee provides assurance through data and information that the affected source will meet the relevant emission standards on a continuous basis.
- (c) Pursuant to 40 CFR 63.1510(s)(1), the Permittee shall include, within the OM&M plan prepared in accordance with 40 CFR 63.1510(b), the following information:

- (1) The identification of each emission unit in the secondary aluminum processing unit (SAPU);
  - (2) The specific control technology or pollution prevention measure to be used for each emission unit in the SAPU and the date of its installation or application;
  - (3) The emission limit calculated for each SAPU and performance test result with supporting calculations demonstrating initial compliance with each applicable emission limit;
  - (4) Information and data demonstrating compliance for each emission unit with all applicable design equipment work practice or operational standards of Subpart RRR; and
  - (5) The monitoring requirements applicable to each emission unit in a SAPU and the monitoring procedures for daily calculation of the 3-day, 24-hour rolling average using the procedure in 40 CFR 63.1510(t).
- (d) The SAPU compliance procedures within the OM&M plan shall not contain any of the information provided in 40 CFR 63.1510(s)(2)(i) through (iv), as follows: [40 CFR 63.1510(s)(2)]
- (1) Any averaging among emissions of differing pollutants;
  - (2) The inclusion of any affected sources other than emission units in a secondary aluminum processing unit;
  - (3) The inclusion of any emission unit while it is shutdown; or
  - (4) The inclusion of any periods of startup, shutdown, or malfunction in emission calculations.
- (e) To revise the SAPU compliance provisions within the OM&M plan prior to the end of the permit term, the Permittee must submit a request to IDEM containing the information required by 40 CFR 63.1510(s)(1) and obtain approval of IDEM prior to implementing any revisions. [40 CFR 63.1510(s)(3)]
- (f) If the Permittee wishes to use an alternative monitoring method to demonstrate compliance with any emission standard in 40 CFR Part 63, Subpart RRR, other than those alternative monitoring methods which may be authorized pursuant to 40 CFR Part 63.1510(j)(5) and 40 CFR Part 63.1510(v), the Permittee may submit an application to the IDEM. Any such application will be processed according to the criteria and procedures set forth in 40 CFR Part 63.1510(w)(1) through (6).
- (g) Visible emission notations as follows:
- (1) Visible emission notations of the reverberatory melt furnaces' exhaust stacks (E-1 through E-13) shall be performed once per shift during normal daylight operations when metal melting and fluxing is occurring and when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
  - (2) 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.

- (3) 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.
  - (4) 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.
  - (5) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.
- (h) The Permittee shall inspect the labels for each furnace required by Condition D.1.7 at least once per calendar month to confirm that posted labels as required by the operational standard in 40 CFR Part 63.1506(b) are intact and legible.
- (i) The Permittee shall install, calibrate, operate, and maintain a device to measure and record the total weight of feed/charge to, or the aluminum production from, each furnace 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 Permittee may use a procedure acceptable to IDEM 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  $\pm 1$  percent of the weight being measured. The Permittee 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 Permittee provides assurance through data and information that the affected source will meet the relevant emission standard.
  - (2) The Permittee 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.
- (j) When a process parameter deviates from the value or range established during the performance test and incorporated in the Operation, Maintenance, and Monitoring Plan, the Permittee shall initiate corrective action. The corrective action shall restore operation of the affected 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 shall 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 the deviation.
- (k) The Permittee shall calculate and record the 3-day, 24- hour rolling average emissions of D/F for each furnace on a daily basis. To calculate the 3-day, 24-hour rolling average, the Permittee shall [40 CFR Part 63.1510(t)]:

- (1) Calculate and record the total weight of material charged to each furnace for each twenty-four- (24-) hour day of operation using the feed/charge weight data collected as required under Subpart RRR. If the Permittee chooses to comply on the basis of weight of aluminum produced by the emission unit, rather than weight of material charged to the emission unit, all performance test emissions results and all calculations must be conducted on the aluminum production weight basis.
  - (2) To provide emissions for each furnace for the twenty-four- (24-) hour period, in pounds: multiply the total feed/charge weight to the furnace or the weight of aluminum produced by the furnace for the twenty-four- (24-) hour period, by the emission rate (in lb/ton of feed/charge) for that furnace (as determined during the emission test).
  - (3) 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 the equation of 40 CFR Part 63.1510(t)(4).
  - (5) Calculate and record the three- (3-) day, twenty-four- (24-) hour rolling average for each pollutant each day by summing the daily emission rates for D/F over the three (3) most recent consecutive days and dividing by three (3).
- (l) As an alternative to the procedures in above paragraph, the Permittee may demonstrate through performance tests, that each individual furnace within the secondary aluminum production unit is in compliance with the applicable emission limit [40 CFR 63.1510(u)].

These monitoring conditions are necessary because the furnaces must operate properly to ensure compliance with 40 CFR 63, Subpart RRR, 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes), and 326 IAC 2-7 (Part 70).

## Conclusion

The operation of this secondary aluminum foundry and die casting plant shall be subject to the conditions of this Part 70 permit T033-17659-00016.

**Appendix A: Emissions Summary (Page 1 of 5)**

**Company Name:** Citation Corporation  
**Address City IN Zip:** 600 West Main Street, Butler, IN 46721  
**Part 70 No.:** 033-17659-00016  
**Reviewer:** Michael Hirtler / EVP  
**Date:** February 2004

Uncontrolled Potential to Emit (tons/year)

Pollutant	Metal Smelting	Pouring/Casting	Saw/Trim Metal	Combustion	
PM	521.0	8.3	102.3	1.3	
PM-10	353.1	8.3	102.3	5.2	
SO2	0.0	2.7	0.0	0.4	
NOx	0.0	1.4	0.0	68.4	
VOC	5.8	19.0	0.0	3.8	
CO	0.0	0.0	0.0	57.5	
Single HAP	128.4 (HCl)	0.0	0.0	1.2	
Total HAPs	141.0	0.0	0.0	1.3	

Total uncontrolled emissions based on rated capacity assuming operations at 8,760 hours per year. Total HAPs reflects worst case single HAP (HCl) from full year use of worst cast flux (i.e., chlorine-based flux).

Limited/Controlled Potential to Emit (tons/year)

Pollutant	Metal Smelting	Pouring/Casting	Saw/Trim Metal	Combustion	
PM	86.3	8.3	4.1	1.3	<
PM-10	58.5	8.3	4.1	5.2	
SO2	0.0	0.5	0.0	0.4	
NOx	0.0	0.2	0.0	68.4	
VOC	0.9	3.2	0.0	3.8	
CO	0.0	0.0	0.0	57.5	
Single HAP	<10 (HCl & HF)	0.0	0.0	1.2	<
Total HAPs	22.1	0.0	0.0	1.3	

Total emissions based on rated capacity at 8,760 hours operation per year, after enforceable limitations and controls (see Section D for detailed conditions) limiting source emissions).



**Appendix A: Emission Calculations**  
**Natural Gas Combustion**

Company Name: Citation Bohn Aluminum Corporation  
 Address City IN Zip: 600 West Main Street, Butler, IN 46721  
 Part 70 No.: 033-17659-00016  
 Reviewer: Michael Hirdler / EVP  
 Date: February 2004

Combustion Unit	Individual Burner MMBtu/hr	Total Capacity MMBtu/hr	Potential Thruput		Emission Factor in lb/MMCF					Potential Emission Rate in tons/year					
			MMCF/yr	PM*	PM10*	SO2	NOx**	VOC	CO***	PM	PM10	SO2	NOx	VOC	CO
Reverb. Furnace A1 (4 Burners)	2.30	9.20	80.59	1.9	7.6	0.6	100.0	5.5	84.0	0.08	0.31	0.02	4.03	0.22	3.38
Reverb. Furnace A2 (3 Burners)	2.62	7.86	68.85	1.9	7.6	0.6	100.0	5.5	84.0	0.07	0.26	0.02	3.44	0.19	2.89
Reverb. Furnace A3 (2 Burners)	12.00	24.00	210.24	1.9	7.6	0.6	100.0	5.5	84.0	0.20	0.80	0.06	10.51	0.58	8.83
Reverb. Furnace A4 (3 Burners)	3.35	10.05	88.04	1.9	7.6	0.6	100.0	5.5	84.0	0.08	0.33	0.03	4.40	0.24	3.70
Reverb. Furnace A5 (2 Burners)	3.35	6.70	58.69	1.9	7.6	0.6	100.0	5.5	84.0	0.06	0.22	0.02	2.93	0.16	2.47
Reverb. Furnace A6 (3 Burners)	3.35	10.05	88.04	1.9	7.6	0.6	100.0	5.5	84.0	0.08	0.33	0.03	4.40	0.24	3.70
Reverb. Furnace A7 (2 Burners)	2.60	5.20	45.55	1.9	7.6	0.6	100.0	5.5	84.0	0.04	0.17	0.01	2.28	0.13	1.91
Reverb. Furnace A8 (1 Burner)	2.50	2.50	21.90	1.9	7.6	0.6	100.0	5.5	84.0	0.02	0.08	0.01	1.10	0.06	0.92
Reverb. Furnace A9 (4 Burners)	2.65	10.60	92.86	1.9	7.6	0.6	100.0	5.5	84.0	0.09	0.35	0.03	4.64	0.26	3.90
Reverb. Furnace A10 (6 Burners)	1.50	9.00	78.84	1.9	7.6	0.6	100.0	5.5	84.0	0.07	0.30	0.02	3.94	0.22	3.31
Reverb. Furnace A11 (6 Burners)	2.65	15.90	139.28	1.9	7.6	0.6	100.0	5.5	84.0	0.13	0.53	0.04	6.96	0.38	5.85
Reverb. Furnace A12 (2 Burners)	6.25	12.50	109.50	1.9	7.6	0.6	100.0	5.5	84.0	0.10	0.42	0.03	5.48	0.30	4.60
Reverb. Furnace A13 (2 Burners)	6.25	12.50	109.50	1.9	7.6	0.6	100.0	5.5	84.0	0.10	0.42	0.03	5.48	0.30	4.60
Holding Furnace 1a (1 Burner)	0.50	0.50	4.38	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.02	0.00	0.22	0.01	0.18
Holding Furnace 1b (1 Burner)	0.50	0.50	4.38	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.02	0.00	0.22	0.01	0.18
Holding Furnace 8 (1 Burner)	0.50	0.50	4.38	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.02	0.00	0.22	0.01	0.18
Holding Furnace 9 (1 Burner)	0.50	0.50	4.38	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.02	0.00	0.22	0.01	0.18
Holding Furnace 17 (1 Burner)	0.30	0.30	2.63	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.01	0.00	0.13	0.01	0.11
Holding Furnace 18 (1 Burner)	0.30	0.30	2.63	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.01	0.00	0.13	0.01	0.11
Holding Furnace 19 (1 Burner)	0.30	0.30	2.63	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.01	0.00	0.13	0.01	0.11
Holding Furnace 20 (1 Burner)	0.50	0.50	4.38	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.02	0.00	0.22	0.01	0.18
Holding Furnace 30 (1 Burner)	0.50	0.50	4.38	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.02	0.00	0.22	0.01	0.18
Holding Furnace 31 (1 Burner)	0.50	0.50	4.38	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.02	0.00	0.22	0.01	0.18
Holding Furnace 44 (1 Burner)	0.50	0.50	4.38	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.02	0.00	0.22	0.01	0.18
Holding Furnace 45 (1 Burner)	0.50	0.50	4.38	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.02	0.00	0.22	0.01	0.18
Holding Furnace 46 (1 Burner)	0.50	0.50	4.38	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.02	0.00	0.22	0.01	0.18
Holding Furnace 47 (1 Burner)	0.50	0.50	4.38	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.02	0.00	0.22	0.01	0.18
Holding Furnace H-1 (1 Burner)	1.48	1.48	12.96	1.9	7.6	0.6	100.0	5.5	84.0	0.01	0.05	0.00	0.65	0.04	0.54
Holding Furnace S1 (1 Burner)	5.80	5.80	50.81	1.9	7.6	0.6	100.0	5.5	84.0	0.05	0.19	0.02	2.54	0.14	2.13
Holding Furnace S2 (1 Burner)	5.80	5.80	50.81	1.9	7.6	0.6	100.0	5.5	84.0	0.05	0.19	0.02	2.54	0.14	2.13
Heat Treat Furnace 4 (1 Burner)	0.30	0.30	2.63	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.01	0.00	0.13	0.01	0.11
Heat Treat Furnace 5 (1 Burner)	0.30	0.30	2.63	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.01	0.00	0.13	0.01	0.11
		156.14	1367.79				Total Uncontrolled Potential to Emit (tons/year)			1.30	5.20	0.41	68.39	3.76	57.45

**Methodology**  
 \*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.  
 \*\*Emission Factors for NOx: Uncontrolled = 94 for heat input capacity < 0.3 MMBtu/hr; = 100 for heat input capacity =>0.3 MMBtu/hr  
 \*\*\*Emission Factors for CO: Uncontrolled = 40 for heat input capacity < 0.3 MMBtu/hr; = 84 for heat input capacity =>0.3 MMBtu/hr

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 from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPL. D 7/98)  
 Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

**Potential Hazardous Air Pollutant (HAP) Emissions**

Emission Factor in lb/MMcf	HAPs - Organics					HAPs - Metals					Total HAPs
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Lead	Cadmium	Chromium	Manganese	Nickel	
Uncontrolled Potential to Emit all units (tons per year):	1.436E-03	8.207E-04	5.129E-02	1.231E+00	2.325E-03	3.419E-04	7.523E-04	9.575E-04	2.599E-04	1.436E-03	1.291E+00

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

Appendix A: Secondary Metal Production - Aluminum

Company Name: Citation Corporation  
 Address City IN Zip: 600 West Main Street, Butler, IN 46721  
 Part 70 No.: 033-17659-00016  
 Reviewer: Michael Hirtler / EVP  
 Date: February 2004

UNCONTROLLED POTENTIAL TO EMIT

Smelting Furnace/Reverberatory

TYPE OF MATERIAL	Total Potential Metal Production Rate		Total Potential Metal Production Rate									
	31.01 tons metal/hour		271,647.60 tons metal/year									
Aluminum												
Emissions Unit	Maximum Furnace Melt Rate tons/hour	Emission Factor		Potential Uncontrolled Emission Rate (lb/hr)		Potential Uncontrolled Emission Rate (tons/yr)						
		PM	PM 10	PM	PM 10	PM	PM 10					
		lbs/ton metal produced	lbs/ton metal produced	lb/hour	lb/hour	tons/yr	tons/yr					
Reverb Furnaces A2-A4,A6-A8,A10-A12*	19.93	4.3	2.6	85.70	51.82	375.36	226.96					
Reverb Furnaces A1,A5,A9,A13**	11.08	3.0	2.6	33.24	28.81	145.59	126.18					
<b>Total Potential to Emit (tons/year):</b>						520.95	353.14					
						Potential Uncontrolled HAP Emission Rate (tons/year) **						
						Chromium	Cobalt	Lead	Manganese	Nickel	D/F	Total HAPs
						0.51	0.51	0.51	5.56	5.56	4.07E-06	12.63

\* These furnaces have not yet conducted stack testing and the PM/PM10 emission factor is from AP-42, 5th Ed., Suppl. B Table 12.8-3.

\*\* Metals factors from US EPA Speciate 3.2 program for aluminum foundry-reverberatory furnace profile, with HAP emissions provided as mass percent of total PM

\*\* These furnaces have conducted PM/PM10 stack testing. PM is based on stack test results, while PM10 is from AP42.

(i.e., 0.97% for chromium, cobalt and lead; & 1.067% for manganese and nickel). Dioxin/furan (D/F) emission factor of 2.1E-4 g/ton from Table 2 of Subpart RRR.

Flux Addition During Metal Smelting

TYPE OF MATERIAL	Potential Throughput of HMC-4 Flux	Potential Throughput of WF HB2 Flux	Potential Throughput of SF-350 Flux	Potential Throughput of HMC-4 Flux	Potential Throughput of WF HB2 Flux	Potential Throughput of SF-350 Flux
	lb/hour	lb/hour	lb/hour	lb/year	lb/year	lb/year
Flux	23.85	38.17	116.29	208,960	334,336	1,018,679
Emission Factors *			Potential Uncontrolled Emission Rates (tons/year)			
	VOC	Hydrogen Fluoride (HF)	Hydrogen Chloride (HCl)	VOC	HF*	HCl *
	lbs/lb flux	lbs/lb flux	lbs/lb hexachloroethane	tons/year	tons/year	tons/year
HMC-4 Flux (All 13 Furnaces)	0.0213	0.0000	0.924	2.23	0.00	89.78
WF HB2 Flux (All 13 Furnaces)	0.0213	0.0143	0.924	3.56	2.39	38.62
SF-350 Flux (All 13 Furnaces)	0.0000	0.2276	0.000	0.00	115.93	0.00
<b>Total Potential to Emit (tons/year):</b>				5.79	118.32	128.40

\* HMC-4 and WFHB2 contain 93% (wt) and 25% (wt) hexachloroethane, respectively. Emission factor reflects full conversion of chlorine in the hexachloroethane in the flux to HCl emitted, based on MW = 36.46 (HCl); 236.72 (HEX.), and 6 molecules of HCl emitted per molecule of HEX (C2Cl6) used. Due to the assumption of full hexachloroethane to HCl, there is no HEX emission rate. SF-350 contains fluorine (no chlorine), and the emission factor reflects full conversion of fluorine in the flux (21.614%, wt) to HF emitted, based on MW = 18.998 (F) and 20.006 (HF). Amount of SF350 is vendor maximum of 3 oz. per 100 lb molten metal. Amount of HMC/WF is based on 10 lb flux/ton metal, apportioned at 25lb/40lb split as reflected in original FESOP application.

Pouring/Casting

TYPE OF MATERIAL	Total Potential Metal Production Rate		Total Potential Metal Production Rate							
	31.01 tons metal/hour		271,647.60 tons metal/year							
Aluminum										
Emission Factors	Emission Factors			Potential Uncontrolled Emission Rate (tons/year)						
	PM	PM10	SOx	NOx	VOC	PM	PM10	SOx	NOx	VOC
	lbs/day	lbs/day	lbs/ton metal produced	lbs/ton metal produced	lbs/ton metal produced	tons/year	tons/year	tons/year	tons/year	tons/year
FLCA Cell (for A3)	7.79	7.79	0.02	0.01	0.14	1.42	1.42			
ME-Cell (for A12,A13)	12.92	12.92	0.02	0.01	0.14	2.36	2.36			
Other Casting (for A1,A2,A4--A11)	25.00	25.00	0.02	0.01	0.14	4.56	4.56			
<b>Total Potential to Emit (tons/year):</b>						8.34	8.34	2.72	1.36	19.02

Sawing & Trimming of Aluminum Die Cast Parts

TYPE OF MATERIAL	Total Potential Metal Production Rate		Total Potential Metal Production Rate		
	31.01 tons metal/hour		271,647.60 tons metal/year		
Aluminum					
Emission Factors	Emission Factor			Potential Uncontrolled Emission Rate (tons/yr)	
	PM	PM10	PM	PM10	PM10
	tons/hour	lb/ton metal parts	lb/ton metal parts	tons/year	tons/year
Saw/Trim A3 Die Cast Parts	3.00	3.44	3.44	45.20	45.20
Saw/Trim A1,A2,A4-A13 Die Cast Parts	3.79	3.44	3.44	57.10	57.10
<b>Total Potential to Emit (tons/year):</b>				102.31	102.31

METHODOLOGY

Metal fluxing HCl emission rate of 0.924 lb/lb reflects full conversion of chlorine in the hexachloroethane in the flux to HCl emitted, based on MW = 36.46 (HCl); 236.72 (HEX.), and 6 molecules of HCl emitted per molecule of HEX (C2Cl6) used. Total available chlorine as HCl is consistent with Subpart RRR and, therefore, no emissions of HEX are assumed due to full conversion to HCl. The HF emission rate of 0.2276 lb/lb reflects full conversion of fluorine in the flux to HF, based on a maximum of 21.614% (wt) fluorine in the flux and MW = 20.006 (HF) & MW = 18.998 (F). VOC emission factor from 1996 IDEM witnessed stack test. PM/PM10 from fluxing included in the metal melting, as reflected in the production limits and stack testing conditions of this permit.

PM/PM10 emission factors for pouring/casting operations are reflected as zero emissions in USEPA FIRE database for this activity. However, a conservative estimate equal to the threshold for an "insignificant activity" (i.e., 25 lb/day) was applied in original FESOP No. 033-7938, and is retained herein. PM/PM10 emissions for ME & FLCA cells based on linear adjustment of 25 lb/day, as reflected in SPR No. 14858 & No. 16754, respectively. Other pollutant factors are taken from USEPA FIRE database, version 6.23, for SCC 3-04-001-14.

Emission factors for sawing & trimming of casted parts are based on actual 1995 cyclone collection of 29,700 pounds PM, 96% collection efficiency, and 9,000 tons of production, reflected in original FESOP No. 033-7938-00016 application.

**Appendix A: Secondary Metal Production - Aluminum**

**Company Name:** Citation Corporation  
**Address City IN Zip:** 600 West Main Street, Butler, IN 46721  
**Part 70 No.:** 033-17659-00016  
**Reviewer:** Michael Hirtler / EVP  
**Date:** February 2004

**LIMITED/CONTROLLED POTENTIAL TO EMIT**

**Smelting Furnace/Reverberatory**

\*\*\* Note: Total limited metal production rate is based on a 12-month rolling average. For purposes of limiting source-wide PM & PM10 emissions below the PSD major source threshold of 100 ton/yr, the production limit for metal melting is determined as follows: 100 tons PM/yr - 13.73 (PM from other activities) = 86.27 ton/yr; and for PM10: 100 tons PM10/yr - 17.63 (PM10 from other activities) = 82.37 tpy. Next, furnace metal production is separately limited for the furnaces that have not stack tested and that rely on the AP-42 emission factor (4.3 lb/ton); and for the furnaces that have tested and that rely on a factor derived from testing (3.0 lb/ton), such that total smelting emissions are limited to less than 86.27 tons/year of PM. PM10 will by default comply with the limit of 82.37, based on complying with the PM limit. The limited metal production rate is determined using the ratio 86.27/520.95 (i.e., limited/uncontrolled PM emission rate for all 13 furnaces) multiplied by the ratio of 19.93/31.01 for the group of untested furnaces, and multiplied by the ratio of 11.08/31.01 for the group of tested furnaces. This is reflected at Condition D.1.1, where compliance with Condition D.1.1 will make the requirements of 326 IAC 2-2 (PSD) not applicable.

TYPE OF MATERIAL	Total Potential Metal Production Rate	Total Limited *** Untested Furnaces	Total Limited *** Tested Furnaces											
	31.01 tons metal/hour	28,910.31 tons metal/year	16,072.56 tons metal/year											
Emissions Unit	Maximum Furnace Melt Rate	Emission Factor		Potential Controlled/Limited Emission Rate (tons/yr)			Potential Controlled/Limited HAP Emission Rate (tons/year) ****					Total HAPs tons/year		
	tons/hour	PM lbs/ton metal produced	PM 10 lbs/ton metal produced	PM tons/year	PM 10 tons/year	Chromium tons/year	Cobalt tons/year	Lead tons/year	Manganese tons/year	Nickel tons/year	D/F tons/year			
Reverb Furnaces A2-A4,A6-A8,A10-A12*	19.93	4.3	2.6											
Reverb Furnaces A1,A5,A9,A13**	11.08	3.0	2.6											
<b>Total Limited/Controlled Potential to Emit (tons/year):</b>				86.27	58.48	0.084	0.084	0.084	0.920	0.920	5.91E-03	2.10		

\* These furnaces have not yet conducted stack testing and the PM/PM10 emission factor is from AP-42, 5th Ed., Suppl. B Table 12.8-3. \*\*\*\* Metals factors from US EPA Speciate 3.2 program for aluminum foundry-reverberatory furnace profile, with HAP emissions provided as mass percent of total PM (i.e., 0.097% for chromium, cobalt and lead; & 1.067% for manganese and nickel). Dioxin/furan (D/F) emission factor of 2.1E-4 gr/ton from Table 2 of Subpart RRR.

**Flux Addition During Metal Smelting**

TYPE OF MATERIAL	Potential Throughput of HMC-4 Flux	Potential Throughput of WF HB2 Flux	Potential Throughput of SF-350 Flux	Limited Throughput of ** HMC-4 Flux	Limited Throughput of ** WF HB2 Flux	Limited Throughput of ** SF-350 Flux					
	23.85 lb/hour	38.17 lb/hour	116.29 lb/hour	23,274 lb/year	86,580 lb/year	82,425 lb/year					
<b>Emission Factors as Derived from Stack Testing</b>			<b>Potential Controlled/Limited Emission Rates (tons/year)</b>								
	VOC lbs/lb flux	Hydrogen Fluoride (HF) lbs/lb flux	Hydrogen Chloride (HCl) lbs/lb hexachloroethane	VOC tons/year	HF tons/year	HCl tons/year					
HMC-4 Flux (All 13 Furnaces)	0.0213	0.0000	0.924	0.25	0.00	10.00					
WF HB2 Flux (All 13 Furnaces)	0.0213	0.0143	0.924	0.92	0.62	10.00					
SF-350 Flux (All 13 Furnaces)	0.0000	0.2276	0.000	0.00	9.38	0.00					
<b>Total Limited/Controlled Potential to Emit (tons/year):</b>				0.92	<10	<10					

\*\* Note: Based on full conversion of chlorine in the hexachloroethane to HCl, the total hexachloroethane usage is limited to 21,645 pounds per 12 consecutive month period. For purposes of determining worst case emissions from the flux containing hexachloroethane, the amount of flux used is assumed as the greater of HMC-4 or WFHB2, which respectively contain 93% (wt) and 25% (wt) HEX. Based on full conversion of fluorine (21.614%, wt) to HF in the non-chlorine flux (SF-350), total non-chlorine flux usage is limited to 82,425 pounds per 12 consecutive month period.

**Pouring/Casting**

TYPE OF MATERIAL	Total Potential Furnace Melt Rate	Total Limited Metal Production Rate									
	31.01 tons metal/hour	44,982.87 tons metal/year									
TYPE OF MATERIAL	Emission Factors						Potential Controlled/Limited Emission Rate (tons/year)				
	PM lbs/day	PM10 lbs/day	SOx lbs/ton metal produced	NOx lbs/ton metal produced	VOC lbs/ton metal produced	PM tons/year	PM10 tons/year	SOx tons/year	NOx tons/year	VOC tons/year	
FLCA Cell (for A3)	7.79	7.79	0.02	0.01	0.14	1.42	1.42				
ME-Cell (for A12,A13)	12.92	12.92	0.02	0.01	0.14	2.36	2.36				
Other Casting (for A1,A2,A4-A11)	25.00	25.00	0.02	0.01	0.14	4.56	4.56				
<b>Total Limited/Controlled Potential to Emit (tons/year):</b>							8.34	8.34	0.45	0.22	3.15

**Sawing & Trimming of Aluminum Die Cast Parts**

TYPE OF MATERIAL	Control System Efficiency (%)						
	96%						
TYPE OF MATERIAL	Parts Throughput	Emission Factor		Potential Controlled Emission Rate (tons/yr)			
	tons/hour	PM lb/ton metal parts	PM10 lb/ton metal parts	PM tons/year	PM10 tons/year		
Saw/Trim A3 Die Cast Parts	3.00	3.44	3.44	1.81	1.81		
Saw/Trim A1,A2,A4-A13 Die Cast Parts	3.79	3.44	3.44	2.28	2.28		
<b>Total Limited/Controlled Potential to Emit (tons/year):</b>				4.09	4.09		

**METHODOLOGY**

Metal fluxing HCl emission rate of 0.924 lb/lb reflects full conversion of chlorine in the hexachloroethane in the flux to HCl emitted, based on MW = 36.46 (HCl); 236.72 (HEX), and 6 molecules of HCl emitted per molecule of HEX (C2Cl6) used. Total available chlorine as HCl is consistent with Subpart RRR and, therefore, no emissions of HEX are assumed due to full conversion to HCl. The HF emission rate of 0.2276 lb/lb reflects full conversion of fluorine in the flux to HF, based on a maximum of 21.614% (wt) fluorine in the flux and MW = 20.006 (HF) & MW = 18.998 (F). VOC emission factor from 1996 IDEM witnessed stack test. PM/PM10 from fluxing included in the metal melting, as reflected in the production limits and stack testing conditions of this permit. PM/PM10 emission factors for pouring/casting operations are reflected as zero emissions in USEPA FIRE database for this activity. However, a conservative estimate equal to the threshold for an "insignificant activity" (i.e., 25 lb/day) was applied in original FESOP No. 033-7938, and is retained herein. PM/PM10 emissions for ME & FLCA cells based on linear adjustment of 25 lb/day, as reflected in SPR No. 14858 & No. 16754, respectively. Other pollutant factors are taken from USEPA FIRE database, version 6.23, for SCC 3-04-001-14. Emission factors for sawing & trimming of casted parts are based on actual 1995 cyclone collection of 29,700 pounds PM, 96% collection efficiency, and 9,000 tons of production, reflected in original FESOP No. 033-7938-00016 application.

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**PARTICULATE COMPLIANCE CALCULATIONS FOR MANUFACTURING PROCESS EQUIPMENT**

The following manufacturing process operations are subject to the particulate emission limitation, pursuant to 326 IAC 6-3-2: reverberatory metal smelting, pouring & casting, and sawing & trimming of die cast parts.

Pursuant to 326 IAC 6-3-2(e), the allowable particulate emission rate, E (expressed in lb/hr) is determined as follows:

$E = 4.10 P^{0.67}$  for process weight rates (P, expressed in tons/hour) up to 30 tons; or (Equation 1)  
 $E = 55.0 P^{0.11} - 40$  for process weight rates (P, expressed in tons/hour) in excess of 30 tons. (Equation 2)

Emissions Unit	Process Weight Rate tons/hour	Particulate Emission Rate (lb/hr)			
		326 IAC 6-3-2 Allowable lb/hr	Uncontrolled lb/hr	Limited* lb/hr	
Reverberatory Furnace A1	3.83	10.08	16.47	2.23	(will comply)
Reverberatory Furnace A2	3.28	9.09	14.10	9.09	(will comply)
Reverberatory Furnace A3	6.00	13.62	25.80	13.62	(will comply)
Reverberatory Furnace A4	1.25	4.76	5.38	4.76	(will comply)
Reverberatory Furnace A5	1.25	4.76	5.38	1.35	(will comply)
Reverberatory Furnace A6	1.25	4.76	5.38	4.76	(will comply)
Reverberatory Furnace A7	1.00	4.10	4.30	4.10	(will comply)
Reverberatory Furnace A8	0.25	1.62	1.08	1.08	(will comply)
Reverberatory Furnace A9	2.50	7.58	10.75	1.30	(will comply)
Reverberatory Furnace A10	2.50	7.58	10.75	7.58	(will comply)
Reverberatory Furnace A11	0.90	3.82	3.87	3.82	(will comply)
Reverberatory Furnace A12	3.50	9.49	15.05	9.49	(will comply)
Reverberatory Furnace A13	3.50	9.49	15.05	2.43	(will comply)
FLCA Cell (for A3)	6.00	13.62	0.32	0.32	(will comply)
ME-Cell (for A12,A13)	7.00	15.10	0.54	0.54	(will comply)
Other Casting (for A1,A2,A4--A11)	18.01	28.44	1.04	1.04	(will comply)
Saw/Trim A3 Die Cast Parts	3.00	8.56	10.32	1.81	(will comply)
Saw/Trim A1,A2,A4-A13 Die Cast Parts	3.79	10.01	13.04	2.28	(will comply)

Note: Allowable particulate emission rates (lb/hr) based on use of Equation 1.

\* Furnaces A1, A5, A9 & A13 have conducted IDEM approved PM/PM10 testing, and this value is the tested emission factor times the process weight rate. Except A8, the remaining furnaces are set equal to the allowable particulate emission rate since their equivalent emissions (lb/ton) exceed the AP-42 factor of 4.3 lb/ton.

As such, each furnace is required to conduct an emissions test to verify compliance with the corresponding allowable particulate emission rate.