



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

---

*Mitchell E. Daniels, Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

100 North Senate Avenue  
Indianapolis, Indiana 46204  
(317) 232-8603  
(800) 451-6027  
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Mr. Joseph H. Snyder  
Aluminum Company of America  
Lafayette Indiana Operations  
P.O. Box 7500  
3131 East Main Street  
Lafayette, IN 47903-7500

July 20, 2005

Re: 157-20893  
Minor Permit Modification to:  
Part 70 permit No.: T157-7101-00001

Dear Mr. Snyder:

Aluminum Company of America - Lafayette Indiana Operations was issued the Part 70 operating permit T157-7101-00001 on March 18, 1999, for a secondary aluminum production facility. An application to modify the source was received on February 14, 2005. Pursuant to the provisions of 326 IAC 2-7-12 a minor permit modification to this existing permit is hereby approved as described in the attached Technical Support Document.

The modification consists of the addition of a new diesel fired internal combustion engine electric generator and air pump. Emissions of NO<sub>x</sub> and other criteria pollutants shall be held to less than 25 tons per year with a limitation to operations enforced so the unit will not exceed 3,575 hours per year.

All other conditions of the permit shall remain unchanged and in effect. The entire revised permit is provided.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Lawrence Stapf, OAQ, 100 North Senate Avenue, Indianapolis, Indiana, 46204, or call (800) 451-6027 and ask for Lawrence Stapf extension 2-8427, or directly dial (317) 232-8427.

Sincerely,  
Original signed by  
Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Quality

Attachments

LWS

cc: File - Tippecanoe County  
U.S. EPA, Region V  
Tippecanoe County Health Department  
Air Compliance Section Inspector: Wanda Stanfield  
Compliance Data Section  
Administrative and Development



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## PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY

### Aluminum Company of America - Lafayette Operations 3131 East Main Street Lafayette, Indiana 47905

(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.

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 and 326 IAC 2-1-3.2 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T157-7101-00001	
Issued by: (original signed by) Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: March 18, 1999  Expiration Date: March 18, 2004

- Exemption 157-10999-00001, issued on August 10, 1999
- Minor Permit Modification 157-11505-00001, issued on November 12, 1999
- Exemption 157-11481-00001, issued on November 16, 1999
- First Significant Permit Modification 157-14533-00001, issued on October 12, 2001
- First Reopening 157-13494-00001, issued on December 3, 2001
- First Administrative Amendment 157-14994-00001, issued on December 27, 2001
- Second Administrative Amendment 157-15627-00001, issued on March 5, 2002
- Second Significant Permit Modification 157-15580-00001, issued on August 20, 2002
- Third Significant Permit Modification 157-16696-00001, issued on February 11, 2004

Second Minor Permit Modification 157-20893-00001	Pages Affected: 11, 25, 63-74, and 82. Most pages renumbered
Original signed by:  Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: July 20, 2005

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**Compliance Determination Requirements**

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**Compliance Determination Requirements**

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**Compliance Determination Requirements**

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**Emergency/Deviation Occurrence Report**  
**Natural Gas Fired Boiler Certification**  
**Quarterly Report**  
**Quarterly Compliance Monitoring Report**

## 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)]

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The Permittee owns and operates a secondary aluminum production facility.

Responsible Official: Charles R. Straface, Location and Operations Manager  
Source Address: 3131 Main Street, Lafayette, Indiana 47905  
Mailing Address: P.O. Box 7500, Lafayette, Indiana 47903-7500  
SIC Code: 3341 and 3354  
County Location: Tippecanoe  
County Status: Attainment for all criteria pollutants  
Source Status: Part 70 Permit Program  
Major Source, under PSD Rules

### 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:

#### Ingot Department

- (1) the #2-2 natural gas-fired tilting-melting-holding furnace, referred to as emission unit 2, constructed in 1994, with a maximum capacity of 6.0 tons of aluminum per hour, and a maximum heat input capacity of 26 million Btu per hour, with emissions uncontrolled and exhausting to stack 89-8;
- (2) the #2-3 natural gas-fired tilting-melting-holding furnace, referred to as emission unit 3, constructed in 1994, with a maximum capacity of 6.0 tons of aluminum per hour, and a maximum heat input capacity of 26 million Btu per hour, with emissions uncontrolled and exhausting to stack 90-8;
- (3) the #2-4 natural gas-fired tilting-melting-holding furnace, referred to as emission unit 4, constructed in 1991, with a maximum capacity of 9.58 tons of aluminum per hour, and a maximum heat input capacity of 36 million Btu per hour, with emissions uncontrolled and exhausting to stack 88-8;
- (4) the #2-5 natural gas-fired tilting-melting-holding furnace, referred to as emission unit 5, constructed in 1988, with a maximum capacity of 9.58 tons of aluminum per hour, and a maximum heat input capacity of 36 million Btu per hour, with emissions uncontrolled and exhausting to stack 87-8;

- (5) the #2-6 natural gas-fired tilting-melting-holding furnace, referred to as emission unit 6, constructed in 1995, with a maximum capacity of 9.58 tons of aluminum per hour, and a maximum heat input capacity of 36 million Btu per hour, with emissions uncontrolled and exhausting to stack 94-8;
- (6) the #4 natural gas-fired melting furnace, referred to as emission unit 7, constructed in 1980, with a maximum capacity of 6.2 tons of aluminum per hour, and a maximum heat input capacity of 26 million Btu per hour, with emissions uncontrolled and exhausting to stack 5-8;
- (7) the #3 natural gas-fired ingot preheater, referred to as emission unit 20, constructed in 1985, with a maximum heat input capacity of 17.5 million Btu per hour, with emissions uncontrolled and exhausting to stack 29-7;
- (8) the #4 natural gas-fired ingot preheater, referred to as emission unit 21, constructed in 1980, with a maximum heat input capacity of 12.3 million Btu per hour, with emissions uncontrolled and exhausting to stack 30-7;
- (9) the #7 natural gas-fired ingot preheater, referred to as emission unit 23, constructed in 1997, with a maximum heat input capacity of 20.0 million Btu per hour, with emissions uncontrolled and exhausting to stack 24-7;
- (10) the #10 natural gas-fired ingot preheater, referred to as emission unit 24, constructed in 1966, with a maximum heat input capacity of 13.5 million Btu per hour, with emissions uncontrolled and exhausting to stack 24-7;
- (11) the #11 natural gas-fired ingot preheater, referred to as emission unit 25, constructed in 1966, with a maximum heat input capacity of 13.5 million Btu per hour, with emissions uncontrolled and exhausting to stack 23-7;
- (12) the #12 natural gas-fired ingot preheater, referred to as emission unit 26, constructed in 1967, with a maximum heat input capacity of 13.5 million Btu per hour, with emissions uncontrolled and exhausting to stack 22-7;
- (13) the #13 natural gas-fired ingot preheater, referred to as emission unit 27, constructed in 1967, with a maximum heat input capacity of 13.5 million Btu per hour, with emissions uncontrolled and exhausting to stack 21-7;

#### **Extrusion - 1**

- (14) the #5 natural gas-fired press reheat granco furnace, referred to as emission unit 35, constructed in 1975, with a maximum heat input capacity of 18.0 million Btu per hour, with emissions uncontrolled and exhausting to stack 56-12;
- (15) the #6 natural gas-fired press reheat granco furnace, referred to as emission unit 36, constructed in 1973, with a maximum heat input capacity of 16.0 million Btu per hour, with emissions uncontrolled and exhausting to stack 54-10;
- (16) the #2 natural gas-fired press reheat granco furnace, referred to as emission unit 37, constructed in 1987, with a maximum heat input capacity of 16.0 million Btu per hour, with emissions uncontrolled;
- (17) the #12 natural gas-fired press reheat granco furnace, referred to as emission unit 38, constructed in 1989, with a maximum heat input capacity of 16.0 million Btu per hour, with emissions uncontrolled;

- (18) the #8 natural gas-fired press reheat furnace, referred to as emission unit 40, constructed in 1992, with a maximum heat input capacity of 16.0 million Btu per hour, with emissions uncontrolled;
- (19) the #6 natural gas-fired anneal oven, referred to as emission unit 50, constructed in 1996, with a maximum heat input capacity of 14.0 million Btu per hour, with emissions uncontrolled;

#### **Extrusion - 2**

- (20) the #1 natural gas-fired horizontal heat treat furnace, referred to as emission unit 70, constructed in 1957, with a maximum heat input capacity of 13.2 million Btu per hour, with emissions uncontrolled and exhausting to stack 68-112;

#### **Tube Mill**

- (21) the tube mill solvent dip tank system, referred to as emission units 94, 95, and 96, consisting of a 5000 gallon capacity 35 ft dip tank, a 10,000 gallon capacity 50 ft dip tank, a tank farm, and several parts washers, constructed in 1942, with emission uncontrolled;

#### **Boilerhouse**

- (22) the #3 natural gas, and distillate oil-fired boiler, referred to as emission units 97 and 98, constructed in 1992 and modified in 1995, with a maximum heat input capacity of 86.0 million Btu per hour, with emissions uncontrolled and exhausting to stack 91-1;
- (23) the #6 natural gas, and distillate oil-fired boiler, referred to as emission units 99 and 100, constructed in 1957 and modified in 1992 and in 1995, with a maximum heat input capacity of 100 million Btu per hour, with emissions uncontrolled and exhausting to stack 64-1;

#### **Plant Miscellaneous**

- (24) sand blasting operations, referred to as emission unit 108, constructed in 1960, with emissions uncontrolled and exhausting to stack 75-58;
- (25) sawing activities located in the carpenter shop, referred to as emission unit 102, constructed in 1960, with emissions controlled by a cyclone, referred to as the #2 sawdust collector and exhausting to stack 72-57.
- (26) one (1) internal combustion engine diesel fuel fired emission unit acting as a generator / air compressor, with a total maximum design capacity of 450 brake horsepower [equivalent to approximately 1.15 million British thermal units per hour (MMBtu/hr)]. This shall be designated emission unit EUDAC#1 and exhausting through stack DAC#1.

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

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

#### **Plant Miscellaneous**

- (1) sawing activities located in the carpenter shop, referred to as emission unit 101, constructed in 1960, with emissions controlled by a cyclone, referred to as the #1 sawdust collector, and exhausting to stack 73-57;

### Extrusion and Shipping

- (2) three (3) Protectsol 512 clear coating applicators, referred to as emission unit 112, constructed in 1997, consisting of a roller conveyor that runs the aluminum pieces through an enclosed spray chamber. In the spray chamber there are nozzles that apply the protective coating to the aluminum pieces. The overspray falls to a collection reservoir and is used. There is a pump in the collection reservoir which will be activated whenever the coating is started;
- (3) one (1) Protectsol 512 clear coating applicator, to be constructed in 1999, consisting of a roller conveyor that runs the aluminum pieces through an enclosed spray chamber. In the spray chamber there are nozzles that apply the protective coating to the aluminum pieces. The overspray falls to a collection reservoir and is used. There is a pump in the collection reservoir which will be activated whenever the coating is started.

### Ingot Department

- (4) "622" filter boxes for transferring metal from #41 holding furnace to #11 casting pit, used for adding argon and chlorine, with a maximum heat input capacity of 0.8 million Btu per hour;
- (5) "622" filter boxes for transferring metal from 2-2 tilting-melting-holding furnace to #12 casting pit, used for adding argon and chlorine, with a maximum heat input capacity of 0.8 million Btu per hour;
- (6) "622" filter boxes for transferring metal from 2-2 tilting-melting-holding furnace to #13 casting pit, used for adding argon and chlorine, with a maximum heat input capacity of 0.8 million Btu per hour;
- (7) "622" filter boxes for transferring metal from 2-3 tilting-melting-holding furnace to #13 casting pit, used for adding argon and chlorine, with a maximum heat input capacity of 0.8 million Btu per hour;
- (8) "622" filter boxes for transferring metal from 2-4 tilting-melting-holding furnace to #14 casting pit, used for adding argon and chlorine, with a maximum heat input capacity of 0.8 million Btu per hour;
- (9) "622" filter boxes for transferring metal from 2-5 tilting-melting-holding furnace to #14 casting pit, used for adding argon and chlorine, with a maximum heat input capacity of 0.8 million Btu per hour;
- (10) "622" filter boxes for transferring metal from 2-6 tilting-melting-holding furnace to #15 casting pit, used for adding argon and chlorine, with a maximum heat input capacity of 0.8 million Btu per hour;
- (11) the north skim cooling enclosure, referred to as emission unit 16, with emissions exhausting to stack 3-8F;
- (12) the south skim cooling enclosure, referred to as emission unit 17, with emissions exhausting to stack 4-8F;
- (13) log sawing and lathe operation, referred to as emission unit 31;
- (14) the #41 holding furnace, referred to as emission unit 8, with a maximum capacity of 1.2 tons of aluminum per hour and a maximum heat input capacity of 10.0 million Btu per

hour, with emissions exhausting to stack 6-8;

**Tube Mill**

- (15) the Lochnivar boiler, referred to as emission unit 90, constructed in 1995, with a maximum heat input capacity of 0.4 million Btu per hour;
- (16) the Cleaver brooks boiler, referred to as emission unit 93, constructed in 1975, with a maximum heat input capacity of 2.6 million Btu per hour;

**Plant Miscellaneous**

- (17) the pacific boiler #1, referred to as emission unit 103, constructed in 1940, with a maximum heat input capacity of 2.6 million Btu per hour;
- (18) the pacific boiler #2, referred to as emission unit 104, constructed in 1940, with a maximum heat input capacity of 2.6 million Btu per hour;
- (19) the box shop sawdust collector exhaust, referred to as emission unit 92, with emissions exhausting to stack 72-57;
- (20) the paint shop exhaust, referred to as emission unit 105, with emissions exhausting to stack 85-57; and
- (21) the babbitt melting furnace, referred to as emission unit 109, with emissions exhausting to stack 81-58.
- (22) Fifty four (54) natural gas fired units, with a total maximum design capacity of 134.4 million (MM) British thermal units per hour (Btu/hr). Each individual heating unit will have a heat input rate in the range of 0.05 MMBtu/hr up to a maximum of 6.6 MMBtu/hr; and
- (23) Fifty (50) natural gas fired units, each with a maximum heat input rate of 6.6 MMBtu/hr.

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

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

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

## SECTION B GENERAL CONDITIONS

### B.1 Permit No Defense [326 IAC 2-1-10] [IC 13]

- (a) Indiana statutes from IC 13 and rules from 326 IAC, quoted 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.
- (b) This prohibition shall not apply to alleged violations of applicable requirements for which the Commissioner has granted a permit shield in accordance with 326 IAC 2-1-3.2 or 326 IAC 2-7-15, as set out in this permit in the Section B condition entitled "Permit Shield."

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

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

### B.3 Permit Term [326 IAC 2-7-5(2)]

This permit is issued for a fixed term of five (5) years from the effective date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3.

### B.4 Enforceability [326 IAC 2-7-7(a)]

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

### B.5 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]

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

### B.6 Severability [326 IAC 2-7-5(5)]

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

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

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

### B.8 Duty to Supplement and Provide Information [326 IAC 2-7-4(b)] [326 IAC 2-7-5(6)(E)]

- (a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

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

- (b) 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.
- (c) Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit. If the Permittee wishes to assert a claim of confidentiality over any of the furnished records, the Permittee must furnish such records to IDEM, OAQ, along with a claim of confidentiality under 326 IAC 17. If requested by IDEM, OAQ, or the U.S. EPA, to furnish copies of requested records directly to U. S. EPA, and if the Permittee is making a claim of confidentiality regarding the furnished records, then the Permittee must furnish such confidential records directly to the U.S. EPA along with a claim of confidentiality under 40 CER 2, Subpart B.

B.9 Compliance with Permit Conditions [326 IAC 2-7-5(6)(A)] [326 IAC 2-7-5(6)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit constitutes a violation of the Clean Air Act and is grounds for:
  - (1) Enforcement action;
  - (2) Permit termination, revocation and reissuance, or modification; or
  - (3) Denial of a permit renewal application.
- (b) 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.

B.10 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)]

- (a) Any application form, report, or compliance certification submitted under this permit shall contain certification by a responsible official of truth, accuracy, and completeness. This certification, and any other certification required under this permit, 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, on the attached Certification Form, with each submittal.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

B.11 Annual Compliance Certification [326 IAC 2-7-6(5)]

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The certification 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 Data Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

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 identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was based on continuous or intermittent data;
  - (4) The methods used for determining compliance of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3);
  - (5) Any insignificant activity that has been added without a permit revision;
  - (6) 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.12 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this permit, including the following information on each facility:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that lack of proper maintenance does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAQ, upon request and shall be subject to review and

approval by IDEM, OAQ.

B.13 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, except as provided in 326 IAC 2-7-16.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
  - (2) The permitted facility was at the time being properly operated;
  - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
  - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

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

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted notice, either in writing or facsimile, of the emergency to:  
Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

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) for sources subject to this rule after the effective date of this rule. 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 compliance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
  - (1) 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.
  - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
    - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
    - (B) Continued operation of the facilities is 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.

Any operation shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

**B.14 Permit Shield [326 IAC 2-7-15]**

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- (a) This condition provides a permit shield as addressed in 326 IAC 2-7-15.
- (b) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits. 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:
  - (1) The applicable requirements are included and specifically identified in this permit; or
  - (2) The permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable.
- (c) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

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

B.15 Multiple Exceedances [326 IAC 2-7-5(1)(E)]

Any exceedance of a permit limitation or condition contained in this permit, which occurs contemporaneously with an exceedance of an associated surrogate or operating parameter established to detect or assure compliance with that limit or condition, both arising out of the same act or occurrence, shall constitute a single potential violation of this permit.

B.16 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 Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204  
  
within ten (10) calendar days from the date of the discovery of the deviation.
- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:
  - (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
  - (2) An emergency as defined in 326 IAC 2-7-1(12); or
  - (3) Failure to implement elements of the Preventive Maintenance Plan unless lack of maintenance has caused or contributed to a deviation.

- (4) Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

- (c) Written notification shall be submitted on the attached Emergency/Deviation Occurrence Reporting Form or its substantial equivalent. The notification does not need to be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) ~~Proper notice submittal under 326 IAC 2-7-16 satisfies the requirement of this subsection.~~

**B.17 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]**

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- (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)]
- (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.18 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).

Request for renewal shall be submitted to:

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

- (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. [326 IAC 2-5-3]
- (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.19 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:
- Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204
- Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34) only if a certification is required by the terms of the applicable rule
- (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.20 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12 (b)(2)]**

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- (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)(D)(i) 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.21 Changes Under Section 502(b)(10) of the Clean Air Act [326 IAC 2-7-20(b)]**

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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) and the following additional conditions:

- (a) For each such change, the required written notification shall include a brief description of the change within the source, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.
- (b) The permit shield, described in 326 IAC 2-7-15, shall not apply to any change made under 326 IAC 2-7-20(b).

**B.22 Operational Flexibility [326 IAC 2-7-20]**

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- (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 approval required by 326 IAC 2-1 has been obtained;
- (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

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

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), (c)(1), and (e)(2).

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

#### B.23 Construction Permit Requirement [326 IAC 2]

Except as allowed by Indiana P.L. 130-1996 Section 12, as amended by P.L. 244-1997, modification, construction, or reconstruction shall be approved as required by and in accordance with 326 IAC 2.

#### B.24 Inspection and Entry [326 IAC 2-7-6(2)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, 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) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.  
[326 IAC 2-7-6(6)]
  - (1) The Permittee may assert a claim that, in the opinion of the Permittee, information removed or about to be removed from the source by IDEM, OAQ, or an authorized representative, contains information that is confidential under IC 5-14-3-4(a). The claim shall be made in writing before or at the time the information is removed from the source. In the event that a claim of confidentiality is so asserted, neither IDEM, OAQ, nor an authorized representative, may disclose the information unless and until IDEM, OAQ, makes a determination under 326 IAC 17-1-7 through 326 IAC 17-1-9 that the information is not entitled to confidential treatment and that determination becomes final. [IC 5-14-3-4; IC 13-14-11-3; 326 IAC 17-1-7 through 326 IAC 17-1-9]
  - (2) The Permittee, and IDEM, OAQ, acknowledge that the federal law applies to claims of confidentiality made by the Permittee with regard to information removed or about to be removed from the source by U.S. EPA. [40 CFR Part 2, Subpart B]

B.25 Transfer of Ownership or Operation [326 IAC 2-1-6] [326 IAC 2-7-11]

Pursuant to 326 IAC 2-1-6 and 326 IAC 2-7-11:

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch, within thirty (30) days of the change. Notification shall include a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the Permittee and the new owner.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an administrative amendment pursuant to 326 IAC 2-7-11. 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).
- (c) IDEM, OAQ, shall reserve the right to issue a new permit.

B.26 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. If the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) 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 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.

**B.27** Enhanced New Source Review [326 IAC 2]

The requirements of the construction permit rules in 326 IAC 2 are satisfied by this permit for any previously unpermitted facilities and facilities to be constructed within eighteen (18) months after the date of issuance of this permit, as listed in Sections A.2 and A.3.

**B.28** Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

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

**SECTION C SOURCE OPERATION CONDITIONS**

Entire Source

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

**C.1 Major Source**

Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration) this source is a major source.

**C.2 Particulate Matter Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2(c)]**

Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

**C.3 Opacity [326 IAC 5-1]**

Pursuant to 326 IAC 5-1-2 (Opacity), 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 overlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

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

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3 (a)(2)(A) and (B) are not federally enforceable.

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

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

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

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.8 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.

**C.9 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61.140]**

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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  
Indianapolis, Indiana 46204

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 emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are mandatory 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) 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 that the inspector be accredited is federally enforceable.

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

C.10 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 methods approved by IDEM, OAQ.

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

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

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

- (b) All test reports must be received by IDEM, OAQ within forty-five (45) days after the completion of the testing. An extension may be granted by the Commissioner, if the source submits to IDEM, OAQ, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

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

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

C.11 Compliance Schedule [326 IAC 2-7-6(3)]

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The Permittee:

- (a) Has certified that all facilities at this source are in compliance with all applicable requirements; and
- (b) Has submitted a statement that the Permittee will continue to comply with such requirements; and
- (c) Will comply with such applicable requirements that become effective during the term of this permit.

C.12 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

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Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment, no more than ninety (90) days after receipt of this permit. If due to circumstances beyond its control, this schedule cannot be met, the Permittee may extend compliance schedule an additional ninety (90) days provided the Permittee notifies:

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

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).

**C.13 Maintenance of Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]**

- (a) In the event that a breakdown of the monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less than one (1) hour until such time as the continuous monitor is back in operation.
- (b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

**C.14 Monitoring Methods [326 IAC 3]**

Any monitoring or testing performed to meet the applicable requirements of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 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.15 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]**

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

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval to:  
Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

within ninety (90) days after the date of issuance of this permit.

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

- (c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is

declared, to reduce or eliminate emissions of the appropriate air pollutants.

- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAQ, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

**C.16 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68.215]**

If a regulated substance, subject to 40 CFR 68, is present in a process in more than the threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall:

- (a) Submit:
  - (1) A compliance schedule for meeting the requirements of 40 CFR 68 by the date provided in 40 CFR 68.10(a); or
  - (2) As a part of the compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and
  - (3) A verification to IDEM, OAQ, that a RMP or a revised plan was prepared and submitted as required by 40 CFR 68.
- (b) Provide annual certification to IDEM, OAQ, that the Risk Management Plan is being properly implemented.

All documents submitted pursuant to this condition shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

**C.17 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5][326 IAC 2-7-6] [326 IAC 1-6]**

- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:
  - (1) This condition;
  - (2) The Compliance Determination Requirements in Section D of this permit;
  - (3) The Compliance Monitoring Requirements in Section D of this permit;
  - (4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
  - (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAQ upon request and shall be subject to review and approval by IDEM, OAQ. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:

- (A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
  - (B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this permit, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the permit unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.
- (c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:
- (1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that 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 an administrative amendment to the permit, and such request has not been denied or;
  - (3) An automatic measurement was taken when the process was not operating; or
  - (4) The process has already returned to operating within "normal" parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps 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.

C.18 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 corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. IDEM, OAQ shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAQ within thirty (30) days of receipt of the notice of deficiency. IDEM, OAQ reserves the authority to use enforcement activities to resolve noncompliant stack tests.
- (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. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected facility.

The documents submitted pursuant to this condition do not 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.19 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) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:
- (1) Indicate actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);
  - (2) Indicate actual emissions of other regulated pollutants from the source, for purposes of Part 70 fee assessment.
- (b) The annual emission statement covers the twelve (12) consecutive month time period starting January 1 and ending December 31. The annual emission statement must be submitted to:
- Indiana Department of Environmental Management  
Technical Support and Modeling Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204
- (c) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

**C.20 Monitoring Data Availability [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)]**

- (a) With the exception of performance tests conducted in accordance with Section C-Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.
- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in

any quarter.

- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.21 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]

- (a) Records of all required monitoring data and support information 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 kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAQ, representative. 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 written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Records of required monitoring information shall include, where applicable:
- (1) The date, place, and time of sampling or measurements;
  - (2) The dates analyses were performed;
  - (3) The company or entity performing the analyses;
  - (4) The analytic techniques or methods used;
  - (5) The results of such analyses; and
  - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
- (1) Copies of all reports required by this permit;
  - (2) All original strip chart recordings for continuous monitoring instrumentation;
  - (3) All calibration and maintenance records;
  - (4) Records of preventive maintenance shall be sufficient to demonstrate that improper maintenance did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.22 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

- (a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Quarterly Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported.

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

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

- (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, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period.
- (e) All instances of deviations as described in Section B- Deviations from Permit Requirements Conditions must be clearly identified in such reports.
- (f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.
- (g) 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.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

### Stratospheric Ozone Protection

#### C.23 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)]

Ingot Department

- (a) the #2-2 natural gas-fired tilting-melting-holding furnace, referred to as emission unit 2, constructed in 1994, with a maximum capacity of 6.0 tons of aluminum per hour, and a maximum heat input capacity of 26 million Btu per hour, with emissions uncontrolled and exhausting to stack 89-8; and
- (b) the #2-3 natural gas-fired tilting-melting-holding furnace, referred to as emission unit 3, constructed in 1994, with a maximum capacity of 6.0 tons of aluminum per hour, and a maximum heat input capacity of 26 million Btu per hour, with emissions uncontrolled and exhausting to stack 90-8;

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

#### D.1.1 Particulate Matter (PM) [326 IAC 2-2]

Pursuant to CP 157-2316 issued April 9, 1992, the following conditions shall apply:

- (a) The PM emission rate from each of the tilting-melting-holding furnaces #2-2 and #2-3 shall not exceed 1.14 pounds per hour. Compliance with this limit will also satisfy the requirements of 326 IAC 6-3-2 (Process Operations).
- (b) The melting furnaces #10, #8, and #7 shall not be operated.

Therefore, the requirements of 326 IAC 2-2 (PSD) will not apply.

#### D.1.2 Work Practices [Agreed Order A-3659, issued April 15, 1997]

Pursuant to A-3659, issued April 15, 1997, the following conditions shall apply:

- (a) The furnaces shall be skimmed after alloying if skim is over approximately one (1) inch thick and covers more than fifty percent (50%) of the bath.
- (b) The furnaces shall be skimmed before a heat stir if the skim is over approximately one (1) inch thick and covers more than fifty percent (50%) of the bath.
- (c) The work practices stated in (a) and (b) above shall be incorporated into the plant standard operating practice manual as environmental air quality requirements.
- (d) The work practices stated in (a) and (b) above shall be reviewed with the respondent's appropriate operating personnel on an annual basis.

#### D.1.3 Fluxing [Agreed Order A-3121, issued July 1, 1997]

Pursuant to A-3121, issued July 1, 1997, the following conditions shall apply:

- (a) When it is deemed necessary to add salt flux to furnace #2-3, only salt flux in the solid briquette form shall be used.
- (b) ALCOA may perform additional stack testing to demonstrate compliance using the granular flux method.
- (c) The OAQ agrees to consider a request from ALCOA to modify agreed order A-3121 to allow the use of salt flux in the granular form in the event that salt flux in the briquette form becomes unavailable.
- (d) ALCOA must demonstrate that compliance with the permit conditions will be maintained using granular flux.
- (e) When granular flux is used, notification shall be made to the OAQ within fourteen (14)

working days.

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

The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the melting furnaces described in this section except when otherwise specified in 40 CFR 63 Subpart RRR.

**D.1.5 Hazardous Air Pollutants (HAPs) [326 IAC 2-4.1]**

The total amount of flux added to the melting furnaces, including all furnaces listed under Sections D.1 through D.4 shall not exceed 175 tons per twelve (12) consecutive month period with compliance determined at the end of each month. This limit in conjunction with the limit on AFB usage shall limit source wide single HAP emissions to less than ten (10) tons per year and the total combination of HAPs to less than twenty five (25) tons per year. Therefore, the requirements of 326 IAC 2-4.1 do not apply.

**D.1.6 Emissions Standards for Secondary Aluminum Production [40 CFR Part 63.1505, Subpart RRR]**

Pursuant to 40 CFR Part 63.1505(i)(3), the Permittee shall not discharge or allow to be discharged to the atmosphere any 3-day, 24-hour rolling average emissions of total dioxins and furans (D/F) from the melting furnaces in excess of 15 micrograms of D/F toxicity equivalents (TEQ) per megagram ( $2.1 \times 10^{-4}$  gr of D/F TEQ per ton) per ton of feed/charge or per ton of aluminum produced.

**D.1.7 Operating Requirements for Secondary Aluminum Production [40 CFR Part 63.1506, Subpart RRR]**

Pursuant to 40 CFR Part 63.1506, the following conditions shall apply to the melting furnaces:

- (a) Pursuant to 40 CFR Part 63.1506(b), the Permittee shall provide and maintain easily visible labels that shall be posted at each furnace. The labels shall identify the applicable emission limits and means of compliance, including:
  - (1) The type of affected source or emission unit (e.g., group 1 furnace, group 2 furnace, in-line fluxer);
  - (2) The applicable operational standard(s) and control method(s) (work practice or control device). This includes, but is not limited to, the type of charge to be used for a furnace (e.g., clean scrap only, all scrap, etc.), flux materials and addition practices, and the applicable operating parameter ranges and requirements as incorporated in the O&M plan.
- (b) Pursuant to 40 CFR 63.1506(n), the Permittee shall:
  - (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 O&M plan and within the parameter values or ranges established in the O&M plan.

**D.1.8 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.

## Compliance Determination Requirements

### D.1.9 Testing Requirements [326 IAC 2-7-6(1),(6)] [40 CFR Part 63.1511, Subpart RRR]

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- (a) During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform PM testing for furnaces #2-2 and #2-3 using methods as approved by the Commissioner, in order to demonstrate compliance with condition D.1.1. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.
- (b) In accordance with the requirements specified at 40 CFR 63.1505(i)(3), in order to demonstrate compliance with D.1.6, the Permittee shall perform D/F testing on the melting furnaces, using methods as approved by the Commissioner. Testing shall be performed in accordance with Section C - Performance testing.
- (1) Pursuant to 40 CFR Part 63.1511(a), prior to conducting any performance test required by this subpart, the Permittee must prepare a site-specific test plan which satisfies all of the requirements, and must obtain approval of the plan pursuant to the procedures, set forth in Sec. 63.7(c).
- (2) Pursuant to 40 CFR Part 63.1511(b), following approval of the site-specific test plan, the Permittee must demonstrate initial compliance with each applicable emission, equipment, work practice, or operational standard for each affected source and emission unit, and report the results in the notification of compliance status report as described in Sec. 63.1515(b). The Permittee of any existing affected source for which an initial performance test is required to demonstrate compliance must conduct this initial performance test no later than the date for compliance established by Sec. 63.1501(a). The Permittee of any new affected source for which an initial performance test is required must conduct this initial performance test within 90 days after the date for compliance established by Sec. 63.1501(b). Except for the date by which the performance test must be conducted, the Permittee must conduct each performance test in accordance with the requirements and procedures set forth in Sec. 63.7(c). Owners or operators of affected sources located at facilities which are area sources are subject only to those performance testing requirements pertaining to D/F.

### D.1.10 HAPs Emissions

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Compliance with Condition D.1.5 shall be demonstrated within 30 days of the end of each month based on the flux usage for the twelve (12) month period.

### D.1.11 Raw Materials [326 IAC 2-7-6(1),(6)]

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In order to comply with the requirements of Condition D.1.1, the charge shall consist of only clean alloys, clean pig, clean slabs, clean purchased scrap, or clean process scrap and chips. The charge shall contain a maximum of twenty percent (20%) material with possible process lubricant coating.

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

### **D.1.12 Visual Inspections**

To ensure compliance with Condition D.1.11, the Permittee shall conduct visual inspections of the materials added to the furnace each time that materials are added to the furnace.

### **D.1.13 Monitoring Requirements for Secondary Aluminum Production [40 CFR Part 63.1510, Subpart RRR]**

Pursuant to 40 CFR Part 63.1510(o), the Permittee shall develop, in consultation with the responsible permitting authority, a written site-specific monitoring plan. The site-specific monitoring plan must be submitted to the permitting authority as part of the O&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 each pollutant. Test data must establish the highest level of D/F that will be emitted from the furnace. This may be determined by conducting performance tests and monitoring operating parameters while charging the furnace with feed/charge materials containing the highest anticipated levels of oils and coatings and fluxing at the highest anticipated rate. If the permitting authority determines that any revisions of the site-specific monitoring plan are necessary to meet the requirements of this section or this subpart, the Permittee must promptly make all necessary revisions and resubmit the revised plan to the permitting authority.

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

### **D.1.14 Record Keeping Requirements**

- (a) To document compliance with Condition D.1.12, the Permittee shall maintain records of daily visible inspections of the materials added to the furnace each time that materials are added to the furnace.
- (b) To document compliance with Condition D.1.5, the Permittee shall maintain monthly records of the flux usage.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

### **D.1.15 Secondary Aluminum Production Record Keeping Requirements [40 CFR Part 63, Subpart RRR]**

Pursuant to 40 CFR Part 63.1517, the Permittee shall:

- (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 Subpart RRR.
- (b) The Permittee shall retain each record for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent two (2) years of records shall be retained at the source. The remaining three (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 each group 1 furnace without add-on air pollution control devices shall maintain records of:
  - (1) Fifteen (15) minute block average weights of gaseous or liquid reactive flux injection, total reactive flux injection rate and calculations (including records of the identity, composition, and weight of each addition of gaseous, liquid or solid reactive flux), including records of any period the rate exceeds the compliant

operating parameter value and corrective action taken.

- (2) Approved site-specific monitoring plan with records documenting conformance with the plan.
- (3) For each furnace, weights for each operating cycle or time period used in the performance test.
- (4) Records of monthly inspections for proper unit labeling for each furnace, subject to labeling requirements.
- (5) 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) O&M plan.
- (6) The Permittee shall demonstrate through performance tests, that each individual emission unit within the secondary aluminum production unit is in compliance with applicable emission limits for the emission unit.

D.1.16 Secondary Aluminum Production Reporting Requirements [40 CFR Part 63, Subpart RRR]

- (a) Pursuant to 40 CFR 63.1510 and 63.1516, the Permittee shall provide notification of the anticipated date for conducting performance tests. The Permittee shall notify the IDEM, OAQ of the intent to conduct a performance test at least sixty (60) days before the performance test is scheduled.
- (b) The Permittee shall submit a notification of compliance status report within sixty (60) days after the compliance date of March 24, 2003. The notification shall be signed by the responsible official who shall certify its accuracy. A complete notification of compliance status report shall include the information specified in paragraphs (1) through (10). 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. 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 shall include:
  - (1) All information required in 40 CFR 63.9(h). The Permittee has tested furnace 2-6 as being representative of all furnaces. A complete performance test report includes all data, associated measurements, and calculations. Alcoa has submitted a demonstration showing that testing one furnace is representative of all furnaces.
  - (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 for the furnaces, with supporting documentation and a description of the procedure used to establish the value (e.g., lime injection rate, total reactive chlorine flux injection rate, fabric filter inlet temperature), including the operating cycle or time period used in the performance test.
  - (5) Approved O&M plan (including site-specific monitoring plan for each group 1 furnace with no add-on air pollution control device).

- (6) Startup, shutdown, and malfunction plan, with revisions.
- (c) The Permittee shall develop and implement a written plan that contains specific procedures to be followed for operating and maintaining each melting furnace, during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process 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 shall include:
- (1) Procedures to determine and record the cause of the malfunction and the time the malfunction began and ended;
  - (2) Corrective actions to be taken in the event of a malfunction of a process, including procedures for recording the actions taken to correct the malfunction or minimize emissions.
- (d) The Permittee shall submit semiannual reports within sixty (60) days after the end of each six- (6-) month period. Each report shall contain the information specified in 40 CFR 63.10 (c). When no deviations of parameters have occurred, the Permittee shall submit a report stating that no excess emissions occurred during the reporting period. A report shall be submitted if any of these conditions occur during a six- (6-) month reporting period:
- (1) 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).
  - (2) The furnaces were not operated according to the requirements of Subpart RRR.
- (e) The Permittee shall submit the results of any performance test conducted during the reporting period, including one (1) 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.
- (f) 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 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.1.17 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.5 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

## SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]	Ingot Department
1) the #2-4 natural gas-fired tilting-melting-holding furnace, referred to as emission unit 4, constructed in 1991, with a maximum capacity of 9.58 tons of aluminum per hour, and a maximum heat input capacity of 36 million Btu per hour, with emissions uncontrolled and exhausting to stack 88-8; and	
2) the #2-5 natural gas-fired tilting-melting-holding furnace, referred to as emission unit 5, constructed in 1988, with a maximum capacity of 9.58 tons of aluminum per hour, and a maximum heat input capacity of 36 million Btu per hour, with emissions uncontrolled and exhausting to stack 87-8	

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

#### D.2.1 Particulate Matter (PM) [326 IAC 6-3-2 (Process Operations)]

Pursuant to 326 IAC 6-3-2 (Process Operations), the PM emissions from each of the natural gas-fired tilting-melting-holding furnaces #2-4 and #2-5 shall not exceed 18.63 pounds per hour when operating at a process weight rate of 9.58 tons per hour.

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

Interpolation and extrapolation of the data for the process weight rate 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.2.2 Work Practices [Agreed Order A-3659, issued April 15, 1997]

Pursuant to A-3659, issued April 15, 1997, the following conditions shall apply:

- (a) The furnaces shall be skimmed after alloying if skim is over approximately one (1) inch thick and covers more than fifty percent (50%) of the bath.
- (b) The furnaces shall be skimmed before a heat stir if the skim is over approximately one (1) inch thick and covers more than fifty percent (50%) of the bath.
- (c) The work practices stated in (a) and (b) above shall be incorporated into the plant standard operating practice manual as environmental air quality requirements.
- (d) The work practices stated in (a) and (b) above shall be reviewed with the respondent's appropriate operating personnel on an annual basis.

#### D.2.3 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR Part 63, Subpart A]

The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the melting furnaces described in this section except when otherwise specified in 40 CFR 63 Subpart RRR.

#### D.2.4 Hazardous Air Pollutants (HAPs) [326 IAC 2-4.1]

The total amount of flux added to the melting furnaces, including all furnaces listed under Sections D.1 through D.4 shall not exceed 175 tons per twelve (12) consecutive month period with compliance determined at the end of each month. This limit in conjunction with the limit on AFB usage shall limit source wide single HAP emissions to less than ten (10) tons per year and the total combination of

HAPs to less than twenty five (25) tons per year. Therefore, the requirements of 326 IAC 2-4.1 do not apply.

**D.2.5 Emissions Standards for Secondary Aluminum Production [40 CFR Part 63.1505, Subpart RRR]**

Pursuant to 40 CFR Part 63.1505(i)(3), the Permittee shall not discharge or allow to be discharged to the atmosphere any 3-day, 24-hour rolling average emissions of total dioxins and furans (D/F) from the melting furnaces in excess of 15 micrograms of D/F TEQ per megagram ( $2.1 \times 10^{-4}$  gr of D/F TEQ per ton) per ton of feed/charge or per ton of aluminum produced.

**D.2.6 Operating Requirements for Secondary Aluminum Production [40 CFR Part 63.1506, Subpart RRR]**

Pursuant to 40 CFR Part 63.1506, the following conditions shall apply to the melting furnaces:

- (a) Pursuant to 40 CFR Part 63.1506(b), the Permittee shall provide and maintain easily visible labels that shall be posted at each furnace. The labels shall identify the applicable emission limits and means of compliance, including:
  - (1) The type of affected source or emission unit (e.g., group 1 furnace, group 2 furnace, in-line fluxer);
  - (2) The applicable operational standard(s) and control method(s) (work practice or control device). This includes, but is not limited to, the type of charge to be used for a furnace (e.g., clean scrap only, all scrap, etc.), flux materials and addition practices, and the applicable operating parameter ranges and requirements as incorporated in the O&M plan.
- (b) Pursuant to 40 CFR 63.1506(n), the Permittee shall:
  - (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 O&M plan and within the parameter values or ranges established in the O&M plan.

**D.2.7 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.

## Compliance Determination Requirements

### D.2.8 Testing Requirements [326 IAC 2-7-6(1),(6)] [40 CFR Part 63.1511, Subpart RRR]

In accordance with the requirements specified at 40 CFR 63.1505(i)(3), in order to demonstrate compliance with D.2.5, the Permittee shall perform D/F testing on the melting furnaces, using methods as approved by the Commissioner. Testing shall be performed in accordance with Section C - Performance testing.

- (a) Pursuant to 40 CFR Part 63.1511(a), prior to conducting any performance test required by this subpart, the Permittee must prepare a site-specific test plan which satisfies all of the requirements, and must obtain approval of the plan pursuant to the procedures, set forth in Sec. 63.7(c).
- (b) Pursuant to 40 CFR Part 63.1511(b), following approval of the site-specific test plan, the Permittee must demonstrate initial compliance with each applicable emission, equipment, work practice, or operational standard for each affected source and emission unit, and report the results in the notification of compliance status report as described in Sec. 63.1515(b). The Permittee of any existing affected source for which an initial performance test is required to demonstrate compliance must conduct this initial performance test no later than the date for compliance established by Sec. 63.1501(a). The Permittee of any new affected source for which an initial performance test is required must conduct this initial performance test within 90 days after the date for compliance established by Sec. 63.1501(b). Except for the date by which the performance test must be conducted, the Permittee must conduct each performance test in accordance with the requirements and procedures set forth in Sec. 63.7(c). Owners or operators of affected sources located at facilities which are area sources are subject only to those performance testing requirements pertaining to D/F.

### D.2.9 HAPs Emissions

Compliance with Condition D.2.4 shall be demonstrated within 30 days of the end of each month based on the flux usage for the twelve (12) month period.

### D.2.10 Raw Materials [326 IAC 2-7-6(1),(6)]

In order to comply with the requirements of Condition D.2.1, the charge shall consist of only clean alloys, clean pig, clean slabs, clean purchased scrap, or clean process scrap and chips. The charge shall contain a maximum of twenty percent (20%) material with possible process lubricant coating.

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

### D.2.11 Visual Inspections

To ensure compliance with Condition D.2.10, the Permittee shall conduct visual inspections of the materials added to the furnace each time that materials are added to the furnace.

### D.2.12 Monitoring Requirements for Secondary Aluminum Production [40 CFR Part 63.1510, Subpart RRR]

Pursuant to 40 CFR Part 63.1510(o), the Permittee shall develop, in consultation with the responsible permitting authority, a written site-specific monitoring plan. The site-specific monitoring plan must be submitted to the permitting authority as part of the O&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 each pollutant. Test data must establish the highest level of D/F that will be emitted from the furnace. This may be determined by conducting performance tests and monitoring operating parameters while charging the furnace with feed/charge materials containing the highest anticipated levels of oils and coatings and fluxing at the highest anticipated rate. If the permitting authority determines that any revisions of the site-specific monitoring plan are necessary to meet the requirements of this section or this subpart, the Permittee must promptly make all necessary revisions and resubmit the revised plan to the permitting authority.

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

### **D.2.13 Record Keeping Requirements**

- (a) To document compliance with Condition D.2.11, the Permittee shall maintain records of the daily visible inspections of the materials added to the furnace each time that materials are added to the furnace.
- (b) To document compliance with Condition D.2.4, the Permittee shall maintain monthly records of the flux usage.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

### **D.2.14 Secondary Aluminum Production Record Keeping Requirements [40 CFR Part 63, Subpart RRR]**

Pursuant to 40 CFR Part 63.1517, the Permittee shall:

- (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 Subpart RRR.
- (b) The Permittee shall retain each record for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent two (2) years of records shall be retained at the source. The remaining three (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 each group 1 furnace without add-on air pollution control devices shall maintain records of:
  - (1) Fifteen (15) minute block average weights of gaseous or liquid reactive flux injection, total reactive flux injection rate and calculations (including records of the identity, composition, and weight of each addition of gaseous, liquid or solid reactive flux), including records of any period the rate exceeds the compliant operating parameter value and corrective action taken.
  - (2) Approved site-specific monitoring plan with records documenting conformance with the plan.
  - (3) For each furnace, weights for each operating cycle or time period used in the performance test.
  - (4) Records of monthly inspections for proper unit labeling for each furnace, subject to labeling requirements.
  - (5) 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) O&M plan.

- (6) The Permittee shall demonstrate through performance tests, that each individual emission unit within the secondary aluminum production unit is in compliance with applicable emission limits for the emission unit.

D.2.15 Secondary Aluminum Production Reporting Requirements [40 CFR Part 63, Subpart RRR]

- (a) Pursuant to 40 CFR 63.1510 and 63.1516, the Permittee shall provide notification of the anticipated date for conducting performance tests. The Permittee shall notify the IDEM, OAQ of the intent to conduct a performance test at least sixty (60) days before the performance test is scheduled.
- (b) The Permittee shall submit a notification of compliance status report within sixty (60) days after the compliance date of March 24, 2003. The notification shall be signed by the responsible official who shall certify its accuracy. A complete notification of compliance status report shall include the information specified in paragraphs (1) through (10). 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. 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 shall include:
  - (1) All information required in 40 CFR 63.9(h). The Permittee has tested furnace 2-6 as being representative of all furnaces. A complete performance test report includes all data, associated measurements, and calculations. Alcoa has submitted a demonstration showing that testing one furnace is representative of all furnaces.
  - (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 for the furnaces, with supporting documentation and a description of the procedure used to establish the value (e.g., lime injection rate, total reactive chlorine flux injection rate, fabric filter inlet temperature), including the operating cycle or time period used in the performance test.
  - (5) Approved O&M plan (including site-specific monitoring plan for each group 1 furnace with no add-on air pollution control device).
  - (6) Startup, shutdown, and malfunction plan, with revisions.
- (c) The Permittee shall develop and implement a written plan that contains specific procedures to be followed for operating and maintaining each melting furnace, during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process 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 shall include:
  - (1) Procedures to determine and record the cause of the malfunction and the time the malfunction began and ended;
  - (2) Corrective actions to be taken in the event of a malfunction of a process, including procedures for recording the actions taken to correct the malfunction or minimize emissions.

- (d) The Permittee shall submit semiannual reports within sixty (60) days after the end of each six- (6-) month period. Each report shall contain the information specified in 40 CFR 63.10 (c). When no deviations of parameters have occurred, the Permittee shall submit a report stating that no excess emissions occurred during the reporting period. A report shall be submitted if any of these conditions occur during a six- (6-) month reporting period:
  - (1) 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).
  - (2) The furnaces were not operated according to the requirements of Subpart RRR.
- (e) The Permittee shall submit the results of any performance test conducted during the reporting period, including one (1) 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.
- (f) 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 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.2.16 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.2.4 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

## SECTION D.3 FACILITY OPERATION CONDITIONS

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

the #2-6 natural gas-fired tilting-melting-holding furnace, referred to as emission unit 6, constructed in 1995, with a maximum capacity of 9.58 tons of aluminum per hour, and a maximum heat input capacity of 36 million Btu per hour, with emissions uncontrolled and exhausting to stack 94-8;

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

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

Pursuant to CP 157-4219, issued June 12, 1995, the following conditions shall apply:

- (a) The PM emissions from the tilting-melting-holding furnace #2-6 shall not exceed 1.89 pounds per hour. Compliance with this limit will also satisfy the requirements of 326 IAC 6-3-2 (Process Operations).
- (b) The NO<sub>x</sub> emissions from the tilting-melting-holding furnace #2-6 shall not exceed 5.0 pounds per hour.
- (c) The charge shall consist of only clean alloys, clean pig, clean slabs, clean purchased scrap, or clean process scrap and chips. The charge shall contain a maximum of twenty percent (20%) material with possible process lubricant coating.
- (d) Only chunk style flux shall be used in the furnace.
- (e) The melting furnace #9, holding furnace #61, and holding furnace #92 shall not be operated.

Therefore, the requirements of 326 IAC 2-2 (PSD) will not apply.

#### D.3.2 Work Practices [Agreed Order A-3659, issued April 15, 1997]

Pursuant to A-3659, issued April 15, 1997, the following conditions shall apply:

- (a) The furnace shall be skimmed after alloying if skim is over approximately one (1) inch thick and covers more than fifty percent (50%) of the bath.
- (b) The furnace shall be skimmed before a heat stir if the skim is over approximately one (1) inch thick and covers more than fifty percent (50%) of the bath.
- (c) The work practices stated in (a) and (b) above shall be incorporated into the plant standard operating practice manual as environmental air quality requirements.
- (d) The work practices stated in (a) and (b) above shall be reviewed with the respondent's appropriate operating personnel on an annual basis.

#### D.3.3 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR Part 63, Subpart A]

The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the melting furnaces described in this section except when otherwise specified in 40 CFR 63 Subpart RRR.

**D.3.4 Hazardous Air Pollutants (HAPs) [326 IAC 2-4.1]**

The total amount of flux added to the melting furnaces, including all furnaces listed under Sections D.1 through D.4 shall not exceed 175 tons per twelve (12) consecutive month period with compliance determined at the end of each month. This limit in conjunction with the limit on AFB usage shall limit source wide single HAP emissions to less than ten (10) tons per year and the total combination of HAPs to less than twenty five (25) tons per year. Therefore, the requirements of 326 IAC 2-4.1 do not apply.

**D.3.5 Emissions Standards for Secondary Aluminum Production [40 CFR Part 63.1505, Subpart RRR]**

Pursuant to 40 CFR Part 63.1505(i)(3), the Permittee shall not discharge or allow to be discharged to the atmosphere any 3-day, 24-hour rolling average emissions of total dioxins and furans (D/F) from the melting furnaces in excess of 15 micrograms of D/F TEQ per megagram ( $2.1 \times 10^{-4}$  gr of D/F TEQ per ton) per ton of feed/charge or per ton of aluminum produced.

**D.3.6 Operating Requirements for Secondary Aluminum Production [40 CFR Part 63.1506, Subpart RRR]**

Pursuant to 40 CFR Part 63.1506, the following conditions shall apply to the melting furnaces:

- (a) Pursuant to 40 CFR Part 63.1506(b), the Permittee shall provide and maintain easily visible labels that shall be posted at each furnace. The labels shall identify the applicable emission limits and means of compliance, including:
  - (1) The type of affected source or emission unit (e.g., group 1 furnace, group 2 furnace, in-line fluxer);
  - (2) The applicable operational standard(s) and control method(s) (work practice or control device). This includes, but is not limited to, the type of charge to be used for a furnace (e.g., clean scrap only, all scrap, etc.), flux materials and addition practices, and the applicable operating parameter ranges and requirements as incorporated in the O&M plan.
- (b) Pursuant to 40 CFR 63.1506(n), the Permittee shall:
  - (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 O&M plan and within the parameter values or ranges established in the O&M plan.

**D.3.7 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 this facility.

**Compliance Determination Requirements**

**D.3.8 Testing Requirements [326 IAC 2-7-6(1),(6)] [40 CFR Part 63.1511, Subpart RRR]**

- (a) During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform PM and NOx testing for furnace #2-6 using methods as approved by the Commissioner, in order to demonstrate compliance with condition D.3.1 (a), (b), and (c). These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.
- (b) In accordance with the requirements specified at 40 CFR 63.1505(i)(3), in order to demonstrate compliance with D.3.5, the Permittee shall perform D/F testing on the melting furnaces, using methods as approved by the Commissioner. Testing shall be performed in accordance with Section C - Performance testing.
- (1) Pursuant to 40 CFR Part 63.1511(a), prior to conducting any performance test required by this subpart, the Permittee must prepare a site-specific test plan which satisfies all of the requirements, and must obtain approval of the plan pursuant to the procedures, set forth in Sec. 63.7(c).
- (2) Pursuant to 40 CFR Part 63.1511(b), following approval of the site-specific test plan, the Permittee must demonstrate initial compliance with each applicable emission, equipment, work practice, or operational standard for each affected source and emission unit, and report the results in the notification of compliance status report as described in Sec. 63.1515(b). The Permittee of any existing affected source for which an initial performance test is required to demonstrate compliance must conduct this initial performance test no later than the date for compliance established by Sec. 63.1501(a). The Permittee of any new affected source for which an initial performance test is required must conduct this initial performance test within 90 days after the date for compliance established by Sec. 63.1501(b). Except for the date by which the performance test must be conducted, the Permittee must conduct each performance test in accordance with the requirements and procedures set forth in Sec. 63.7(c). Owners or operators of affected sources located at facilities which are area sources are subject only to those performance testing requirements pertaining to D/F.

**D.3.9 HAPs Emissions**

Compliance with Condition D.3.4 shall be demonstrated within 30 days of the end of each month based on the flux usage for the twelve (12) month period.

**D.3.10 Raw Materials [326 IAC 2-7-6(1),(6)]**

In order to comply with the requirements of Condition D.3.1, the charge shall consist of only clean alloys, clean pig, clean slabs, clean purchased scrap, or clean process scrap and chips. The charge shall contain a maximum of twenty percent (20%) material with possible process lubricant coating.

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

**D.3.11 Visual Inspections**

To ensure compliance with Condition D.3.1(c), the Permittee shall conduct visual inspections of the materials added to the furnace each time that materials are added to the furnace.

**D.3.12 Monitoring Requirements for Secondary Aluminum Production [40 CFR Part 63.1510, Subpart RRR]**

Pursuant to 40 CFR Part 63.1510(o), the Permittee shall develop, in consultation with the responsible permitting authority, a written site-specific monitoring plan. The site-specific monitoring plan must be submitted to the permitting authority as part of the O&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 each pollutant. Test data must establish the highest level of D/F that will be emitted from the furnace. This may be determined by conducting performance tests and monitoring operating parameters while charging the furnace with feed/charge materials containing the highest anticipated levels of oils and coatings and fluxing at the highest anticipated rate. If the permitting authority determines that any revisions of the site-specific monitoring plan are necessary to meet the requirements of this section or this subpart, the Permittee must promptly make all necessary revisions and resubmit the revised plan to the permitting authority.

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

#### **D.3.13 Record Keeping Requirements**

- 
- (a) To document compliance with Condition D.3.11, the Permittee shall maintain records of the visual inspections of the materials added to the furnace each time that materials are added to the furnace.
  - (b) Pursuant to CP157-4219, records shall be kept of the weight of all materials added to the furnace.
  - (c) To document compliance with Condition D.3.4, the Permittee shall maintain monthly records of the flux usage.
  - (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### **D.3.14 Secondary Aluminum Production Record Keeping Requirements [40 CFR Part 63, Subpart RRR]**

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Pursuant to 40 CFR Part 63.1517, the Permittee shall:

- (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 Subpart RRR.
- (b) The Permittee shall retain each record for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent two (2) years of records shall be retained at the source. The remaining three (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 each group 1 furnace without add-on air pollution control devices shall maintain records of:
  - (1) Fifteen (15) minute block average weights of gaseous or liquid reactive flux injection, total reactive flux injection rate and calculations (including records of the identity, composition, and weight of each addition of gaseous, liquid or solid reactive flux), including records of any period the rate exceeds the compliant operating parameter value and corrective action taken.
  - (2) Approved site-specific monitoring plan with records documenting conformance with the plan.
  - (3) For each furnace, weights for each operating cycle or time period used in the performance test.
  - (4) Records of monthly inspections for proper unit labeling for each furnace, subject to labeling requirements.

- (5) 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) O&M plan.
- (6) The Permittee shall demonstrate through performance tests, that each individual emission unit within the secondary aluminum production unit is in compliance with applicable emission limits for the emission unit.

D.3.15 Secondary Aluminum Production Reporting Requirements [40 CFR Part 63, Subpart RRR]

- (a) Pursuant to 40 CFR 63.1510 and 63.1516, the Permittee shall provide notification of the anticipated date for conducting performance tests. The Permittee shall notify the IDEM, OAQ of the intent to conduct a performance test at least sixty (60) days before the performance test is scheduled.
- (b) The Permittee shall submit a notification of compliance status report within sixty (60) days after the compliance date of March 24, 2003. The notification shall be signed by the responsible official who shall certify its accuracy. A complete notification of compliance status report shall include the information specified in paragraphs (1) through (10). 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. 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 shall include:
  - (1) All information required in 40 CFR 63.9(h). The Permittee has tested furnace 2-6 as being representative of all furnaces. A complete performance test report includes all data, associated measurements, and calculations. Alcoa has submitted a demonstration showing that testing one furnace is representative of all furnaces.
  - (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 for the furnaces, with supporting documentation and a description of the procedure used to establish the value (e.g., lime injection rate, total reactive chlorine flux injection rate, fabric filter inlet temperature), including the operating cycle or time period used in the performance test.
  - (5) Approved O&M plan (including site-specific monitoring plan for each group 1 furnace with no add-on air pollution control device).
  - (6) Startup, shutdown, and malfunction plan, with revisions.
- (c) The Permittee shall develop and implement a written plan that contains specific procedures to be followed for operating and maintaining each melting furnace, during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process 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 shall include:

- (1) Procedures to determine and record the cause of the malfunction and the time the malfunction began and ended;
  - (2) Corrective actions to be taken in the event of a malfunction of a process, including procedures for recording the actions taken to correct the malfunction or minimize emissions.
- (d) The Permittee shall submit semiannual reports within sixty (60) days after the end of each six- (6-) month period. Each report shall contain the information specified in 40 CFR 63.10
- ~~(c)~~ When no deviations of parameters have occurred, the Permittee shall submit a report stating that no excess emissions occurred during the reporting period. A report shall be submitted if any of these conditions occur during a six- (6-) month reporting period:
- (1) 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).
  - (2) The furnaces were not operated according to the requirements of Subpart RRR.
- (e) The Permittee shall submit the results of any performance test conducted during the reporting period, including one (1) 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.
- (f) 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 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.3.16 Reporting Requirements

1. A quarterly summary of the information to document compliance with Condition D.3.4 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

## SECTION D.4 FACILITY OPERATION CONDITIONS

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

the #4 natural gas-fired melting furnace, referred to as emission unit 7, constructed in 1980, with a maximum capacity of 6.2 tons of aluminum per hour, and a maximum heat input capacity of 26 million Btu per hour, with emissions uncontrolled and exhausting to stack 5-8;

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

#### D.4.1 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

Pursuant to OP 79-06-91-0415, issued May 4, 1988, the charge shall consist of only clean alloys, clean pig, clean slabs, clean purchased scrap, or clean process scrap and chips. The charge shall contain a maximum of twenty percent (20%) material with possible process lubricant coating. Therefore, the requirements of 326 IAC 2-2 (PSD) will not apply.

#### D.4.2 Particulate Matter (PM) [326 IAC 6-3-2 (Process Operations)]

Pursuant to 326 IAC 6-3-2 (Process Operations), the PM emissions from the natural gas-fired melting furnace #4 shall not exceed 13.62 pounds per hour when operating at a process weight rate of 6.0 tons per hour.

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

Interpolation and extrapolation of the data for the process weight rate 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.4.3 Work Practices [Agreed Order A-3659, issued April 15, 1997]

Pursuant to A-3659, issued April 15, 1997, the following conditions shall apply:

- (a) The furnace shall be skimmed after alloying if skim is over approximately one (1) inch thick and covers more than fifty percent (50%) of the bath.
- (b) The furnace shall be skimmed before a heat stir if the skim is over approximately one (1) inch thick and covers more than fifty percent (50%) of the bath.
- (c) The work practices stated in (a) and (b) above shall be incorporated into the plant standard operating practice manual as environmental air quality requirements.
- (d) The work practices stated in (a) and (b) above shall be reviewed with the respondent's appropriate operating personnel on an annual basis.

#### D.4.4 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR Part 63, Subpart A]

The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the melting furnaces described in this section except when otherwise specified in 40 CFR 63 Subpart RRR.

**D.4.5 Hazardous Air Pollutants (HAPs) [326 IAC 2-4.1]**

The total amount of flux added to the melting furnaces, including all furnaces listed under Sections D.1 through D.4 shall not exceed 175 tons per twelve (12) consecutive month period with compliance determined at the end of each month. This limit in conjunction with the limit on AFB usage shall limit source wide single HAP emissions to less than ten (10) tons per year and the total combination of HAPs to less than twenty five (25) tons per year. Therefore, the requirements of 326 IAC 2-4.1 do not apply.

**D.4.6 Emissions Standards for Secondary Aluminum Production [40 CFR Part 63.1505, Subpart RRR]**

Pursuant to 40 CFR Part 63.1505(i)(3), the Permittee shall not discharge or allow to be discharged to the atmosphere any 3-day, 24-hour rolling average emissions of total dioxins and furans (D/F) from the melting furnaces in excess of 15 micrograms of D/F TEQ per megagram ( $2.1 \times 10^{-4}$  gr of D/F TEQ per ton) per ton of feed/charge or per ton of aluminum produced.

**D.4.7 Operating Requirements for Secondary Aluminum Production [40 CFR Part 63.1506, Subpart RRR]**

Pursuant to 40 CFR Part 63.1506, the following conditions shall apply to the melting furnaces:

(a) Pursuant to 40 CFR Part 63.1506(b), the Permittee shall provide and maintain easily visible labels that shall be posted at each furnace. The labels shall identify the applicable emission limits and means of compliance, including:

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

(b) Pursuant to 40 CFR 63.1506(n), the Permittee shall:

- (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 O&M plan and within the parameter values or ranges established in the O&M plan.

**D.4.8 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 this facility.

**Compliance Determination Requirements**

**D.4.9 Testing Requirements [326 IAC 2-7-6(1),(6)] [40 CFR Part 63.1511, Subpart RRR]**

In accordance with the requirements specified at 40 CFR 63.1505(i)(3), in order to demonstrate compliance with D.4.6, the Permittee shall perform D/F testing on the melting furnaces, using methods as approved by the Commissioner. Testing shall be performed in accordance with Section C - Performance testing.

- (1) Pursuant to 40 CFR Part 63.1511(a) , prior to conducting any performance test required by this subpart, the Permittee must prepare a site-specific test plan which satisfies all of the requirements, and must obtain approval of the plan pursuant to the procedures, set forth in Sec. 63.7(c).
- (2) Pursuant to 40 CFR Part 63.1511(b) , following approval of the site- specific test plan, the Permittee must demonstrate initial compliance with each applicable emission, equipment, work practice, or operational standard for each affected source and emission unit, and report the results in the notification of compliance status report as described in Sec. 63.1515(b). The Permittee of any existing affected source for which an initial performance test is required to demonstrate compliance must conduct this initial performance test no later than the date for compliance established by Sec. 63.1501(a). The Permittee of any new affected source for which an initial performance test is required must conduct this initial performance test within 90 days after the date for compliance established by Sec. 63.1501(b). Except for the date by which the performance test must be conducted, the Permittee must conduct each performance test in accordance with the requirements and procedures set forth [[Page 59793]] in Sec. 63.7(c). Owners or operators of affected sources located at facilities which are area sources are subject only to those performance testing requirements pertaining to D/F.

#### D.4.10 HAPs Emissions

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Compliance with Condition D.4.5 shall be demonstrated within 30 days of the end of each month based on the flux usage for the twelve (12) month period.

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

#### D.4.11 Visual Inspections

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To ensure compliance with Condition D.4.1, the Permittee shall conduct visual inspections of the materials added to the furnace each time that materials are added to the furnace.

#### D.4.12 Monitoring Requirements for Secondary Aluminum Production [40 CFR Part 63.1510, Subpart RRR]

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Pursuant to 40 CFR Part 63.1510(o), the Permittee shall develop, in consultation with the responsible permitting authority, a written site-specific monitoring plan. The site-specific monitoring plan must be submitted to the permitting authority as part of the O&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 each pollutant. Test data must establish the highest level of D/F that will be emitted from the furnace. This may be determined by conducting performance tests and monitoring operating parameters while charging the furnace with feed/charge materials containing the highest anticipated levels of oils and coatings and fluxing at the highest anticipated rate. If the permitting authority determines that any revisions of the site-specific monitoring plan are necessary to meet the requirements of this section or this subpart, the Permittee must promptly make all necessary revisions and resubmit the revised plan to the permitting authority.

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

### **D.4.13 Record Keeping Requirements**

- (a) To document compliance with Condition D.4.11, the Permittee shall maintain records of the visual inspections of the materials added to the furnace each time that materials are added to the furnace.
- (b) To document compliance with Condition D.4.5, the Permittee shall maintain monthly records of the flux usage.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

### **D.4.14 Secondary Aluminum Production Record Keeping Requirements [40 CFR Part 63, Subpart RRR]**

Pursuant to 40 CFR Part 63.1517, the Permittee shall:

- (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 Subpart RRR.
- (b) The Permittee shall retain each record for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent two (2) years of records shall be retained at the source. The remaining three (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 each group 1 furnace without add-on air pollution control devices shall maintain records of:
  - (1) Fifteen (15) minute block average weights of gaseous or liquid reactive flux injection, total reactive flux injection rate and calculations (including records of the identity, composition, and weight of each addition of gaseous, liquid or solid reactive flux), including records of any period the rate exceeds the compliant operating parameter value and corrective action taken.
  - (2) Approved site-specific monitoring plan with records documenting conformance with the plan.
  - (3) For each furnace, weights for each operating cycle or time period used in the performance test.
  - (4) Records of monthly inspections for proper unit labeling for each furnace, subject to labeling requirements.
  - (5) 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) O&M plan.
  - (6) The Permittee shall demonstrate through performance tests, that each individual emission unit within the secondary aluminum production unit is in compliance with applicable emission limits for the emission unit.

D.4.15 Secondary Aluminum Production Reporting Requirements [40 CFR Part 63, Subpart RRR]

- (a) Pursuant to 40 CFR 63.1510 and 63.1516, the Permittee shall provide notification of the anticipated date for conducting performance tests. The Permittee shall notify the IDEM, OAQ of the intent to conduct a performance test at least sixty (60) days before the performance test is scheduled.
- (b) The Permittee shall submit a notification of compliance status report within sixty (60) days after the compliance date of March 24, 2003. The notification shall be signed by the responsible official who shall certify its accuracy. A complete notification of compliance status report shall include the information specified in paragraphs (1) through (10). 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. 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 shall include:
- (1) All information required in 40 CFR 63.9(h). The Permittee has tested furnace 2-6 as being representative of all furnaces. A complete performance test report includes all data, associated measurements, and calculations. Alcoa has submitted a demonstration showing that testing one furnace is representative of all furnaces.
  - (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 for the furnaces, with supporting documentation and a description of the procedure used to establish the value (e.g., lime injection rate, total reactive chlorine flux injection rate, fabric filter inlet temperature), including the operating cycle or time period used in the performance test.
  - (5) Approved O&M plan (including site-specific monitoring plan for each group 1 furnace with no add-on air pollution control device).
  - (6) Startup, shutdown, and malfunction plan, with revisions.
- (c) The Permittee shall develop and implement a written plan that contains specific procedures to be followed for operating and maintaining each melting furnace, during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process 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 shall include:
- (1) Procedures to determine and record the cause of the malfunction and the time the malfunction began and ended;
  - (2) Corrective actions to be taken in the event of a malfunction of a process, including procedures for recording the actions taken to correct the malfunction or minimize emissions.
- (d) The Permittee shall submit semiannual reports within sixty (60) days after the end of each six- (6-) month period. Each report shall contain the information specified in 40 CFR 63.10 (c). When no deviations of parameters have occurred, the Permittee shall submit a report

stating that no excess emissions occurred during the reporting period. A report shall be submitted if any of these conditions occur during a six- (6-) month reporting period:

- (1) 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).
  - (2) The furnaces were not operated according to the requirements of Subpart RRR.
- (e) The Permittee shall submit the results of any performance test conducted during the reporting period, including one (1) 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.
- (f) 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 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.4.16 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.4.5 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

## SECTION D.5

## FACILITY OPERATION CONDITIONS

<b>Facility Description [326 IAC 2-7-5(15)]</b>	<b>Insignificant Activities</b>
(a) Fifty four (54) natural gas fired units, with a total maximum design capacity of 134.4 million (MM) British thermal units per hour (Btu/hr). Each individual heating unit will have a heat input rate in the range of 0.05 MMBtu/hr up to a maximum of 6.6 MMBtu/hr.  (b) Fifty (50) natural gas fired units, each with a maximum heat input rate of 6.6 MMBtu/hr.	
(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)	

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

#### D.5.1 PSD Minor Limit [326 IAC 2-2]

Boiler #3 and Boiler #6 from the boilerhouse must be removed from service before the fifty (50) natural gas fired units are operated. This removal shall result in a net emission reduction of 18.9 tons of NOx per year.

#### D.5.2 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

The total usage of natural gas fuel for the one hundred (100) natural gas fired units shall be limited to 1,177.30 million cubic feet per year (MMCF/yr). This fuel usage limit is equivalent to limiting NOx emissions, based on a NOx emission factor of 0.1 lb/MMBtu to less than 40 tons per year (with the emission reduction credit from removing Boilers #3 and #6) due to this modification. Therefore, the requirements of 326 IAC 2-2 do not apply.

#### D.5.3 Maximum heat capacity [326 IAC 2-7-5(15)]

Each individual natural gas fired unit shall not have a maximum heat input rate of greater than 6.6 MMBtu/hr, or else the unit will not be considered insignificant.

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

#### D.5.4 Record Keeping Requirements

(a) To document compliance with Condition D.5.2, the Permittee shall maintain records in accordance with (1) through (2) below. Records maintained for (1) through (2) shall be taken monthly and shall be complete and sufficient to establish compliance with the natural gas usage limit established in Condition D.5.2.

(1) Calendar dates covered in the compliance determination period;

(2) To certify compliance when burning natural gas, the Permittee shall maintain records of fuel used.

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

#### D.5.5 Reporting Requirements

(a) A certification, signed by the responsible official, that certifies the fuel combusted during the period.

(b) A quarterly summary of the information to document compliance with Condition D.5.2(b) shall be submitted to the addresses 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 six (6) month period 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.6

## FACILITY OPERATION CONDITIONS

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

Plant Miscellaneous, Insignificant Activities

sand blasting operations, referred to as emission unit 108, constructed in 1960, with emissions uncontrolled and exhausting to stack 75-58

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

#### D.6.1 Particulate Matter (PM) [326 IAC 6-3-2 (Process Operations)]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the sand blasting operations shall not exceed allowable PM emission rate based on the following equation:

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

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and  
P = process weight rate in tons per hour

### Compliance Determination Requirements

#### D.6.2 Testing Requirements [326 IAC 2-7-6(1),(6)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.6.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

## SECTION D.7 FACILITY OPERATION CONDITIONS

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

Plant Miscellaneous

sawing activities located in the carpenter shop, referred to as emission units 101 and 102, constructed in 1960, with emissions controlled by two cyclones, referred to as the #1 and #2 sawdust collectors, and exhausting to stacks 73-57 and 72-57.

Note: Emission unit 101 is insignificant; emission unit 102 is significant.

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

#### D.7.1 Particulate Matter (PM) [326 IAC 6-3-2 (Process Operations)]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the sawing in the carpenter shop shall not exceed allowable PM emission rate based on the following equation:

Interpolation and extrapolation 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.7.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

### Compliance Determination Requirements

#### D.7.3 Testing Requirements [326 IAC 2-7-6(1),(6)]

The Permittee is not required to test these facilities by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.7.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

#### D.7.4 Particulate Matter (PM)

The two cyclones for PM control shall be in operation at all times when the sawing process in the carpenter shop is in operation and exhausting to the outside atmosphere.

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

#### D.7.5 Visible Emissions Notations

- (a) Daily visible emission notations of the cyclone stack exhaust for emission unit 102 shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

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

**D.7.6 Record Keeping Requirements**

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- (a) To document compliance with Condition D.7.5, the Permittee shall maintain records of daily visible emission notations of the cyclone stack exhaust for emission unit 102.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

## SECTION D.8

## FACILITY OPERATION CONDITIONS

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

One (1) internal combustion engine diesel fuel fired emission unit acting as a generator / air compressor, with a total maximum design capacity of 450 brake horsepower [equivalent to approximately 1.15 million British thermal units per hour (MMBtu/hr)]. This shall be designated emission unit EUDAC#1 and exhausting through stack DAC#1.

(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.8.1 Nitrogen Oxides [326 IAC 2-7-10.5]

Pursuant to 326 IAC 2-7-10.5(d) (Part 70 source modifications) emission unit EUDAC#1 shall not operate more than 3,575 hours per 12 consecutive month period with compliance determined at the end of each month. This limitation on hours of operation limits NOx emissions to less than 25 tons per 12 consecutive month period.

#### D.8.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device

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

#### D.8.3 Hourly Operation Gauge Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

- (a) Whenever a condition in this permit requires the measurement of hours of operation, the instrument employed shall have a scale such that the expected normal reading shall be no less than one hour increments with preferred option to include a tenth of an hour increment.
- (b) The Preventive Maintenance Plan for the hourly operation gauge shall include calibration using known standards. The frequency of calibration shall be adjusted such that the typical error found at calibration is less than one hour.
- (c) The Permittee may request the IDEM, OAQ approve the use of a hourly operation gauge that does not meet the above specifications provided the Permittee can demonstrate an alternative gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of hours of operation.

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

#### D.8.4 Record Keeping Requirements

- (a) To document compliance with Condition D.8.1, the Permittee shall maintain records in accordance with (1) through (2) below. Records maintained for (1) through (2) shall be taken once per shift when the emission unit is to operate during that shift. The records shall be complete and sufficient to establish compliance with the hours of operation limit and the NOx emission limit established in Condition D.8.1.
  - (1) Calendar dates covered in the compliance determination period;
  - (2) Actual hours of operation since last compliance determination period; and

- (b) To document compliance with Condition D.8.2, the Permittee shall maintain of records of any additional inspections prescribed by the Preventive Maintenance Plan.
- (c) All records shall be maintained in accordance with Section C -General Record Keeping Requirements, of this permit.

**D.8.5 Reporting Requirements**

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- (a) The diesel generator / air compressor certification 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 its equivalent, within thirty (30) days after the end of the six (6) month period being reported. The diesel generator / air compressor certification does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) A semi-annual summary of the information to document compliance with Condition D.8.1 and D.8.2 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 six (6) month period 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.9 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]	Insignificant Activities
<b>Extrusion</b>	
<p>one (1) Protectsol 512 clear coating applicator, referred to as emission unit 112, constructed in 1997, consisting of a roller conveyor that runs the aluminum pieces through an enclosed spray chamber. In the spray chamber there are nozzles that apply the protective coating to the aluminum pieces. The overspray falls to a collection reservoir and is used. There is a pump in the collection reservoir which will be activated whenever the coating is started.</p>	
<p>one (1) Protectsol 512 clear coating applicator, to be constructed in 1999, consisting of a roller conveyor that runs the aluminum pieces through an enclosed spray chamber. In the spray chamber there are nozzles that apply the protective coating to the aluminum pieces. The overspray falls to a collection reservoir and is used. There is a pump in the collection reservoir which will be activated whenever the coating is started.</p>	
<b>Shipping</b>	
<p>two (2) Protectsol 512 clear coating applicators, referred to as emission unit 112, constructed in 1997, consisting of a roller conveyor that runs the aluminum pieces through an enclosed spray chamber. In the spray chamber there are nozzles that apply the protective coating to the aluminum pieces. The overspray falls to a collection reservoir and is used. There is a pump in the collection reservoir which will be activated whenever the coating is started.</p>	

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

#### D.9.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]

- (a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), and CP-157-8509, issued on June 17, 1997, the volatile organic compound (VOC) content of coatings applied to the metal shall be limited to 4.3 pounds of VOC per gallon of coating less water.
- (b) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), solvent sprayed from the application equipment during clean up or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

#### D.9.2 Particulate Matter (PM) [326 IAC 6-3-2(c)]

The PM from the four (4) Protectsol 512 clear coating applicators shall not exceed the pound per hour emission rate established as E in the following formula:

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

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and  
P = process weight rate in tons per hour

### Compliance Determination Requirements

#### D.9.3 Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitation contained in Condition D.9.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAQ reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

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

#### **D.9.4 Record Keeping Requirements**

If all coatings applied in a single facility during a month are compliant coatings as applied pursuant to 326 IAC 8-2-9 and Condition D.9.1(a), then records shall be kept in accordance with parts (a) and (c) of this condition.

If any coatings applied in a facility during a month are noncompliant coatings as applied pursuant to 326 IAC 8-2-9 and Condition D.9.1(a), then records sufficient to demonstrate daily compliance shall be kept in accordance with parts (b) and (c) of this condition for each day that the noncompliant coating(s) were used.

- (a) To document compliance with Conditions D.9.1, the Permittee shall maintain records in accordance with (1) through (2) below. Records maintained for (1) through (2) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.9.1.
  - (1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
  - (2) If any compliant coatings, pursuant to 326 IAC 8-2-9 and Condition D.9.1(a), applied in a facility during a month are thinned or are mixed with additives containing volatile organic compounds (VOC) ; then additional records for the affected facility (or facilities) shall be kept sufficient to document that all coatings were compliant as applied. These records shall be kept for the entire calendar month that the thinners or VOC containing additives were used.
- (b) To document compliance with Conditions D.9.1, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken daily and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.9.1 on a daily basis for each affected facility.
  - (1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
  - (2) A log of the dates of use;
  - (3) The calculated daily volume-weighted average VOC content of the coatings used in each affected facility for each day;
  - (4) The cleanup solvent usage for each day;
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**SECTION D.10**

**FACILITY OPERATION CONDITIONS**

Facility Description [326 IAC 2-7-5(15)]	Insignificant Activities
(a)"622" filter boxes for transferring metal from #41 holding furnace to #11 casting pit, used for adding argon and chlorine, with a maximum heat input capacity of 0.8 million Btu per hour;	
(b)"622" filter boxes for transferring metal from 2-2 tilting-melting-holding furnace to #12 casting pit, used for adding argon and chlorine, with a maximum heat input capacity of 0.8 million Btu per hour;	
(c)"622" filter boxes for transferring metal from 2-2 tilting-melting-holding furnace to #13 casting pit, used for adding argon and chlorine, with a maximum heat input capacity of 0.8 million Btu per hour;	
(d)"622" filter boxes for transferring metal from 2-3 tilting-melting-holding furnace to #13 casting pit, used for adding argon and chlorine, with a maximum heat input capacity of 0.8 million Btu per hour;	
(e)"622" filter boxes for transferring metal from 2-4 tilting-melting-holding furnace to #14 casting pit, used for adding argon and chlorine, with a maximum heat input capacity of 0.8 million Btu per hour;	
(f)"622" filter boxes for transferring metal from 2-5 tilting-melting-holding furnace to #14 casting pit, used for adding argon and chlorine, with a maximum heat input capacity of 0.8 million Btu per hour; and	
(g)"622" filter boxes for transferring metal from 2-6 tilting-melting-holding furnace to #15 casting pit, used for adding argon and chlorine, with a maximum heat input capacity of 0.8 million Btu per hour.	

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

**D.10.1 Particulate Matter (PM) [326 IAC 6-3-2 (Process Operations)]**

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the "622" filter boxes shall not exceed allowable PM emission rate based on the following equation:

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

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and  
P = process weight rate in tons per hour

**D.10.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**

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

**Compliance Determination Requirements**

**D.10.3 Testing Requirements [326 IAC 2-7-6(1),(6)]**

The Permittee is not required to test these facilities by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.10.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

## SECTION D.11

## FACILITY OPERATION CONDITIONS

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

Insignificant Activity

the Lochnivar boiler, referred to as emission unit 90, constructed in 1995, with a maximum heat input capacity of 0.4 million Btu per hour;

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

#### D.11.1 Particulate Matter Limitation (PM) [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate emission limitations for sources of indirect heating), the PM emissions from the Lochnivar boiler shall not exceed 0.28 pound per million Btu of heat input. This limitation is based on the following equation:

$$Pt = 1.09 / (Q^{0.26})$$

Where:

Pt = pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input.

Q = total source maximum operating capacity rating in million Btu per hour (MMBTU/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's operation permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

### Compliance Determination Requirements

#### D.11.2 Testing Requirements [326 IAC 2-7-6(1),(6)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Conditions D.11.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

**SECTION D.12 FACILITY OPERATION CONDITIONS**

Facility Description [326 IAC 2-7-5(15)]	Insignificant Activities
1) the cleaver brooks boiler, referred to as emission unit 93, constructed in 1975, with a maximum heat input capacity of 2.6 million Btu per hour;	
2) the pacific boiler #1, referred to as emission unit 103, constructed in 1940, with a maximum heat input capacity of 2.6 million Btu per hour; and	
3) the pacific boiler #2, referred to as emission unit 104, constructed in 1940, with a maximum heat input capacity of 2.6 million Btu per hour.	

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

**D.12.1 Particulate Matter Limitation (PM) [326 IAC 6-2-3]**

- (a) Pursuant to 326 IAC 6-2-3 (Particulate Emission Limitations for Sources of Indirect Heating), the PM emissions from the pacific boiler #1, and the pacific boiler #2 shall not exceed 0.8 pound per million Btu of heat input.

Pursuant to the same rule, the PM emissions from the Cleaver brooks boiler shall not exceed 0.6 pound per million Btu of heat input. These limitations are based on the following equation:

$$Pt = \frac{C \times a \times h}{76.5 \times Q^{0.75} \times N^{0.25}}$$

where C = Maximum ground level concentration with respect to distance from the point source at the "critical" wind speed for level terrain. This shall equal 50 micrograms per cubic meter for a period not to exceed a sixty (60) minute time period.

Pt = Pounds of particulate matter emitted per million Btu heat input (lb/MMBtu).

Q = Total source maximum operating capacity rating in million Btu per hour of heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's operation permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

N = Number of stacks in fuel burning operation.

a = Plume rise factor which is used to make allowance for less than theoretical plume rise. The value 0.67 shall be used for Q less than or equal to 1,000 MMBtu/hr heat input. The value 0.8 shall be used for Q greater than 1,000 MMBtu/hr heat input.

h = Stack height in feet. If a number of stacks of different heights exist, the average stack height to represent "N" stacks shall be calculated by weighing each stack height with its particulate matter emissions rate.

## Compliance Determination Requirements

### D.12.2 Testing Requirements [326 IAC 2-7-6(1),(6)]

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The Permittee is not required to test these facilities by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Conditions D.12.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

**SECTION D.13**

**FACILITY OPERATION CONDITIONS**

Facility Description [326 IAC 2-7-5(15)]	Insignificant Activities
(a) the north skim cooling enclosure, referred to as emission unit 16, with emissions exhausting to stack 3-8F;	
(b) the south skim cooling enclosure, referred to as emission unit 17, with emissions exhausting to stack 4-8F;	
(c) log sawing and lathe operation, referred to as emission unit 31;	
(d) the box shop sawdust collector exhaust, referred to as emission unit 92, with emissions exhausting to stack 74-57;	
(e) the paint shop exhaust, referred to as emission unit 105, with emissions exhausting to stack 85-57;	
(f) the babbit melting furnace, referred to as emission unit 109, with emissions exhausting to stack 81-58; and	
(g) four (4) Rotoclones, which are mechanical separating devices designed to capture particulate emissions from the sawing, grinding, and working of aluminum pieces. Two rotoclones, one rate at 4000 cfm and the other rated at 1500 cfm, will be installed in extrusion 1. Two rotoclones, each rated at 15,000 cfm, will be installed in extrusion 2.	

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

**D.13.1 Particulate Matter (PM) [326 IAC 6-3-2 (Process Operations)]**

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from each of the processes listed above shall not exceed allowable PM emission rate based on the following equation:

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

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and  
P = process weight rate in tons per hour

**Compliance Determination Requirements**

**D.13.2 Testing Requirements [326 IAC 2-7-6(1),(6)]**

The Permittee is not required to test these facilities by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.13.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

**SECTION D.14**

**FACILITY OPERATION CONDITIONS**

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

Ingot Department

the #41 holding furnace, referred to as emission unit 8, with a maximum capacity of 1.2 tons of aluminum per hour and a maximum heat input capacity of 10.0 million Btu per hour, with emissions exhausting to stack 6-8

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

**D.14.1 Work Practices [Agreed Order A-3659, issued April 15, 1997]**

Pursuant to A-3659, issued April 15, 1997, the following conditions shall apply:

- (a) The furnaces shall be skimmed after alloying if skim is over approximately one (1) inch thick and covers more than fifty percent (50%) of the bath.
- (b) The furnaces shall be skimmed before a heat stir if the skim is over approximately one (1) inch thick and covers more than fifty percent (50%) of the bath.
- (c) The work practices stated in (a) and (b) above shall be incorporated into the plant standard operating practice manual as environmental air quality requirements.
- (d) The work practices stated in (a) and (b) above shall be reviewed with the respondent's appropriate operating personnel on an annual basis.

**Compliance Determination Requirements**

**D.14.2 Testing Requirements [326 IAC 2-7-6(1),(6)]**

The Permittee is not required to test these facilities by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Conditions D.14.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

## SECTION D.15

## FACILITY OPERATION CONDITIONS

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

#### Ingot Department

- (1) the #3 natural gas-fired ingot preheater, referred to as emission unit 20, constructed in 1985, with a maximum heat input capacity of 17.5 million Btu per hour, with emissions uncontrolled and exhausting to stack 29-7;
- (2) the #4 natural gas-fired ingot preheater, referred to as emission unit 21, constructed in 1980, with a maximum heat input capacity of 12.3 million Btu per hour, with emissions uncontrolled and exhausting to stack 30-7;
- (3) the #7 natural gas-fired ingot preheater, referred to as emission unit 23, constructed in 1997, with a maximum heat input capacity of 20.0 million Btu per hour, with emissions uncontrolled and exhausting to stack 24-7;
- (4) the #10 natural gas-fired ingot preheater, referred to as emission unit 24, constructed in 1966, with a maximum heat input capacity of 13.5 million Btu per hour, with emissions uncontrolled and exhausting to stack 24-7;
- (5) the #11 natural gas-fired ingot preheater, referred to as emission unit 25, constructed in 1966, with a maximum heat input capacity of 13.5 million Btu per hour, with emissions uncontrolled and exhausting to stack 23-7;
- (6) the #12 natural gas-fired ingot preheater, referred to as emission unit 26, constructed in 1967, with a maximum heat input capacity of 13.5 million Btu per hour, with emissions uncontrolled and exhausting to stack 22-7;
- (7) the #13 natural gas-fired ingot preheater, referred to as emission unit 27, constructed in 1967, with a maximum heat input capacity of 13.5 million Btu per hour, with emissions uncontrolled and exhausting to stack 21-7;

#### Extrusion - 1

- (8) the #5 natural gas-fired press reheat granco furnace, referred to as emission unit 35, constructed in 1975, with a maximum heat input capacity of 18.0 million Btu per hour, with emissions uncontrolled and exhausting to stack 56-12;
- (9) the #6 natural gas-fired press reheat granco furnace, referred to as emission unit 36, constructed in 1973, with a maximum heat input capacity of 16.0 million Btu per hour, with emissions uncontrolled and exhausting to stack 54-10;
- (10) the #2 natural gas-fired press reheat granco furnace, referred to as emission unit 37, constructed in 1987, with a maximum heat input capacity of 16.0 million Btu per hour, with emissions uncontrolled;

- (11) the #12 natural gas-fired press reheat granco furnace, referred to as emission unit 38, constructed in 1989, with a maximum heat input capacity of 16.0 million Btu per hour, with emissions uncontrolled;
- (12) the #8 natural gas-fired press reheat granco furnace, referred to as emission unit 40, constructed in 1992, with a maximum heat input capacity of 16.0 million Btu per hour, with emissions uncontrolled;
- (13) the #6 natural gas-fired age oven, referred to as emission unit 50, constructed in 1996, with a maximum heat input capacity of 14.0 million Btu per hour, with emissions uncontrolled;

**Extrusion - 2**

- (14) the #1 natural gas-fired horizontal heat treat furnace, referred to as emission unit 70, constructed in 1957, with a maximum heat input capacity of 13.2 million Btu per hour, with emissions uncontrolled and exhausting to stack 68-112; and

**Tube Mill**

- (15) the tube mill solvent dip tank system, referred to as emission units 94, 95, and 96, consisting of a 5000 gallon capacity 35 ft dip tank, a 10,000 gallon capacity 50 ft dip tank, a tank farm, and several parts washers, constructed in 1942, with emission uncontrolled.

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

**D.15.1 Hazardous Air Pollutants (HAPs) [326 IAC 2-4.1]**

The total amount of ammonium fluoroborate (AFB) added to the heat treat furnaces shall not exceed 12.75 tons per twelve (12) consecutive month period with compliance determined at the end of each month. This limit in conjunction with the limit on flux usage shall limit source wide single HAP emissions to less than ten (10) tons per year and the total combination of HAPs to less than twenty five (25) tons per year. Therefore, the requirements of 326 IAC 2-4.1 do not apply.

**Compliance Determination Requirements**

**D.15.2. HAPs Emissions**

Compliance with Condition D.15.1 shall be demonstrated within 30 days of the end of each month based on the AFB usage for the twelve (12) month period.

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

**D.15.3 Record Keeping Requirements**

- (a) To document compliance with Condition D.15.1, the Permittee shall maintain monthly records of the AFB usage.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**D.15.4 Reporting Requirements**

A quarterly summary of the information to document compliance with Condition D.15.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

**PART 70 OPERATING PERMIT  
CERTIFICATION**

Source Name: Aluminum Company of America - Lafayette Operation  
Source Address: 3131 Main Street, Lafayette, Indiana 47905  
Mailing Address: P.O. Box 7500, Lafayette, Indiana 47903-7500  
Part 70 Permit No.: T157-7101-00001

**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)
- 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:

Date:

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

**100 North Senate Avenue  
Indianapolis, Indiana 46204  
Phone: 317-233-5674  
Fax: 317-233-5967**

**PART 70 OPERATING PERMIT  
EMERGENCY/DEVIATION OCCURRENCE REPORT**

Source Name: Aluminum Company of America - Lafayette Operation  
Source Address: 3131 Main Street, Lafayette, Indiana 47905  
Mailing Address: P.O. Box 7500, Lafayette, Indiana 47903-7500  
Part 70 Permit No.: T157-7101-00001

**This form consists of 2 pages**

**Page 1 of 2**

Check either No. 1 or No.2	
<input type="checkbox"/> 1.	This is an emergency as defined in 326 IAC 2-7-1(12)
X	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
X	The Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16
<input type="checkbox"/> 2.	This is a deviation, reportable per 326 IAC 2-7-5(3)(c)
X	The Permittee must submit notice in writing within ten (10) calendar days

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/Deviation:
Describe the cause of the Emergency/Deviation:

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

Page 2 of 2

Date/Time Emergency/Deviation started:
Date/Time Emergency/Deviation was corrected:
Was the facility being properly operated at the time of the emergency/deviation?    Y    N Describe:
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/deviation:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by:  
Title / Position:  
Date:  
Phone:

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

**PART 70 OPERATING PERMIT  
NATURAL GAS FIRED BOILER CERTIFICATION**

Source Name: Aluminum Company of America - Lafayette Operation  
Source Address: 3131 Main Street, Lafayette, Indiana 47905  
Mailing Address: P.O. Box 7500, Lafayette, Indiana 47903-7500  
Part 70 Permit No.: T157-7101-00001

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

Report period

Beginning: \_\_\_\_\_

Ending: \_\_\_\_\_

Boiler Affected

Alternate Fuel

Days burning alternate fuel

From

To

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:

Date:

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

### Part 70 Quarterly Report

Source Name: Aluminum Company of America - Lafayette Operation  
 Source Address: 3131 Main Street, Lafayette, Indiana 47905  
 Mailing Address: P.O. Box 7500, Lafayette, Indiana 47903-7500  
 Part 70 Permit No.: T157-7101-00001  
 Facility: Boilers #3 and #6  
 Parameter: Sulfur content and heat content of fuel oil used, amount of fuel oil used, and SO<sub>2</sub> emissions  
 Limits: Boilers: SO<sub>2</sub> emissions of 0.5 lb/MMBTU of heat input and 0.5 weight percent sulfur

Month: \_\_\_\_\_

Year: \_\_\_\_\_

Emission Unit	Month	Sulfur Content (%)	Heat Content	Fuel usage (gal/month)	SO <sub>2</sub> Emissions (lb/MMBTU)
Boiler #3					
Boiler #3					
Boiler #3					
Boiler #6					
Boiler #6					
Boiler #6					

- No deviation occurred in this month.
- Deviation/s occurred in this month.
- Deviation has been reported on:

Submitted by:  
 Title/Position:  
 Signature:  
 Date:

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

### Part 70 Quarterly Report Area Source HAP Emission Certification

Source Name: Aluminum Company of America - Lafayette Operation  
 Source Address: 3131 Main Street, Lafayette, Indiana 47905  
 Mailing Address: P.O. Box 7500, Lafayette, Indiana 47903-7500  
 Part 70 Permit No.: T157-7101-00001  
 Facility: Melting Furnaces and Heat Treat Furnace  
 Parameter: Flux and AFB Usages  
 Limits: Flux - less than 175 tons per twelve (12) consecutive month period.  
 AFB - less than 12.75 tons per twelve (12) consecutive month period.

YEAR:

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

- No deviation occurred in this month.
- Deviation/s occurred in this month.
- Deviation has been reported on:

Submitted by:  
 Title/Position:  
 Signature:  
 Date:

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 COMPLIANCE MONITORING REPORT**

Source Name: Aluminum Company of America - Lafayette Operation  
Source Address: 3131 Main Street, Lafayette, Indiana 47905  
Mailing Address: P.O. Box 7500, Lafayette, Indiana 47903-7500  
Part 70 Permit No.: T157-7101-00001

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

This report is an affirmation that the source has met all the compliance monitoring requirements stated in this permit. This report shall be submitted quarterly. Any deviation from the compliance monitoring requirements and the date(s) of each deviation must be reported. Additional pages may be attached if necessary. This form can be supplemented by attaching the Emergency/Deviation Occurrence Report. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

NO DEVIATIONS OCCURRED THIS REPORTING PERIOD

THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD.

Compliance Monitoring Requirement (e.g. Permit Condition D.1.3)	Number of Deviations	Date of each Deviation

Form Completed By:  
Title/Position:  
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  
Hours of Operation Certification**

Source Name: Aluminum Company of America - Lafayette Operation  
Source Address: 3131 Main Street, Lafayette, Indiana 47905  
Mailing Address: P.O. Box 7500, Lafayette, Indiana 47903-7500  
Part 70 Permit No.: T157-7101-00001  
Facility: Generator / Air Pump (EUDAC #1)  
Parameter: Hours of Operation  
Limits: 3,575 hours per twelve (12) consecutive month period.

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	Hours of Operation This Month	Hours of Operation Previous 11 Months	Hours of Operation 12 Consecutive Month Period Total
Month 1			
Month 2			
Month 3			

- No deviation occurred in this month.
- Deviation/s occurred in this month.
- Deviation has been reported on:

Submitted by:  
Title/Position:  
Signature:  
Date:

Attach a signed certification to complete this report.

## Indiana Department of Environmental Management Office of Air Quality

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

#### Source Background and Description

Source Name:	Aluminum Company of America - Lafayette Indiana Operations
Source Location:	3131 East Main Street, Lafayette, Indiana 47905
County:	Tippecanoe
SIC Code:	3341, 3354
Operation Permit No.:	157-7101-00001
Operation Permit Issuance Date:	March 18, 1999
Minor Permit Modification No.:	157-20893-00001
Permit Reviewer:	LStapf

On April 5, 2005, the Office of Air Quality (OAQ) had a notice published in The Journal & Courier newspaper in Lafayette, Indiana, stating that Aluminum Company of America - Lafayette Indiana Operations had applied for a Minor Permit Modification to a permit to operate one (1) internal combustion engine diesel fuel fired air compressor emission unit. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On April 5, 15, and 29, 2005, Aluminum Company of America - Lafayette Indiana Operations submitted comments on the proposed Minor Permit Modification. Comments were accepted from Patrick Gorman, a consultant, on behalf of Alcoa - Lafayette Operations. Comments were also directly received from Joseph Snyder of Aluminum Company of America - Lafayette Indiana Operations. The summary of the comments is as follows. **Bold** text has been added while text with a line through it has been deleted. The Table of Contents of the permit was updated as needed.

#### Comment 1:

"The permit refers to the diesel generator as exhausting through a 'stack' in Sections A2.26 and D.8:3. I believe that this is inaccurate and we should comment accordingly. We don't want this emissions source to be subject to GEP stack heights or other restrictions."

#### Response to Comment 1:

- (a) Information provided by the source included a photograph that clearly identifies a stack on the diesel generator air pump equipment. The term "stack" is relevant and appropriate to the permit.

GEP stack heights do not appear in Condition D.8 for the emission unit EUDAC#1. IDEM has not made any reference to the GEP stack heights being applicable to the Emission Unit EUDAC#1. No changes have been made to the permit as a result of this comment.

**Comment 2:**

"Also, in Section D.8.5 (b), the permit inaccurately refers to VE record keeping requirements by referring to 'boiler stack DAC#1' exhaust while 'combusting fuel oil'. I don't like the fact that IDEM is basically taking VE language for industrial boilers that burn fuel oil and applying those same requirements to a diesel air compressor."

**Response to Comment 2:**

- (a) The term "boiler" appears in the permit but not in the Technical Support Document. The term "boiler" is not appropriate to the permit for Condition D.8 and its subparts. The term "boiler" has been removed from the permit.
- (b) No. 2 fuel oil and diesel fuel are very similar in nature and used interchangeably at times. The permit should read "diesel fuel" instead of "fuel oil".
- (c) The visible emissions language is not consistent / relevant to this type of process. The visible emission notations have been removed because of the nature of this emission unit.

Here are the proposed changes:

~~D.8.3 Visible Emissions Notations~~

- ~~(a) Visible emission notations of the diesel generator / air compressor stack exhaust shall be performed once per shift during normal daylight operations while combusting fuel oil. 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 this unit 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.8.43 Hourly Operation Gauge Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]~~

- ~~(a) Whenever a condition in this permit requires the measurement of hours of operation, the instrument employed shall have a scale such that the expected normal reading shall be no less than one hour increments with preferred option to include a tenth of an hour increment.~~
- ~~(b) The Preventive Maintenance Plan for the hourly operation gauge shall include calibration using known standards. The frequency of calibration shall be adjusted such that the typical error found at calibration is less than one hour.~~
- ~~(c) The Permittee may request the IDEM, OAQ approve the use of a hourly operation gauge that does not meet the above specifications provided the Permittee can demonstrate an alternative gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of hours of operation.~~

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

### D.8.-54 Record Keeping Requirements

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- (a) To document compliance with Condition D.8.1, the Permittee shall maintain records in accordance with (1) through (2) below. Records maintained for (1) through (2) shall be taken once per shift when the emission unit is to operate during that shift. The records shall be complete and sufficient to establish compliance with the hours of operation limit and the NOx emission limit established in Condition D.8.1.
- (1) Calendar dates covered in the compliance determination period;
- ~~(2) Actual hours of operation since last compliance determination period; and~~
- ~~(b) To document compliance with Condition D.8.3, the Permittee shall maintain records of visible emission notations of the boiler stack DAC#1 exhaust while combusting diesel fuel oil.~~
- (eb) To document compliance with Condition D.8.2, the Permittee shall maintain of records of any additional inspections prescribed by the Preventive Maintenance Plan.
- (dc) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

### D.8.-65 Reporting Requirements

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- (a) The diesel generator / air compressor certification 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 its equivalent, within thirty (30) days after the end of the six (6) month period being reported. The diesel generator / air compressor certification does require the certification by the 'responsible official' as defined by 326 IAC 2-7-1(34).

A semi-annual summary of the information to document compliance with Condition D.8.1 and D.8.2 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 six (6) month period 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).

#### Comment 3:

"Sections D.15.1 through D.15.4 are incorrectly labeled as D.14.1-4. This is on page 75 of 83 on my copy (76 of 84 on the posted version)."

#### Response to Comment 3:

Page 74 of the permit is part of Condition D.15 and references to D.14 has been corrected accordingly.

#### Comment 4:

"The hard copy of the permit I received from IDEM has 83 pages total. The electronic version posted at <http://www.in.gov/idem/air/permits/Air-Permits-Online/> shows 84 pages. ... I am investigating what the difference might be. It is important to note however, that the page number header is an automatic feature in Word which means that the posted copy of the permit was modified after the hard copies were printed and sent to us."

**Response to Comment 4:**

IDEM has investigated the difference in page numbers. Since the electronic copy of the permit available online has identical information matching the hard copy sent to Alcoa, the two permits are equal. There is no issue here beyond electronic page break problems. If at all possible, the issue of page breaks shall be resolved for the final permit issuance; however, electronic versions are not always exactly the same formatting as the hard copy document.

**Comment 5:**

**"D.8.2 Preventive Maintenance Plan**

The PMP will consist of manufacturer's recommended maintenance requirements.

**D.8.3 Visible Emissions Notations**

Once per shift VE notations during daylight hours is gross overkill, expensive and unnecessary for a portable generator that is designed to operate reliably while unattended. During extended daylight hours, VE requirements could be as much as 3 shifts per day. Even during the shortest days, VE monitoring would be a 2 shift operation at a minimum for a unit that is designed to operate reliably unattended.

In lieu of VE readings, we request that IDEM consider that having the unit maintained as specified by the manufacturer be more practical to comply with than per shift VE readings. We also want to invite you, including Alcoa's air inspector, Wanda Stanfield, to come out to the plant and observe the compressor in operation. You will quickly see why VE's aren't necessary.

**D.8.4 Hourly Operation Gauge Instrument Specifications**

We aren't sure how you would calibrate an hour meter in this application. I would suggest that we investigate the manufacturer's recommendation and advise accordingly. This might not be practical.

**D.8.5 Record Keeping**

Excessive VE requirements lead to excessive record keeping requirements.

**D.8.6 Reporting Requirements**

No comments"

**Response to Comment 5:**

- (a) The comment about visible emission notations has been addressed in IDEM Response #2 above.
- (b) The comment to having visible emission readings replaced by performing a maintenance schedule set by the manufacturer's recommendations has been noted and found an acceptable alternative. This alternative is to be spelled out in detail in the source-provided Preventative Maintenance Plan.
- (c) The hourly meter is to be calibrated according to the source's Preventive Maintenance Plan. The PMP should address this calibration thoroughly. IDEM shall keep the requirement in the permit with the specifics spelled out in the source-provided PMP.
- (d) The recordkeeping comment about excessive visible emission requirements is noted. The recordkeeping requirements for the visible emissions requirements has been removed.

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

**Technical Support Document (TSD) for a Minor Source Modification and a  
Minor Permit Modification to a Part 70 Operating Permit**

**Source Background and Description**

<b>Source Name:</b>	Aluminum Company of America - Lafayette Indiana Operations
<b>Source Location:</b>	3131 East Main Street, Lafayette, IN 47903
<b>County:</b>	Tippecanoe
<b>SIC Code:</b>	3341, 3354
<b>Operation Permit No.:</b>	T157-7101-00001
<b>Operation Permit Issuance Date:</b>	March 18, 1999
<b>Minor Source Modification No.:</b>	157-20762-00001
<b>Minor Permit Modification No.:</b>	157-20893-00001
<b>Permit Reviewer:</b>	LStapf

The Office of Air Quality (OAQ) has reviewed a modification application from Aluminum Company of America - Lafayette Indiana Operations relating to the construction of the following emission units and control devices:

One (1) internal combustion engine diesel fuel fired emission unit acting as a generator / air compressor, with a total maximum design capacity of 450 brake horsepower [equivalent to approximately 1.15 million British thermal units per hour (MMBtu/hr)]. This shall be designated emission unit EUDAC#1 and exhausting through stack DAC#1.

There will be no increase in the maximum capacity of the aluminum manufacturing operations or secondary operations as a result of the new unit being added. The emission unit is to be used as a standby unit.

**History**

This source is subject to Part 70 Permit Program and is a Major Source under the PSD Rules.

On February 14, 2005, Aluminum Company of America - Lafayette Indiana Operations submitted an application to the OAQ requesting the installation of a diesel-powered internal combustion engine backup-generator / air compressor unit. The unit was to be installed in order to act as a standby unit to support operations when compressed air was unavailable from the primary equipment. With the installation of this backup generator with air compressor, it will qualify as a new emission unit under the current permit program. Aluminum Company of America - Lafayette Indiana Operations was issued a Part 70 permit on March 18, 1999.

**Enforcement Issue**

There are no enforcement actions pending.

## Recommendation

The staff recommends to the Commissioner that this Minor Source Modification and Minor Permit Modification be approved. This recommendation is based on the following facts and conditions:

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

An application for the purposes of this review was received on February 14, 2005.

## Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
DAC#1	Diesel generator / air compressor	8	(2.5 in) 0.208	Unknown	800

## Emission Calculations

See Appendix A of this document for detailed emissions calculations (Appendix A, pages 1 through 2).

## Potential To Emit Before Controls (Modification)

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."

Pollutant	Potential To Emit (tons/year)
PM	4.34
PM-10	4.34
SO <sub>2</sub>	4.04
VOC	4.96
CO	13.17
NO <sub>x</sub>	61.10
Single HAP	1.30E-2
Total HAPs	3.21E-2

## Justification for Modification

This modification is being performed pursuant to 326 IAC 2-7-10.5(d)(4)(B) with a limit to hours of operation of the emission unit so that it emits less than 25 tons of NO<sub>x</sub> per year. Therefore, the Title V permit is being modified through a Minor Permit Modification pursuant to 326 IAC 2-7-12(b).

The Minor Source Modification will give the source approval to construct the new emission unit. The Minor Source Modification (157-20762-00001) will be incorporated into the Part 70 permit (T157-7101-00001) through Minor Permit Modification (157-20893-00001) for the source to operate the new emission unit.

**County Attainment Status**

The source is located in Tippecanoe 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) and oxides of nitrogen (NO<sub>x</sub>) are precursors for the formation of ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to the ozone standards. Tippecanoe County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions 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.
- (b) Tippecanoe County has been classified as attainment or unclassifiable for PM-10, SO<sub>2</sub>, NO<sub>2</sub>, ozone, CO and lead. Therefore, these emissions 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.
- (c) Fugitive Emissions  
 Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 or 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

**Source Status**

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	250.55
PM-10	242.60
SO <sub>2</sub>	496.02
VOC	34.97
CO	93.25
NO <sub>x</sub>	194.43

These emissions are based upon the Title V (T157-7101-00001) issued to the source on March 18, 1999, and Significant Permit Modification (SPM 157-15580-00001) issued on August 20, 2002. This existing source is a major stationary source because at least one attainment regulated pollutant is emitted at a rate of 100 tons per year or more, and the source is listed in one of the 28 listed source categories.

**Limited Potential to Emit Emissions Before Controls for the Modification**

The emission unit will be used as a standby / backup unit when compressed air is not available from the primary compressed air system. Due to the reduced operation of the emission unit and its nature of use, the emission unit operations will be limited to less than 8,760 hours per year. Pursuant to 326 IAC 2-7-10.5(d)(4)(B), the hours of operation will be limited to ensure that emissions remain below 25 tons per year of NOx.

The emission unit operations will be limited to 3,575 hours per year and have the following limited potential to emit under this modification:

Process/facility	Annualized Allowable Emissions (tons/year)					
	PM	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>
Increase in Emissions*	1.77	1.77	1.65	2.02	5.37	24.9
PSD Modification Significant Values	25	15	40	40	100	40

\*Emissions are for the single diesel fired unit with a total maximum heat input rate of 1.15 MMBtu/hr (450 hp). The emissions are based on taking a limit to operating hours.

This modification to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply to this emission unit.

**Federal Rule Applicability**

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) included in this modification.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14, 20 and 40 CFR Part 61, 63) included in this modification.
  - (1) The RICE NESHAP (40 CFR Part 63 Subpart ZZZZ) does not apply because it is not an affected source; "an affected source is any existing, new, or reconstructed stationary RICE with a site-rating of more than 500 brake horsepower located at a major source of HAP emissions". The source is not major for HAP emissions.

**40 CFR 64 Compliance Assurance Monitoring**

- (a) This minor source modification does not involve a pollutant-specific emissions unit as defined in 40 CFR 64.1 for any of the criteria pollutants:
  - (1) with the potential to emit before controls equal to or greater than the major source threshold for any criteria pollutants;
  - (2) that is subject to an emission limitation or standard for any criteria pollutants; and
  - (3) uses a control device as defined in 40 CFR 64.1 to comply with that emission limitation or standard.

Therefore, the requirements of 40 CFR 64, Compliance Assurance Monitoring, are not applicable to this modification.

**State Rule Applicability - Entire Source**

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

This existing source is a major source for PSD. Pursuant to 326 2-2-2(d), this modification is not a major modification and does not cause a significant emission increase. Since it is a new unit

the source would not be required to use the actual-to-projected-actual applicability test.

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

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

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

#### State Rule Applicability - Individual Facilities

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

This proposed modification is not considered a major modification because it has limited potential to emit less than applicable PSD significant emission levels for any regulated pollutant which makes the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

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

Potential single and total HAP emissions from this modification are less than 10 and 25 tons per year, respectively. Therefore, this rule does not apply.

##### 326 IAC 2-7-10.5(d)(4)(B) (Minor Source Modifications)

Pursuant to 326 IAC 2-7-10.5(d)(4)(B), NOx emissions from the new emission unit EUDAC#1 shall be limited to less than 25 tons per year. Limiting NOx emissions ensures all other pollutants will be emitted at rates less than 25 tons per year.

##### 326 IAC 3-7 (Fuel Sampling and Analysis Procedures)

The new emission unit EUDAC#1 is not subject to the requirements of this rule because the emission unit is not included under the requirements of 326 IAC 7.

##### 326 IAC 6-2-4 (PM Emission Limitations for Facilities)

The new emission unit EUDAC#1 is not included under the "combustion for indirect heating" definition pursuant to 326 IAC 1-2-19. Therefore, it is not subject to 326 IAC 6-2.

##### 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

The new emission unit EUDAC#1 is not subject to the requirements of this rule because the potential to emit sulfur dioxide is less than 25 tons per year and 10 pounds per hour.

#### Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance

Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this emission unit are as follows:

1. One (1) internal combustion engine diesel fuel fired emission unit acting as a generator / air compressor, with a total maximum design capacity of 450 brake horsepower [equivalent to approximately 1.15 million British thermal units per hour (MMBtu/hr)]. This shall be designated emission unit EUDAC#1 with stack DAC#1, has applicable compliance monitoring conditions as specified below:
  - (a) Visible emission notations of the diesel generator / air compressor stack exhaust shall be performed once per shift during normal daylight operations while combusting fuel oil. 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 this unit 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.
  - (f) The Permittee shall record the total hours used in conjunction with the diesel generator / air compressor at least once per shift during any shift when the diesel generator / air compressor is in operation. When for any one reading, the Hourly Operation gauge is outside the normal range (i.e. broken or not functioning) or the gauge is observed to not advance accurately, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

The instrument used for determining the hours of operation shall comply with Section C – Hourly Operation Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every (1) one year.
  - (g) An inspection shall be performed each calendar quarter of the Hourly Operation gauge on the diesel generator / air compressor. Inspections required by this condition shall not be performed in consecutive months. A defective gauge shall be replaced.

- (h) In the event that an Hourly Operation gauge failure has been observed, within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit. If operations continue after the Hourly Operation gauge failure is observed and it will be 10 days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

These monitoring conditions are necessary because the Hourly Operation gauge for the diesel generator / air compressor must operate properly to ensure compliance with the permit limitation of operating hours specified in this permit in order to avoid the conditions of this emission unit exceeding 25 tpy NOx and then becoming subject to the significant source modifications under the provisions of 326 IAC 2-7-10.5(f)(4)(c).

### Changes Proposed

The changes listed below are proposed to the Part 70 Operating Permit (T157-7101-00001).

- 1) Change Section A.2 as follows:

#### Plant Miscellaneous

(24) sand blasting operations, referred to as emission unit 108, constructed in 1960, with emissions uncontrolled and exhausting to stack 75-58;

(25) sawing activities located in the carpenter shop, referred to as emission unit 102, constructed in 1960, with emissions controlled by a cyclone, referred to as the #2 sawdust collector and exhausting to stack 72-57; and-

**(26) one (1) internal combustion engine diesel fuel fired emission unit acting as a generator / air compressor, with a total maximum design capacity of 450 brake horsepower [equivalent to approximately 1.15 million British thermal units per hour (MMBtu/hr)]. This shall be designated emission unit EUDAC#1 and exhausting through stack DAC#1.**

- 2) The IDEM post office box reference is to be removed from every occurrence in the permit. The correct address is:

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

- 3) A new Section D.8 will be inserted for this emission unit. Existing Sections D.8 through D.14 will be renumbered accordingly. The new Section D.8 follows:

## SECTION D.8

## FACILITY OPERATION CONDITIONS

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

One (1) internal combustion engine diesel fuel fired emission unit acting as a generator / air compressor, with a total maximum design capacity of 450 brake horsepower [equivalent to approximately 1.15 million British thermal units per hour (MMBtu/hr)]. This shall be designated emission unit EUDAC#1 and exhausting through stack DAC#1.

(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.8.1 Nitrogen Oxides [326 IAC 2-7-10.5]

Pursuant to 326 IAC 2-7-10.5(d)(4)(B) (Part 70 minor source modifications) emission unit EUDAC#1 shall not operate more than 3,575 hours per twelve (12) consecutive month period. This limitation on hours of operation limits NOx emissions to less than 25 tons per 12 consecutive month period.

#### D.8.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device

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

#### D.8.3 Visible Emissions Notations

- (a) Visible emission notations of the diesel generator / air compressor stack exhaust shall be performed once per shift during normal daylight operations while combusting fuel oil. 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 this unit 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.8.4 Hourly Operation Gauge Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

- (a) Whenever a condition in this permit requires the measurement of hours of operation, the instrument employed shall have a scale such that the expected normal reading shall be no less than one hour increments with preferred option to include a tenth of an hour increment.
- (b) The Preventive Maintenance Plan for the hourly operation gauge shall include calibration

using known standards. The frequency of calibration shall be adjusted such that the typical error found at calibration is less than one hour.

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

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

#### **D.8.5 Record Keeping Requirements**

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- (a) To document compliance with Condition D.8.1, the Permittee shall maintain records in accordance with (1) through (2) below. Records maintained for (1) through (2) shall be taken once per shift when the emission unit is to operate during that shift. The records shall be complete and sufficient to establish compliance with the hours of operation limit and the NOx emission limit established in Condition D.8.1.
- (1) Calendar dates covered in the compliance determination period;
- (2) Actual hours of operation since last compliance determination period; and
- (b) To document compliance with Condition D.8.3, the Permittee shall maintain records of visible emission notations of the internal combustion engine stack DAC#1 exhaust while combusting fuel oil.
- (c) To document compliance with Condition D.8.2, the Permittee shall maintain of records of any additional inspections prescribed by the Preventive Maintenance Plan.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### **D.8.6 Reporting Requirements**

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- (a) A quarterly summary of the information to document compliance with Condition D.8.1 and D.8.2 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 three (3) month period 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).
- 4) Indiana was required to incorporate credible evidence provisions into state rules consistent with the SIP call published by U.S. EPA in 1997 (62 FR 8314). Indiana has incorporated the credible evidence provision in 326 IAC 1-1-6. This rule is effective March 16, 2005; therefore, the condition reflecting this rule will be incorporated into your permit as follows:

#### **B.28 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]**

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

- 5) A new table will be inserted for this emission unit for quarterly reporting of hours of operation. The new report form follows:

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

**Part 70 Quarterly Report  
Hours of Operation Certification**

**Source Name:** Aluminum Company of America - Lafayette Operation  
**Source Address:** 3131 Main Street, Lafayette, Indiana 47905  
**Mailing Address:** P.O. Box 7500, Lafayette, Indiana 47903-7500  
**Part 70 Permit No.:** T157-7101-00001  
**Facility:** Generator / Air Pump (EUDAC #1)  
**Parameter:** Hours of Operation  
**Limits:** 3,575 hours per twelve (12) consecutive month period.

**YEAR:**

Month	Column 1	Column 2	Column 1 + Column 2
	Hours of Operation This Month	Hours of Operation Previous 11 Months	Hours of Operation 12 Consecutive Month Period Total
Month 1			
Month 2			
Month 3			

- No deviation occurred in this month.
- Deviation/s occurred in this month.
- Deviation has been reported on:

**Submitted by:**  
**Title/Position:**  
**Signature:**  
**Date:**

[ End of Revisions to Permit ]

**Conclusion**

The construction and operation of the diesel fired internal combustion emission unit (EUDAC#1) acting as a generator / air compressor shall be subject to the conditions of the attached proposed Minor Source Modification No. **157-20762-00001** and Minor Permit Modification No. **157-20893-00001**.

**Appendix A: Emission Calculations  
Internal Combustion Engines - Diesel Fuel  
(<600 HP)  
Criteria Pollutant Summary**

**Company Name: Aluminum Company of America (ALCOA)**  
**Address City IN Zip: 3131 East Main St, P.O. Box 7500**  
**Permit Number: 157-20762 and 157-20893**  
**Plt ID: 157-00001**  
**Reviewer: LWS**  
**Date: March 3, 2005**

Max Fuel Usage Rate (gallons per hour)	Diesel Fuel Heating Value (Btu/ gallon)	Heat Input Capacity (MMBtu/hour)
8.39	137,000	1.15

**A. Emissions calculated based on Potential to Emit (PTE) (8760 hours per year)**

Emission Factor (lb/hp-hr)	reference	Pollutant					
	AP42 Table 3.3-1	PM*	PM10*	SO2	NOx	VOC	CO
Part A: PTE Emission (tons/yr)		4.34E+00	4.34E+00	4.04E+00	6.11E+01	4.96E+00	1.32E+01

**B. Emissions calculated based on output rating (hp)**

Place Limit on Operating Hours?   
 Place Limit on Fuel Usage?

Heat Input Capacity Horsepower (hp)	Limit on Duration Hrs / Year	Fuel Limitation Gals/ Year
450	3,575	

Emission Factor (lb/hp-hr)	reference	Pollutant					
	AP42 Table 3.3-1	PM*	PM10*	SO2	NOx	VOC	CO
Part B: Emission (tons/yr)		1.77E+00	1.77E+00	1.65E+00	2.49E+01	2.02E+00	5.37E+00

**Methodology**

Potential Throughput (hp-hr/yr) = hp \* 8760 hr/yr

Use a conversion factor of 7,000 Btu per hp-hr to convert from horsepower to Btu/hr, unless the source gives you a source-specific brake-specific fuel consumption. (AP-42, Footnote a, Table 3.3-1)

Emission Factors are from AP42 (Supplement B 10/96), Table 3.3-1 or is a limitation speci

Part A: Emission (tons/yr) = [Heat input (hp) x Emission Factor (lb/hp-hr)] \* 8760 hr/yr / (2,000 lb/ton )

Part B hours limitation: Emission (tons/yr) = [Heat Input (hp) x Duration (hr/yr) x Emission Factor (lb/hp-hr)] / (2,000

Part B Fuel limitation: Emission (tons/yr) = [Heat Input (hp) x Fuel Use (gal/yr) x Emission Factor (lb/hp-hr)] / [(Max Fuel Rate gal/hr) x (

\*PM emission factors are assumed to be equivalent to PM10 emission factors. No information was

given regarding which method was used to determine the factor or the fraction of PM10 which is

condensable.

Company Name: **Aluminum Company of America (ALCOA)**  
 Address City IN Zip: **3131 East Main St, P.O. Box 7500**  
 Permit Number: **157-20762 and 157-20893**  
 Pk ID: **157-00001**  
 Reviewer: **LWS**  
 Date: **March 3, 2005**

**A. Emissions calculated based on Potential to Emit (PTE) (8760 hours per year)**

	Pollutant									
Emission Factor in lb/MMBtu	Benzene 9.33E-04	Toluene 4.09E-04	Xylenes 2.85E-04	Propylene 2.58E-03	1,3-butadiene 3.91E-05	Formaldehyde 1.18E-03	Acetaldehyde 7.67E-04	Acrolein 9.25E-05	Naphthalene 8.48E-05	Total HAPs
Part A: Emission in tons/yr	4.70E-03	2.06E-03	1.43E-03	1.30E-02	1.97E-04	5.94E-03	3.86E-03	4.66E-04	4.27E-04	3.21E-02

**B. Emissions calculated based on heat input capacity (MMBtu/hr)**

Place Limit on Operating Hours?  
 YES  
 NO

Heat Input Capacity MMBtu/hr  
 MM Btu/hr  Heat Input Capacity Horsepower (hp)  Maximum Fuel Usage Rate (gallons per hour)  Diesel Fuel Heating Value (Btu / gallon)  Limit on Duration Hrs / Year  Fuel Limitation Gals/ Year

	Pollutant									
Emission Factor in lb/MMBtu	Benzene 9.33E-04	Toluene 4.09E-04	Xylenes 2.85E-04	Propylene 2.58E-03	1,3-butadiene 3.91E-05	Formaldehyde 1.18E-03	Acetaldehyde 7.67E-04	Acrolein 9.25E-05	Naphthalene 8.48E-05	Total HAPs
Part B: Emission in tons/yr	1.92E-03	8.40E-04	5.86E-04	5.30E-03	8.03E-05	2.42E-03	1.58E-03	1.90E-04	1.74E-04	1.31E-02

**Methodology**

Heat Input (MMBtu/hour) = Max fuel usage (gal/hour) \* Fuel heat value (Btu/gal) \* (MMBtu / 1.00E+6 Btu)  
 Use a conversion factor of 7,000 Btu per hp-hr to convert from horsepower to Btu/hr, unless the source gives you a source-specific brake-specific fuel consumption. (AP-42, Footnote a, Table 3.3-1)  
 Emission Factors are from AP42 (Supplement B 10/96), Table 3.3-2  
 Part A: Emission (tons/yr) = [Heat input (hp) x Emission Factor (lb/MMBtu) \* 8760 hr/yr \* Fuel Heat Value (Btu/gal) \* Max Fuel Rate (gal/hr)] / [(1.0E+6 Btu/MMBtu) \* (2,000 lb/ton)]  
 Part B hours limitation: Emission (tons/yr) = [Fuel Heat Value (Btu/gal) \* Max Fuel Use (gal/hr) x Emission Factor (lb/MMBtu)] / [(1.0E+6 Btu/MMBtu) \* (2,000 lb/ton)]  
 Part B Fuel limitation: Emission (tons/yr) = [Emission Factor (lb/MMBtu) \* Fuel Heat Value (Btu/gal) \* Max Fuel Limit (gal/yr)] / [(1.0E+6 Btu/MMBtu) \* (2,000 lb/ton)]  
 NA = not available.