INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: July 8, 2008

RE: ALCOA / 173-26029-00007

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

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER.dot12/03/07

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

Mr. Samuel Bruntz
Alcoa, Inc. – Warrick Operations
Bldg. 860 E, P.O. Box 10
Newburgh, IN 47629

July 8, 2008

Re: Re: 173-26029-00007
Significant Source Modification to
Part 70 No.: T 173-6627-00007

Dear Mr. Bruntz:

Alcoa, Inc. – Warrick Operations was issued a Part 70 Operating Permit on January 5, 2007 for an aluminum production plant, which produces aluminum ingot, aluminum coils and coated aluminum coils. A letter requesting changes to this permit was received on February 1, 2008. Pursuant to 326 IAC 2-7-10.5 the following process change is approved:

(a) The kerosene portion of the rolling lubricant system is being replaced with mineral spirits. Kerosene results in lubricant contamination and increased waste disposal. The replacement of kerosene with mineral spirits is expected to significantly improve the quality of the lubricant. The present kerosene portion (to be replaced by mineral spirits) of the lubricant system is a required component, in order for the hot mills to operate properly.

(b) Alcoa is installing a PCME broken bag detector probe in the common exhaust stack of the pitch fume treatment system and in the exhaust stack of the DC-218 baghouse.

(c) ALCOA is replacing the airslide for the Potline 2 Alumina and Alumina Fluoride Handling System.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13 17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

This significant source modification authorizes modification of the existing emission units. Operating conditions shall be incorporated into the Part 70 operating permit as a significant permit modification in accordance with 326 IAC 2-7-10.5(l)(2) and 326 IAC 2-7-12. Operation is not approved until the significant permit modification has been issued.

All other conditions of the permit shall remain unchanged and in effect. For your convenience, the entire Part 70 Operating Permit as modified will be provided at issuance.

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 Kimberly Cottrell, OAQ, 100 North Senate Avenue, MC 61-53, Room 1003, Indianapolis, Indiana, 46204-2251, or call at (800) 451-6027, and ask for Kimberly Cottrell or extension (3-0870), or dial (317) 233-0870.

Original signed by,

Tripurari P. Sinha, Ph. D., Section Chief
Permits Branch
Office of Air Quality

Attachments:
Updated Permit
Technical Support Document
PTE Calculations

klc

cc: File – Warrick County
Warrick County Health Department
U.S. EPA, Region V
Air Compliance Branch
Compliance Data Section
Southwest Regional Office
Permits Administration and Development

Ms. Ann Whitty
Alcoa, Inc. – Warrick Operations
Bldg. 01, P.O. Box 10
Newburgh, IN 47629

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

PART 70 SIGNIFICANT SOURCE MODIFICATION
OFFICE OF AIR QUALITY

Alcoa, Inc. – Warrick Operations
Jct. IN Hwys. 66 & 61
Newburgh, Indiana 47629-0010

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

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

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

Operation Permit No.: T 173-6627-00007	
Issued by:Original Signed By: Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: January 5, 2007 Expiration Date: January 5, 2012

Significant Source Modification No.: T 173-24020-00007, issued on September 24, 2007
Significant Permit Modification No.: T 173-24585-00007, issued on October 30, 2007
Exemption No.: E 173-25797-00007, issued on January 11, 2008

Significant Source Modification No.: T 173-26029-00007	
Original signed by: Tripurari P. Sinha, Ph. D., Section Chief Permits Branch Office of Air Quality	Issuance Date: July 8, 2008

TABLE OF CONTENTS

A SOURCE SUMMARY 9

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]
A.2 Part 70 Source Definition [326 IAC 2-7-1(22)]
A.3 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]
A.4 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]
A.5 Part 70 Permit Applicability [326 IAC 2-7-2]

B GENERAL CONDITIONS 12

B.1 Definitions [326 IAC 2-7-1]
B.2 Permit Term [326 IAC 2-7-5(2)] [326 IAC 2-1.1-9.5] [326 IAC 2-7-4(a)(1)(D)] [13-15-3-6(a)]
B.3 Term of Conditions [326 IAC 2-1.1-9.5]
B.4 Enforceability [326 IAC 2-7-7]
B.5 Severability [326 IAC 2-7-5(5)]
B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]
B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]
B.8 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]
B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]
B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]
B.11 Emergency Provisions [326 IAC 2-7-16]
B.12 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]
B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5] [326 IAC 2-7-10.5]
B.14 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]
B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)
B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]
B.17 Permit Renewal [326 IAC 2-7-3] [326 IAC 2-7-4] [326 IAC 2-7-8(e)]
B.18 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12] [40 CFR 72]
B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12 (b)(2)]
B.20 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]
B.21 Source Modification Requirement [326 IAC 2-7-10.5] [326 IAC 2-2-2] and/or [326 IAC 2-3-2]
B.22 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2] [IC 13-30-3-1] [IC 13-17-3-2]
B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]
B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)] [326 IAC 2-1.1-7]
B.25 Credible Evidence [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [62 FR 8314] [326 IAC 1-1-6]

C SOURCE OPERATION CONDITIONS 23

Emission Limitations and Standards [326 IAC 2-7-5(1)]
C.1 Particulate Emission Limitations for Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]
C.2 Opacity [326 IAC 5-1]
C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]
C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]
C.5 Fugitive Dust Emissions [326 IAC 6-4]
C.6 Stack Height [326 IAC 1-7]
C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

Testing Requirements [326 IAC 2-7-6(1)]
C.8 Performance Testing [326 IAC 3-6]

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

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]
C.10 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]
C.11 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]
C.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]
C.13 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]
C.14 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]
C.15 Response to Excursions and Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]
C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]
C.17 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6]
C.18 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2] [326 IAC 2-3]
C.19 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2] [326 IAC 2-3]

Stratospheric Ozone Protection
C.20 Compliance with 40 CFR 82 and 326 IAC 22-1

D.1 FACILITY OPERATION CONDITIONS - Alumina and Aluminum Fluoride Handling Plant 32

Emission Limitations and Standards [326 IAC 2-7-5(1)]
D.1.1 Particulate Emissions Limitations for Manufacturing Processes [326 IAC 6-3-2]
D.1.2 PSD Minor Limit [326 IAC 2-2]

Compliance Determination Requirements
D.1.3 Particulate Control [326 IAC 2-7-6(6)]
D.1.4 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]

Compliance Monitoring Requirements [326 IAC 2-7-6 (1)] [326 IAC 2-7-5 (1)]
D.1.5 Bag Leak Detection System
D.1.6 Bag Leak Detection Alarm Activation
D.1.7 Visible Emissions Notations
D.1.8 Parametric Monitoring
D.1.9 Broken or Failed Bag Detection except Baghouse 112A and Baghouse 166

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]
D.1.10 Record Keeping Requirements

D.2 FACILITY OPERATION CONDITIONS - Potline & Potlines Support 47

Emission Limitations and Standards [326 IAC 2-7-5(1)]
D.2.1 Particulate Emissions Limitations for Manufacturing Processes [326 IAC 6-3-2]
D.2.2 Warrick County Sulfur Dioxide (SO2) Emissions Limitations [326 IAC 7-4-10]
D.2.3 General Provisions Relating to NESHAP [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-1] [40 CFR Part 63, Subpart A] [40 CFR 63.852]

D.2.4 Total Fluoride (TF) Emissions Limitations [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-24] [40 CFR 63.843] [40 CFR 63.847]
D.2.5 Plans and Procedures [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-1] [40 CFR 63.6] [326 IAC 20-24] [40 CFR 63.850]

Compliance Determination Requirements
D.2.6 Particulate Control [326 IAC 2-7-6(6)]
D.2.7 SO_2 Emissions Determination [326 IAC 7-4-10 (b) and (c)]
D.2.8 Testing [326 IAC 7-10-4(b)] [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-24] [40 CFR 63.847]
D.2.9 Test Methods and Procedures [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-24] [40 CFR 63.849]

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)] [40 CFR 63.847] [40 CFR 63.848] [326 IAC 20-24]
D.2.10 Emission Monitoring Requirements [326 IAC 12] [40 CFR 60 Subpart S] [40 CFR 63.848] [326 IAC 20-24]
D.2.11 Emission Monitoring Requirements [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-24] [40 CFR 63.847] [40 CFR 63.848]
D.2.12 Visible Emissions Notations
D.2.13 Parametric Monitoring
D.2.14 Broken or Failed Bag Detection [326 IAC 2-7-5(3)]

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-24] [40 CFR 63.850]
D.2.15 Record Keeping Requirements
D.2.16 NESHAP and NSPS Record Keeping Requirements [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-24] [40 CFR 63.850 (c) and (e)]
D.2.17 Reporting Requirements
D.2.18 NESHAP and NSPS Reporting Requirements [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-24] [40 CFR 63.850(b), (c), (d), and (e)]

Quarterly Reporting Form

D.3 FACILITY OPERATION CONDITIONS - Green Anode Plant 59

Emission Limitations and Standards [326 IAC 2-7-5(1)]
D.3.1 Particulate Emissions Limitations for Manufacturing Processes [326 IAC 6-3-2]
D.3.2 PSD Minor Limitations [326 IAC 2-2]
D.3.3 General Provisions Relating to NESHAP [326 IAC 20-1] [40 CFR Part 63, Subpart A] [40 CFR 63.852]
D.3.4 POM Emissions Control Requirement [326 IAC 20-24] [40 CFR 63.843] [40 CFR 63.847]
D.3.5 Plans and Procedures [326 IAC 20-1] [40 CFR 63.6] [326 IAC 20-24] [40 CFR 63.850]

Compliance Determination Requirements
D.3.6 Particulate Control [326 IAC 2-7-6(6)]
D.3.7 Testing Requirements [326 IAC 2-7-6(1), (6)]

Compliance Monitoring Requirements [326 IAC 2-7-6 (1)] [326 IAC 2-7-5 (1)] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-24] [40 CFR 63.847] [40 CFR 63.848]
D.3.8 Emission Monitoring Requirements [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-24] [40 CFR 63.847] [40 CFR 63.848]
D.3.9 Bag Leak Detection System and Alternative Monitoring Plan (AMP) [SPM 173-21948-00007] [326 IAC 20-24] [40 CFR 63.847] [40 CFR 63.848]

D.3.10 Visible Emissions Notations
D.3.11 Parametric Monitoring
D.3.12 Broken or Failed Bag Detection

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-24] [40 CFR 63.850]
D.3.13 Record Keeping Requirements
D.3.14 NESHAP Record Keeping Requirements [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-24] [40 CFR 63.850(c) and (e)]
D.3.15 NESHAP Reporting Requirements [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-24] [40 CFR 63.850(c), (d), and (e)]

D.4 FACILITY OPERATION CONDITIONS - Anode Baking Plant 69

Emission Limitations and Standards [326 IAC 2-7-5(1)]
D.4.1 Particulate Emissions Limitations for Manufacturing Processes [326 IAC 6-3-2]
D.4.2 PSD Minor Limitations [326 IAC 2-2]
D.4.3 PSD Minor Limitations [326 IAC 2-2]
D.4.4 PSD BACT [326 IAC 2-2-3]
D.4.5 Warrick County Sulfur Dioxide Emission Limitations [326 IAC 7-4-10]
D.4.6 General Provisions Relating to NESHAP [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-1] [40 CFR Part 63, Subpart A] [40 CFR 63.852]
D.4.7 TF and POM Emissions Limitations [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-24] [40 CFR 63.843] [40 CFR 63.847]
D.4.8 Plans and Procedures [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-1] [40 CFR 63.6] [326 IAC 20-24] [40 CFR 63.850]

Compliance Determination Requirements
D.4.9 TF, POM, and SO2 Control [326 IAC 2-7-6(6)]
D.4.10 Particulate Control [326 IAC 2-7-6(6)]
D.4.11 Testing [326 IAC 7-10-4(b)] [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-24] [40 CFR 63.847]
D.4.12 Sulfur Dioxide [326 IAC 2-2-3] [326 IAC 7-4-10(a)(4)]
D.4.13 Test Methods and Procedures [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-24] [40 CFR 63.849]
D.4.14 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]
D.4.15 Emergency Bypass Engine Operation

Compliance Monitoring Requirements [326 IAC 2-7-6 (1)] [326 IAC 2-7-5 (1)] [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-24] [40 CFR 63.847] [40 CFR 63.848]
D.4.16 Emission Monitoring Requirements [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-24] [40 CFR 63.847] [40 CFR 63.848]
D.4.17 Bag Leak Detection System and Alternative Monitoring Plan (AMP) [SPM 173-21948-00007] [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-24] [40 CFR 63.847] [40 CFR 63.848]
D.4.18 Visible Emissions Notations
D.4.19 Parametric Monitoring
D.4.20 Broken or Failed Bag Detection

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-24] [40 CFR 63.850]
D.4.21 Record Keeping Requirements
D.4.22 NESHAP Record Keeping Requirements [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-24] [40 CFR 63.850 (c) and (e)]

D.4.23 Reporting Requirements
D.4.24 NESHAP Reporting Requirements [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-24] [40 CFR 63.850(c), (d), and (e)]

Quarterly Reporting Forms

D.5 FACILITY OPERATION CONDITIONS - Anode Assembly & Spent Anode Plant 87

Emission Limitations and Standards [326 IAC 2-7-5(1)]
D.5.1 Particulate Emissions Limitations for Manufacturing Processes [26 IAC 6-3-2]
D.5.2 PSD Minor Limitations [326 IAC 2-2]

Compliance Determination Requirements
D.5.3 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]
D.5.4 Particulate Control [326 IAC 2-7-6(6)]

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]
D.5.5 Bag Leak Detection System
D.5.6 Bag Leak Detection Alarm Activation
D.5.7 Visible Emissions Notations
D.5.8 Parametric Monitoring
D.5.9 Broken or Failed Bag Detection

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]
D.5.10 Record Keeping Requirements

D.6 FACILITY OPERATION CONDITIONS - Ingot Plant and Support 93

Emission Limitations and Standards [326 IAC 2-7-5(1)]
D.6.1 Particulate Emissions Limitations for Manufacturing Processes [326 IAC 6-3-2]
D.6.2 PSD and Nonattainment New Source Review Minor Limitations [326 IAC 2-2] [326 IAC 2-1.1-5]
D.6.3 PSD Minor Limitations [326 IAC 2-2]
D.6.4 PSD Minor Limitations [326 IAC 2-2]
D.6.5 PSD and Nonattainment New Source Review Minor Limitations [326 IAC 2-2] [326 IAC 2-1.1-5]
D.6.6 General Provisions Relating to NESHAP [326 IAC 20-1] [40 CFR Part 63, Subpart A] [40 CFR 63.1518]
D.6.7 Emission Limits for Secondary Aluminum Production Sources and Emission Units [326 IAC 20-70] [40 CFR 63.1505]
D.6.8 Operating Requirements for Affected NESHAP Emission Units [326 IAC 20-70] [40 CFR 63.1506]
D.6.9 Alternative Opacity Limitation [326 IAC 5-1-5(b)] [U.S. EPA SIP Revisions Revised Opacity Limits]

Compliance Determination Requirements
D.6.10 NESHAP Performance Test/Compliance Demonstration General Requirements [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-70] [40 CFR 63.1511]
D.6.11 NESHAP Performance Test/Compliance Demonstration Requirements and Procedures [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-70] [40 CFR 63.1512] [40 CFR 63.1513]
D.6.12 Non NESHAP Emission Units Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]
D.6.13 PM and PM10 Control from Dross Cooling Operation [326 IAC 2-7-6(6)]
D.6.14 PM Control from Coated Scrap Shredder [326 IAC 2-7-6(6)]
D.6.15 Particulate Control from Rotary Group 1 Furnace [326 IAC 2-7-6(6)]

D.6.16 Particulate Control from Flux Salt Storage Bin [326 IAC 2-7-6(6)]

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-70] [40 CFR 63.1510]
D.6.17 NESHAP Monitoring Requirements [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-70] [40 CFR 63.1510]
D.6.18 Bag Leak Detection Systems for Dross Cooling Baghouses and Rotary Group 1 Furnace Baghouse [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]
D.6.19 Bag Leak Detection Alarm Activation [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]
D.6.20 Visible Emissions Notations for Flux Salt Storage Silo Bin Vent Filter [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]
D.6.21 Water Level Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-70] [40 CFR 63.1516] [40 CFR 63.1517]
D.6.22 NESHAP Record Keeping Requirements [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-70] [40 CFR 63.1517]
D.6.23 Record Keeping Requirements
D.6.24 NESHAP Reporting Requirements [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-70] [40 CFR 63.1516]
D.6.25 Reporting Requirements

Quarterly Reporting Forms

D.7 FACILITY OPERATION CONDITIONS - Rolling Mills Plant 152

Emission Limitations and Standards [326 IAC 2-7-5(1)]
D.7.1 Particulate Emissions Limitations for Manufacturing Processes [326 IAC 6-3-2]
D.7.2 General Provisions Relating to NSPS, Subpart Dc [326 IAC 12] [40 CFR Part 60, Subpart A]
D.7.3 Particulate Emissions Limitations for Sources of Indirect Heating [326 IAC 6-2-3] [326 IAC 6-2-4]

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] [326 IAC 12] [40 CFR 60, Subpart Dc]
D.7.4 New Source Performance Standard (NSPS) Record Keeping Requirements [326 IAC 12] [40 CFR 60, Subpart Dc]

D.8 FACILITY OPERATION CONDITIONS - Coating Plant 160

Emission Limitations and Standards [326 IAC 2-7-5(1)]
D.8.1 Particulate Emissions Limitations for Manufacturing Processes [326 IAC 6-3-2]
D.8.2 PSD Minor Limit [326 IAC 2-2]
D.8.3 PSD Emission Limit [326 IAC 2-2]
D.8.4 General Provisions Relating to NESHAP [326 IAC 20-1] [40 CFR Part 63, Subpart A] [326 IAC 20-64] [40 CFR 63.5140]
D.8.5 Coil Coating Lines Emission Limits [326 IAC 12] [326 IAC 20-64] [40 CFR 63.5120] [40 CFR 63.5140] [40 CFR 60.462] [326 IAC 8-2-4]
D.8.6 Operating Requirements for Coil Coating Lines CCL2 and CCL3 [326 IAC 12] [326 IAC 20-64] [40 CFR Part 63.5121] [40 CFR 60.463]
D.8.7 General Provisions Relating to Hazardous Air Pollutants [326 IAC 20-1] [40 CFR Part 63, Subpart A]
D.8.8 National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution, Non-Gasoline [326 IAC 20-83] [40 CFR Part 63, Subpart EEEE]
D.8.9 Organic Liquid Distribution Operations – Affected Sources [326 IAC 20-83] [40 CFR 63.2338]

Compliance Determination Requirements
D.8.10 Compliance Determination Requirements
D.8.11 Compliance Demonstration Requirements [326 IAC 12] [326 IAC 20-64] [40 CFR63.5170] [40 CFR 60.463] [326 IAC 8-2-4]
D.8.12 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11] [326 IAC 12] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-64] [40 CFR 5160] [40 CFR 60.463]

Compliance Monitoring Requirements [326 IAC 2-7-6 (1)] [326 IAC 2-7-5 (1)] [326 IAC 12] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-64] [40 CFR 63.5150] [40 CFR 60.464]
D.8.13 Thermal Oxidizer and Capture System Operating Parameters Monitoring

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] [326 IAC 12] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-64] [326 IAC 20-83] [40 CFR 60.465] [40 CFR 63.5180] [40 CFR 63.5190]
D.8.14 Record Keeping Requirements
D.8.15 Reporting Requirements [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 12] [326 IAC 20-64] [40 CFR 63.5180] [40 CFR 60, Subpart TT]
D.8.16 Notifications Requirements [326 IAC 12] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-64] [326 IAC 20-83] [40 CFR 63.5180] [40 CFR 63.2382]

Quarterly Reporting Forms

Certification 179

Emergency Occurrence Report 180

Quarterly Deviation and Compliance Monitoring Report 182

Attachment A: National Emission Standards for Hazardous Air Pollutants (NESHAP): Organic Liquids Distribution (Non-Gasoline) [40 CFR Part 63, Subpart EEEE] [326 IAC 20-83]

SECTION A SOURCE SUMMARY

This permit is based on information requested by Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in Conditions A.1, A.3, and A.4 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

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

The Permittee owns and operates an aluminum production plant, which produces aluminum ingot, aluminum coils and coated aluminum coils.

Source Address:	Jct. IN Highways 66 and 61, Newburgh, Indiana 47629-0010
Mailing Address:	Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
General Source Phone Number:	812-853-6111
SIC Code:	3334 and 3352
County Location:	Warrick
Source Location Status:	Attainment for ozone under the 8-hour standard Nonattainment for $PM_{2.5}$ Attainment for all other criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD and Nonattainment New Source Review Rules Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

A.2 Part 70 Source Definition [326 IAC 2-7-1(22)]

This company consists of two (2) plants:

(a) Alcoa aluminum production plant, the primary operation, is located at Jct. IN Hwys. 66 & 61, Newburgh, Indiana.

(b) Alcoa power plant, the supporting operation, is located at 4700 Darlington Road, Newburgh, Indiana.

Since the two (2) plants are located in contiguous properties, and are owned by one (1) company, they will be considered one (1) source.

Separate Part 70 permits will be issued to Alcoa Inc.- Warrick Operations and Alcoa Warrick Power Plant solely for administrative purposes.

These two plants have different plant identification numbers.

Alcoa Inc. – Warrick Operations ID - 173-00007
Alcoa Warrick Power Plant ID - 173-00002

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

The source consists of the following operating areas that are made up of various types of emissions units and pollution control devices. These operating areas correspond to the various “D” sections of the Part 70 permit and are described in more detail in Appendix A of this TSD.

(a) D.1 Alumina and aluminum fluoride handling Plant: The alumina and aluminum fluoride handling plant consists of the barge alumina unloading, truck unloading, and rail unloading. There are various conveyors, and tanks associated with this operation. The alumina is finally fed to Potlines 1 to 6. The emissions are controlled by several baghouses. The detailed equipment list is located in Section D.1 of this permit.

(b) D.2 Center-worked Pre-Bake One Potlines and Potlines Support: The Potlines and Potlines Support plant consists of the six center-worked prebake one potline controlled by fluidized bed scrubbers (for potlines 2, 5, and 6), alumina injection and fabric filtration systems (for potlines 3 and 4, identified as the gas treatment center (GTC) systems), and baghouses. It includes a hydraulic hammer, auger, crusher, each controlled by a baghouse, and alumina/butt bath/cake storage tanks. The detailed equipment list is located in Section D.2 of this permit.

(c) D.3 Green Anode Plant: The Green Anode Plant consists of the green petroleum coke storage silos, green petroleum coke and anode butt shaker screens, coke storage tanks, hammer mill, anode butts and scrap green anode hammer mill, green petroleum coke intermediate classifier, ball mill, weighting facility, anode forming consisting of mixers, associated conveying, and hydraulic presses, with emissions controlled by the pitch fume treatment system, and fixed roof coal tar pitch tanks. The detailed equipment list is located in Section D.3 of this permit.

(d) D.4 Anode Baking Plant: The Anode Baking Plant consists of anode baking ring furnace, a diesel fired emergency bypass engine, reacted alumina storage tank, reacted alumina truck loadout, baked anode vacuum system, and un-reacted alumina storage tank/truck unloading. The detailed equipment list is located in Section D.4 of this permit.

(e) D.5 Anode Assembly & Spent Anode Plant: The Anode Assembly & Spent Anode Plant consists of anode butt blast machine, tumbleblast, impactor, rod cleaning machine, butt storage tank, iron casting station, induction furnaces, spent anode storage pad, and several baghouses. The detailed equipment list is located in Section D.5 of this permit.

(f) D.6 Ingot Plant and Support: The Ingot Plant and Support consists of group 1 furnaces, in-line fluxers, group 2 furnaces, aluminum pneumatic transport systems, a coated scrap shredder, dross cooling and handling, and emergency intermittent duty-cycled, diesel fired, reciprocating internal combustion engines. The detailed equipment list is located in Section D.6 of this permit.

(g) D.7 Rolling Mills Plant: The Rolling Mills Plant consists of scalper step cutter, hot ingot oxide brushing system, silos, hot reversing mill, continuous hot mill, cold mills, mist eliminator, annealing furnaces, preheat furnaces, and natural gas fired boilers. The detailed equipment list is located in Section D.7 of this permit.

(h) D.8 Coating Plant: The Coating Plant consists of electro coil prep coating line, coil coating lines, coating mixing room and mix stations, and coatings and solvents tanks. The detailed equipment list is located in Section D.8 of this permit.

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

The detailed regulated insignificant activities are located in individual D sections of this permit.

A.5 Part 70 Permit Applicability [326 IAC 2-7-2]

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

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

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

SECTION B GENERAL CONDITIONS

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

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

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

(a) This permit, T 173-6627-00007, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit or of permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control).

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

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

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

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

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

B.4 Enforceability [326 IAC 2-7-7]

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

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

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

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

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

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

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

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

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

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

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

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

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

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

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

and

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

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

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

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

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-0178 (ask for Compliance Section)
Facsimile Number: 317-233-6865
Southwest Regional Office phone: (812) 380-2305; fax: (812) 380-2304.

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

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

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

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

(A) A description of the emergency;

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

(C) Corrective actions taken.

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

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

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

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

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(a) All terms and conditions of permits established prior to T 173-6627-00007 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

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

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

(b) Provided that all terms and conditions are accurately reflected in this combined permit, all previous registrations and permits are superseded by this combined new source review and part 70 operating permit, except for permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control)

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

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

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

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

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

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

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

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

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

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)]The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

(1) That this permit contains a material mistake.

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

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

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

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

B.17 Permit Renewal [326 IAC 2-7-3] [326 IAC 2-7-4] [326 IAC 2-7-8(e)]

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

Request for renewal shall be submitted to:

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

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

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

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

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

B.18 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12] [40 CFR 72]

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

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

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

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

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

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

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

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

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

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

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

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

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

(4) The Permittee notifies the:

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

and

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

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

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

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

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

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

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

(3) Any change in emissions; and

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

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

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

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

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

(f) This condition does not apply to emission trades of SO_2 or NO_X under 326 IAC 21 or 326 IAC 10-4.

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

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

(b) Any modification at an existing major source is governed by the requirements of 326 IAC 2-2 and/or 326 IAC 2-3 (for sources located in NA areas).

B.22 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2] [IC 13-30-3-1] [IC 13-17-3-2]

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

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

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

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

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

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

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

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

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

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

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

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

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)] [326 IAC 2-1.1-7]

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

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

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

B.25 Credible Evidence [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [62 FR 8314] [326 IAC 1-1-6]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

C.2 Opacity [326 IAC 5-1]

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

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

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

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

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

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

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2. This provision does not apply to incinerators used as pollutant control equipment to control process emissions.

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

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

C.6 Stack Height [326 IAC 1-7]

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

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

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

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

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

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

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

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

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

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue
MC 61-52 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

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

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

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

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

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

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

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

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

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

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

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

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

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

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

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

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

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

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

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

C.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

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

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

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

C.13 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

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

(a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on May 20, 1997; and

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

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

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

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

(a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:

(1) initial inspection and evaluation;

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

(3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

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

(1) monitoring results;

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

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

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

(e) The Permittee shall maintain the following records:

(1) monitoring data;

(2) monitor performance data, if applicable; and

(3) corrective actions taken.

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

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

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

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

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

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

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

(a) Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit by July 1 of each year an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

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

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

The statement must be submitted to:

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

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

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

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

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

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

(c) If there is a reasonable possibility (as defined in 40 CFR 51.165 (a)(6)(vi)(A), 40 CFR 51.165 (a)(6)(vi)(B), 40 CFR 51.166 (r)(6)(vi)(a), and/or 40 CFR 51.166 (r)(6)(vi)(b)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:

(1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, document and maintain the following records:

(A) A description of the project.

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

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

(i) Baseline actual emissions;

(ii) Projected actual emissions;

(iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1 (mm)(2)(A)(iii); and

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

(d) If there is a reasonable possibility (as defined in 40 CFR 51.165 (a)(6)(vi)(A) and/or 40 CFR 51.166 (r)(6)(vi)(a)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:

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

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

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

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

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

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

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

(d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

(f) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C – General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll) at an existing Electric Utility Steam Generating Unit, then for that project the Permittee shall:

(1) Submit to IDEM, OAQ a copy of the information required by (c)(1) in Section C – General Record Keeping Requirements

(2) Submit a report to IDEM, OAQ within sixty (60) days after the end of each year during which records are generated in accordance with (d)(1) and (2) in Section C – General Record Keeping Requirements. The report shall contain all information and data describing the annual emissions for the emissions units during the calendar year that preceded the submission of report.

Reports required in this part shall be submitted to:

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

(g) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C – General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll) at an existing emissions unit other than an Electric Utility Steam Generating Unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:

(1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C – General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C – General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1(xx) and/or 326 IAC 2-3-1(qq), for that regulated NSR pollutant, and

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

(h) The report for a project at an existing emissions unit other than Electric Utility Steam Generating Unit shall be submitted within sixty (60) days after the end of the year and contain the following:

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

(2) The annual emissions calculated in accordance with (d)(1) and (2) in Section C – General Record Keeping Requirements.

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

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

Reports required in this part shall be submitted to:

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

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

Stratospheric Ozone Protection

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

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

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

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

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

SECTION D.1 ALUMINA & ALUMINUM FLUORIDE HANDLING SYSTEM

FACILITY OPERATION CONDITIONS

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

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

Central Alumina and Aluminum Fluoride Handling System:

(1) Two (2) barge unloading pneumatic conveyors transferring alumina and aluminum fluoride from barge, identified as Airveyor No. 1 and Airveyor No. 2, constructed in 1968, with a maximum capacity of 200 tons per hour each, controlled by Airveyor No. 1 Baghouse and Airveyor No. 2 Baghouse, respectively, and exhausting at Stacks 60.2 and 60.3, respectively.

Two (2) baghouses, identified as Airveyor No. 1 Baghouse and Airveyor No. 2 Baghouse, with an air flow rate of 8,400 acfm at 120°F each, and exhausting at Stacks 60.2 and 60.3, respectively;

(2) One (1) belt conveyor transferring alumina and aluminum fluoride from Airveyor No. 1 and Airveyor No. 2 to Transfer Tower 61A, identified as Airveyors Discharge Conveyor (Section 1), constructed in 1969, with a maximum capacity of 500 tons per hour, controlled by Building 60 Baghouse, and exhausting at Stack 60.8.

One (1) baghouse, identified as Building 60 Baghouse, controlling the Airveyors discharge onto the Airveyors Discharge Conveyor, with an airflow rate of 2,200 acfm at 80°F, and exhausting at Stack 60.8;

(3) One (1) Transfer Tower 61A, constructed in 1969, for transferring alumina and aluminum fluoride from the Airveyors Discharge Conveyor to Tank 62 Feed Conveyor (Section 2), with a maximum capacity of 500 tons per hour, controlled by Transfer Tower 61A Baghouse, and exhausting at Stack 61A.1.

One (1) transfer tower baghouse, identified as Transfer Tower 61A Baghouse, with an airflow rate of 3,500 acfm at 80°F, and exhausting at Stack 61A.1;

(4) One (1) alumina/aluminum fluoride storage tank, identified as Tank 62, constructed in 1969, with a maximum storage capacity of 1,800 tons and a transfer rate of 225 tons per hour. The Tank 62 Feed Conveyor discharge into Tank 62 is controlled by Tank 62 Baghouse (top of tank), exhausting at Stack 62.1. The Tank 62 discharge to Transfer Tower 61B Feed Conveyor (Section 3) occurs in an enclosed building. This transfer point does not exhaust to a baghouse. The 112A Passageway Conveyor is controlled by BC-24 Baghouse (Tank 62 baghouse, ground level), exhausting at Stack 62.2.

Two (2) alumina/aluminum fluoride Tank 62 baghouses, identified as Tank 62 Baghouse (top of tank) and Baghouse BC-24 (Tank 62 baghouse, ground level), with maximum gas flow rates of 3,000 and 710 acfm at 70^{0}F, respectively, and exhausting at Stacks 62.1 and 62.2, respectively;

Potlines 1 and 2 Alumina and Alumina Fluoride Handling System:

(5) One (1) belt conveyor transferring alumina and aluminum fluoride from Tank 62 to Transfer Tower 61B, identified as Transfer Tower 61B Feed Conveyor, constructed in 1969, with a maximum capacity of 275 tons per hour. This transfer point is contained within a building and does not exhaust to a baghouse;

(6) One (1) Transfer Tower 61B transferring alumina and aluminum fluoride from the Transfer Tower 61B Feed Conveyor to 104 passageway Conveyor, constructed in 1969, with a maximum capacity of 225 tons per hour, with the feed and discharge points into/out of Transfer Tower 61B controlled by Transfer Tower 61B Baghouse, and exhausting at Stack 61B.1;

(7) One (1) railcar/truck unloading system transferring alumina and aluminum fluoride to 104 Passageway Conveyor, identified as Building 140 Unloading, constructed in 1958, with a maximum capacity of 225 tons per hour, controlled by Building 140 Baghouse, and exhausting at Stack 140.1.

One (1) baghouse, identified as Building 140 Baghouse, with an airflow rate of 1,000 acfm at 70^0F, and exhausting at Stack 140.1;

(8) One (1) belt conveyor transferring alumina and aluminum fluoride from either the railcar/truck unloading system or 61B Transfer Tower to Bucket Elevators 141A and/or 141B, identified as 104 Passageway Conveyor, constructed in 1969, with a maximum capacity of 280 tons per hour, controlled by 104A Passageway Baghouse, and exhausting at Stack 104.1.

One (1) baghouse, identified as 104A Passageway Baghouse, with an airflow rate of 10,000 acfm at 70^0F, and exhausting at Stack 104.1;

(9) Two (2) bucket elevators transferring alumina and aluminum fluoride from 104 Passageway Conveyor to the Tank 144 feed airslide (Airslide 141) or the #8 screw conveyor, identified as Bucket Elevator 141A and Bucket Elevator 141B, each constructed in 1969, with a maximum capacity of 100 tons per hour each, controlled by 104A Passageway Baghouse at their inlet and the 144A Baghouse at their outlet, and exhausting at Stacks 104.1 and 144.1;

(10) One (1) Tank 144 feed airslide (Airslide 141) transferring alumina from Bucket Elevator 141A and Bucket Elevator 141B to Tanks 141BN, 141 BS, 141 CN, 141 CS, 141NE, 141NW, and 144, constructed in 1969, with a capacity of 240 tons per hour. All transfer points except those into tanks 141NE and 141NW are, controlled by 144A Baghouse, and exhausting at Stack 144.1. The transfer point into tank 141NE is controlled by the 141ANE baghouse, and the transfer point into tank 141NW is controlled by the 141ANW baghouse.

One (1) baghouse, identified as 144A Baghouse, with an airflow of 14,800 acfm at 70^0F, and exhausting at Stack 144A.1.

One (1) baghouse, identified as the Tank 141NE Baghouse, with an airflow of 3,500 acfm at 70^0F, and exhausting at Stack 141.1NE,

One (1) baghouse, identified as the Tank 141NW Baghouse, with an airflow of 3,500 acfm at 70^0F, and exhausting at Stack 141.1NW;

(11) One (1) tank transferring alumina to fresh alumina Tanks 160M.1 and 160M.2, identified as Tank 144, constructed in 1956, with a maximum storage capacity of 2,235 tons and a transfer rate of 225 tons per hour, controlled by 144A Baghouse, and exhausting at Stack 144.1;

(12) One (1) tank transferring alumina to reacted alumina Tank 141A(NE), identified as Tank 141BN, constructed in 1969, with a maximum storage capacity of 985 tons and a discharge rate of 5 tons per hour, controlled by 144A Baghouse, and exhausting at Stack 144.1;

(13) One (1) #8 Screw Conveyor transferring aluminum fluoride from Bucket Elevator 141A and Bucket Elevator 141B to Tanks 141CN, 141CS, 141D, 141E, and 141F, constructed in 1969, with a maximum conveying rate of 200 tons per hour, controlled by 144A Baghouse, and exhausting at Stack 144.1;

(14) Five (5) tanks, identified as Tanks 141BN, 141BS, 141CN, 141CS, 141D, 141E, and 141F, constructed in 1969, with a maximum capacity of 985 tons each, 144A Baghouse, and exhausting at Stack 144.1;

(15) Tank 160M.2 Feed Convair, pneumatically feeding fresh alumina from Tank 144 to Tank 160M.2, with a capacity of 18 tons per hour, constructed in 1956, controlled by the 160M.2 Bin Vent Baghouse, and exhausting at Stack 160M.2.

One (1) baghouse, identified as 160M.2 Bin Vent Baghouse, with an airflow rate of 3,000 acfm at 70^0F, and exhausting at Stack 160M.2;

(16) One (1) fresh alumina tank for the supply of alumina to the Potline #1 B2 fluidized bed dry scrubber and baghouse, identified as Tank 160M.2, constructed in 1956, with a maximum capacity of 650 tons, controlled by the 160M.2 Bin Vent Baghouse, and exhausting at Stack 160M.2;

(17) One (1) distribution box and airslide transferring fresh alumina from Tank 160M.2 to fluidized bed scrubber and B2 Baghouse, identified as the Alumina Feed Airslide B2, constructed in 1956, with a maximum capacity of 18 tons per hour, controlled by the Airslide B2 Baghouse, and exhausting at Stack 160B2.16.

One (1) baghouse, identified as Airslide B2 Baghouse, with an airflow rate of 750 acfm at a temperature 70^0F, and exhausting at Stack 160B2.16;

(18) One (1) Tank 160M.1 pneumatic conveyor feeding fresh alumina from Tank 144 to Tank 160M.1, constructed in 1962, with a capacity of 18 tons per hour, controlled by Potline #2 C1 Pollution Control System, and exhausting at Stacks 160C.1 through 160C.37.

One fluidized bed dry scrubber and baghouse system consisting of twelve (12) fluidized dry scrubbers and baghouses, identified as the Potline #2 C1 Pollution Control System, with a total gas flow rate of 480,000 acfm at 200^0F, and exhausting at Stacks 160C.1 - 160C.36;

(19) One (1) fresh alumina tank for the supply of alumina to the Potline #2 C1 fluidized bed dry scrubber and baghouse, identified as Tank 160M.1, with a capacity of 650 tons, constructed in 1962, controlled by Potline #2 C1 Pollution Control System, and exhausting at Stacks 160C.1 through 160C.37;

(20) One (1) distribution box, constructed in 1962, and vibratory screen and airslide transferring fresh alumina to fluidized bed scrubber and Baghouse C1, identified as the Alumina Vibratory Screen and C1 East and C1 West Feed Airslide , constructed in 2008 , with a capacity of 18 tons per hour, controlled by the vibratory screen and C1 east and C1 west Airslides vibratory screen and C1 east and C1 west airslide bin vents #1, #2, #3, and #4, and exhausting at Stacks 160C1.37-1, 160C1.37-2, 160C1.37-3, and 160C1.37-4.

4 bin vents , identified as the vibratory screen and C1 east and C1 west Airslide bin vents, each with an airflow rate of 250 acfm at a temperature 120^0F , and exhausting at Stacks 160C.37-1, 160C.37-2, 160C.37-3, and 160C.37-4.

(21) One (1) reacted alumina airslides transporting reacted alumina from the C1 and B2 Pollution Control Systems to Tank 141A(NE), identified as Reacted Alumina Airslide C1, constructed in 1962, with a maximum capacity of 18 tons per hour each, controlled by Tank 141A(NE) Baghouse, and exhausting at Stack 141.1(NE);

(21A) One (1) reacted alumina airslides transporting reacted alumina from the B2 Pollution Control Systems to Tank 141A(NW), identified as Reacted Alumina AirslideB2, constructed in 1956, with a maximum capacity of 18 tons per hour, controlled by the Tank 141A(NW) Baghouse, and

exhausting at Stack 141.1(NW).

(22) One (1) reacted alumina eductor transporting reacted alumina from Tank 141BS to Tank 141A(NE), identified as Tank 141 BS Eductor, constructed in 1984, with a maximum capacity of 5 tons per hour, controlled by Tank 141A(NE) Baghouse, and exhausting at Stack 141.1(NE);

(23) One (1) reacted alumina storage tank, identified as Tank 141A(NE), constructed in 1964, with a maximum capacity of 860 tons, controlled by Tank 141A(NE) Baghouse at its inlet and 104A Baghouse at its discharge, and exhausting at Stacks 141.1(NE) and 104.1;

(23A) One (1) reacted alumina storage tank, identified as Tank 141A(NW), constructed in 1964, with a maximum capacity of 860 tons, controlled by Tank 141A(NW) Baghouse at its inlet and 104A Baghouse at its discharge, and exhausting at Stacks 141.1(NW) and 104.1;

Potlines 3, 4, 5, and 6 Alumina and Aluminum Fluoride Handling System:

(24) One (1) belt conveyor transferring alumina and aluminum fluoride from Tank 62 to Airlift 150-FM-AE-01 and Airlift 150-FM-AE-02, identified as 112A Passageway Conveyor, constructed in 1969, with a maximum capacity of 275 tons per hour, controlled by 112A Passageway Baghouse, and exhausting at Stack 112A.1.

One (1) baghouse, identified as Baghouse 112A, with an airflow rate of 26,900 acfm at 70^0F, and exhausting at Stack 112A.1;

(24A) One (1) belt conveyor transferring alumina and aluminum fluoride from Tank 152 to Airlift 150-FM-AE-01 and Airlift 150-FM-AE-02, identified as BC26 Conveyor, constructed in 1969, with a maximum capacity of 275 tons per hour, controlled by 112A Passageway Baghouse, and exhausting at Stack 112A.1;

(25) Airlift 150-FM-AE-01 and Airlift 150-FM-AE-02, transferring alumina and aluminum fluoride from the 112A Passageway Conveyor or the BC26 conveyor to Airslide151, constructed in 2000, with a maximum capacity of 100 tons per hour each, controlled by 112A Passageway Baghouse, and exhausting at Stack 112A.1;

(26) Airslide 151, transferring alumina from Airlifts 150-FM-AE-01 and 150-FM-AE-02 to Tank 151C, Tank 151J, Tank 152, and Tank 154; and aluminum fluoride from Airlift 150-FM-AE-01 and Airlift 150-FM-AE-02 to Tank 151F and Tank 151G and to atmosphere constructed in 1969, with a maximum capacity of 225 tons per hour, controlled by Baghouse 112A, and exhausting at Stack 112A.1;

(27) One (1) aluminum fluoride tank, identified as Tank 151F, constructed in 1970, with a maximum storage capacity of 850 tons, fed from Airslide 151, and venting to Tank 151G and to atmosphere;

(28) One (1) aluminum fluoride tank, identified as Tank 151G, constructed in 1970, with a maximum storage capacity of 850 tons, fed from Airslide 151, and venting to atmosphere;

(29) One (1) fresh alumina tank, identified as Tank 151C, constructed in 1969, with a capacity of 985 tons, and venting to Tank 152. This tank supplies alumina for the anode baking ring furnace A-446 pollution control system and the bath crusher if needed;

(30) One (1) fresh alumina tank, identified as Tank 151J, fed from Airslide 151, constructed in 1969, with a maximum storage capacity of 113 tons, venting to Tank 151. This tank supplies alumina for the anode baking ring furnace A-446 pollution control system;

(31) One (1) fresh alumina tank, identified as Tank 152, fed from Airslide 151, constructed in 1969,

with a maximum storage capacity of 25,000 tons, and venting to the B5 and B6 Pollution control system feed airslide baghouses. This tank serves as an emergency supply point for alumina. Withdrawals from this tank occur via the BC26 Belt Conveyor;

(32) Feed box B5 and Pollution Control System Alumina Feed Airslide B5, transporting alumina from Tank 154 to the B5 Pollution Control System, constructed in 1969, with a maximum capacity of 18 tons per hour, controlled by Airslide B5 Baghouse, and exhausting at Stack 161.B5.37.

One (1) baghouse, identified as Airslide B5 Baghouse, with an airflow rate of 3,500 acfm at a temperature 70°F, and exhausting at Stack 161B5.37;

(33) Feed box B6 and Pollution Control System Alumina Feed Airslide B6, transporting alumina from Tank 154 to the B6 Pollution Control System, constructed in 1969, with a capacity of 18 tons per hour, controlled by Airslide B6 Baghouse, and exhausting at Stack 161.B6.37.

One (1) baghouse, identified as Airslide B6 Baghouse, with an airflow rate of 3,500 acfm at a temperature 70°F, and exhausting at Stack 161B6.37;

(34) One (1) fresh alumina tank, identified as Tank 154, fed from Airslide 151, feeding to:

(A) Potline #5 pollution control system, Feed Box B5;

(B) Potline #6 pollution control system, Feed Box B6;

(C) Vibratory Screen and GTC Feed Airslide 161-B3-FM-01; and

(D) Vibratory Screen and GTC Feed Airslide 161-B4-FM-01.

Tank 154 was constructed in 1969, and has a capacity of 1,200 tons. It is controlled by Airslide B5 Baghouse and Airslide B6 Baghouse, and exhausts at Stacks 161.B5.37 and 161.B6.37;

(35) Vibratory Screen and GTC Feed Airslide 161-B3-FM-01, and Vibratory Screen and GTC Feed Airslide 161-B4-FM-01, transporting fresh alumina from Tank 154 to Potlines 3 and 4 Gas Treatment Center (GTC) for fluoride control, constructed in 2000, with a maximum capacity of 80 tons per hour each, controlled by Gas Treatment Center (GTC), and exhausting at Stack GTC;

(36) Transfer of reacted alumina from the Potlines 3 and 4 Gas Treatment Center (GTC) for fluoride control to reacted alumina Airslide 166-FM-03 via:

(A) Airslide 161B3-FM-03 to Airlift 161B3-AE-01 or Airlift 161B4-AE-02 to Vibratory Screen 161B3-SC-02 or vibratory screen 161B4-SC-02;

(B) Airslide 166-FM-02.

Maximum capacity for the equipment described by (A.) is 30 tons per hour each, Maximum capacity for Airslide 166-FM-02 and Airslide 166-FM-03 is 60 tons per hour. All of the airslides, airlifts, and vibratory screens described herein, except for airslides 165-FM-02 and 166-FM-03 are controlled by the GTC, exhausting at Stack GTC. Airslides 166-FM-02 and 166-FM-03 are controlled by Baghouse 166, exhausting at Stack 166.1. All of the equipment described herein was constructed in 2000.

One (1) baghouse, identified as Baghouse 166, with an airflow rate of 7,000 standard dry cubic foot at 70^{0}F, and exhausting at Stack 166.1;

(37) Transfer of reacted alumina from Potline #6 B6 Pollution Control System for fluoride control to Airslide 166-FM-03 via Airslide 161-B6-FM-01 to Airlift 166-B6-FM-AE-01, thence to Vibratory

Screen 166-B6-FM-SC-01, and thence to Airslide 166-FM-03. All of this equipment except for Airslide 166-FM-03 has a maximum capacity of 20 tons per hour, was constructed in 1969, and is controlled by Baghouse 166, exhausting at Stack 166.1;

(38) Transfer of reacted alumina from the Potline #5 B5 pollution control system for fluoride control to reacted alumina Airslide 161-B5-FM-01, thence to Airlift 161-B5-FM-AE-01, thence to Vibratory Screen 61-B5-FM-SC-01, thence to the feedbox for Airslide 166-FM-05 and Airslide 166-FM-06. All of this equipment except for the feedbox for Airslide 166-FM-05 and Airslide 166-FM-06 has a maximum capacity of 20 tons per hour, was constructed in 1969, and is controlled by the Baghouse 166, exhausting at Stack 166.1;

(39) Feedbox for Airslide 166-FM-05 and Airslide 166-FM-06, transferring reacted alumina from the GTC, B5, and B6 pollution control systems to Airslide 166-FM-05 and Airslide 166-FM-06. This feedbox was constructed in 2000, has a maximum capacity of 80 tons per hour, and is controlled by Baghouse 166, exhausting at Stack 166.1;

(40) Airslide 166-FM-05, transferring reacted alumina from the feedbox for Airslide 166-FM-05 and Airslide 166-FM-06 to Airlift 166-AE-01, constructed in 2000, with a maximum capacity of 80 tons per hour, and controlled by Baghouse 166, exhausting at Stack 166.1;

(41) Airslide 166-FM-06, transferring reacted alumina from the feedbox for Airslide 166-FM-05 and Airslide 166-FM-06 to Airlift 166-AE-02, constructed in 2000, with a maximum capacity of 80 tons per hour, and controlled by Baghouse 166, exhausting at Stack 166.1;

(42) Airlift 166-AE-02, transferring reacted alumina from Airslide 166-FM-06 to reacted alumina Airslide 166-FM-07, constructed in 2000, with a maximum capacity of 80 tons per hour, and controlled by Baghouse 166, exhausting at Stack 166.1;

(43) Airlift 166-AE-01, transferring reacted alumina from Airslide 166-FM-05 to reacted alumina Airslide 166-FM-07, constructed in 2000, with a maximum capacity of 80 tons per hour, and controlled by Baghouse 166, exhausting at Stack 166.1;

(44) Transfer of reacted alumina from Airlift 166-AE-01 and Airlift 166-AE-02 to Airslide 166-FM-07. Airslide 166-FM-07 has a maximum capacity of 80 tons per hour, was constructed in 2000, and is controlled by Baghouse 166, exhausting at Stack 166.1;

(45) Unloading Station BL-08, accepting reacted alumina that has been trucked from Anode Baking Ring Furnace A-446 Pollution Control System, and transferring it to Tank 151H. Unloading Station BL-08 has a maximum capacity of 40 tons per hour, and is controlled by Baghouse 112A, exhausting at Stack 112A.1;

(46) One (1) reacted alumina storage tank, identified as Tank 151H, fed from Unloading Station BL-08, constructed in 1969,with a maximum capacity of 655 tons, controlled by Baghouse 112A, exhausting at Stack 112A.1;

(47) Dense Phase Transporter VS-01, transporting reacted alumina from Tank 151H to Feed Box 166-FM-08. Dense Phase Transporter VS-01 was constructed in 2000, has a maximum capacity of 7 tons per hour, and is controlled by Baghouse 112A, exhausting at Stack 112A.1;

(48) Feed box 166-FM-08, transferring reacted alumina from Dense Phase Transporter VS-01 and Airslide 166-FM-07, constructed in 2000, with a maximum capacity of 87 tons per hour, controlled by Baghouse 112A, and exhausting at Stack 112A.1;

(49) Airslide 166-FM-09, transferring reacted alumina from Feed Box 166-FM-08 to Tank 151A Distribution Box 151-FM-1A, constructed in 2000, with a capacity of 87 tons per hour, controlled by Baghouse 112A, and exhausting at Stack 112A.1;

(50) Tank 151A Distribution Box 151-FM-1A, transferring reacted alumina from Airslide 166-FM-09 to Tank 151A, constructed in 2000, with a capacity of 87 tons per hour, controlled by Baghouse112A, and exhausting at Stack 112A.1;

(51) Airslide 166-FM-10, transferring reacted alumina from Feed Box 166-FM-08 to Tank 151B Distribution Box 151-FM-1B, constructed in 2000, with a capacity of 87 tons per hour, controlled by Baghouse 112A, and exhausting at Stack 112A.1;

(52) Tank 151B Distribution Box 151-FM-1B, transferring reacted alumina from Airslide 166-FM-10 to Tank 151B, constructed in 2000, with a capacity of 87 tons per hour, controlled by Baghouse 112A, and exhausting at Stack 112A.1; and

(53) Tanks 151A and 151B, transferring reacted alumina to Potlines 3-6, with a storage capacity of 985 tons each, constructed in 1969, the discharge from each tank controlled by Baghouse 112A, and exhausting at Stack 112A.1.

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

D.1.1 Particulate Emissions Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3 (Particulate Emissions Limitations for Manufacturing Processes), the allowable PM emission rate from the below listed processes shall be limited as follows:

Facility	Control Device	Maximum Process Weight Rate (tons/hr)	PM Emission Limit (lbs/hr)
Air Conveyors No. 1	Airveyor No. 1 Baghouse	200	58.5
Air Conveyors No. 2	Airveyor No. 2 Baghouse	200	58.5
Airveyor Discharge Conveyor	Building 60 Baghouse	500	69
Transfer Tower 61A	Transfer Tower 61A Baghouse	500	69
Tank 62 loading	Tank 62 Baghouse (Tank 62 baghouse, top of tank)	500	69
Tank 62 unloading	Baghouse BC-24 (Tank 62 baghouse, ground level)	275	62.02
Transfer Tower 61B	Transfer Tower 61B Baghouse	275	62.02
Building 140 Unloading	Building 140 Baghouse	275	62.02
104 Passageway Conveyor, and Bucket Elevator 141A and Bucket Elevator 141B	104A Passageway Baghouse	275	62.02
Airslide 141, Tank 144, Tank 141BN, Tank 141BS, Tank 141CN, Tank 141CS, Tank 141D, Tank 141E, Tank 141F, and #8 Screw Conveyor	Tank 144A Baghouse	240	60.5
Tank 160M.1	Potline #2 C1 Pollution Control System	18	28.4
Tank 160M.1 Feed Pneumatic Conveyor		18	28.4
Tank 160M.2	Tank 160M.2 Bin Vent Baghouse	18	28.4

Facility	Control Device	Maximum Process Weight Rate (tons/hr)	PM Emission Limit (lbs/hr)
Tank 160M.2 Pneumatic Conveyor	Tank 160M.2 Bin Vent Baghouse	18	28.4
Alumina Feed Airslide B2	Airslide B2 Baghouse	18	28.4
Alumina Feed Vibratory Screen and C1 east and C1 west Airslides	Vibratory screen and C1 east and C1 west Airslide Bin Vents #1, #2, #3, and #4	18	28.4
Reacted Alumina Airslide B2	Tank 141A(NW) Baghouse	18	28.4
Reacted Alumina Airslide C1	Tank 141A(NE) Baghouse	18	28.4
Tank 141(NE) System	Tank 141A (NE) Baghouse	18	28.4
Tank 141(NW) System	Tank 141A (NW) Baghouse	18	28.4
Tank 141 BS Eductor	Tank 141A (NE) Baghouse	5	12
Equipment controlled by Baghouse112A			
(1) 112A Passageway Conveyor	Baghouse112A	402	66.37
(2) Airlift 150-FM-AE01			
(3) Airlift 150-FM-AE02			
(4) Airslide 151			
(5) Tank 151H			
(6) Unloading Station B-08			
(7) Dense Phase Transporter VS-01			
(8) Feed Box 166-FM-08			
(9) Airslide 166-FM-09			
(10) Tank 151A Distribution Box 151-FM-1A			
(11) Airslide 166-FM-10			
(12) Tank 151B Distribution Box 151-FM-1B			
(13) Tanks 151A and 151B			
Tank 151F Loading	Uncontrolled	225	59.79
Tank 151G Loading	Uncontrolled	225	59.79
Tank 151C, Tank 151J, Tank 152, Tank 154, Feed Box B5 and Pollution Control System Alumina Feed Airslide B5	Airslide B5 Baghouse	243	60.54
Tank 151C, Tank 151J, Tank 152, Tank 154, Feed Box B6 and Pollution Control System Alumina Feed Airslide B6	Airslide B6 Baghouse	243	60.54
Equipment controlled by the Gas Treatment Center (GTC)			
(1) Vibratory Screen and GTC Feed Airslide 161-B3-FM-01	GTC	60	46.29
(2) Vibratory Screen and GTC Feed Airslide 161-B4-FM-01			
(3) GTC Reacted Alumina 161B3-FM-03 Airslide			
(4) GTC Reacted Alumina 161B3-AE-02 Airlift			
(5) GTC Reacted Alumina 161B4-AE-02 Airlift			
(6) GTC Reacted Alumina 161B4-SC-02 Vibratory Screen			

Facility	Control Device	Maximum Process Weight Rate (tons/hr)	PM Emission Limit (lbs/hr)
(7) GTC Reacted Alumina 161B3-SC-02 Vibratory Screen			
Equipment controlled by Baghouse 166			
(1) Airslide 166-FM-01	Baghouse 166	100	51.3
(2) Airslide 166-FM-02			
(3) Airslide 161-B6-FM-01			
(4) Airlift 166-B6-FM-AE-01,			
(5) Vibratory Screen 166-B6-FM-SC-01			
(6) Airslide 166-FM-03;			
(7) Airslide 161-B5-FM-01			
(8) Airlift 166-B5-FM-AE-01,			
(9) Vibratory Screen 166-B5-FM-SC-01			
(10) Feedbox for Airslide 165-FM-05 and Airslide 166-FM-06			
(11) Airslide 166-FM-05			
(12) Airslide 166-FM-06			
(13) Airlift 166-AE-02			
(14) Airlift 166-AE-01			
(15) Airslide 166-FM-07			

The above particulate emissions rates were determined from the following formulae:

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

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

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

Or

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour by use of the equation:

$$E = 55.0\ P^{0.11} - 40$$

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

When the process rate exceeds two hundred (200) tons per hour, the allowable emission may exceed the emission limits shown in the above table; provided the concentration of particulate in the discharge gases to the atmosphere is less than one-tenth (0.10) pound per thousand (1,000) pounds of gases.

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

Pursuant to 326 IAC 2-2 and SSM 173-18836-00007, issued on February 25, 2005, the combined PM and PM_{10} emissions from Baghouse 112A and Baghouse 116 shall be less than 5.7 and 3.4 pounds per hour, respectively. Compliance with these emissions limits shall ensure that the potential PM and PM_{10} emissions from the emissions units associated with Baghouse 112A and Baghouse 166 shall be less than 25 and 15 tons per year, respectively, which renders the requirements of PSD rule 326 IAC 2-2 not applicable.

Compliance Determination Requirements

D.1.3 Particulate Control [326 IAC 2-7-6(6)]

(a) In order to comply with Condition D.1.1, the PM emissions from the following facilities shall be controlled by the baghouses as indicated in the table below. Each baghouse shall be in operation and control emissions from its associated facility at all times when a facility that the baghouse controls is in operation.

Facility	Baghouse
Airveyor No. 1	Airveyor No. 1 Baghouse
Airveyor No. 2	Airveyor No. 2 Baghouse
Airveyor Discharge Conveyor	Building 60 Baghouse
Airveyor Discharge Conveyor discharge to Tank 62 Feed conveyor	Transfer Tower 61A Baghouse
Tank 62 Feed conveyor discharge to Tank 62	Tank 62 Baghouse
Tank 62 discharge point to Passageway 112A Feed Conveyor	Baghouse BC-24
Transfer Tower 61B	Transfer Tower 61B Baghouse
Building 140 Unloading	Building 140 Baghouse
104 Passageway Conveyor, and Bucket Elevator 141A and Bucket Elevator 141B	104A Passageway Baghouse
Airslide 141,Tank 144, Tank 141BN, Tank141BS, Tank 141CN, Tank 141CS, Tank 141D, Tank 141E, Tank 141F, and #8 Screw Conveyor	144A Baghouse
Tank 160M.2 Feed Pneumatic Conveyor	160M.2 Bin Vent Baghouse
Tank 160M.2	
Alumina Feed Airslide B2	Airslide B2 Baghouse
Tank 160M.1 Feed Pneumatic Conveyor	Potline #2 C1 Pollution Control System
Tank 160M.1	
Vibratory Screen and C1 east and C1 west Alumina Feed Airslides	Vibratory screen and C1 east and C1 west Airslide bin vents #1, #2, #3, and #4
Reacted Alumina Airslide B2	Tank 141A(NW) Baghouse
Reacted Alumina Airslide C1	Tank 141A(NE) Baghouse
Tank 141A(NE)	Tank 141A(NE) Baghouse at its inlet and 104A Baghouse at its discharge
Tank 141A(NW)	Tank 141A(NW) Baghouse at its inlet and 104A Baghouse at its discharge

Facility	Baghouse
Tank 141 BN Eductor	Tank 141A(NE) Baghouse
Tank 151C, Tank 151J, Tank 152, Tank 154, Feed Box B5 and Pollution Control System Alumina Feed Airslide B5	Airslide Baghouse B5
Tank 151C, Tank 151J, Tank 152, Tank 154, Feed Box B6 and Pollution Control System Alumina Feed Airslide B6	Airslide Baghouse B6
Any equipment controlled by Baghouse 112A	Baghouse 112A
Any equipment controlled by Baghouse166	Baghouse 166
Any equipment controlled by the Gas Treatment Center (GTC)	GTC

(b) Pursuant to SSM 173-18836-00007, issued on February 25, 2005, and in order to comply with Condition D.1.2, except as necessary to supply alumina to control fluoride emissions, the PM and PM_{10} emissions from the following facilities shall be controlled by the baghouses as indicated in the table below. Each baghouse shall be in operation and control emissions from its associated facility at all times when a facility that the baghouse controls is in operation.

Facility	Baghouse
Equipment controlled by Baghouse 112A	Baghouse 112A
(1) 112A Passageway Conveyor	
(2) Airlift 150-FM-AE01	
(3) Airlift 150-FM-AE02	
(4) Airslide 151	
(5) Tank 151H	
(6) Unloading Station BL-08	
(7) Dense Phase Transporter VS-01	
(8) Feed Box 166-FM-08	
(9) Airslide 166-FM-09	
(10) Tank 151A Distribution Box 151-FM-1A	
(11) Airslide 166-FM-10	
(12) Tank 151B Distribution Box 151-FM-1B	
(13) Tanks 151A and 151B	
Equipment controlled by Baghouse 166	
(1) Airslide166-FM-01	Baghouse 166
(2) Airslide 166-FM-02	
(3) Airslide 161-B6-FM-01	
(4) Airlift 161B6-FM-AE-01,	
(5) Vibratory Screen 161B6-FM-SC-01	
(6) Airslide 166-FM-03;	
(7) Airslide 161-B5-FM-01	
(8) Airlift 161-B5-FM-AE-01	
(9) Vibratory Screen 161-B5-FM-SC-01	
(10) Feedbox for Airslide 165-FM-05 and Airslide 166-FM-06	
(11) Airslide 166-FM-05	
(12) Airslide 166-FM-06	
(13) Airlift 166-AE-02	

Facility	Baghouse
(14) Airlift 166-AE-01	
(15) Airslide 166-FM-05	

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

D.1.4 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]

In order to comply with Conditions D.1.1 and D.1.2, within 36 months after issuance of this Part 70 permit or within 5 years from the date of the last valid compliance test, whichever is later, the Permittee shall perform PM, and PM10 testing for the Baghouses 112A and Baghouse 166, utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of the valid compliance demonstration. PM10 includes filterable and condensable PM10. Testing shall be conducted in accordance with Section C – Performance Testing. During the stack test, the Permittee shall determine the sensitivity of the bag leak detection system and calibrate the particulate concentration readings of the bag leak detector in order to provide an output relative to outlet grain loading levels.

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

D.1.5 Bag Leak Detection System

Pursuant to SSM 173-18836-00007, issued on February 25, 2005, the Permittee shall operate a continuous bag leak detection system for Baghouse 112A and Baghouse166 stack exhaust in the alumina handling system. The bag leak detection system shall meet the following requirements:

(a) Each electrodynamic bag leak detection system shall be calibrated, operated, and maintained in accordance with the manufacturer's specifications;

(b) The Permittee shall establish alarms for both bag leak detection systems such that an initial investigation alarm shall be activated for Baghouse 112A, whenever PM and/or PM_{10} emissions from Stack 112A.1 are greater than or equal to 0.003 grains per dry standard cubic foot, equivalent to greater than or equal to 0.692 pounds of PM and/or PM_{10} per hour; and for Baghouse 166, whenever PM and/or PM_{10} emissions from Stack 166.1 are greater than or equal to 0.0115 grains per dry standard cubic foot, equivalent to greater than or equal to 0.69 pounds of PM and/or PM_{10} per hour.

Failure to comply with the requirements in paragraph (b) of this condition shall be considered a deviation from this permit;

(c) The bag leak detection system shall be certified by the manufacturer to be capable of detecting PM emissions at concentrations down to ten (10) milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less;

(d) The bag leak detection system sensor shall provide output of relative or absolute PM loadings;

(e) The bag leak detection system shall be equipped with a device to continuously record the output signal from the sensor;

(f) The bag leak detection system shall be equipped with an alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm shall be located where it is easily heard by plant operating personnel;

(g) The bag leak detector shall be installed downstream of the fabric filter;

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

(i) The baseline output shall be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time;

(j) Following initial adjustment of the system, the Permittee shall not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time except as detailed in the PMP. In no case may the sensitivity be increased by more than one hundred (100%) percent or decreased more than fifty (50%) percent over a 365-day period unless such adjustment follows a complete fabric filter inspection which demonstrates that the fabric filter is in good operating condition;

(k) In the event that a bag leak detection system should malfunction, fail or otherwise need repair, the Permittee shall perform visible emissions notations of the stack exhausts associated with that bag leak detection system as follows:

(1) Daily visible emission notations of the baghouse stack exhausts shall be performed during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal;

(2) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time;

(3) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions;

(4) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process; and

(5) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions and Exceedances. Abnormal emissions alone are not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions and Exceedances, shall be considered a deviation from this permit.

D.1.6 Bag Leak Detection Alarm Activation

In the event that a bag leak detection system alarm is activated for any reason, the Permittee shall take the following response steps:

(a) For Baghouse 112A and Baghouse 166 which are single compartment baghouses, if failure is indicated by a bag leak detection alarm activation that is not a false alarm, or if bag failure is determined by other means, such as daily visible emissions notations and/or daily checks of the particulate concentration readings from electrodynamic bag leak detectors, then the associated process will be shut down after four (4) hours of operation following bag failure if the failed units have not been repaired or replaced. Operations may continue after four (4) hours of operation following bag failure only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section C - Emergency Provisions); and

(b) After bag failure, if the alumina handling system continues to operate, until the failed bag is repaired or replaced, the Permittee shall monitor the hourly PM and PM_{10} emission rate recorded by the electrodynamic bag leak detector's data acquisition system until the failed bag is repaired or replaced.

D.1.7 Visible Emissions Notations

(a) Visible emission notations of the exhaust from Stacks 60.2 and 60.3, 60.6, 60.8, 61A.1, 62.1, 62.2, 61B.1, 140.1, 104.1, 144.1, 160M.2, 160B2.16, 141.1(NE), 161.B5.37, 160C1.37 and 161.B6.37, shall be performed once per day during normal daylight operations. When the baghouse exhausting to stack 160C1.37 is permanently idled, visible emission notations of the exhaust from bin vent exhausts 160C1.37-1, 160C1.37-2, 160C1.37-3, and 160C1.37-4, shall be performed once per day during daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during normal operations.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions and Exceedances. Abnormal emissions alone are not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions and Exceedances, shall be considered a deviation from this permit.

D.1.8 Parametric Monitoring

The Permittee shall record the pressure drops across Airveyor No. 1 Baghouse, Airveyor No. 2 Baghouse, Building 60 Aspiration Baghouse, Transfer Tower 61A Baghouse, Tank 62 Baghouse, Baghouse BC-24 (Tank 62 baghouse, ground level), Transfer Tower 61B Baghouse, Building 140 Baghouse, 104A Passageway Baghouse, Baghouse 144A, 160M.2 Bin Vent Baghouse, Airslide B2 Baghouse, Airslide C1 Baghouse, Tank 141A(NE) Baghouse, Airslide B5 Baghouse, Airslide B6 Baghouse, used in conjunction with the facilities at least once per day when the processes are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions and Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions and Exceedances, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ and shall be calibrated at least once every six (6) months.

D.1.9 Broken or Failed Bag Detection except Baghouse 112A and Baghouse 166 [326 IAC 2-7-5(3)]

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

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

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

D.1.10 Record Keeping Requirements

(a) To document compliance with Condition D.1.5 (a), the Permittee shall keep a log of the calibration test results for Baghouse 112A and Baghouse 166 leak detectors.

(b) To document compliance with Condition D.1.5 (k), the Permittee shall maintain records of daily visible emission notations of the stack exhaust for Baghouse 112A and Baghouse 166, when the applicable bag leak detection system malfunctions, fails or otherwise needs repair. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(c) To document compliance with Condition D.1.6 (a), the Permittee shall maintain records of each bag leak detection alarm activation for Baghouse 112A and Baghouse 166.

(d) To document compliance with Condition D.1.6(b), when bag failure occurs at either Baghouse 112A or Baghouse 166, the Permittee shall keep a log of the hourly PM and PM10 emission rates recorded by the electrodynamic bag leak detector's data acquisition system.

(e) To document compliance with Condition D.1.7, the Permittee shall maintain records of the visible emission notations. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(f) To document compliance with Condition D.1.8, the Permittee shall maintain records of the pressure drop. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of the pressure drop reading (e.g. the process did not operate that day).

(g) The Permittee shall maintain the following as required under Conditions D.1.3, D.1.5, D.1.6, D.1.7, D.1.8, and D.1.9:

(1) Documentation of all response steps implemented per event.

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

SECTION D.2 POTLINE & POTLINES SUPPORT FACILITY OPERATION CONDITIONS

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

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

(1) One (1) center-worked prebake one (CWPB1) potline, consisting of 150 pots, identified as Potline No.1, constructed in 1956, with a maximum aluminum production rate of 7.08 tons per hour. Primary emissions are controlled by the Potline No.1 A-398 pollution control system (B2) and exhaust at Stacks 160B2.1-160B2.14. Secondary emissions are uncontrolled and exhaust at roof monitors 101M.1 and 102M.1.

One (1) fluidized bed scrubber and baghouse system, consisting of seven (7) fluidized bed scrubbers and baghouses, identified as Potline No. 1 A-398 pollution control system (B2), with a total gas flow rate of 490,000 acfm at 200^0F, and exhausting at Stacks 160B2.1-160B2.14;

(2) One (1) center-worked prebake one (CWPB1) potline, consisting of 150 pots, identified as Potline No. 2, constructed in 1962 with a maximum aluminum production rate of 7.99 tons per hour. Primary emissions are controlled by the Potline No.2 A-398 pollution control system (C1) and exhaust at Stacks 160C1.1-160C1.36. Secondary emissions are uncontrolled and exhaust at roof monitors 103M.1 and 104M.1.

One (1) fluidized bed scrubber and baghouse system, consisting of twelve (12) fluidized bed scrubbers and baghouses, identified as Potline No. 2 A-398 pollution control system (C1), with a total gas flow rate of 480,000 acfm at 200^0F, and exhausting at Stacks 160C1.1-160C1.36;

(3) One (1) center-worked prebake one (CWPB1) potline, consisting of 150 pots, identified as Potline No. 3, constructed in 1965, with a maximum aluminum production rate of 7.99 tons per hour. Primary emissions are controlled by the gas treatment center (GTC) system and exhaust at Stack GTC. Secondary emissions are uncontrolled and exhaust at roof monitors 105M.1 and 106M.1.

One (1) alumina injection and fabric filtration system, identified as GTC system, with a total gas flow rate of 1,000,000 acfm at 170^0F, and exhausting at Stack GTC;

(4) One (1) center-worked prebake one (CWPB1) potline, consisting of 150 pots, identified as Potline No. 4, constructed in 1965, with a maximum aluminum production rate of 7.99 tons per hour. Primary emissions are controlled by the GTC system and exhaust at Stack GTC. Secondary emissions are uncontrolled and exhaust at roof monitors 107M.1 and 108M.1;

(5) One (1) center-worked prebake one (CWPB1) potline, consisting of 150 pots, identified as Potline No. 5, constructed in 1968, with a maximum aluminum production rate of 7.99 tons per hour. Primary emissions are controlled by the Potline No. 5 A-398 pollution control system (B5) and exhaust at Stacks 161B5.1-161B5.36. Secondary emissions are uncontrolled and exhaust at roof monitors 109M.1 and 110M.1.

One (1) fluidized bed scrubber and baghouse system, consisting of twelve (12) fluidized bed scrubbers and baghouses, identified as Potline No. 5 A-398 pollution control system (B5), with a total gas flow rate of 480,000 acfm at 200^0F, and exhausting at Stacks 161B5.1-161B5.36;

(6) One (1) center-worked prebake one (CWPB1) potline, consisting of 150 pots, identified as Potline No. 6, constructed in 1968, with a maximum aluminum production rate of 7.99 tons per hour. Primary emissions are controlled by the Potline No.6 A-398 pollution control system (B6) and exhaust at Stacks 161B6.1-161B6.36. Secondary emissions are uncontrolled and exhaust at roof monitors 111M.1 and 112M.1.

One (1) fluidized bed scrubber and baghouse system, consisting of twelve (12) fluidized bed scrubbers and baghouses, identified as Potline No.6 A-398 pollution control system (B6), with a total gas flow rate of 480,000 acfm at 200^{0}F, and exhausting at Stacks 161B6.1-161B6.36;

(7) One (1) hydraulic hammer, identified as Pot Digging, constructed in 1962, with a maximum capacity of 2.85 tons per hour, controlled by the Pot Digging baghouse, and exhausting at Stack 136.4.

One (1) baghouse, identified as Pot Digging Baghouse, with an airflow rate of 70,000 dscfm, and exhausting at Stack 136.4;

(8) One (1) auger, identified as Crucible Digging, constructed in 1988, with a maximum capacity of 0.86 tons per hour, controlled by the Crucible Digging baghouse, and exhausting at Stack 110.1.

One (1) baghouse, identified as Crucible Digging Baghouse, with an airflow rate of 6,560 dscfm, and exhausting to Stack 110.1;

(9) One (1) crusher, identified as Potline Bath Crusher, constructed in 1972, with a maximum capacity of 21 tons per hour, controlled by the Potline Bath Crusher Baghouse, and exhausting at Stack 110.2.

One (1) baghouse, identified as Potline Bath Crusher Baghouse, with an airflow rate of 99,000 dscfm, and exhausting at Stack 110.2; and

(10) Four (4) alumina/butt bath/cake bath storage tanks, constructed in 1972, identified as Tanks 110H-A, 110H-B, 110H-C, and 110H-D with a capacity of 1000 cubic feet each, controlled by the Potline Bath Crusher Baghouse, and exhausting at Stack 110.2.

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

D.2.1 Particulate Emissions Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emissions Limitations for Manufacturing Processes), the allowable particulate emission rate from the Potlines Nos.1, 2, 3, 4, 5, and 6, shall be limited as follows:

Facility	Maximum Process Weight Rate (tons/hr)	PM Emission Limit (lbs/hr)
Potline No.1	75.83	48.5
Potline No.2	83.38	49.5
Potline No.3	83.38	49.5
Potline No.4	83.38	49.5
Potline No.5	83.38	49.5
Potline No.6	83.38	49.5
Pot Digging	2.85	8.27
Crucible Digging	0.86	3.70

Facility	Maximum Process Weight Rate (tons/hr)	PM Emission Limit (lbs/hr)
Potline Bath Crusher, Tanks 110H-A, 110H-B, 110H-C, and 110H-D	21	31.5

The above particulate emissions rates were determined from the following formulae:

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

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

Where: E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour.

Or

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour by use of the equation:

$$E = 55.0\ P^{0.11} - 40$$

Where: E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour.

D.2.2 Warrick County Sulfur Dioxide (SO2) Emissions Limitations [326 IAC 7-4-10]

Pursuant to 326 IAC 7-4-10(a)(4), the allowable sulfur dioxide emission from Potlines Nos.1, 2, 3, 4, 5, and 6, shall be limited as follows:

(a)

Facility	Venting From	SO_2 Emission Limit (lbs/hr)
Potline No.1	All stacks associated with scrubber	176.3
Potline No.1	Roof monitors associated with Potline 1	19.6
Potline No.2	All stacks associated with scrubber	195.2
Potline No.2	Roof monitors associated with Potline 2	21.7
Pot line No.3	All stacks associated with scrubber	195.2
Potline No.3	Roof monitors associated with Potline 3	21.7
Pot line No.4	All stacks associated with scrubber	195.2
Potline No.4	Roof monitors associated with Potline 4	21.7

Facility	Venting From	SO_2 Emission Limit (lbs/hr)
Potline No.5	All stacks associated with scrubber	195.2
Potline No.5	Roof monitors associated with Potline 5	21.7
Pot line No.6	All stacks associated with scrubber	195.2
Potline No.6	Roof monitors associated with Potline 6	21.7

(b) The total SO2 emissions from Potlines Nos.1, 2, 3, 4, 5, and 6 shall be less than 5,608 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

D.2.3 General Provisions Relating to NESHAP [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-1] [40 CFR Part 63, Subpart A] [40 CFR 63.852]

The provisions of 40 CFR Part 63, Subpart A- General Provisions, which are incorporated by reference in 326 IAC 20-1 apply to Potlines Nos. 1, 2, 3, 4, 5, and 6 except when otherwise specified in 40 CFR Part 63, Subpart LL, Appendix A of this subpart.

D.2.4 Total Fluoride (TF) Emissions Limitations [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-24] [40 CFR 63.843] [40 CFR 63.847]

Pursuant to 40 CFR 63.843(a)(1) and 40 CFR 63.847(a)(1), the emissions of Total Fluoride (TF) (as defined in 40 CFR 63.842) shall not exceed 1.9 pounds per ton of aluminum produced for each Potlines Nos. 1, 2, 3, 4, 5, and 6.

D.2.5 Plans and Procedures [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-1] [40 CFR 63.6] [326 IAC 20-24] [40 CFR 63.850]

Pursuant to 40 CFR 63.850 (c)], the Permittee shall develop a written startup, shutdown, and malfunction (SSM) plan as described in 40 CFR 63.6(e) (3) that contains specific procedures to be followed for operating the source and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process and control systems used to comply with the standard. The plan does not have to be submitted with the permit application or included in the Part 70 operating permit. IDEM, OAQ may review the plan upon request. In addition to the information required in 40 CFR 63.6(e) (3), the plan shall include:

(a) Procedures, including corrective actions, to be followed if for any baghouse the fan motor current (amperes) are less than that included in the most recent NESHAP Parametric Plan approved by IDEM, OAQ, if for any dry alumina scrubber the alumina feeder revolution per minute (rpm) is less than that included in the most recent NESHAP Parametric Plan approved by IDEM, OAQ, or if visible emissions indicating abnormal operation are observed from the exhaust stacks of the of the pollution control systems B2, C1, B5, B6; and GTC; and

(b) The SSM plan shall be maintained in the operating record.

Compliance Determination Requirements

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

(a) In order to comply with Conditions D.2.1 and D.2.4, the PM and fluoride emissions from the following potlines shall be controlled by the pollution control systems as indicated in the table below. Each pollution control system shall be in operation and control emissions from its associated potline at all times when a potline that the pollution control system controls is in operation.

Potline	Pollution Control System
Potline No.1	Potline No. 1 A-398 (B2)
Potline No.2	Potline No. 2 A-398 (C1)
Potline No.3	Gas Treatment System (GTC)
Potline No.4	Gas Treatment System (GTC)
Potline No.5	Potline No. 5 A-398 (B5)
Potline No.6	Potline No. 6 A-398 (B6)

(b) In order to comply with Condition D.2.1, the PM emissions from the following facilities shall be controlled by the baghouses as indicated in the table below. Each baghouse shall be in operation and control emissions from its associated facilities at all times when an emission unit that the baghouse controls is in operation; and

Facility	Baghouse
Pot Digging	Pot Digging Baghouse
Crucible Digging	Crucible Digging Baghouse
Potline Bath Crushing and Tanks 110H-A, 110H-B, 110H-C, and 110H-D	Potline Bath Crusher Baghouse

(1) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify 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. The Permittee shall not operate the failed compartment until the failed bags are repaired or replaced.

D.2.7 SO2 Emissions Determination [326 IAC 7-4-10 (b) and (c)]

(a) Pursuant to 326 IAC 7-4-10(b), compliance with SO2 pounds per hour limitation shall be based on a stack test pursuant to 326 IAC 7-2-1(b).

(b) Pursuant to 326 IAC 7-4-10(c), compliance with the tons per year limitations of SO2 shall be based on a rolling twelve (12) consecutive month emission total. The monthly SO2 emissions shall be determined from calendar month material balances using actual average sulfur content and material throughput.

D.2.8 Testing [326 IAC 7-10-4(b)] [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-24] [40 CFR 63.847]

(a) In order to comply with Condition D.2.7, within 36 months after issuance of this Part 70 permit or 5 years from the date of the last valid compliance test, whichever is later, the Permittee shall perform SO2 testing for the Potlines Nos.1, 2, 3, 4, 5, and 6, utilizing methods as approved by the Commissioner or shall obtain approval allowing material balance calculations in lieu of stack testing. These tests shall be repeated at least once every five (5) years from the date of the valid compliance demonstration, unless IDEM determines that material balance calculations are a satisfactory demonstration of compliance. Testing shall be conducted in accordance with Section C - Performance Testing.

(b) Pursuant to 40 CFR 63.847(b), the Permittee shall prepare a site specific test plan prior to the performance test according to the requirements of 40 CFR 67.7(c). The test plan shall include procedures for conducting the performance tests required in 40 CFR 63.848 for emission monitoring. In addition to the information required by 40 CFR 63.7, the test plan shall include:

(1) Procedures to ensure a minimum of three runs are performed annually for the primary control system for each emission unit;

(2) For a source with a single control device exhausted through multiple stacks, procedures to ensure that at least three runs are performed annually by a representative sample of the stacks satisfactory to IDEM, OAQ;

(3) For multiple control devices on a single source, procedures to ensure that at least one run is performed annually for each control device by a representative sample of the stacks satisfactory to IDEM, OAQ; and

(4) Procedures for establishing the frequency of testing to ensure that at least one run is performed before the 15th of the month, at least one run is performed after the 15th of the month, and that there are at least 6 days between two of the runs during the month, or that secondary emissions are measured according to an alternate schedule satisfactory to IDEM, OAQ.

(c) Pursuant to 40 CFR 63.847(d), all performance tests shall be conducted in accordance with the requirements of the general provisions in Subpart A of 40 CFR 63, the approved test plan, and the procedures in this section.

(1) For each potline, the Permittee shall measure and record the emission rate of TF exiting the outlet of the primary control system for each potline and the rate of secondary emissions exiting through each roof monitor. Using the equation in paragraph 40 CFR 63.847(e)(1) given below, the Permittee shall compute and record the average of at least three runs each month for secondary emissions and at least three runs each year for the primary control system to meet the emission limit in condition D.2.4;

Equation to compute the emission rate (Ep) of TF from each potline:

Where:

$$E_p = \frac{\left[\left(C_{s1} \times Q_{sd}\right)_1 + \left(C_{s2} \times Q_{sd}\right)_2\right]}{\left(P \times K\right)} \qquad \text{(Eq.1)}$$

E_p = emission rate of TF from a potline, kg/Mg (lb/ton);

C_{s1}	=	concentration of TF from the primary control system, mg/dscf;
Q_{sd}	=	volumetric flow rate of effluent gas corresponding to the appropriate subscript location, dscf/hr;
C_{s2}	=	concentration of TF as measured for roof monitor emissions, mg/dscf;
P	=	aluminum production rate, ton/hr;
K	=	conversion factor, 453,600 mg/lb;
1	=	subscript for primary control system effluent gas; and
2	=	subscript for secondary control system or roof monitor effluent gas.

(2) If the Permittee has performed more than one test of primary emission control device for a potline during the previous consecutive twelve month, the average of all runs performed in the previous 12-month period shall be used to determine the contribution from the primary emission control system;

(3) Determine the weight of the aluminum tapped from the potline using the monitoring devices as required in Condition D.2.11(c); and

(4) Determine the aluminum production rate (P) by dividing the number of hours in the calendar month into the weight of aluminum tapped from the potline during the calendar month that includes the three runs of a performance test.

D.2.9 Test Methods and Procedures [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-24] [40 CFR 63.849]

Pursuant to 40 CFR 63.849, the Permittee shall use the following reference methods to determine compliance with the applicable emission limits for TF:

(a) Method 1 in appendix A to 40 CFR Part 60 for sample and velocity traverses;

(b) Method 2 in appendix A to 40 CFR Part 60 for velocity and volumetric flow rate;

(c) Method 3 in appendix A to 40 CFR Part 60 for gas analysis;

(d) Method 13A or Method 13B in appendix A to 40 CFR Part 60, or an approved alternative, for the concentration of TF where stack or duct emissions are sampled; and

(e) Method 13A or Method 13B and Method 14 or Method 14A in appendix A to part 60 of this chapter or an approved alternative method for the concentration of TF where emissions are sampled from roof monitors not employing wet roof scrubbers.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)] [40 CFR 63.847] [40 CFR 63.848] [326 IAC 20-24]

D.2.10 Emission Monitoring Requirements [326 IAC 12] [40 CFR 60 Subpart S] [40 CFR 63.848] [326 IAC 20-24]

Pursuant to 40 CFR 63.848(a), using the procedures in 40 CFR 63.847 and in the approved test plan, the Permittee shall monitor emissions of TF from each potline by conducting monthly performance tests. The Permittee shall compute and record the monthly average from at least three runs for secondary emissions and the previous 12-month average of all runs for the primary control system to determine compliance with the emission limit in Condition D.2.4. The Permittee shall include all valid runs in the monthly average. The duration of each run for secondary emissions shall represent a complete operating cycle.

D.2.11 Emission Monitoring Requirements [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-24] [40 CFR 63.847] [40 CFR 63.848]

(a) Pursuant to 40 CFR 63.847(h) and 40 CFR 63.848(f), the Permittee shall operate, calibrate, and maintain continuous parameter monitoring systems for the measurement of fan motor current (amperes) for air flow and alumina feeder revolution per minute (rpm) for alumina flow for the dry alumina scrubbers of the pollution control systems B2, C1, B5, B6; and GTC at rates and frequencies included in the most recent NESHAP Parametric Plan approved by IDEM, OAQ.

(b) Pursuant to 40 CFR 63.848(g), the Permittee shall visually inspect the exhaust stacks of pollution control systems B2, C1, B5, B6; and GTC on a daily basis for evidence of any visible emissions indicating abnormal operation.

(c) Pursuant to 40 CFR 63.848(j), the Permittee shall operate, and maintain a monitoring device to determine the daily weight of aluminum produced.

(d) Pursuant to 40 CFR 63.848 (h), if the monitoring device for any of the pollution control systems B2, C1, B5, B6 or GTC, measures an operating parameter less than the limits stated in the most recent NESHAP Parametric Plan approved by IDEM, OAQ, or if visible emissions indicating abnormal operation are observed from the exhaust stacks of the pollution control systems B2, C1, B5, B6 or GTC during a daily inspection, then the Permittee shall initiate the corrective action procedures identified in the SSM plan within one (1) hour. Failure to initiate the corrective action procedures within one (1) hour or to take the necessary corrective actions to remedy the problem is a violation.

(e) Pursuant to 40 CFR 63.848(i), if the limit for a given operating parameter associated with monitoring a specific control device is exceeded six times in any semi annual reporting period, then any subsequent exceedance in that reporting period is a violation. For the purpose of determining the number of exceedances, no more than one exceedance shall be attributed in any given 24-hour period.

(f) Pursuant to 40 CFR 63.848(k), the Permittee shall submit recommended accuracy requirements to IDEM, OAQ, for review and approval. All monitoring devices required by this section shall be certified by the Permittee to meet the accuracy requirements and shall be calibrated in accordance with the manufacturer's instructions.

D.2.12 Visible Emissions Notations

(a) Visible emission notations of the stack exhaust of Pot Line Bath Crusher baghouse shall be performed once per day. 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 normal operations.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions and Exceedances. Abnormal emissions alone are not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions and Exceedances, shall be considered a deviation from this permit.

D.2.13 Parametric Monitoring

(a) The Permittee shall record the pressure drop across the Pot Line Bath Crusher baghouse, used in conjunction with the Pot Line Bath Crusher at least once per day when the Pot Line Bath Crusher is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range or set point is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

(b) The instrument used for determining the pressure shall comply with Section C – Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.2.14 Broken or Failed Bag Detection [326 IAC 2-7-5(3)]

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

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-24] [40 CFR 63.850]

D.2.15 Record Keeping Requirements

(a) To document compliance with SO2 in Condition D.2.2, the Permittee shall maintain records in accordance with (1) and (2) below:

(1) The records shall include data and methodology used to calculate the monthly sulfur dioxide emissions; and

(2) Records shall be complete and sufficient to establish compliance with the SO2 limit as required in Condition D.2.2.

(b) The Permittee shall maintain records of daily visible emission notations of each stack exhaust for the baghouses as required by Condition D.2.12. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(c) The Permittee shall maintain daily records of the pressure drop during normal operation as required by Condition D.2.13. The Permittee shall include in its daily record when a pressure drop record is not taken and the reason for the lack of a pressure drop record (e.g. the process did not operate that day).

(d) The Permittee shall maintain the following as required under Conditions D.2.12, D.2.13, and D.2.14:

(1) Documentation of all response steps implemented per event.

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

D.2.16 NESHAP and NSPS Record Keeping Requirements [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-24] [40 CFR 63.850 (c) and (e)]

(a) Pursuant to 40 CFR 63.850(c)(2), the Permittee shall keep records of each event as required by 40 CFR 63.10(b) and record if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the plan as required by Condition D.2.5.

(b) Pursuant to 40 CFR 63.850(e), the Permittee shall maintain files of all information (including all reports and notifications) required by 40 CFR 63.10(b) and 40 CFR 63.850.

(1) The Permittee may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche; and

(2) In addition to the general records required by 40 CFR 63.10(b), the Permittee shall maintain records of the following information:

(i) Daily production rate of aluminum as required in Condition D.2.11(c);

(ii) A copy of the startup, shutdown, and malfunction plan as required in Condition D.2.5(a);

(iii) Records supporting a request for reduced sampling of potlines;

(iv) Records, such as a checklist or the equivalent, demonstrating that the daily visual inspection of the exhaust stack for each control device has been performed as required in Condition D.2.11(b), including the results of each inspection; and

(v) Records documenting the corrective actions taken when the limit for an operating parameter established in Condition D.2.11(a) were exceeded, or when visible emissions indicating abnormal operation were observed from a control device stack during a daily inspection required by Condition D.2.11(b).

D.2.17 Reporting Requirements

In order to determine compliance with Condition D.2.2, a quarterly report shall be submitted to the address listed in Section C – General Reporting Requirements, of this permit, using the reporting form located at the end of this section, or its equivalent, containing the calendar month and rolling twelve month sulfur dioxide emissions from the smelter operation (potline scrubber stacks, roof monitors). The report shall include documentation of the data and methodology used to calculate the monthly sulfur dioxide emissions and shall be submitted by the end of the month following the end of the quarter. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

D.2.18 NESHAP and NSPS Reporting Requirements [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-24] [40 CFR 63.850(b), (c), (d), and (e)]

(a) Pursuant to 40 CFR 63.850(b), the Permittee shall submit a summary of all performance tests to IDEM, OAQ on an annual basis.

(b) Pursuant to 40 CFR 63.85(c)(2), the Permittee shall report if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the SSM plan as required by 40 CFR 63.6(e)(3)(iv).

(c) Pursuant to 40 CFR 63.850(d), the Permittee shall submit an excess emission report (or a summary report) if measured emissions are in excess of the applicable standard. The report shall contain the information specified in 40 CFR 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions.

(d) Pursuant to 40 CFR 63.850(e)(3), the Permittee may report required information on paper or on a labeled computer disc using commonly available and compatible computer software.

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

Part 70 SO_2 Quarterly Report

Source Name: Alcoa Inc. - Warrick Operations
Source Address: Jct. IN Hwys. 66 & 61, Newburgh, Indiana 47629-0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Part 70 Permit No.: T173-6627-00007
Facility: Potlines Nos. 1, 2, 3, 4, 5, and 6
Parameter: SO_2 Emissions
Limit: Combined SO_2 emissions of 5,608 tons per 12 consecutive month period

Quarter _____ Year: _____

Month	SO_2 (tons)	SO_2 (tons)	SO_2 (tons)
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.

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

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

Attach a signed certification to complete this report.

SECTION D.3 GREEN ANODE PLANT FACILITY OPERATION CONDITIONS

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

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

(1) Ten (10) calcined petroleum coke storage silos, identified as Coke Silos, constructed in 1959, with a maximum capacity of 1,286 tons each, with maximum filling and unfilling rates of 138.0 and 18.4 tons/hr, respectively;

(2) Four (4) vibrating screens and size classifying equipment, identified as Shaker Screens, constructed in 1959, with a maximum coke screening capacity of 16.7 tons per hour, controlled by the baghouse DC-218, and exhausting at Stack 254.7.

One (1) baghouse, identified as DC-218, with an air flow rate of 18,000 acfm at 77°F, exhausting at Stack 254.7;

(3) One (1) coarse sized coke storage tank, identified as Coarse Coke Tank T-35, constructed in 1959, with a maximum incoming coke of 6.94 tons per hour, controlled by the baghouse DC-218, and exhausting at Stack 254.7;

(4) One (1) hammermill, identified as 45 Hammermill, constructed in 1959, with a maximum capacity of 16.7 tons per hour, controlled by the baghouse DC-218, and exhausting at Stack 254.7;

(5) One (1) intermediate sized coke storage tank, identified as intermediate tank T-101, constructed in 1959, with a maximum of incoming coke of 15.4 tons per hour, controlled by the baghouse DC-218, and exhausting at Stack 254.7; and

(6) One (1) fine sized coke storage tank, identified as Fine Coke Tank T-146, constructed in 1959, with a maximum capacity of 18.0 tons per hour, controlled by the baghouse DC-218, and exhausting at Stack 254.7;

(7) One (1) hammermill, identified as 153 Hammermill, constructed in 1959, with a maximum capacity of 21.0 tons per hour, controlled by the baghouse DC-153, and exhausting at Stack 254.4.

One (1) baghouse, identified as DC-153, with an air flow rate of 8,000 acfm at 77oF, exhausting at Stack 254.4;

(8) One (1) intermediate classifier, identified as Intermediate Classifier CL-82, constructed in 1959, with a maximum capacity of 15.4 tons per hour, controlled by the baghouse DCF-221A, and exhausting at Stack 254.5.

One (1) baghouse, identified as DCF-221A, with an air flow rate of 1,200 acfm at 77°F, exhausting at Stack 254.5, and controlling emissions from the following equipment;

(9) One (1) fine calcined petroleum coke and dust (from baghouses 218 and 153) fines ball mill grinding facility, identified as BM-112, constructed in 1959, with a maximum capacity of 18.0 tons per hour, controlled by the baghouse DCF-221B, and exhausting at Stack 254.6.

One (1) ball mill baghouse, identified as DCF-221B, with an air flow rate of 4,500 acfm at 77°F, exhausting at Stack 254.6;

(10) One (1) weighting facility, identified as Greenmill Check-Weigh Scale, constructed in 1959, with a maximum throughput of 43.6 tons per hour controlled by Check-Weigh Scale Baghouse, and exhausting at Stack 254.8.

One (1) baghouse, identified as Check-Weigh Scale Baghouse, with an air flow rate of 3,000 acfm at 77°F, exhausting at Stack 254.8;

(11) Ten (10) mixers, identified as Mixer Tanks Nos. 1-10, constructed in 1959, each with a maximum throughput of aggregate material 52.5 tons per hour, controlled by Pitch Fume Treatment System, and exhausting at Stack 254.13.

One (1) pitch fume treatment system (formerly green anode forming operations), consisting of two (2) dry coke scrubbers and two (2) baghouses for PM, PM_{10}, and VOC control, identified as Pitch Fume Treatment System, constructed in 1999, with a treatment capacity of 52.5 tons of green anodes per hour, with an airflow rate of 70,000 acfm at 100°F and exhausting at Stack 254.13. The pitch fume treatment system has a minimum feed rate, as specified in the approved parametric monitoring plan, of 3.6 tons per hour of calcined petroleum coke;

(12) Two (2) hydraulic presses, identified as North and South Anode Press, constructed in 1959, with a maximum formation rate of 52.5 tons per hour, controlled by Pitch Fume Treatment System, and exhausting at Stack 254.13;

(13) One (1) carbon Press Feed Conveyor, identified as 618 B, constructed in 1959, with a maximum throughput of 52.5 tons per hour, controlled by Pitch Fume Treatment System, and exhausting at Stack 254.13;

(14) Three (3) cooling belts, identified as fans No. 1-3, constructed in 1959, with a maximum throughput of 52.5 tons per hour, controlled by Pitch Fume Treatment System, and exhausting at Stack 254.13;

(15) One (1) coal tar pitch tank, identified as Pitch Storage Tank, constructed in 1959, with a maximum capacity of 4.65 tons per hour, with no control, and exhausting inside the green anode plant; and

(16) Three (3) fixed roof pitch storage tanks, identified as Pitch Tanks 251A, 251B, and 251C, constructed in 1959, with a combined maximum storage capacity of 666,000 gallons, using natural draft displacement as control, and exhausting to atmosphere.

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

D.3.1 Particulate Emissions Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3 (Particulate Emissions Limitations for Manufacturing Processes), the allowable particulate emission rate from the below listed processes shall be limited as follows:

Facility	Control Equipment	Maximum Process Weight Rate (tons/hr)	PM Emission Limit (lbs/hr)
Coke Silos	None	138	54.6
Size classifying equipment	DC-218 baghouse	16.7	27
153 Hammermill	DC-153 baghouse	21	31.5
Intermediate Classifier CL-82	DCF-221A baghouse	15.4	25.6

Facility	Control Equipment	Maximum Process Weight Rate (tons/hr)	PM Emission Limit (lbs/hr)
BM-112 Ball mill grinding operation	DCF-221B baghouse	18	28.4
Weighting facility	Check-Weigh Scale Baghouse	43.6	43.3
Anode Forming	Pitch Fume Treatment System	52.5	45

The above particulate emissions rates were determined from the following formulae:

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

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

Where: E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour.

Or

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour by use of the equation:

$$E = 55.0\ P^{0.11} - 40$$

Where: E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour.

D.3.2 PSD Minor Limitations [326 IAC 2-2]

Pursuant to SSM 173-17780-00007, issued on July 21, 2004, the following limits shall apply to the pitch fume treatment system:

(a) The emission rate of PM shall not exceed 0.070 pounds of PM per ton of green anode;

(b) The emission rate of PM10 shall not exceed 0.050 pounds PM10 per ton of green anode; and

(c) The emission rate of VOC shall not exceed 0.030 pounds of VOC per ton of green anode.

Compliance with the throughput limits in Conditions D.4.2(a) and D.6.4(a) and the emission limits specified by Conditions D.3.2(a) through (c), D.4.2(b) through (e), D.5.2(a) and (b), and D.6.4(b) and (c), shall render the requirements of 326 IAC 2-2 not applicable to the green anode plant.

D.3.3 General Provisions Relating to NESHAP [326 IAC 20-1] [40 CFR Part 63, Subpart A] [40 CFR 63.852]

The provisions of 40 CFR Part 63, Subpart A- General Provisions, which are incorporated by reference in 326 IAC 20-1 apply to all operations in the Green Anode plant where coal tar pitch is mixed with calcined petroleum coke and/or spent anode materials except when otherwise specified in 40 CFR Part 63, Subpart LL, Appendix A of this subpart.

D.3.4 POM Emissions Control Requirement [326 IAC 20-24] [40 CFR 63.843] [40 CFR 63.847]

Pursuant to 40 CFR 63.843(b)(1), (2), and (3) for all operations in the Green Anode plant, where coal tar pitch is mixed with calcined petroleum coke and/or spent anode materials, the Permittee shall

(a) operate, and maintain equipment to capture and control POM emissions from the anode forming operations (which encompasses initial mixing through final forming);

(b) operate the emission capture system to meet the generally accepted engineering standards for minimum exhaust rates as published by the American Conference of Governmental Industrial Hygienists in Chapters 3 and 5 of "Industrial Ventilation: A Handbook of Recommended Practice" (incorporated by reference in 40 CFR 63.841; and

(c) route the captured emissions through a closed system to a dry coke scrubber.

D.3.5 Plans and Procedures [326 IAC 20-1] [40 CFR 63.6] [326 IAC 20-24] [40 CFR 63.850]

Pursuant to 40 CFR 63.850 (c), the Permittee shall develop a written startup, shutdown, and malfunction (SSM) plan as described in 40 CFR 63.6(e) (3) that contains specific procedures to be followed for operating the anode forming process (which encompasses initial mixing through final forming) and maintaining the anode forming equipment during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process and control systems used to comply with the standard. The plan does not have to be submitted with the permit application or included in the Part 70 operating permit. IDEM, OAQ may review the plan upon request. In addition to the information required in 40 CFR 63.6(e) (3), the plan shall include:

(a) Procedures, including corrective actions, to be followed if for any baghouse the fan motor amperes are less than that included in the most recent NESHAP Parametric Plan approved by IDEM, OAQ, if for any dry coke scrubber the coke feeder rpm is less than that included in the most recent NESHAP Parametric Plan approved by IDEM, OAQ, if the alarm on any of the bag leak detection systems activates, or if visible emissions indicating abnormal operation are observed from the exhaust stacks of the pitch fume treatment system whenever the bag leak detection systems are not operational; and

(b) The Permittee shall maintain a copy of the SSM plan as required by 40 CFR 63.850(b).

(c) The SSM plan shall be maintained in the operating record.

Compliance Determination Requirements

D.3.6 Particulate Control [326 IAC 2-7-6(6)]

(a) In order to comply with Condition D.3.1and D.3.2, the PM (PM and PM10 for Anode forming) emissions from the following facilities shall be controlled by the baghouses as indicated in the table below. Each baghouse shall be in operation and control emissions from its associated facilities at all times when an emission unit that the baghouse controls is in operation; and

Facility	Baghouse
Size classifying equipment	DC-218 baghouse
153 Hammermill	DC-153 baghouse
Intermediate Classifier CL-82	DCF-221A baghouse
BM-112 Ball mill grinding operation	DCF-221B baghouse
Weighting facility	Check-Weigh Scale Baghouse
Anode Forming	Pitch Fume Treatment System

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

(c) In the event that bag failure is observed in a pitch fume treatment system baghouse, the Permittee shall take corrective action according to Condition D.3.8(c).

D.3.7 Testing Requirements [326 IAC 2-7-6(1), (6)]

In order to comply with Condition D.3.2, within 36 months after issuance of this Part 70 permit or within 5 years from the date of the last valid compliance test, whichever is later, the Permittee shall perform PM, PM10 and VOC testing for the pitch fume treatment system, utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of the valid compliance demonstration. PM10 includes filterable and condensable PM10. Testing shall be conducted in accordance with Section C – Performance Testing. During the stack test, the Permittee shall determine the sensitivity of the bag leak detection system and calibrate the particulate concentration readings of the bag leak detector in order to provide an output relative to outlet grain loading levels.

Compliance Monitoring Requirements [326 IAC 2-7-6 (1)] [326 IAC 2-7-5 (1)] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-24] [40 CFR 63.847] [40 CFR 63.848]

D.3.8 Emission Monitoring Requirements [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-24] [40 CFR 63.847] [40 CFR 63.848]

(a) Pursuant to 40 CFR 63.848(g), 40 CFR 63.8(f), and Condition D.3.9, the Permittee shall operate the continuous bag leak detection systems installed on the exhaust duct of each baghouse of the pitch fume treatment system until such time that the continuous broken bag detection system for the pitch fume treatment system common exhaust stack has been installed and calibrated. After the continuous broken bag detection system for the pitch fume treatment system common exhaust stack has been installed and calibrated, the Permittee shall comply with the provisions of 40 CFR 63.848(g) and 40 CFR 63.8(f) using the pitch fume treatment system common exhaust stack continuous broken bag detection system. Whenever the bag leak detection systems are not operational, the Permittee shall visually inspect the exhaust stacks of the pitch fume treatment system on a daily basis for evidence of any visible emissions indicating abnormal operation.

(b) Pursuant to 40 CFR 63.847(h) and 40 CFR 63.848(f), the Permittee shall operate, calibrate, and maintain continuous parameter monitoring systems for the measurement of fan motor current (amperes) for air flow and coke feeder revolution per minute (rpm) for coke flow for the dry coke scrubbers of the pitch fume treatment system at rates and frequencies included in the most recent NESHAP Parametric Plan approved by IDEM, OAQ.

(c) Pursuant to 40 CFR 63.848(f), if for any baghouse the fan motor current (amperes) are less than that included in the most recent NESHAP Parametric Plan approved by IDEM, OAQ, if for any dry coke scrubber the coke feeder rpm is less than that included in the most recent NESHAP Parametric Plan approved by IDEM, OAQ, if the alarm on any of the bag leak detection systems activates, or if visible emissions indicating abnormal operation are observed from the exhaust stacks of the pitch fume treatment system during the time the bag leak detection system is malfunctioning, then the Permittee shall initiate the corrective action procedures identified in the SSM plan within one (1) hour. Failure to initiate the corrective action procedures within one (1) hour or to take the necessary corrective actions to remedy the problem is a violation.

(d) Pursuant to 40 CFR 63.848(k), the Permittee shall submit recommended accuracy requirements to IDEM, OAQ, for review and approval. All monitoring devices required by this section must be certified by the Permittee to meet the accuracy requirements and must be calibrated in accordance with the manufacturer's instructions.

(e) Pursuant to 40 CFR 63.848(i), if the limit for a given operating parameter monitoring the pitch fume treatment system is exceeded six times in any semiannual reporting period, then any subsequent exceedance in that reporting period is a violation. For the purpose of determining the number of exceedances, no more than one exceedance shall be attributed in any 24-hour period.

D.3.9 Bag Leak Detection System and Alternative Monitoring Plan (AMP) [SPM 173-21948-00007] [326 IAC 20-24] [40 CFR 63.847] [40 CFR 63.848]

Upon installation and calibration, the Permittee shall operate the continuous bag leak detection system installed on the common exhaust stack of the Pitch Fume Treatment System and the exhaust stack of the DC-218 baghouse. The Permittee shall continue to operate the continuous bag leak detection system installed on the exhaust duct of each baghouse of the pitch fume treatment system until the continuous bag leak detection system for the common exhaust stack has been installed and calibrated. The bag leak detection systems shall meet the following requirements:

(a) Each electrodynamic bag leak detection system shall be calibrated, operated, and maintained according to the manufacturer's recommendations;

(b) The bag leak detection system shall be certified by the manufacturer to be capable of detecting PM emissions at concentrations of ten (10) milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less;

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

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

(e) The bag leak detection system shall be equipped with an alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm shall be located where it is easily heard by plant operating personnel;

(f) The bag leak detector shall be installed downstream of the fabric filter.

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

(h) The baseline output shall be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time;

(i) Following initial adjustment of the system, the Permittee shall not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time except as detailed in the PMP. In no case may the sensitivity be increased by more than one hundred (100%) percent or decreased more than fifty (50%) percent over a 365-day period unless such adjustment follows a complete fabric filter inspection which demonstrates that the fabric filter is in good operating condition.

(j) In the event that a bag leak detection system should malfunction, fail or otherwise need repair, the Permittee shall perform visible emissions notations of the Pitch Fume Treatment System and/or DC-218 stack exhausts associated with that bag leak detection system as follows:

(1) Visible emission notations of the stack exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal;

(2) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time;

(3) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions;

(4) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process; and

(5) Pursuant to 40 CFR 63.848(f), if the alarm on the bag leak detection systems probe on the common exhaust stack of the Pitch Fume Treatment System activates, or if visible emissions indicating abnormal operation are observed from the common exhaust stack of the pitch fume treatment system during the time the bag leak detection system is malfunctioning, then the Permittee shall initiate the corrective action procedures identified in the SSM plan within one (1) hour. Failure to initiate the corrective action procedures within one (1) hour or to take the necessary corrective actions to remedy the problem is a violation.

D.3.10 Visible Emissions Notations

(a) Visible emission notations of the stack exhaust for DC-153, DCF-221A, DCF-221B, and Check-Weigh Scale baghouses shall be performed once per day. 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 normal operations.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions and Exceedances. Abnormal emissions alone are not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions and Exceedances, shall be considered a deviation from this permit.

D.3.11 Parametric Monitoring

(a) The Permittee shall record the pressure drop across DC-218, DC-153, DCF-221A, DCF-221B, and Check-Weigh Scale baghouses, used in conjunction with the facilities at least once per day when the processes are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

(b) The instrument used for determining the pressure shall comply with Section C – Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ and shall be calibrated at least once every six (6) months.

D.3.12 Broken or Failed Bag Detection

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

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

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-24] [40 CFR 63.850]

D.3.13 Record Keeping Requirements

(a) To document compliance with Condition D 3.2, the Permittee shall maintain records of the stack tests results as required by Condition D.3.7.

(b) To document compliance with Condition D.3.9(a), the Permittee shall keep a log of the calibration test results for pitch fume treatment system baghouses leak detectors. Upon installation and calibration of the pitch fume treatment system common stack and DC-218 baghouse bag leak detection system, the Permittee shall keep a log of the calibration results for those detectors. Upon installation and calibration of the pitch fume treatment system common exhaust stack bag leak detection system; Permittee will no longer be required to calibrate and operate the bag leak detection system on each baghouse of the pitch fume treatment system in order to comply with the provisions of 40 CFR 63.848(g) and 40 CFR 63.8(f).

(c) To document compliance with Condition D.3.9 (j), the Permittee shall maintain records of daily visible emission notations of the stack exhaust for pitch fume treatment system baghouses, when the applicable bag leak detection system malfunctions, fails or otherwise needs repair. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(d) To document compliance with Condition D.3.10, the Permittee shall maintain records of daily visible emission notations for each stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(e) To document compliance with Condition D.3.11, the Permittee shall maintain records of the daily pressure drop of the baghouses during normal operation. The Permittee shall include in its daily record when a pressure drop record is not taken and the reason for the lack of a pressure drop record (e.g. the process did not operate that day).

(f) The Permittee shall maintain documentation of all response steps implemented per event as required under Conditions D.3.10, D.3.11, and D.3.12.

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

D.3.14 NESHAP Record Keeping Requirements [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-24] [40 CFR 63.850(c) and (e)]

(a) Pursuant to 40 CFR 63.850(c)(2), the Permittee shall keep records of each event as required by 40 CFR 63.10(b) and record if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the plan as required by condition D.3.5.

(b) Pursuant to 40 CFR 63.850(e), the Permittee shall maintain files of all information (including all reports and notifications) required by 40 CFR 63.10(b) and 40 CFR 63.850.

(1) The Permittee may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche; and

(2) In addition to the general records required by 40 CFR 63.10(b), the Permittee shall maintain records of the following information:

(i) A copy of the startup, shutdown, and malfunction plan as required in Condition D.3.5;

(ii) Records of design information for pitch fume treatment system capture systems;

(iii) Records, such as a checklist or the equivalent, demonstrating that the daily visual inspection of the exhaust stack for the baghouse of the pitch fume treatment system were performed including the results of each inspection during the time a bag leak detection system was malfunctioning, failed or otherwise needed repair; and

(iv) Records documenting the corrective actions taken when the limit for an operating parameter established in the most recent NESHAP Parametric Plan approved by IDEM, OAQ were exceeded, if the alarm on any of the bag leak detection systems was activated, or if visible emissions indicating abnormal operation were observed from the exhaust stacks of the pitch fume treatment system during the time the bag leak detection system was malfunctioning, failed or otherwise needed repair.

D.3.15 NESHAP Reporting Requirements [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-24] [40 CFR 63.850(c), (d), and (e)]

(a) Pursuant to 40 CFR 63.650(c)(2), the Permittee shall report if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the SSM plan as required by Condition D.3.5.

(b) Pursuant to 40 CFR 63.850(d), and 40 CFR Part 63.10(e)(3), the Permittee shall submit a report, or summary report, if measured emissions are in excess of the applicable standard. The report shall contain the information specified in 40 CFR Part 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions. The report 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 semi-annual or if necessary after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

(c) Pursuant to 40 CFR 63.850(e)(3), the Permittee may report required information on paper or on a labeled computer disc using commonly available and compatible computer software.

SECTION D.4 ANODE BAKING PLANT FACILITY OPERATION CONDITIONS

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

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

(1) One (1) above-ground, natural gas-fired, green anode baking ring furnace, known as Bldg. 295 Anode Baking Ring Furnace, constructed in 1981 and was restarted in 2003 after it was rebuilt in 2003, with a maximum capacity of 21.42 tons of green anodes per hour, equipped with an A-446 pollution control system consisting of three (3) reactor sections with baghouses for PM and PM_{10} control and dry alumina scrubbers for TF and SO_2 control which operate at a minimum of two (2) reactor sections at any one (1) time, exhausting through Stacks 265D.1, 265D.2, 265D.3, 265D.4, 265D.5, 265D.6, 265D.8, and 265J.1 (which is the diesel-fired emergency bypass engine stack used for venting ring furnace exhaust gases during emergency periods of unexpected loss of power to the A-446 dry scrubber fans);

(2) One (1) diesel-fired emergency bypass engine, constructed in 1990, with a maximum output capacity of 200 horsepower, with a bypass duct and an emergency bypass fan, and venting to an emergency bypass Stack 265J.11;

(3) One (1) reacted alumina storage tank, constructed in 1981, with a maximum loading capacity of 7.5 tons/hr, pneumatically loading, controlled by the bin vent filter, and exhausting at Stack 265D.7.

One (1) reacted alumina storage tank baghouse, identified as bin vent filter, constructed in 1981, with an air flow rate of 30 acfm at 77°F, and control efficiency of 99%, and exhausting at Stack 265D.7;

(4) One (1) reacted alumina truck loadout, constructed in 1981, with a maximum loading capacity of 21.0 tons/hr, controlled by the reacted alumina truck loadout baghouse, and exhausting at Stack 265D.9.

One (1) reacted alumina truck loadout baghouse, constructed in 1981, with an air flow rate of 1,750 acfm at 77°F, maximum outlet grain loading of 0.005 gr/dscf, and control efficiency of 99.5%, and exhausting at Stack 265D.9;

(5) One (1) un-reacted alumina storage tank/truck unloading, constructed in 1981, with a maximum loading capacity of 21.0 tons/hr, controlled by the un-reacted alumina storage tank/truck unloading baghouse, and exhausting at Stack 265D.10.

One (1) un-reacted alumina storage tank/truck unloading baghouse, constructed in 1981, with an air flow rate of 50 acfm at 77°F, and control efficiency of 99%, and exhausting at Stack 265D.10;

(6) One (1) Building 265 baked anode vacuum system, constructed in 1981, with a maximum capacity of 20.25 tons of baked anodes per hour, controlled by the baked anode vacuum system baghouse, and exhausting at Stack 265D.11; and

One (1) baked anode vacuum system baghouse, constructed in 1981, with an air flow rate of 4,300 dscfm and maximum grain loading of 0.002 gr/dscf, and exhausting at Stack 265D.11.

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

D.4.1 Particulate Emissions Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3 (Particulate Emissions Limitations for Manufacturing Processes), the allowable particulate emission rate from the below listed processes shall be limited as follows:

Facility	Control Equipment	Maximum Process Weight Rate (tons/hr)	PM Emission Limit (lbs/hr)
Green anode baking ring furnace	A-446 pollution control system	21.4	31.9
Reacted alumina storage tank	Reacted alumina storage tank baghouse	7.5	15.8
Reacted alumina truck loadout	Reacted alumina truck loadout baghouse	21.00	31.5
Unreacted alumina storage tank/truck unloading	Un-reacted alumina storage tank/truck unloading baghouse	21.00	31.5
Baked anode vacuum System	Baked anode vacuum system baghouse	20.25	30.8

The above particulate emissions rates were determined from the following formulae:

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

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

Where: E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour.

D.4.2 PSD Minor Limitations [326 IAC 2-2]

Pursuant to SSM 173-17780-00007, issued on July 21, 2004, the following limits shall apply to the green anode baking ring furnace:

(a) The input of green anodes to the green anode baking ring furnace shall be limited to 187,645 tons per twelve (12) consecutive month period with compliance determined at the end of each month;

(b) The emission rate of PM shall not exceed 0.676 pounds of PM per ton of green anode;

(c) The emission rate of PM10 shall not exceed 3.92 pounds of PM10 per ton of green anode;

(d) The emission rate of SO2 shall not exceed 1.11 pounds of SO2 per ton of green anode; and

(e) The emission rate of CO shall not exceed 3.57 pounds of CO per ton of green anode.

Compliance with the throughput limits in Conditions D.4.2(a) and D.6.4(a) and the emission limits specified by Conditions D.3.2(a) through (c), D.4.2(b) through (e), D.5.2(a) and (b), and D.6.4(b) and (c), shall render the requirements of 326 IAC 2-2 not applicable to the green anode baking ring furnace.

D.4.3 PSD Minor Limitations [326 IAC 2-2]

The combined PM and PM10 emissions from the reacted alumina storage tank baghouse, the reacted alumina truck loadout baghouse, the un-reacted alumina storage tank/truck unloading baghouse, and the baked anode vacuum system baghouse shall be less than 5.7 and 3.4 pounds per hour, respectively. Compliance with these emissions limits shall ensure that the combined potential PM and PM10 emissions from the emissions units associated with these baghouses shall be less than 25 and 15 tons per year, respectively, which renders the requirements of PSD rule 326 IAC 2-2 not applicable.

D.4.4 PSD BACT [326 IAC 2-2-3]

Pursuant to Construction Permit PSD (87) 1766, issued on November 3, 1989;

(a) Sulfur dioxide emissions from the A-446 dry alumina scrubbers shall be limited to 1.13 tons per day, and 35 tons per month, and 412 tons per twelve (12) consecutive month period with compliance determined at the end of each month;

(b) Alcoa shall use the lowest sulfur content pitch commercially available. This shall be limited to a maximum of 0.80% sulfur;

(1) The Permittee shall use the lowest sulfur content pitch commercially available. The sulfur content of coal tar pitch shall not exceed 0.80%;

(2) Should pitch with a sulfur content of 0.80% become unavailable and the monthly average pitch sulfur content exceed this limit, then Alcoa shall have thirty (30) days from the end of the month in violation to provide to the OAQ documentation that lower sulfur pitch is not available and documentation for a new proposed pitch sulfur content BACT limit. The BACT limit in (1) above shall remain in effect until such time as the Commissioner approves a revised pitch sulfur content BACT limit. However, enforcement action will not be taken until such time as Alcoa has been given the opportunity to support, request and obtain approval for a revised BACT limit as described above. Testing to establish a new A-446 inlet SO2 emission rate, similar to that described in (1), will be required as part of any revised BACT limit approval;

(3) If the monthly average sulfur content of the pitch used in the anodes exceeds 0.75% for any calendar month, then the Permittee shall report this to OAQ within thirty (30) days. This notification shall include a discussion of the reason the pitch sulfur content has increased and whether Alcoa has been able, or will be able, to obtain pitch with sulfur content below 0.75%. If pitch with a sulfur content of less than 0.75% is not available, then Alcoa shall submit documentation of this and, within ninety (90) days of the notification, conduct an A-446 dry scrubber SO2 inlet (ring furnace outlet) test to reestablish the SO2 inlet emission rate pursuant to 326 IAC 7-4-10(a)(4)(H), previously established in Condition No. 6 of Construction permit No. PSD (87) 1766, issued November 3, 1989. This test shall be conducted pursuant to 326 IAC 3-6-2 at the current maximum achievable anode production rate and the result will be used to determine compliance; and

(c) The natural gas throughput to the green anode baking ring furnace shall be less than 75 million cubic feet per month and 600 million cubic feet per twelve (12) consecutive month period with compliance determined at the end of each month.

D.4.5 Warrick County Sulfur Dioxide Emission Limitations [326 IAC 7-4-10]

Pursuant to 326 IAC 7-4-10(a)(4)(H), the sulfur dioxide emissions from the green anode baking ring furnace shall not exceed 94.1 pounds per hour and 412 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

D.4.6 General Provisions Relating to NESHAP [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-1] [40 CFR Part 63, Subpart A] [40 CFR 63.852]

The provisions of 40 CFR Part 63, Subpart A- General Provisions, which are incorporated by reference in 326 IAC 20-1 apply to green anode baking ring furnace except when otherwise specified in 40 CFR Part 63, Subpart LL, Appendix A of this subpart.

D.4.7 TF and POM Emissions Limitations [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-24] [40 CFR 63.843] [40 CFR 63.847]

(a) Pursuant to 40 CFR 63.843(c), and 40 CFR 63.847(a)(1), the emissions of total fluoride (TF) (as defined in 40 CFR 63.842), and polycyclic organic matter (POM) from the green anode ring furnace shall not exceed 0.20, and 0.18 pounds per ton of green anode, respectively.

(b) Pursuant to 40 CFR 60.190(c), the emission limits in (a) shall satisfy the requirements of 40 CFR 60 Subpart S.

D.4.8 Plans and Procedures [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-1] [40 CFR 63.6] [326 IAC 20-24] [40 CFR 63.850]

Pursuant to 40 CFR 63.850 (c), the Permittee shall develop a written startup, shutdown, and malfunction (SSM) plan as described in 40 CFR 63.6(e) (3) that contains specific procedures to be followed for operating and maintaining the green anode ring furnace during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process and control systems used to comply with the standard. The plan does not have to be submitted with the permit application or included in the Part 70 operating permit. IDEM, OAQ may review the plan upon request. In addition to the information required in 40 CFR 63.6(e) (3), the plan shall include:

(a) Procedures, including corrective actions, to be followed if for any baghouse the fan motor current (amperes) are less than that included in the most recent NESHAP Parametric Plan, approved by IDEM, OAQ, if dry alumina scrubbers reacted alumina 24-hour cumulative dense phase unit dumps is less than that included in the most recent NESHAP Parametric Plan, approved by IDEM, OAQ, if the alarm on any of the bag leak detection systems activates, or if visible emissions indicating abnormal operation are observed from the exhaust stacks of the green anode ring furnace whenever the bag leak detection systems are not operational; and

(b) The SSM plan shall be maintained in the operating record.

Compliance Determination Requirements

D.4.9 TF, POM, and SO2 Control [326 IAC 2-7-6(6)]

In order to comply with Conditions D.4.2(d), D.4.4(a), D.4.5, and D.4.7(a), at least 2 of the 3 A-446 pollution control system reactor sections for TF, POM, and SO2 control shall be in operation at all times when the green anode baking ring furnace is in operation. During periods of readiness testing of the emergency diesel engine driven exhaust fan, emissions from the green anode baking ring furnace shall continue to exhaust through at least 2 of the 3 A-446 pollution control system reactor sections, and shall not exhaust to the emergency diesel engine driven exhaust fan.

D.4.10 Particulate Control [326 IAC 2-7-6(6)]

(a) In order to comply with Condition D.4.1, and D.4.2(b) and (c), the PM and PM10 emissions from the following facilities shall be controlled by the baghouses as indicated in the table below. Each baghouse shall be in operation and control emissions from its associated facilities at all times when an emission unit that the baghouse controls is in operation; and

Facility	Baghouse
Green anode baking ring furnace	A-446 pollution control system
Reacted alumina storage tank	Reacted alumina storage tank baghouse
Reacted alumina truck loadout	Reacted alumina truck loadout baghouse
Unreacted alumina storage tank/truck unloading	Un-reacted alumina storage tank/truck unloading baghouse
Baked anode vacuum system	Baked anode vacuum system baghouse

(b) In the event that bag failure is observed in a multi-compartment baghouse except the A-446 pollution control system baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

(c) In the event that bag failure is observed in the A-446 pollution control system baghouse, the Permittee shall take corrective action according to Condition D.4.16(d).

D.4.11 Testing [326 IAC 7-10-4(b)] [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-24] [40 CFR 63.847]

(a) Pursuant to 40 CFR 63.847(b), the Permittee shall prepare a site specific test plan prior to the performance test according to the requirements of 40 CFR 67.7(c). The test plan shall include procedures for conducting the performance tests required in 40 CFR 63.848 for emission monitoring. In addition to the information required by 40 CFR 63.7, the test plan shall include:

(1) Procedures to ensure a minimum of three runs are performed annually for the primary control system for the green anode baking ring furnace;

(2) Procedures to ensure that at least three runs are performed annually by a representative sample of the stacks satisfactory to IDEM, OAQ;

(b) Pursuant to 40 CFR 63.847(d), all performance tests shall be conducted in accordance with the requirements of the general provisions in Subpart A of 40 CFR 63, the approved test plan, and the procedures in this section.

(1) The Permittee shall measure and record the emission rates of TF and POM exiting the exhaust stacks of the A-446 pollution control system. Using the equations in paragraphs 40 CFR 63.847(e)(3) and (4) given below, the Permittee shall compute and record the average of at least three runs each year to meet the emission limits in condition D.4.7(a);

$$E_b = \frac{(C_s \times Q_{sd})}{(P_b \times K)} \qquad (Equation\ 2)$$

Where:

Eb = emission rate of TF, lb/ton of green anodes produced;

Cs = concentration of TF, mg/dscf;

Qsd = volumetric flow rate of effluent gas, dscf/hr;

Pb = quantity of green anode material placed in the furnace, ton/hr; and

K = conversion factor, 453,600 mg/lb.

(2) Compute the emission rate of POM from each anode bake furnace using Equation 2,

Where:

C_s = concentration of POM, mg/dscf.

(3) If the Permittee has performed more than one test for the green anode baking ring furnace during the previous consecutive twelve month, the average of all runs performed in the previous 12-month period shall be used to determine the contribution from the A-446 pollution control system;

(4) Determine the weight of green anode material placed in the anode bake furnace using the monitoring devices required in Condition D.4.16(c); and

(5) Determine the rate of green anode material introduced into the furnace by dividing the number of operating hours in the calendar month into the weight of green anode material used during the calendar month in which the performance test was conducted.

D.4.12 Sulfur Dioxide [326 IAC 2-2-3] [326 IAC 7-4-10(a)(4)]

In order to comply with Conditions D.4.4 and D.4.5, the Permittee shall utilize the following methods and/or calculations:

(a) Compliance with the pounds per hour limitations specified in Condition D.4.5 shall be based on a stack test pursuant to 326 IAC 7-2-1(b);

(b) Compliance with the tons per year limitations specified in Condition D.4.5 shall be based on a rolling twelve (12) consecutive month emission total. Monthly sulfur dioxide emissions shall be determined from calendar month material balances using actual average sulfur content and material throughput;

(c) Pursuant to Construction Permit PSD (87) 1766, issued on November 3, 1989, compliance shall be determined from the tested SO2 evolution (A-446 inlet) emission factor of 3.69 pounds of SO2 per ton of baked carbon and the estimated A-446 dry alumina scrubber SO2 removal efficiency based on the A-446 feed;

(1) Daily records shall be used to calculate the average tons per hour baked carbon production rate and the average pounds per hour per reactor alumina feed rate for each day;

(2) The daily average pounds per reactor alumina feed rate shall be used to determine the daily average percent SO2 removal based on Figure 1 (Feedrate vs. SO2 Percent Removal – as submitted by Alcoa in their February 28, 1989, response letter);

(3) The daily percent removal shall be used, with the SO2 evolution emission factor and the average production rate, to calculate the pounds per hour and pounds per ton of baked carbon daily average SO2 emission rates;

(4) The daily SO2 emission rates shall be calculated by multiplying the daily average pounds of SO2 per ton of baked carbon times the daily baked carbon production to calculate the pounds per day SO2 emission rates; and.

(5) The daily SO2 emission rates shall then be summed to calculate the tons per month and the tons per twelve (12) consecutive month period SO2 emission rates.

D.4.13 Test Methods and Procedures [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-24] [40 CFR 63.849]

Pursuant to 40 CFR 63.849, the Permittee shall use the following reference methods to determine compliance with the applicable emission limits for TF:

(a) Method 1 in appendix A to 40 CFR Part 60 for sample and velocity traverses;

(b) Method 2 in appendix A to 40 CFR Part 60 for velocity and volumetric flow rate;

(c) Method 3 in appendix A to 40 CFR Part 60 for gas analysis;

(d) Method 13A or Method 13B in appendix A to 40 CFR Part 60, or an approved alternative, for the concentration of TF; and

(e) Method 315 in appendix A to 40 CFR 63 or an approved alternative method for the concentration of POM.

D.4.14 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]

(a) In order to determine compliance with Condition D.4.2(b), and (c), within 36 months after issuance of this Part 70 permit or within 5 years from the date of the last valid compliance test, whichever is later, the Permittee shall perform PM, and PM10 testing for the green anode baking ring furnace, utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of the valid compliance demonstration. PM10 includes filterable and condensable PM10. Testing shall be conducted in accordance with Section C – Performance Testing. During the stack test, the Permittee shall determine the sensitivity of the bag leak detection system and calibrate the particulate concentration readings of the electrodynamic bag leak detector in order to provide an output relative to outlet grain loading levels.

(b) In order to determine compliance with Condition D.4.2(d), within 36 months after issuance of this Part 70 permit or 5 years from the date of the last valid compliance test, whichever is later, the Permittee shall perform SO2 testing for the green anode baking ring furnace, utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

(c) In order to determine compliance with Condition D.4.2(e), within 36 months after issuance of this Part 70 permit or 5 years from the date of the last valid compliance test, whichever is later, the Permittee shall perform CO testing for the green anode baking ring furnace, utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

D.4.15 Emergency Bypass Engine Operation

Pursuant to Operation Condition 3 of PC (87) 1840, issued on February 26, 1990, the emergency bypass engine shall be operated in accordance with the manufacturer's specifications.

Compliance Monitoring Requirements [326 IAC 2-7-6 (1)] [326 IAC 2-7-5 (1)] [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-24] [40 CFR 63.847] [40 CFR 63.848]

D.4.16 Emission Monitoring Requirements [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-24] [40 CFR 63.847] [40 CFR 63.848]

(a) Pursuant to 40 CFR 63.848(g) and (l), 40 CFR 63.8(f), and SSM 173-21948-00007, the Permittee shall operate the bag leak detection system installed on each stack of each baghouse of the A-446 pollution control system. The Permittee shall visually inspect the exhaust stacks of the A-446 pollution control system on a daily basis for evidence of any visible emissions indicating abnormal operation whenever the bag leak detection systems are not operational.

(b) Pursuant to 40 CFR 63.847(h) and 40 CFR 63.848(f), the Permittee shall operate, calibrate, and maintain continuous parameter monitoring systems for the measurement of fan motor current (amperes) for air flow and reacted alumina cumulative 24-hour dense phase unit dumps for alumina flow for the dry alumina scrubbers of the A-446 pollution control system at rates and frequencies included in the most recent NESHAP Parametric Plan approved by IDEM, OAQ.

(c) Pursuant to 40 CFR 63.848(j), the Permittee shall operate, and maintain a monitoring device to determine the daily weight of the green anode material placed in the green anode baking ring furnace.

(d) Pursuant to 40 CFR 63.848(h), if for any baghouse the fan motor current (amperes) are less than that included in the most recent NESHAP Parametric Plan approved by IDEM, OAQ, if for any dry alumina scrubber the reacted alumina dense phase unit 24-hour cumulative dumps are lower than that included in the most recent NESHAP Parametric Plan approved by IDEM, OAQ, if the alarm on any of the bag leak detection systems activates, or if visible emissions indicating abnormal operation are observed from the exhaust stacks of the A-446 pollution control system during the time the bag leak detection system is malfunctioning, then the Permittee shall initiate the corrective action procedures identified in the SSM plan within one (1) hour. Failure to initiate the corrective action procedures within one (1) hour or to take the necessary corrective actions to remedy the problem is a violation.

(e) Pursuant to 40 CFR 63.848(k), the Permittee shall submit recommended accuracy requirements to IDEM, OAQ, for review and approval. All monitoring devices required by this section must be certified by the Permittee to meet the accuracy requirements and must be calibrated in accordance with the manufacturer's instructions.

(f) Pursuant to 40 CFR 63.848(i), if the limit for a given operating parameter monitoring the A-446 pollution control system is exceeded six times in any semiannual reporting period, then any subsequent exceedance in that reporting period is a violation. For the purpose of determining the number of exceedances, no more than one exceedance shall be attributed in any 24-hour period.

D.4.17 Bag Leak Detection System and Alternative Monitoring Plan (AMP) [SPM 173-21948-00007] [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-24] [40 CFR 63.847] [40 CFR 63.848]

The Permittee shall operate a continuous bag leak detection system for each baghouse of the A-446 pollution control system. The bag leak detection system shall meet the following requirements:

(a) Each electrodynamic bag leak detection system shall be calibrated, operated, and maintained according to the manufacturer's recommendations;

(b) The bag leak detection system shall be certified by the manufacturer to be capable of detecting PM emissions at concentrations of ten (10) milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less;

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

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

(e) The bag leak detection system shall be equipped with an alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm shall be located where it is easily heard by plant operating personnel;

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

(g) The baseline output shall be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time;

(h) Following initial adjustment of the system, the Permittee shall not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time except as detailed in the PMP. In no case may the sensitivity be increased by more than one hundred (100%) percent or decreased more than fifty (50%) percent over a 365-day period unless such adjustment follows a complete fabric filter inspection which demonstrates that the fabric filter is in good operating condition;

(i) In the event that a bag leak detection system should malfunction, fail or otherwise need repair, the Permittee shall perform visible emissions notations of the stack exhaust associated with that bag leak detection system as follows:

(1) Visible emission notations of the stack exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal;

(2) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time;

(3) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions;

(4) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process; and

(5) Pursuant to 40 CFR 63.848(f), if the alarm on any of the bag leak detection systems activates, or if visible emissions indicating abnormal operation are observed from the exhaust stacks of the A-446 pollution control system during the time the bag leak detection system is malfunctioning, then the Permittee shall initiate the corrective action procedures identified in the SSM plan within one (1) hour. Failure to initiate the corrective action procedures within one (1) hour or to take the necessary corrective actions to remedy the problem is a violation.

D.4.18 Visible Emissions Notations

(a) Visible emission notations of the stack exhaust for baked anode vacuum system baghouse shall be performed once per day. 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 normal operations

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions and Exceedances. Abnormal emissions alone are not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions and Exceedances, shall be considered a deviation from this permit.

D.4.19 Parametric Monitoring

(a) The Permittee shall record the pressure drop across baked anode vacuum system baghouses, used in conjunction with the facilities at least once per day when the processes are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

(b) The instrument used for determining the pressure shall comply with Section C – Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ and shall be calibrated at least once every six (6) months.

D.4.20 Broken or Failed Bag Detection [326 IAC 2-7-5(3)]

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

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-24] [40 CFR 63.850]

D.4.21 Record Keeping Requirements

(a) To document compliance with Condition D.4.2(a), the Permittee shall maintain monthly records of the throughput of green anodes to the green anode baking ring furnace.

(b) To document compliance with Condition D.4.4, and D.4.12:

(1) Records of the A-446 outlet SO2 emission rates and of the dry alumina scrubber operations shall be maintained;

Records of the dry alumina scrubber operations shall include the following:

(A) An estimate of the daily average alumina feed rates in pounds per hour per reactor; and

(B) The time periods when any of the reactors are out of service and summary of all maintenance (routine, preventative or malfunction related) performed on the A-446 system.

(2) Records of pitch sulfur content based on vendor analysis shall be maintained for the most recent twenty-four (24) month period.

(c) To document compliance with Condition D.4.4(c), the Permittee shall maintain records of the monthly ring furnace natural gas throughput.

(d) To document compliance with Conditions D 4.2(b), (c), (d), and (e), and D.4.5, the Permittee shall maintain records of the stack tests results as required by Conditions D.4.12(a), and D.4.14.

(e) To document compliance with Condition D.4.17(a), the Permittee shall keep a log of the calibration test results for A-446 pollution control system baghouses leak detectors;

(f) To document compliance with Condition D.4.17(i), the Permittee shall maintain records of daily visible emission notations of the stack exhaust for A-446 pollution control system baghouses, when the applicable bag leak detection system malfunctions, fails or otherwise needs repair. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(g) To document compliance with Condition D.4.18, the Permittee shall maintain records of daily visible emission notations for the stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(h) To document compliance with Condition D.4.19, the Permittee shall maintain records of the daily pressure drop of the baked anode vacuum system baghouse during normal operation. The Permittee shall include in its daily record when a pressure drop record is not taken and the reason for the lack of a pressure drop record (e.g. the process did not operate that day).

(i) The Permittee shall maintain the following as required under Conditions D.4.10, D.4.18, D.4.19, and D.4.20:

(1) Documentation of all response steps implemented per event.

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

D.4.22 NESHAP Record Keeping Requirements [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-24] [40 CFR 63.850 (c) and (e)]

(a) Pursuant to 40 CFR 63.850(c)(2), the Permittee shall keep records of each event as required by 40 CFR 63.10(b) and record if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the plan as required by Condition D.4.8.

(b) Pursuant to 40 CFR 63.850(e), the Permittee shall maintain files of all information (including all reports and notifications) required by 40 CFR 63.10(b) and 40 CFR 63.850.

(1) The Permittee may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche; and

(2) In addition to the general records required by 40 CFR 63.10(b), the Permittee shall maintain records of the following information:

(i) A copy of the startup, shutdown, and malfunction plan as required in Condition D.4.8;

(ii) Daily production rate of green anode material placed in the green anode baking ring furnace;

(iii) Records, such as a checklist or the equivalent, demonstrating that the daily visual inspection of the A-446 pollution control exhaust stack were performed including the results of each inspection during the time a bag leak detection system was malfunctioning, failed or otherwise needed repair; and

(iv) Records documenting the corrective actions taken when the limit for an operating parameter established in the most recent NESHAP Parametric Plan approved by IDEM, OAQ were exceeded, if the alarm on any of the bag leak detection systems was activated, or if visible emissions indicating abnormal operation were observed from the exhaust stacks of the A-446 pollution control system during the time the bag leak detection system was malfunctioning, failed or otherwise needed repair.

D.4.23 Reporting Requirements

The Permittee shall report a quarterly summary of the information to document compliance with Conditions D.4.2(a), 4.4(a) and (c), and D.4.5 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 its 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 “responsible official” as defined by 326 IAC 2-7-1(34).

D.4.24 NESHAP Reporting Requirements [326 IAC 12] [40 CFR 60 Subpart S] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-24] [40 CFR 63.850(c), (d), and (e)]

(a) Pursuant to 40 CFR 63.650(b), the Permittee shall submit a summary of all performance tests to IDEM, OAQ on an annual basis.

(b) Pursuant to 40 CFR 63.650(c)(2), the Permittee shall report if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the SSM plan as required by Condition D.4.8.

(c) Pursuant to 40 CFR 63.850(d), and 40 CFR Part 63.10(e)(3), the Permittee shall submit a report, or summary report, if measured emissions are in excess of the applicable standard. The report shall contain the information specified in 40 CFR Part 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions. The report 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 semi-annual or if necessary after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

(d) Pursuant to 40 CFR 63.850(e)(3), the Permittee may report required information on paper or on a labeled computer disc using commonly available and compatible computer software.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAG

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

Part 70 Green Anode Throughput Quarterly Report

Source Name: Alcoa Inc. - Warrick Operations
Source Address: Jct. IN Hwys. 66 & 61, Newburgh, Indiana 47629-0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Part 70 Permit No.: T173-6627-0 0007
Facility: Green anode baking ring furnace
Parameter: Throughput of green anodes
Limit: 187,645 tons per twelve (12) consecutive month period

Quarter _____ Year: _____

Month	Green anodes (tons)	Green anodes (tons)	Green anodes (tons)
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this month.

☐ Deviation/s occurred in this month.
Deviation has been reported on:

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: Alcoa Inc. - Warrick Operations
Source Address: Jct. IN Hwys. 66 & 61, Newburgh, Indiana 47629-0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Part 70 Permit No.: T173-6627-0 0007
Facility: Green anode baking ring furnace dry scrubber
Parameter: Sulfur Dioxide Emissions
Limit: 35 tons per month and 412 tons per twelve (12) consecutive month. Monthly sulfur dioxide emissions shall be determined from calendar month material balances using actual average sulfur content and material throughput.

Quarter _____ Year: _____

Month	Sulfur Dioxide Emissions (tons)	Sulfur Dioxide Emissions (tons)	Sulfur Dioxide Emissions (tons)
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this month.

☐ Deviation/s occurred in this month.
Deviation has been reported on:

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report

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

Part 70 Anode Baking Furnace Natural Gas Quarterly Report

Source Name: Alcoa Inc. - Warrick Operations
Source Address: Jct. IN Hwys. 66 & 61, Newburgh, Indiana 47629-0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Part 70 Permit No.: T173-6627-0 0007
Facility: Green anode baking ring furnace
Parameter: Natural gas throughput
Limit: Less than 75 million cubic feet per month
Less than 600 million cubic feet per twelve (12) consecutive month period

Quarter _____ Year: _____

Month	Natural Gas Usage (million cubic feet)	Natural Gas Usage (million cubic feet)	Natural Gas Usage (million cubic feet)
	This Month	Previous 11 Months	12 Month Total

No deviation occurred in this month._____

Deviation/s occurred in this month.

Deviation has been reported on:

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report

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

Part 70 Quarterly Report

Source Name: Alcoa Inc. - Warrick Operations
Source Address: Jct. IN Hwys. 66 & 61, Newburgh, Indiana 47629-0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Part 70 Permit No.: T173-6627-0 0007
Facility: A-446 Pollution Control System
Parameter: Maximum monthly calculated pounds of SO_2 per ton of baked carbon and the monthly average percentage sulfur of pitch used in anodes
Limit: 3.69 pounds of SO_2 per ton of baked carbon and 0.80% Sulfur

Quarter _____ Year: _____

Month	Maximum calculated pounds of SO_2 per ton of baked Carbon	Average % S of pitch used in anodes

☐ No deviation occurred in this month.

☐ Deviation/s occurred in this month.

Deviation has been reported on:

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

Part 70 Anode Baking Plant SO_2 Quarterly Report

Source Name: Alcoa Inc. - Warrick Operations
Source Address: Jct. IN Hwys. 66 & 61, Newburgh, Indiana 47629-0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Part 70 Permit No.: T173-6627-00007
Facility: A-446 Pollution Control System
Pollutant and Parameter: Maximum calculated daily average pounds of SO_2 per hour, lowest and highest daily average alumina feed rate and the maximum average baked carbon production and associated aluminum feed rate.

Quarter _____ Year: _____

Parameter	First month of the quarter	Second month of the quarter	Third month of the quarter
Maximum calculated daily average lbs SO_2 per hour (lbs/hr)			
Lowest daily average alumina feed rate (lbs/hr/reactor)			
Highest daily average alumina feed rate (lbs/hr/reactor)			
Maximum daily average baked carbon production rate (tons/hr)			
Daily average alumina feed rate on the day when the maximum daily average carbon production rate was attained(lbs/hr/reactor)			

No deviation occurred in this quarter:

Deviation/s occurred in this quarter:

Deviation has been reported on:

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

SECTION D.5 ANODE ASSEMBLY & SPENT ANODE PLANT FACILITY OPERATION CONDITIONS

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

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

(1) One (1) mechanical blasting operation, identified as Anode Butt Blast Machine, constructed in 2001, with a maximum process weight rate of 181 tons of spent anode assemblies per hour, controlled by Anode Butt Blast Machine Baghouse, and exhausting at Stack 132.9.

One (1) baghouse, identified as Anode Butt Blast Machine Baghouse, with a gas flow rate of 12,000 acfm at 70°F, and exhausting at Stack 132.9;

(2) One (1) mechanical blasting operation, identified as Tumbleblast, constructed in 1979, with a maximum process weight rate of 60 tons of loose butts or cast iron pigs per hour, controlled by Tumbleblast Baghouse, and exhausting at Stack 132.7.

One (1) baghouse, identified as Tumbleblast Baghouse, with a gas flow rate of 27,000 acfm at 70°F, and exhausting at Stack 132.7;

(3) One (1) Impactor, constructed in 1979, with a maximum process weight rate of 176 tons of loose butts per hour, controlled by Impactor Baghouse, and exhausting at Stack 132.7.

One (1) baghouse, identified as Impactor Baghouse, with a gas flow rate of 27,930 acfm at 70° F, and exhausting at Stack 132.7;

(4) One (1) Rod Cleaning Machine, constructed in 1996, with a maximum rod process rate of 200 rods per hour, with a maximum process weight rate of 5.23 tons of rods per hour, controlled by the rod brush cleaning baghouse and exhausting at Stack 132.3;

(5) One (1) Butt Storage Tank, constructed in 1979, with a maximum process weight rate of 174 tons of loose butts per hour, controlled by Tumbleblast baghouse, and exhausting at Stack 132.7;

(6) One (1) iron casting station, identified as In-Line Caster, constructed in 1979, with a maximum process rate of 54 tons of new anodes per hour, 2.28 tons of iron per hour, and 5.23 tons of rods per hour, emissions uncontrolled, and exhausting at Stack 132.8;

(7) Two (2) Induction Furnaces, constructed in 1982, with a maximum process weight rate of 1.14 tons of iron per hour each, controlled by Induction Furnace Baghouse, and exhausting at Stack 132.6.

One (1) baghouse, identified as Induction Furnace Baghouse, with a gas flow rate of 10,200 acfm at 100°F, and exhausting at Stack 132.6; and

(8) One (1) Spent Anode Storage Pad, constructed in 1979, with a maximum process weight rate of 1.32 tons per hour, and emissions uncontrolled.

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

D.5.1 Particulate Emissions Limitations for Manufacturing Processes [26 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the spent anode plant, shall be limited as follows:

Facility	Maximum Process Weight Rate (tons/hr)	PM Emission Limit (lbs/hr)
Anode butt blast machine	142.4 tons (121 tons of steel and 21.4 tons of green anodes)	54.9
Tumbleblast blasting and butt storage tank operation	234	60.2
Impactor	176	57.1
Rod cleaning machine	5.23	12.4
Iron casting	61.5	46.5
Induction furnaces	2.28	7.12

The above particulate emissions rates were determined from the following formulae:

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

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

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

Or

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour by use of the equation:

$$E = 55.0\ P^{0.11} - 40$$

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

When the process rate exceeds two hundred (200) tons per hour, the allowable emission may exceed the emission limits shown in the above table; provided the concentration of particulate in the discharge gases to the atmosphere is less than one-tenth (0.10) pound per thousand (1,000) pounds of gases.

D.5.2 PSD Minor Limitations [326 IAC 2-2]

Pursuant to SSM 173-17780-00007, issued on July 21, 2004, the following limits shall apply to the anode butt blast machine:

(a) The PM emission rate shall not exceed 1.029 pounds per hour; and

(b) The PM10 emission rate shall not exceed 0.857 pounds per hour.

Compliance with the throughput limits in Conditions D.4.2(a) and D.6.4(a) and the emission limits specified by Conditions D.3.2(a) through (c), D.4.2(b) through (e), D.5.2(a) and (b), and D.6.4(b) and (c), shall render the requirements of 326 IAC 2-2 not applicable to the anode butt blast machine.

Compliance Determination Requirements

D.5.3 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]

Within 36 months after issuance of this Part 70 permit or within 5 years from the date of the last valid compliance test, whichever is later, the Permittee shall perform PM, and PM10 testing for the anode butt blast machine, utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of the valid compliance demonstration. PM10 includes filterable and condensable PM10. Testing shall be conducted in accordance with Section C- Performance Testing. During the stack test, the Permittee shall determine the sensitivity of the bag leak detection system and calibrate the particulate concentration readings of the electrodynamic bag leak detector in order to provide an output relative to outlet grain loading levels.

D.5.4 Particulate Control [326 IAC 2-7-6(6)]

(a) In order to comply with Condition D.5.1, the PM emissions from the following facilities shall be controlled by the baghouses as indicated in the table below. Each baghouse shall be in operation and control emissions from its associated facilities at all times when an emission unit that the baghouse controls is in operation; and

Facility	Baghouse
Anode butt blast machine	Anode butt blast machine baghouse
Tumbleblast blasting and Butt Storage Tank operation	Tumbleblast baghouse
Impactor	Impactor baghouse
Induction Furnaces	Induction furnace baghouse

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

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

D.5.5 Bag Leak Detection System

The Permittee shall operate the continuous bag leak detection system for the anode butt blast machine. The bag leak detection system shall meet the following requirements:

(a) Each electrodynamic bag leak detection system shall be calibrated, operated, and maintained according to the manufacturer's recommendations;

(b) The bag leak detection system shall be certified by the manufacturer to be capable of detecting PM emissions at concentrations of ten (10) milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less;

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

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

(e) The bag leak detection system shall be equipped with an alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm shall be located where it is easily heard by plant operating personnel;

(f) The bag leak detector shall be installed downstream of the fabric filter;

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

(h) The baseline output shall be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time;

(i) Following initial adjustment of the system, the Permittee shall not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time except as detailed in the PMP. In no case may the sensitivity be increased by more than one hundred (100%) percent or decreased more than fifty (50%) percent over a 365-day period unless such adjustment follows a complete fabric filter inspection which demonstrates that the fabric filter is in good operating condition; and

(j) In the event that a bag leak detection system should malfunction, fail or otherwise need repair, the Permittee shall perform visible emissions notations of the stack exhausts associated with that bag leak detection system as follows:

(1) Visible emission notations of the stack exhausts shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal;

(2) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time;

(3) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions;

(4) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process and

(5) For the anode butt blast machine operation, if abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions and Exceedances. Failure to take response steps in accordance with Section C – Response to Excursions and Exceedances, shall be considered a deviation from this permit.

D.5.6 Bag Leak Detection Alarm Activation

In the event that a bag leak detection system alarm is activated for any reason, the Permittee shall take corrective actions specified in Section C- Response to Excursions and Exceedances, and the following response steps:

For the anode butt blast machine baghouse which is a single compartment baghouse, if failure is indicated by an opacity violation or a bag leak detection alarm activation that is not a false alarm, or if bag failure is determined by other means, such as daily checks of the particulate concentration readings from electrodynamic bag leak detectors or visible emissions notations, then the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section C - Emergency Provisions).

D.5.7 Visible Emissions Notations

(a) Visible emission notations of the stack exhaust for Tumbleblast Baghouse, and Impactor Baghouse shall be performed once per day. 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 normal operations.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions and Exceedances. Abnormal emissions alone are not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions and Exceedances, shall be considered a deviation from this permit.

D.5.8 Parametric Monitoring

(a) The Permittee shall record the pressure drops across the Tumbleblast Baghouse, and Impactor Baghouse, used in conjunction with the facilities at least once per day when the processes are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2 to 5, and 3 to 6 inches of water, respectively, or the ranges established during the latest stack tests, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions and Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions and Exceedances, and Reports, shall be considered a deviation from this permit.

(b) The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ and shall be calibrated at least once every six (6) months.

D.5.9 Broken or Failed Bag Detection

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

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

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

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

D.5.10 Record Keeping Requirements

(a) To document compliance with Condition D.5.5(a), the Permittee shall keep a log of the calibration test results for the anode blast machine baghouse leak detector.

(b) To document compliance with Condition D.5.5(j), the Permittee shall maintain records of daily visible emission notations of the stack exhaust for the anode blast machine baghouse, when the applicable bag leak detection system malfunctions, fails or otherwise needs repair. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(c) To document compliance with Condition D.5.6, the Permittee shall maintain records of the occurrences of all bag leak detection alarms.

(d) To document compliance with Condition D.5.7, the Permittee shall maintain daily records of visible emission notations of the stacks. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(e) To document compliance with Condition D.5.8, the Permittee shall maintain daily records of the pressure drop of the baghouses during normal operation. The Permittee shall include in its daily record when a pressure drop record is not taken and the reason for the lack of a pressure drop record (e.g. the process did not operate that day).

(f) The Permittee shall maintain the following as required under Conditions D.5.5, D.5.6, D.5.7, D.5.8, and D.5.9:

(1) Documentation of all response steps implemented per event.

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

SECTION D.6 INGOT PLANT AND SUPPORT FACILITY OPERATION CONDITIONS

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

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

Under NESHAP Subpart RRR the following emissions units are considered an existing secondary aluminum processing unit (SAPU):

<u>#1 Coil Casting Complex</u>

(1) Three (3) group 1 furnaces, identified as #1 Casting Complex 1M1, 1M2 and 1M3, constructed in 1973, with a maximum aluminum production rate of 6.85 tons per hour each, when used for producing cast coils and 49 tons per hour, when used as off-line melters, emissions uncontrolled, and exhausting at Stacks 134.62, 134.64, and 134.67, respectively;

(2) Two (2) group 1 furnaces, identified as #1 Casting Complex East Holder 1EH and West Holder 1WH, constructed in 1973, with maximum aluminum production rates of 10.27 tons per hour each, when used for producing cast coils and 49 tons per hour each, when used as off-line holders, emissions uncontrolled, and exhausting at Stacks 134.63 and 134.66, respectively;

<u>#5 Furnace Complex</u>

(3) Three (3) group 1 furnaces, identified as Melters 5M1, 5M2 and 5M3, constructed in 1966, with a maximum aluminum production rate of 97.5 tons per hour each, emissions uncontrolled, and exhausting at Stacks 134.33, 134.36, and 134.39, respectively;

(4) Two (2) group 1 furnaces, identified as #5 HDC Complex East Holder 5EH and West Holder 5WH, constructed in 1966, with maximum aluminum production rate of 97.5 tons per hour each, emissions uncontrolled, and exhausting at Stacks 134.35 and 134.38, respectively;

<u>#6 Furnace Complex</u>

(5) Three (3) group 1 furnaces, identified as Melters 6M1, 6M2, and 6M3, constructed in 1966, with a maximum aluminum production rate of 12 tons per hour each, emissions uncontrolled, and exhausting at Stacks 134.40, 134.42, and 134.44, respectively;

(6) Two (2) group 1 furnaces, identified as #6 Furnace Complex East Holder 6EH and West Holder 6WH, constructed in 1966, with maximum aluminum production rate of 16 tons per hour each, emissions uncontrolled, and exhausting at Stacks 134.41 and 134.43, respectively;

<u>#8 EMC Ingot Casting Complex</u>

(7) One (1) group 1 furnace, identified as #8 EMC Complex Melter 8M1, constructed in 1985, with a maximum aluminum production rate of 60.5 tons per hour, approved for modification in 2007 with the addition of low NOx burners, emissions uncontrolled, and exhausting at Stack 134.80;

(8) Two (2) group 1 furnaces, identified as #8 EMC Complex Melters 8M2 and 8M3,

constructed in 1985, with a maximum aluminum production rate of 47 tons per hour each, emissions uncontrolled, and exhausting at Stacks 134.84 and 134.89, respectively;

(9) One (1) group 1 furnace, identified as #8 EMC Complex West Holder 8WH, constructed in 1985, with a maximum aluminum production rate of 70 tons per hour, emissions uncontrolled, and exhausting at Stack 134.87;

(10) One (1) group 1 furnace, identified as #8 EMC Complex East Holder 8EH, constructed in 1985, with a maximum aluminum production rate of 70 tons per hour, approved for modification in 2007 with the addition of low NOx burners, emissions uncontrolled, and exhausting at Stack 134.83.

Upon start-up of the new rotary group 1 furnace, the one (1) group furnace, identified as #8 EMC Complex East Holder 8EH, constructed in 1985, with a maximum aluminum production rate of 70 tons per hour, emissions uncontrolled, and exhausting at Stack 134.83, shall be transferred from the existing secondary aluminum processing unit (SAPU) to the new secondary aluminum processing unit (SAPU);

Under NESHAP Subpart RRR the following emissions units are considered a new secondary aluminum processing unit (SAPU):

(11) Two (2) degassing units, identified as Alcan Compact Degassing (ACD) units, constructed in 2003 in conjunction with #1 east holding furnace and #1 west holding furnace in the #1 casting complex, with a maximum capacity 10 tons of molten aluminum per hour each, emissions uncontrolled, and exhausting at Stacks 134.63 and 134.66, respectively;

(12) One (1) in-line fluxer, identified as 8EMC 8EH 4-rotor A622 in-line degassing unit replacing the one (1) 8EMC 8EH Alcan compact degassing ACD unit, constructed in 2005, with a maximum aluminum production rate of 70.5 tons of molten aluminum per hour, emissions uncontrolled, and exhausting at Stack 134.83;

(13) One (1) in-line fluxer, identified as 8EMC 8WH 4-rotor A622 in-line degassing unit, replacing the one (1) 8EMC 8WH 3-rotor A662 in-line degassing unit, constructed in 2005, with a maximum aluminum production rate of 70 tons per hour, emissions uncontrolled, and exhausting at Stack 134.87;

<u>Rotary Group 1</u>

(14) One (1) rotary group 1 furnace, identified as Rotary Group 1 Furnace, approved for construction in 2007, with a maximum coated scrap aluminum input rate of 5.73 tons per hour and 17,809 tons per year, a maximum dross input rate of 5.50 tons per hour and 29,106 tons per year, a flux salt input rate of 0.98 tons per hour and 5434.44 tons per year, with a maximum heat input capacity of 20 MMBtu per hour, emissions controlled by reagent injected baghouse, and exhausting at Stack 134.47;

One (1) multi-compartment reagent injected baghouse, identified as Rotary Group 1 Furnace Baghouse, approved for construction in 2007, controlling the rotary group 1 furnace operations, with an airflow of 60,000 acfm at 200^0F, and exhausting at Stack 134.47.

(15) One (1) duct heater, identified as Rotary Group 1 Furnace Duct Heater, approved for construction in 2007, with a maximum heat input capacity of 12 MMBtu per hour, emissions controlled by the Rotary Group 1 Furnace Baghouse, and exhausting at Stack 134.47.

Group 2 Furnaces, not included in the existing SAPU:

#2 Offline Furnace Complex

(16) Two (2) group 2 furnaces, identified as #2 Offline East Melter and West Melter, constructed in 1976, each with a maximum aluminum production rate of 12 tons per hour, emissions uncontrolled, and exhausting at Stacks 134.71 and 134.76, respectively;

(17) Two (2) group 2 furnaces, identified as #2 Offline East Holder and West Holder, constructed in 1976, each with a maximum aluminum production rate of 12 tons per hour, emissions uncontrolled, and exhausting at Stacks 134.73 and 134.75, respectively;

(18) One (1) natural gas fired, group 2 furnace, identified as RSI Furnace #10, constructed in 1991, with a maximum heat input of 41 MMBtu per hour and a maximum capacity of 15 tons per hour, emissions uncontrolled, exhausting at Stack 134.15;

Aluminum Shredder

(19) One (1) aluminum shredder/bailer, identified as Coated Scrap Shredder, constructed in 1999, with a maximum throughput of 25,000 pounds per hour, emissions uncontrolled, and exhausting inside the building. Under NESHAP Subpart RRR this is considered an existing aluminum scrap shredder;

The following emissions units are not regulated under NESHAP Subpart RRR:

(20) One (1) aluminum pneumatic transport system, identified as #2 Offline East Melter Charging, constructed in 1976, with a maximum production rate of 12 tons per hour, controlled by Rotoclone #3, and exhausting at Stack 134.68.

One (1) wet scrubber, identified as Rotoclone #3, with a gas flow rate of 21,000 acfm at 70°F, and exhausting at Stack 134.68;

(21) One (1) aluminum pneumatic transport system, identified as #2 Offline West Melter Charging, constructed in 1976, with a maximum production rate of 12 tons per hour, controlled by Rotoclone #4, and exhausting at Stack 134.77.

One (1) wet scrubber, identified as Rotoclone #4, with a gas flow rate of 12,000 acfm at 70°F, and exhausting at Stack 134.77;

(22) One (1) aluminum pneumatic transport system and silo, identified as #2 Offline East Melter West Chip Silo Input, constructed in 1976, with a maximum production rate of 13.76 tons per hour, controlled by Rotoclone #1, and exhausting at Stack 134.69.

One (1) wet scrubber, identified as Rotoclone #1, with a gas flow rate of 4,500 acfm at 70°F, and exhausting at Stack 134.69;

(23) One (1) aluminum pneumatic transport system and silo input, identified as #2 Offline East Melter East Chip Silo, constructed in 1976, with a maximum production rate of 13.76 tons per hour, controlled by Rotoclone #2, and exhausting at Stack 134.70.

One (1) wet scrubber, identified as Rotoclone #2, with a gas flow rate of 4,500 acfm at 70°F, and exhausting at Stack 134.70;

(24) One (1) skim/dross operation, identified as 133 Skim/Dross Building, with a maximum dross throughput of 66 tons per hour, controlled by the 133 Skim/Dross Building baghouses, and exhausting at Stacks 133D.1, 133D.2, 133D.3, and 133D.4.

One (1) 133 Skim/Dross Building baghouses, consisting of:

(a) Two (2) small baghouses, identified as No.1 and No.2 Skim Cooling Baghouses, each with an air flow rate of 18,000 acfm at 150°F, and exhausting at Stacks 133D.1 and 133D.2, respectively; and

(b) Two (2) big baghouses identified as No.3 and No.4 Skim Cooling Baghouses, each with an air flow rate of 40,000 acfm at 150°F, and exhausting at Stacks 133D.3 and 133D.4;

(25) One (1) hopper, identified as Rotary Group 1 Furnace Baghouse Reagent Hopper, approved for construction in 2007, with emissions controlled by the Rotary Group 1 Furnace Baghouse, and exhausting at Stack 134.47.

(26) One (1) flux salt storage silo, identified as Rotary Group 1 Furnace Flux Salt Silo, approved for construction in 2007, with a storage capacity of 30 tons, with emissions controlled by a bin vent filter, and exhausting at Vent 134.48.

One (1) flux salt storage silo bin vent filter, approved for construction in 2007, controlling loading events to the rotary group 1 furnace flux salt storage silo, with an airflow of 650 - 800 acfm at 100°F, and exhausting at Stack 134.48.

(27) Two (2) Emergency intermittent duty-cycled, diesel-fired, reciprocating internal combustion engines, identified as Water Pump Diesel Engines #1 and #2, constructed in December, 2005, with a maximum capacity of 460 brake horsepower each, exhausting at Stacks 134.E1 and 134.E2.

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

D.6.1 Particulate Emissions Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from Ingot Plant and Support, shall be limited as follows:

Facility	Control Equipment	Maximum Process Weight Rate (tons/hr)	Allowable PM Emissions (lbs/hr)
#2 Offline East Melter	None	12	21.7
#2 Offline West Melter	None	12	21.7
#2 Offline East Holder	None	12	21.7
#2 Offline West Holder	None	12	21.7
#2 Offline East Melter Charging	Rotoclone #3	12	21.7
#2 Offline West Melter Charging	Rotoclone #4	12	21.7
#2 Offline East Melter East Chip Silo Input	Rotoclone #2	13.76	23.8
#2 Offline West Chip Silo Input	Rotoclone #1	13.76	23.8

Facility	Control Equipment	Maximum Process Weight Rate (tons/hr)	Allowable PM Emissions (lbs/hr)
133 Skim/Dross Operation	Nos. 1, 2, 3, and 4 Skim Cooling Baghouses	66	47.2
Flux Salt Loading Operations	Flux Salt Storage Silo Bin Vent Filter	26	36.38

The above particulate emissions rates were determined from the following formula:

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

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

Where: E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour.

Or

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour by use of the equation:

$$E = 55.0\ P^{0.11} - 40$$

Where: E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour.

D.6.2 PSD and Nonattainment New Source Review Minor Limitations [326 IAC 2-2] [326 IAC 2-1.1-5]

Pursuant to SSM 173-16034-00007 (issued March 28, 2003) and as revised by SPM 173-21817-00007 (issued in May 2006), Part 70 Operating Permit T 173-6627-00007 (issued January 5, 2007), and SPM 173-24585-00007, the following conditions shall apply:

8M1, 8M2, and 8M3 Melters

(a) Nitrous Oxides (NOx)

(1) Upon start-up of the modified Melter 8M1 with low NOx burners, the NOx emissions from Melter 8M1 shall not exceed 110.5 lbs per MMCF of natural gas. Until start-up of the modified Melter 8M1 with low NOx burners, the NOx emissions from Melter 8M1 shall not exceed 138.1 lbs per MMCF of natural gas.

(2) The NOx emissions from Melters 8M2 and 8M3 shall not exceed 138.1 lbs per MMCF of natural gas.

(3) The total NOx emissions from all Melters 8M1, 8M2, and 8M3 shall not exceed 63.18 tons per twelve (12) consecutive month period, with compliance determined at the end of each month. The following equations shall be utilized to determine compliance:

Upon start-up of the modified Melter 8M1, the following equation shall be utilized to determine compliance:

NOx Emissions = (Z1*110.5 + Z2*138.1)/2000

Where:

Z1 = the natural gas usage (MMCF) at Melter 8M1

Z2 = the natural gas usage (MMCF) at Melters 8M2 and 8M3, combined

Prior to start-up of the modified Melter 8M1, the following equation shall be utilized to determine compliance:

NOx Emissions = (Z3* 138.1)/2000

Where:

Z3 = the natural gas usage (MMCF) at Melters 8M1, 8M2, and 8M3, combined

(b) Particulate Matter (PM)

(1) The PM emissions from Melters 8M1, 8M2, and 8M3 shall not exceed 0.12 lbs/ton of feed/charge for combined chlorine and flux salt input rates less than or equal to 1.29 lbs/ton of feed/charge and for charges that contain 12,000 pounds or less of purchased oily scrap;

(2) The PM emissions from Melters 8M1, 8M2, and 8M3 shall not exceed 0.16 lbs/ton of feed/charge for combined chlorine and flux salt input rates greater than 1.29 lbs/ton of feed/charge, but less than 2.35 lbs/ton of feed/charge, for charges that contain no purchased oily scrap;

(3) The PM emissions from Melters 8M1, 8M2, and 8M3 shall not exceed the allowable PM emission rate of 0.40 lbs/ton of feed/charge, as specified by 40 CFR 63.1505(k)(1) each, for combined chlorine and flux input rates greater than 1.29 lbs/ton of feed/charge but less than 2.27 lbs/ton of feed/charge that includes purchased oily scrap or for charges that contain greater than 12,000 pounds of purchased oily scrap but less than or equal to 26,667 pounds of purchased oily scrap;

(4) The combined chlorine and flux salt input rates shall not exceed 2.35 lbs/ton of feed/charge for charges that contain no purchased oily scrap;

(5) The total PM emissions from all Melters 8M1, 8M2, and 8M3 shall not exceed 49.57 tons per twelve consecutive month period, with compliance determined at the end of each month. The following equation shall be utilized to determine compliance:

PM Emissions = (X1*A1 + X2*A2 + X3*A3)/2,000

Where:

X1 = tons of charges that contain 12,000 pounds or less of purchased oily scrap and utilize combined chlorine and salt input rates less than or equal to 1.29 lbs/ton of feed;

A1 = the PM emission factor for the X1 operating condition, as provided in the most recently approved Operating, Monitoring, and Maintenance plan (Per the 10/05 OMM, this factor is 0.0943 lb/ton);

X2 = tons of charges that contain no purchased oily scrap, and utilize combined chlorine and salt input rates less than or equal to 2.35 lbs/ton of feed and greater than 1.29 lbs/ton of feed;

A2 = the PM emission factor for the X2 operating condition, as provided in the most recently approved Operating, Monitoring, and Maintenance plan (Per the 10/05 OMM, this factor is 0.127 lb/ton);

X3 = tons of charges that contain greater than 12,000 pounds of purchased oily scrap but less than 26,667 pounds of purchased oily scrap, or contain purchased oily scrap and utilize combined chlorine and salt input rates less than or equal to 2.27 lbs/ton of feed and greater than 1.29 lbs/ton of feed; and

A3 = the PM emission factor for the X3 operating condition, as provided in the most recently approved Operating, Monitoring, and Maintenance plan (Per the 10/05 OMM, this factor is 0.297 lb/ton).

(c) Particulate Matter with aerodynamic diameter of less than or equal to 10 micrometers (PM10)

(1) The PM_{10} emissions from Melters 8M1, 8M2, and 8M3 shall not exceed 0.13 lbs/ton of feed/charge for combined chlorine and flux salt input rates less than or equal to 1.29 lbs/ton of feed/charge;

(2) The PM_{10} emissions from Melters 8M1, 8M2, and 8M3 shall not exceed 0.17 lbs/ton of feed/charge for combined chlorine and flux salt input rates greater than or equal to 1.29 lbs/ton of feed/charge, but less than 2.35 lbs/ton of feed/charge for charges that contain no purchased oily scrap;

(3) The PM_{10} emissions from Melters 8M1, 8M2, and 8M3 shall not exceed the allowable PM emission rate of 0.40 lbs/ton of feed/charge, as specified by 40 CFR 63.1505(k)(1), multiplied by 1.08 for combined chlorine and flux input rates greater than 1.29 lbs/ton of feed/charge but less than 2.27 lbs/ton of feed/charge that includes purchased oily scrap, or for charges that contain greater than 12,000 pounds of purchased oily scrap but less than or equal to 26,667 pounds of purchased oily scrap;

(4) The combined chlorine and flux salt input rates shall not exceed 2.35 lbs/ton of feed/charge for charges that contain no purchased oily scrap;

(5) The total PM_{10} emissions from Melters 8M1, 8M2, and 8M3 shall not exceed 53.54 tons per twelve consecutive month period, with compliance determined at the end of each month. The following equation shall be utilized to determine compliance:

PM_{10} Emissions = 1.08[(Y1*A1 + Y2*A2+ Y3*A3)]/2,000

Where:

Y1 = tons of charges that contain 12,000 pounds or less of purchased oily scrap and utilize combined chlorine and salt input rates less than or equal to 1.29 lbs/ton of feed;

A1 = the PM emission factor for the Y1 operating condition, as provided in the most recently approved Operating, Monitoring, and Maintenance plan (Per the 10/05 OMM, this factor is 0.0943 lb/ton);

Y2 = tons of charges that contain no purchased oily scrap, and utilize combined chlorine and salt input rates less than or equal to 2.35 lbs/ton of feed and greater than 1.29 lbs/ton of feed;

A2 = the PM emission factor for the Y2 operating condition, as provided in the most recently approved Operating, Monitoring, and Maintenance plan (Per the 10/05 OMM, this factor is 0.127 lb/ton);

Y3 = tons of charges that contain greater than 12,000 pounds of purchased oily scrap but less than 26,667 pounds of purchased oily scrap, or contain purchased oily scrap and utilize combined chlorine and salt input rates less than or equal to 2.27 lbs/ton of feed and greater than 1.29 lbs/ton of feed; and

A3 = the PM emission factor for the Y3 operating condition, as provided in the most recently approved Operating, Monitoring, and Maintenance plan (Per the 10/05 OMM, this factor is 0.297 lb/ton).

<u>8EMC East Holding Furnace and 8EMC West Holding Furnace</u>

(d) Nitrous Oxides (NOx)

(1) Upon start-up of the modified 8EMC east holding furnace with low NOx burners, the NOx emissions from the 8EMC east holding furnace shall not exceed 88.3 lb per MMCF of natural gas. Until start-up of the modified 8EMC east holding furnace with low NOx burners, the NOx missions from the 8EMC east holding furnace shall not exceed 147.1 lb per MMCF of natural gas.

(2) The NOx emissions from the 8EMC west holding furnace shall not exceed 147.1 lb per MMCF of natural gas.

(3) The total NOx emissions from both the 8EMC east holding furnace and west holding furnace shall not exceed 15.89 tons per twelve (12) consecutive month period, with compliance determined at the end of each month. The following equations shall be used to determine compliance:

Upon start-up of the modified 8EMC east holding furnace, the following equation shall be utilized to determine compliance:

NOx Emissions = (Y1*88.3 + Y2*147.1)/2000

Where:

Y1 = the natural gas (MMCF) usage at 8EMC east holding furnace

Y2 = the natural gas (MMCF) usage at 8EMC west holding furnace

Prior to start-up of the modified 8EMC east holding furnace, the following equation shall be utilized to determine compliance:

NOx Emissions = (Y3*147.1)/2000

Where:

Y3 = the natural gas usage (MMCF) at the 8EMC east and west holding furnaces, combined

(e) Particulate Matter (PM)

(1) The PM emissions from the 8EMC east holding furnace and the 8EMC west holding furnace shall be limited to 0.083 lbs/ton of charge for combined chlorine and flux salt input rates less than or equal to 1.14 lbs/ton of feed/charge;

(2) The PM emissions from the 8EMC east holding furnace and the 8EMC west holding furnace shall be limited to 0.165 lbs/ton of feed/charge for combined chlorine and flux salt input rates greater than 1.14 lbs/ton of feed/charge but less than 1.20 lbs/ton of feed/charge;

(3) The PM emissions from the 8EMC east holding furnace and the 8EMC west holding furnace shall be limited to the allowable PM emission rate of 0.40 lbs/ton of feed/charge, as specified by 40 CFR 63.1505 (k)(1) each, for combined chlorine and flux salt input rates greater than 1.2 lbs/ton of feed/charge, but less than 1.76 lbs/ton of feed/charge;

(4) In no event shall the combined chlorine and flux salt rate exceed a maximum input rate of 1.76 lbs/ton of feed/charge;

(5) The total PM emissions from both holding furnaces (8EMC east holding furnace and the 8EMC west holding furnace) shall be limited to 34.17 tons per twelve consecutive month period with compliance determined at the end of each month. The following equation shall be utilized to determine compliance:

PM Emissions = (X1*A1 + X2*A2 + X3*A3)/2,000

Where:

X1 = tons of charges fluxed with combined chlorine and flux salt input rates less than or equal to 1.14 lbs/ton of feed/charge;

A1 = the PM emission factor for the X1 operating condition, as provided in the most recently approved Operating, Monitoring, and Maintenance plan (Per the 10/05 OMM, this factor is 0.0592 lb/ton);

X2 = tons of charges fluxed with combined chlorine and salt input rates less than or equal to 1.20 lbs/ton of feed/charge and greater than 1.14 lbs/ton of feed/charge;

A2 = the PM emission factor for the X2 operating condition, as provided in the most recently approved Operating, Monitoring, and Maintenance plan (Per the 10/05 OMM, this factor is 0.165 lb/ton);

X3 = tons of charges fluxed with combined chlorine and salt input rates less than or equal to 1.76 lbs/ton of feed/charge and greater than 1.20 lbs/ton of feed/charge; and

A3 = the PM emission factor for the X3 operating condition, as provided in the most recently approved Operating, Monitoring, and Maintenance plan (Per the 10/05 OMM, this factor is 0.228 lb/ton).

(f) Particulate Matter with aerodynamic diameter of less than or equal to 10 micrometers (PM10)

(1) The PM_{10} emissions from the 8EMC east holding furnace and the 8EMC west holding furnace shall be limited to 0.121 lbs/ton of feed/charge for combined chlorine and flux salt input rates less than or equal to 1.14 lbs/ton of aluminum feed/charge;

(2) The PM_{10} emissions from the 8EMC east holding furnace and the 8EMC west holding furnace shall be limited to 0.241 lbs/ton of feed/charge for combined chlorine and flux salt input rates greater than 1.14 lbs/ton of feed/charge but less than or equal to 1.20 lbs/ton of feed/charge;

(3) The PM_{10} emissions from the 8EMC east holding furnace and the 8EMC west holding furnace shall be limited to the allowable PM emission rate of 0.40 lbs/ton of feed/charge, as specified by 40 CFR 63.1505(k)(1), multiplied by 1.46 for combined chlorine and flux salt input rates greater than 1.20 lbs/ton of feed/charge, but less than or equal to 1.76 lbs/ton of feed/charge;

(4) In no event shall combined chlorine and flux salt rate exceed a maximum input rate of 1.76 lbs/ton of feed/charge;

(5) The total PM_{10} emissions from both holding furnaces (8EMC east holding furnace and the 8EMC west holding furnace) shall be limited to 49.89 tons per twelve consecutive month period, with compliance determined at the end of each month. The following equation shall be utilized to determine compliance;

PM_{10} Emissions = 1.46[(Y1*A1 + Y2*A2+ Y3*A3)]/2,000

Where:

Y1 = tons of charges fluxed with combined chlorine and flux salt input rates less than or equal to 1.14 lbs/ton of feed/charge;

A1 = the PM emission factor for the Y1 operating condition, as provided in the most recently approved Operating, Monitoring, and Maintenance plan (Per the 10/05 OMM, this factor is 0.0592 lb/ton);

Y2 = tons of charges fluxed with combined chlorine and flux salt input rates greater than 1.14 lbs/ton of feed/charge but less than or equal to 1.20 lbs/ton of feed/charge;

A2 = the PM emission factor for the Y2 operating condition, as provided in the most recently approved Operating, Monitoring, and Maintenance plan (Per the 10/05 OMM, this factor is 0.165 lb/ton);

Y3 = tons of charges fluxed with combined chlorine and salt input rates greater than 1.20 lbs/ton of feed/charge, but less than or equal to 1.76 lbs/ton of feed/charge; and

A3 = the PM emission factor for the Y3 operating condition, as provided in the most recently approved Operating, Monitoring, and Maintenance plan (Per the 10/05 OMM, this factor is 0.228 lb/ton).

8EMC 8EH A622 and 8EMC 8WH A622 in-line degassing units

(g) The total feed/charge rate to 8EMC 8EHA622 and 8EMC 8WH A622 in-line degassing units shall not exceed 823,440 tons per twelve (12) consecutive month period with compliance determined at the end of each month;

(h) The PM emissions from the 8EMC 8EH A622 and 8EMC 8WH A622 in-line degassing units shall not exceed 0.002 lbs/ton of feed/charge for chlorine input rates of 0.11 lbs/ton of feed/charge or less. Compliance with this limit and the feed/charge limit in Condition D.6.2(g) shall ensure that the total PM emissions from the 8EMC 8EH A622 and 8EMC 8WH A622 in-line degassing units do not exceed 0.824 tons per year;

(i) The PM10 emissions from the 8EMC 8EH A622 and 8EMC 8WH A622 in-line degassing units shall not exceed 0.00208 lbs/ton of feed per/charge for chlorine input rates of 0.11 lbs/ton of feed/charge or less. Compliance with this limit and the feed/charge limit in Condition D.6.2(g) shall ensure that the total PM10 emissions from 8EMC 8EH A622 and 8 EMC 8WH A622 in-line degassing units do not exceed 0.856 tons per year;

#1 Complex Alcan Compact Degassing (ACD) units

(j) The total feed/charge rate to the two (2) #1 complex ACD units shall not exceed 172,000 tons per twelve consecutive month period, with compliance determined at the end of each month;

(k) The PM emissions from the two (2) #1 complex ACD units shall not exceed 0.026 lbs/ton of feed/charge. Compliance with this limit and the feed/charge limit in Condition D.6.2(j) shall ensure that the total PM emissions from the two (2) #1 complex ACD units do not exceed 2.24 tons per year;

(l) The PM10 emissions from the two (2) #1 complex ACD units shall not exceed 0.027 lbs/ton of feed/charge. Compliance with this limit and the feed/charge limit in Condition D.6.2(j) shall ensure that the total PM10 emissions from both #1 complex ACD units do not exceed 2.32 tons per year;

#1 Complex East Holding Furnace and #1 Complex West Holding Furnace

(m) The PM emissions from the #1 complex east holding furnace and #1 complex west holding furnace shall not exceed 0.045 lbs/ton of charge for flux salt input rates less than or equal to 0.85 lbs/ton of feed/charge. The PM emissions from the #1 complex east holding furnace and #1 complex west holding furnace shall not exceed 0.084 lbs/ton of feed/charge for flux salt input rates greater than 0.85 lbs/ton of feed/charge but less than 3.25 lbs/ton of feed/charge. The total PM emissions from these furnaces shall not exceed 3.87 tons per twelve consecutive month period, with compliance determined at the end of each month. The following equation shall be utilized to determine compliance:

PM Emissions = [X1*0.045 + X2*0.084]/2,000

Where:

X1 = tons of charge for flux salt input rates less than or equal to 0.85 lbs/ton of feed/charge; and

X2 = tons of charge for flux salt input rates greater than 0.85 lbs/ ton of feed/charge but less than or equal to 3.25 lbs/ton of feed/charge.

(n) The PM10 emissions from the #1 complex east holding furnace and #1 complex west holding furnace shall not exceed 0.066 lbs/ton of charge for flux salt input rates less than or equal to 0.85 lbs/ton of feed/charge. The PM10 emissions from the #1 complex east holding furnace and #1 complex west holding furnace shall not exceed 0.123 lbs/ton of charge for flux salt input rates greater than 0.85 lbs/ton of feed/charge but less than 3.25 lbs/ton of feed/charge. The total PM10 emissions from these furnaces shall not exceed 5.65 tons per twelve consecutive month period, with compliance determined at the end of each month. The following equation shall be utilized to determine compliance:

PM_{10} Emissions = [Y1*0.066 + Y2*0.123]/2,000

Where:

Y1 = tons of feed/charge for flux salt input rates less than or equal to 0.85 lbs/ton of feed/charge; and

Y2 = tons of feed/charge for flux salt input rates greater than 0.85 lbs/ton of feed/charge but less than 3.25 lbs/ton of feed/charge.

(o) In no event shall flux salt exceed a maximum input rate of 3.25 lbs/ton of feed/charge;

(p) The total feed/charge of the #1 complex east holding furnace and the #1 complex west holding furnace shall not exceed 172,000 tons per twelve consecutive month period, with compliance determined at the end of each month; and

(q) The NOx emissions from the #1 complex east holding furnace and #1 complex west holding furnaces shall not exceed 0.148 lbs per ton of feed/charge and compliance with this limit and the feed/charge limit in Condition D.6.2(p) shall ensure that the total NOx emissions from these furnaces do not exceed 12.58 tons per year.

Compliance with these limits renders the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to the emissions units covered by this condition.

D.6.3 PSD Minor Limitations [326 IAC 2-2]

(a) Pursuant to SPM 173-20246-00007, and revised by this Part 70 permit, the amount of material charged into the furnace complexes No. 5 and No. 6; and the melting furnaces in casting complex No.1, shall be limited such that:

$$\sum_{i=1}^{n}(\text{OLG1 tons charged X OLG1 PM Ef}/2000) < 202 \text{ tons/year};$$

where:

OLG1 = Off-line Group 1, including all melting and holding furnaces in the #5 and #6 furnace complexes, and the melt furnaces in the #1 casting complex;

Tons charged = Off line group 1 furnace charging rate, individual OLG1 basis, and are on a tons per 12 consecutive month period basis; and

OLG1 PM Ef is the pounds of particulate matter (PM) per ton of material charged emission factor, each individual OLG1 furnace basis, as provided in the most recently approved Operating, Monitoring, and Maintenance plan.

(b) The amount of natural gas usage for the OLG1 furnaces shall be less than 1,847 million cubic feet (MMCF) per twelve (12) consecutive month period, with compliance determined at the end of each month.

D.6.4 PSD Minor Limitations [326 IAC 2-2]

Pursuant to SSM 173-17780-00007, issued on July 21, 2004, the following limits shall apply to the dross cooling operation:

(a) The throughput of dross and salt cake through the dross cooling operation shall be limited to 38,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month;

(b) The emission rate of PM shall not exceed 0.440 pounds of PM per ton of dross and salt cake throughput; and

(c) The emission rate of PM10 shall not exceed 0.454 pounds of PM10 per ton of dross and salt cake throughput.

Compliance with the throughput limits in Conditions D.4.2(a) and D.6.4(a) and the emission limits specified by Conditions D.3.2(a) through (c), D.4.2(b) through (e), D.5.2(a) and (b), and D.6.4(b) and (c), shall render the requirements of 326 IAC 2-2 not applicable to the dross cooling operation.

D.6.5 PSD and Nonattainment New Source Review Minor Limitations [326 IAC 2-2] [326 IAC 2-1.1-5]

The following limits shall apply to the Rotary Group 1 operation:

(a) Particulate Matter (PM)

(1) The PM emissions from the Rotary Group 1 Furnace, the Rotary Group 1 Furnace Duct Heater, and the Rotary Group 1 Furnace Baghouse Reagent Hopper shall be controlled by the Rotary Group 1 Furnace Baghouse.

(2) Total PM emissions when processing dross only shall not exceed 0.673 pound per ton of charge/feed for salt flux input rates of less than or equal to 356.36 lbs/ton of charge/feed.

(3) Total PM emissions when processing any amount of scrap shall not exceed 0.702 pound per ton of charge/feed for salt flux input rates of less than or equal to 356.36 lbs/ton of charge/feed.

(4) The total PM emissions from the Rotary Group 1 Furnace Baghouse shall not exceed 24.90 tons per twelve (12) consecutive month period, with compliance determined at the end of each month. The following equation shall be utilized to determine compliance:

PM Emissions = (Z1*0.673 + Z2*0.702)/2000

Where:

Z1 = tons of charge/feed comprised of dross only

Z2 = tons of charge/feed containing any amount of scrap

(5) The PM emissions from the flux salt storage silo shall be controlled by the salt flux storage silo bin vent filter and shall not exceed 0.03 pound per hour during loading events.

(b) Particulate Matter with aerodynamic diameter of less than or equal to 10 micrometers (PM10).

(1) The PM10 emissions from the Rotary Group 1 Furnace, the Rotary Group 1 Furnace Duct Heater, and the Rotary Group 1 Furnace Baghouse Reagent Hopper shall be controlled by the Rotary Group 1 Furnace Baghouse.

(2) Total PM10 emissions when processing dross only shall not exceed 0.558 pound per ton of charge/feed for salt flux input rates of less than or equal to 356.36 lbs/ton of charge/feed.

(3) Total PM10 emissions when processing any amount of scrap shall not exceed 0.582 pound per ton of charge/feed for salt flux input rates of less than or equal to 356.36 lbs/ton of charge/feed.

(4) The total PM10 emissions from the Rotary Group 1 Furnace Baghouse shall not exceed 14.90 tons per twelve (12) consecutive month period, with compliance determined at the end of each month. The following equation shall be utilized to determine compliance:

PM Emissions = (Z1*0.558 + Z2*0.582)/2000

Where:

Z1 = tons of charge/feed comprised of dross and not containing scrap

Z2 = tons of charge/feed containing scrap

(5) The PM10 emissions from the flux salt storage silo shall be controlled by the salt flux storage silo bin vent filter and shall not exceed 0.03 pound per hour during loading events.

(c) Nitrous Oxides (NOx)

(1) The NOx emissions from the Rotary Group 1 Furnace when processing dross only shall not exceed 400 pounds per MMCF of natural gas.

(2) The NOx emissions from the Rotary Group 1 Furnace when processing any amount of scrap shall not exceed 451.57 pounds per MMCF of natural gas.

(3) The NOx emissions from the Rotary Group 1 Furnace Duct Heater shall not exceed 140 pounds per MMCF of natural gas.

(4) The total NOx emissions from the Rotary Group 1 Furnace and the Rotary Group 1 Furnace Duct Heater shall not exceed 37.18 tons per twelve (12) consecutive month period, with compliance determined at the end of each month. The following equation shall be utilized to determine compliance:

NOx Emissions = (Z1*400 + Z2*451.57 + Z3*140) /2000

Where:

Z1 = the natural gas usage (MMCF) at Rotary Group 1 Furnace when the charge/feed processed is only dross

Z2 = the natural gas usage (MMCF) at Rotary Group 1 Furnace when the charge/feed processed contains any amount of scrap

Z3 = the natural gas usage (MMCF) at Rotary Group 1 Furnace Duct Heater Burner

Compliance with these limits renders the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-1.1-5 (Nonattainment New Source Review) not applicable to the emissions units covered by this condition.

D.6.6 General Provisions Relating to NESHAP [326 IAC 20-1] [40 CFR Part 63, Subpart A] [40 CFR 63.1518]

The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-1, apply to all the units covered by National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production, 40 CFR 63, Subpart RRR. The requirements of the general provisions in 40 CFR 63, Subpart A that are applicable to the source subject to the requirements of this Subpart are shown in appendix A of 40 CFR 63, Subpart RRR.

D.6.7 Emission Limits for Secondary Aluminum Production Sources and Emission Units [326 IAC 20-70] [40 CFR 63.1505]

(a) Pursuant to 40 CFR 63.1505(b) MSM No. 173-12588, issued on October 10, 2000, the particulate matter (PM) emissions from the Coated Scrap Shredder shall not exceed 0.01 grains per dry standard cubic foot.

(b) Pursuant to 40 CFR 63.1505(i), the Permittee shall use the following emission limits for group 1 furnace to determine the emission standards for a secondary aluminum processing unit (SAPU):

(1) 0.40 lb of PM per ton of feed/charge from a group 1 furnace;

(2) 2.1 x 10-4 gr of D/F TEQ per ton of feed/charge from a group 1 furnace; and

(3) 0.40 lb of HCl per ton of feed/charge from a group 1 furnace.

(c) Pursuant to 40 CFR 63.1505(j), the Permittee shall use the following emission limits for in-line fluxers to determine the emission standards for a SAPU:

(1) 0.04 lb of HCl per ton of feed/charge; and

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

(d) Pursuant to 40 CFR 63.1505(k), the Permittee shall comply with the emission limits calculated using the equations for PM and HCl in paragraph (d)(1) and (d)(2) of this condition for each secondary aluminum processing unit. The Permittee shall comply with the emission limit calculated using the equation for D/F in paragraph (d)(3) of this condition for each secondary aluminum processing unit.

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

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

Where,

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

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

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

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

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

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

Where,

LtiHCl = The HCl emission limit for individual emission unit i in paragraph (b)(3) of this condition for a group 1 furnace or in paragraph (c)(1) of this condition for an in-line fluxer; and

LcHCl = The HCl emission limit for the secondary aluminum processing unit.

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

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

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

Where,

LtiD/F = The D/F emission limit for individual emission unit i in paragraph (b)(2) of this condition for a group 1 furnace; and

LcD/F = The D/F emission limit for the secondary aluminum processing unit.

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

D.6.8 Operating Requirements for Affected NESHAP Emission Units [326 IAC 20-70] [40 CFR 63.1506]

(a) Summary - Pursuant to 40 CFR 63.1506(a), the Permittee shall operate all affected emission units and control equipment according to the requirements in this condition.

(b) Labeling - Pursuant to 40 CFR 63.1506(b), the Permittee shall provide and maintain easily visible labels posted at each group 1 furnace, group 2 furnace, and in-line fluxer that identifies 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, and in-line fluxer); and

(2) The applicable operational standard(s) and control method(s) (work practice). This includes, but is not limited to, the type of charge to be used for a furnace, etc.), flux materials and addition practices, and the applicable requirements as incorporated in the OM&M plan.

(c) Capture/collection systems - Pursuant to 40 CFR 63.1506(c), for each affected source or emission unit equipped with an add-on air pollution control device, the Permittee shall:

(1) Design and install a system for the capture and collection of emissions to meet the engineering standards for minimum exhaust rates as published by the American Conference of Governmental Industrial Hygienists in chapters 3 and 5 of “Industrial Ventilation: A Manual of Recommended Practice” (incorporated by reference in §63.1502 of this subpart);

(2) Vent captured emissions through a closed system, except that dilution air may be added to emission streams for the purpose of controlling temperature at the inlet to a fabric filter; and

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

(d) Feed/charge weight – Pursuant to 40 CFR 63.1506(d), for each affected emission unit subject to an emission limit in lb/ton of feed/charge, the Permittee shall:

(1) Operate a device that measures and records or otherwise determines the weight of feed/charge or throughput for each operating cycle or time period used in the performance test; and

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

(e) Group 1 Furnaces with Add-on Air Pollution Control Devices - Pursuant to 40 CFR 63.1506(m), for a group 1 furnace with emissions controlled by a lime-injection fabric filter, the Permittee shall:

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

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

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

(iii) Operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If the Permittee takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the owner or operator to initiate corrective action.

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

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

(4) Maintain the total reactive chlorine flux injection rate for each operating cycle or time period used in the performance test at or below the average rate established during the performance test.

(f) Group 1 Furnaces without Add-on Air Pollution Control Devices - Pursuant to 40 CFR 63.1506(n), the Permittee shall:

(1) Maintain the total reactive chlorine flux injection rate for each operating cycle or time period used in the performance test at or below the average rate established during the performance test; and

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

(g) Group 2 Furnace - Pursuant to 40 CFR 63.1506(o), the Permittee shall:

(1) Operate each group 2 furnace using only clean charge as the feedstock; and

(2) Operate each group 2 furnace using no reactive flux.

(h) Corrective Action - Pursuant to 40 CFR 63.1506(p), when a process parameter deviates from the value or range established during the performance test and incorporated in the OM&M plan, the Permittee shall initiate corrective action. The corrective action shall restore operation of the emission unit (including the process) to its normal or usual mode of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The corrective actions taken shall include follow-up actions necessary to return the process parameter level(s) to the value or range of values established during the performance test and steps to prevent the likely recurrence of the cause of a deviation.

D.6.9 Alternative Opacity Limitation [326 IAC 5-1-5(b)] [U.S. EPA SIP Revisions Revised Opacity Limits]

Pursuant to 326 IAC 5-1-5(b) and U.S. EPA SIP Revisions Revised Opacity Limits, dated July 5, 2000:

(a) #1 Complex East and West holding furnace

The opacity of emissions may exceed 40 percent during the fluxing portion of the production cycle up to 80 percent from the East and West holding furnace exhaust stacks at the #1 Complex. This opacity shall be allowed for no more than 6 six-minute averaging periods, and only during fluxing. For all other portions of the production cycle, the opacity limit shall remain at 40 percent from the East and West holding furnace exhaust stacks at the #1 Complex;

(b) #8 Complex (EMC)

For the East and West holding furnace exhaust stacks at the #8 Complex (EMC), the opacity of emissions may exceed 40 percent during fluxing portion of the production cycle up to 85 percent for 2 six-minute averaging periods, and up to 80 percent opacity for 4 additional six-minute averaging periods. During all other portions of the production cycle, the opacity of emissions from the EMC shall be limited to 40 percent; and

(c) #5 Complex

For the East and West holding furnace exhaust stacks at the #5 Complex, the opacity of emissions may exceed 40 percent during fluxing portion of the production cycle up to 80 percent for 3 six-minute averaging periods, 75 percent opacity for 1 six-minute averaging period, 65 percent opacity for 1 six-minute averaging period, and 55 percent opacity for 1 six-minute averaging period. During all other portions of the production cycle, the opacity of emissions from the #5 complex East and West holding furnace shall be limited to 40 percent.

Compliance Determination Requirements

D.6.10 NESHAP Performance Test/Compliance Demonstration General Requirements [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-70] [40 CFR 63.1511]

(a) Site-specific test plan [40 CFR 63.1511(a)] - Prior to conducting any performance test required by 40 CFR 63, Subpart RRR, the Permittee shall prepare a site-specific test plan which satisfies all of the requirements, and shall obtain approval of the plan pursuant to the procedures, set forth in 40 CFR 63.7(c).

(b) Initial performance test [40 CFR 63.1511(b)] - Following approval of the site-specific test plan, the Permittee shall 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 40 CFR 63.1515(b). For any new affected source for which an initial performance test is required, the Permittee shall conduct this initial performance test within 90 days after the date for compliance established by 40 CFR 63.1501(b). Except for the date by which the performance test must be conducted, the Permittee shall conduct each performance test in accordance with the requirements and procedures set forth in 40 CFR 63.7(c).

(1) The Permittee shall conduct each test while the affected source or emission unit is operating at the highest production level with charge materials representative of the range of materials processed by the unit and, if applicable, at the highest reactive fluxing rate.

(2) Each performance test for a continuous process must consist of 3 separate runs; pollutant sampling for each run must be conducted for the time period specified in the applicable method or, in the absence of a specific time period in the test method, for a minimum of 3 hours.

(3) Each performance test for a batch process must consist of three separate runs; pollutant sampling for each run must be conducted over the entire process operating cycle.

(4) Initial compliance with an applicable emission limit or standard is demonstrated if the average of three runs conducted during the performance test is less than or equal to the applicable emission limit or standard.

(c) Test methods [40 CFR 63.1511(c)] - The Permittee shall use the following methods in appendix A to 40 CFR Part 60 to determine compliance with the applicable emission limits:

(1) Method 1 for sample and velocity traverses;

(2) Method 2 for velocity and volumetric flow rate;

(3) Method 3 for gas analysis;

(4) Method 4 for moisture content of the stack gas;

(5) Method 5 for the concentration of PM;

(6) Method 23 for the concentration of D/F; and

(7) Method 26A for the concentration of HCl.

(d) Repeat tests [40 CFR 63.1511(e)] - The Permittee shall conduct a performance test every 5 years following the initial performance test.

(e) Testing of representative emission units [40 CFR 63.1511(f)] - With the prior approval of the IDEM, OAQ, the Permittee shall utilize emission rates obtained by testing a particular type of group 1 furnace, or by testing an in-line flux box, to determine the emission rate for other units of the same type at this source. Such emission test results may only be considered to be representative of other units if all of the following criteria are satisfied:

(1) The tested emission unit shall use feed materials and charge rates which are comparable to the emission units that it represents;

(2) The tested emission unit shall use the same type of flux materials in the same proportions as the emission units it represents;

(3) The tested emission unit shall be operated utilizing the same work practices as the emission units that it represents;

(4) The tested emission unit shall be of the same design as the emission units that it represents; and

(5) The tested emission unit shall be tested under the highest load or capacity reasonably expected to occur for any of the emission units that it represents.

(f) Establishment of monitoring and operating parameter values [40 CFR 63.1511(g)]– The Permittee shall establish a minimum or maximum operating parameter value, or an operating parameter range for each parameter to be monitored as required by 40 CFR 63.1510 (Condition D.6.17) that ensures compliance with the applicable emission limit or standard. To establish the minimum or maximum value or range, the Permittee shall use the appropriate procedures in this section. The Permittee may use existing data in addition to the results of performance tests to establish operating parameter values for compliance monitoring provided each of the following conditions are met to the satisfaction of the IDEM, OAQ:

(1) The complete emission test report(s) used as the basis of the parameter(s) is submitted;

(2) The same test methods and procedures as required by this Subpart were used in the test;

(3) The Permittee certifies that no design or work practice changes have been made to the source, process, or emission control equipment since the time of the report; and

(4) All process operating parameters required to be monitored were monitored as required in 40 CFR 63.1510 and documented in the test report.

D.6.11 NESHAP Performance Test/Compliance Demonstration Requirements and Procedures [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-70] [40 CFR 63.1512] [40 CFR 63.1513]

(a) Aluminum scrap shredders [40 CFR 63.1512(a)] - The Permittee shall conduct performance tests to measure PM emissions at the inlet of baghouse that is available for controlling emissions from the coated scrap shredder/baler in 2010, and at 5-year intervals thereafter, provided however that testing of this shredder/baler will not be required if Alcoa obtains a waiver from testing this unit, pursuant to 40 CFR 63.7(h).

(b) Group 1 furnace with add-on air pollution control devices [40 CFR 63.1512(d)].

(1) For a group 1 furnace that processes scrap other than clean charge materials with emissions controlled by a lime-injected fabric filter, the Permittee shall conduct performance tests to measure emissions of PM and D/F at the outlet of the control device and emissions of HCl at the outlet (for the emission limit).

(c) Group 1 furnaces without add-on air pollution control devices [40 CFR 63.1512(e)] - In the site-specific monitoring plan required by 40 CFR 63.1510(o) (Condition D.6.17(i)), the Permittee shall include data and information demonstrating compliance with the applicable emission limits.

(1) The Permittee shall conduct emission tests to measure emissions of PM, and HCl at the representative Group 1 furnace exhaust outlet.

(2) The Permittee shall conduct emission tests to measure emissions D/F at the furnace exhaust outlet from representative group 1 furnaces that process other than clean charge.

(d) Secondary aluminum processing unit [40 CFR 63.1512(j)] - The Permittee shall conduct performance tests as described in paragraph (1) and (2) of this condition. The results of the performance tests shall be used to establish emission rates in lb/ton of feed/charge for PM and HCl for each group 1 furnace and in-line fluxer and grain of D/F TEQ/ton of feed/charge for D/F emissions from each group 1 furnace. These emission rates are used for compliance monitoring in the calculation of the 3-day, 24-hour rolling average emission rates using the equation in 40 CFR 63.1510(t) (Condition D.6.17(m)(4)). A performance test is required for:

(1) Representative group 1 furnaces to measure emissions of PM, D/F; and HCl;

(2) Representative in-line fluxers to measure emissions of PM and HCl.

(e) Feed/charge weight measurement [40 CFR 63.1512(k)] - During the emission tests conducted to determine compliance with emission limits in a lb/ ton format, the Permittee shall measure (or otherwise determine) and record the total weight of feed/charge to the affected emission unit for each of the three test runs and calculate and record the total weight.

(f) Inlet gas temperature [40 CFR 63.1512(n)] - For a group 1 furnace using a lime-injected fabric filter, the Permittee shall use these procedures to establish an operating parameter value or range for the inlet gas temperature.

(1) Continuously measure and record the temperature at the inlet to the lime-injected fabric filter every 15 minutes during the HCl and D/F performance tests;

(2) Determine and record the 15-minute block average temperatures for the 3 test runs; and

(3) Determine and record the 3-hour block average of the recorded temperature measurements for the 3 test runs.

(g) Flux injection rate [40 CFR 63.1512(o)] - The Permittee must use these procedures to establish an operating parameter value or range for the total reactive chlorine flux injection rate:

(1) Continuously measure and record the weight of gaseous or liquid reactive flux injected for each 15 minute period during the HCl and D/F tests, determine and record the 15-minute block average weights, and calculate and record the total weight of the gaseous or liquid reactive flux for the 3 test runs;

(2) Record the identity, composition, and total weight of each addition of solid reactive flux for the 3 test runs;

(3) Determine the total reactive chlorine flux injection rate by adding the recorded measurement of the total weight of chlorine in the gaseous or liquid reactive flux injected and the total weight of chlorine in the solid reactive flux using Equation 5;

$$W_t = F_1 W_1 + F_2 W_2 \quad (\text{Eq. } 5)$$

Where:

W_t = Total chlorine usage, by weight;

F_1 = Fraction of gaseous or liquid flux that is chlorine;

W_1 = Weight of reactive flux gas injected;

F_2 = Fraction of solid reactive chloride flux that is chlorine (e.g., F = 0.75 for magnesium chloride); and

W_2 = Weight of solid reactive flux.

(4) Divide the weight of total chlorine usage (Wt) for the 3 test runs by the recorded measurement of the total weight of feed for the 3 test runs; and

(5) If a solid reactive flux other than magnesium chloride is used, the Permittee must derive the appropriate proportion factor subject to approval by IDEM, OAQ.

(h) Lime injection [40 CFR 63.1512(p)] - For an affected source or emission unit using a lime-injected fabric filter system, the Permittee shall use these procedures during the HCl and D/F tests to establish an operating parameter value for the feeder setting for each operating cycle or time period used in the performance test.

(1) For continuous lime injection systems, ensure that lime in the feed hopper or silo is free-flowing at all times; and

(2) Record the feeder setting for the 3 test runs. If the feed rate setting varies during the runs, determine and record the average feed rate from the 3 runs.

(i) Secondary aluminum processing unit [40 CFR 63.1513(e)] – The Permittee shall use the following procedures to determine compliance with the emission limits of PM, HCl, and D/F emissions for a secondary aluminum processing unit:

(1) Use Equation 9 to compute the mass-weighted PM emissions for a secondary aluminum processing unit. Compliance is achieved if the mass-weighted emissions for the secondary aluminum processing unit (EcPM) is less than or equal to the emission limit for the secondary aluminum processing unit calculated using Equation 1 in 40 CFR 63.1505(k) (Condition D.6.7(d)(1)).

$$E_{C_{PM}} = \frac{\sum_{i=1}^{n}\left(E_{ti_{PM}} \times T_{ti}\right)}{\sum_{i=1}^{n}\left(T_{ti}\right)} \quad \text{(Eq. 9)}$$

Where:

$E_{C_{PM}}$ = The mass-weighted PM emissions for the secondary aluminum processing unit;

$E_{ti_{PM}}$ = Measured PM emissions for individual emission unit i;

T_{ti} = The average feed rate for individual emission unit i during the operating cycle or performance test period; and

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

(2) Use Equation 10 to compute the aluminum mass-weighted HCl emissions for the secondary aluminum processing unit. Compliance is achieved if the mass-weighted emissions for the secondary aluminum processing unit (EcHCl) is less than or equal to the emission limit for the secondary aluminum processing unit calculated using Equation 2 in 40 CFR 63.1505(k) (Condition D.6.7(d)(2)).

$$E_{C_{HCl}} = \frac{\sum_{i=1}^{n}\left(E_{ti_{HCl}} \times T_{ti}\right)}{\sum_{i=1}^{n}\left(T_{ti}\right)} \quad \text{(Eq. 10)}$$

Where:

$E_{C_{HCl}}$ = The mass-weighted HCl emissions for the secondary aluminum processing unit;

$E_{ti_{HCl}}$ = Measured HCl emissions for individual emission unit i;

T_{ti} = The average feed rate for individual emission unit i during the operating cycle or performance test period; and

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

(3) Use Equation 11 to compute the aluminum mass-weighted D/F emissions for the secondary aluminum processing unit. Compliance is achieved if the mass-weighted emissions for the secondary aluminum processing unit is less than or equal to the emission limit for the secondary aluminum processing unit calculated using Equation 3 in 40 CFR 63.1505(k) (Condition D.6.7(d)(3)).

$$E_{C_{D/F}} = \frac{\sum_{i=1}^{n}\left(E_{ti_{D/F}} \times T_{ti}\right)}{\sum_{i=1}^{n}\left(T_{ti}\right)} \quad \text{(Eq. 11)}$$

Where:

$E_{C_{D/F}}$ = The mass-weighted D/Fl emissions for the secondary aluminum processing unit;

$E_{ti_{D/F}}$ = Measured D/F emissions for individual emission unit i that processes other than clean charge materials;

T_{ti} = The average feed rate for individual emission unit i during the operating cycle or performance test period; and

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

(j) To convert D/F measurements to TEQ units, the Permittee must use the procedures and equations in "Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs) and 1989 Update" (EPA–625/3–89–016), incorporated by reference in 40 CFR 63.1502, available from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia, NTIS no. PB 90–145756. [40 CFR 63.1513(d)]

D.6.12 Non NESHAP Emission Units Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]

(a) Within 36 months after the issuance of this permit (T173-6627-00007) or within 5 years after the date of the last valid compliance test, whichever is later, the Permittee shall perform PM, and PM10 testing for the dross cooling operation while operating with one (1) large baghouse and one (1) small baghouse, and two small baghouses only in operation, utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration. PM10 includes filterable and condensable PM10. Testing shall be conducted in accordance with Section C- Performance Testing. During the stack test, the Permittee shall determine the sensitivity of the bag leak detection system and calibrate the particulate concentration readings of the electrodynamic bag leak detector in order to provide an output relative to outlet grain loading levels.

(b) Within 36 months after issuance of this Part 70 permit (T173-6627-00007) or within 5 years from the date of the last valid compliance test, whichever is later, the Permittee shall perform NOx testing on a representative 8EMC melter (8M2 or 8M3), 8EMC west holding furnace, and #1 complex holder (east holding furnace or west holding furnace). These tests shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

(c) In order to demonstrate compliance with D.6.2(a)(1), the Permittee shall perform NOx testing for the 8EMC Melter 8M1, within ninety (90) days after achieving the maximum capacity, but not later than one hundred eighty (180) days after initial startup of the modified 8M1 melter, utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

(d) In order to demonstrate compliance with D.6.2(d)(1), the Permittee shall perform NOx testing for the 8EMC east holding furnace (8EH), within ninety (90) days after achieving the maximum capacity, but not later than one hundred eighty (180) days after initial startup of the modified 8EMC east holding furnace (8EH), utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

(e) In order to demonstrate compliance with Conditions D.6.5(a)(2) and (3), and D.6.5(b)(2) and (3), the Permittee shall perform PM and PM10 testing for the Rotary Group 1 Furnace Baghouse, within ninety (90) days after achieving the maximum capacity, but not later than one hundred eighty (180) days after initial startup of the Rotary Group 1 Furnace operations, utilizing methods as approved by the Commissioner. PM10 includes filterable and condensible PM10. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

(f) In order to demonstrate compliance with Condition D.6.5(c)(1) and (2), the Permittee shall perform NOx testing for the Rotary Group 1 Furnace, within ninety (90) days after achieving maximum capacity, but not later than one hundred eighty (180) days after initial startup of the Rotary Group 1 Furnace operations, utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

(g) In order to demonstrate compliance with Condition D.6.5(c)(1), (2) and (3), the Permittee shall perform NOx testing for the Rotary Group 1 Furnace and Rotary Group 1 Furnace Duct Heater, within ninety (90) days after achieving maximum capacity, but not later than one hundred eighty (180) days after initial startup of the Rotary Group 1 Furnace Duct Heater, utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

D.6.13 PM and PM10 Control from Dross Cooling Operation [326 IAC 2-7-6(6)]

In order to comply with Condition D.6.4, at least two baghouses controlling PM and PM10 shall be in operation at all times when the dross cooling is in operation, and shall follow the following:

(a) When the dross cooling operation is controlled by one (1) small baghouse and one (1) large baghouse, all roll-up doors in the dross cooling building shall be closed, except when vehicles are entering or exiting the building, and hot dross shall be placed beneath a canopy hood that exhausts to the large baghouse; and

(b) When the dross cooling process is operating and neither large baghouse is operating, all skim room doors shall be closed, except when trucks enter to deliver hot dross, and further provided that loadout to third party dross trucks was suspended until at least one large baghouse is returned to service.

D.6.14 PM Control from Coated Scrap Shredder [326 IAC 2-7-6(6)]

In order to comply with Condition D.6.7(a), the Coated Scrap Shredder shall not operate at a throughput of greater than 25,000 pounds per hour.

D.6.15 Particulate Control from Rotary Group 1 Furnace [326 IAC 2-7-6(6)]

(a) In order to comply with Condition D.6.5(a)(1) and (b)(1), the Rotary Group 1 Furnace Baghouse for particulate control shall be in operation and control emissions from the Rotary Group 1 Furnace, the Rotary Group 1 Furnace Duct Heater, and the Rotary Group 1 Furnace Baghouse Reagent Hopper at times the Rotary Group 1 Furnace , the Rotary Group 1 Furnace Duct Heater, and the Rotary Group 1 Furnace Baghouse Reagent Hopper are in operation..

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

D.6.16 Particulate Control from Flux Salt Storage Bin [326 IAC 2-7-6(6)]

In order to comply with Condition D.6.5(a)(5) and (b)(5), the flux salt storage bin vent filter for particulate control shall be in operation and control emissions from the flux salt storage bin and the salt flux loading operations at times the flux salt storage bin is being loaded from the delivery truck.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-70] [40 CFR 63.1510]

D.6.17 NESHAP Monitoring Requirements [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-70] [40 CFR 63.1510]

The Permittee shall monitor all control equipment and processes according to the requirements in this section. Monitoring requirements for each type of emission unit are summarized in Table 3 to 40 CFR 63, Subpart RRR.

(a) Operation, maintenance, and monitoring (OM&M) plan [40 CFR 63.1510(b)] - The Permittee shall prepare for each affected emission unit regulated by 40 CFR 63, Subpart RRR, a written operation, maintenance, and monitoring (OM&M) plan. The plan shall be accompanied by a written certification by the Permittee that the OM&M plan satisfies all the requirements of 40 CFR 63.1510 and is otherwise consistent with the requirements of 40 CFR 63, Subpart RRR. The Permittee shall comply with all of the provisions of the OM&M plan as submitted to the IDEM, OAQ, unless and until the plan is revised in accordance with the following procedures. If IDEM, OAQ determines at any time after receipt of the OM&M plan that any revisions of the plan are necessary to satisfy the requirements of 40 CFR 63.1510 or Subpart RRR, the Permittee shall promptly make all necessary revisions and resubmit the revised plan.

If the Permittee determines that any other revisions of the OM&M plan are necessary, such revisions will not become effective until the Permittee submits a description of the changes and a revised plan incorporating them to the IDEM, OAQ. Each plan shall contain the following information:

(1) Process and control device parameters to be monitored to determine compliance, along with established operating levels or ranges, as applicable, for each process and control device.

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

(3) Procedures for the proper operation and maintenance of each process unit and add-on control device used to meet the emission limits in 40 CFR 63.1505 (Condition D.6.7).

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

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

(ii) Procedures for the quality control and quality assurance of continuous emission as required by the general provisions in Subpart A of this 40 CFR 63.

(5) Procedures for monitoring process and control device parameters.

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

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

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

(7) A maintenance schedule for each process and control device that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance.

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

(b) Labeling [40 CFR 63.1510(c)] - The Permittee shall inspect the labels for each group 1 furnace, group 2 furnace, and in-line fluxer at least once per calendar month to confirm that posted labels as required by the operational standard in 40 CFR 63.1506(b) (Condition D.6.8(b)) are intact and legible.

(c) Capture/collection system [40 CFR 63.1510(d)] - the Permittee shall:

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

(2) Inspect each capture/collection and closed vent system at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in §63.1506(c) and record the results of each inspection.

(d) Feed/charge weight [40 CFR 63.1510(e)] - For an emission unit regulated by 40 CFR 63, Subpart RRR and subject to an emission limit in lb/ton of feed/charge, the Permittee shall calibrate, operate, and maintain a device to measure and record the total weight of feed/charge to the affected emission unit over the same operating cycle or time period used in the performance test. Feed/charge within SAPUs shall be measured and recorded on an emission unit-by-emission unit basis.

(1) The accuracy of the weight measurement device or procedure shall be +/-1 percent of the weight being measured.

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

(e) Fabric filters and lime-injected fabric filters [40 CFR 63.1510(f)] - for an affected source or emission unit using a fabric filter or lime-injected fabric filter to comply with the requirements of this subpart, the Permittee shall install, calibrate, maintain, and continuously operate a bag leak detection system as required in paragraph (e)(1) of this condition.

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

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

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

(iii) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.

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

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

(vi) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel.

(vii) For positive pressure fabric filter systems, a bag leak detection system must be installed in each baghouse compartment or cell. For negative pressure or induced air fabric filters, the bag leak detector must be installed downstream of the fabric filter.

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

(ix) The baseline output must be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time.

(x) Following initial adjustment of the system, the Permittee shall not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time except as detailed in the OM&M plan. In no case may the sensitivity be increased by more than 100 percent or decreased more than 50 percent over a 365-day period unless such adjustment follows a complete fabric filter inspection which demonstrates that the fabric filter is in good operating condition.

(f) Fabric filter inlet temperature [40 CFR 63.1510(h)] - for a group 1 furnace using a lime-injected fabric filter, in order to comply with the requirements of 40 CFR 63, Subpart RRR, the Permittee shall:

(1) The Permittee shall install, calibrate, maintain, and operate a device to continuously monitor and record the temperature of the fabric filter inlet gases consistent with the requirements for continuous monitoring systems in 40 CFR 60, Subpart A.

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

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

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

(iii) The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Administrator.

(g) Lime injection [40 CFR 63.1510(i)] - for an affected source or emission unit using a lime-injected fabric filter to comply with the requirements of 40 CFR 63, Subpart RRR, the Permittee shall.

(1) The Permittee shall verify that the lime of a continuous lime injection system is always free-flowing by:

(i) Subject to the approval of the permitting agency, installing, operating and maintaining a load cell, carrier gas/lime flow indicator, carrier gas pressure drop measurement system or other system to confirm that lime is free-flowing. If lime is found not to be free-flowing, the Permittee shall promptly initiate and complete corrective action. A plan to assure that lime is free-flowing was submitted on July 11, 2007. IDEM, OAQ has reviewed and approved the submitted plan.

(2) For a continuous lime injection system, the Permittee shall record the lime feeder setting once each day of operation.

(h) Total reactive flux injection rate [40 CFR 63.1510(j)] - These requirements apply to a group 1 furnace (with or without add-on air pollution control devices) or in-line fluxer. The Permittee shall:

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

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

(ii) The accuracy of the weight measurement device shall be +/- 1 percent of the weight of the reactive component of the flux being measured; and

(iii) The Permittee shall verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every 6 months.

(2) Calculate and record the gaseous or liquid reactive flux injection rate (lb/ton) for each operating cycle or time period used in the performance test using the procedure in 40 CFR 63.1512(o) (ConditionD.6.11(g));

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

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

(ii) Solid reactive flux.

(4) Calculate and record the total reactive flux injection rate for each operating cycle or time period used in the performance test using the procedure in 40 CFR 63.1512(o) (Condition D.6.11(g)).

(i) Group 1 furnace without add-on air pollution control devices [40 CFR 63.1510(o)] – The following requirements apply:

(1) The Permittee must develop, in consultation with the IDEM, OAQ, a written site-specific monitoring plan. The site-specific monitoring plan shall be submitted to the IDEM, OAQ as part of the OM&M plan. The site-specific monitoring plan shall contain sufficient procedures to ensure continuing compliance with all applicable emission limits and shall demonstrate, based on documented test results, the relationship between emissions of PM, HCl, and D/F and the proposed monitoring parameters for each pollutant. Test data shall establish the highest level of PM, HCl, and D/ F that will be emitted from the furnace. This may be determined by conducting performance tests and monitoring operating parameters while charging the furnace with feed/charge materials containing the highest anticipated levels of oils and coatings and fluxing at the highest anticipated rate. If IDEM, OAQ determines that any revisions of the site-specific monitoring plan are necessary to meet the requirements of 40 CFR 63.1510 or 40 CFR 63,Subpart RRR, the Permittee shall promptly make all necessary revisions and resubmit the revised plan to the IDEM, OAQ;

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

(3) Each site-specific monitoring plan shall include provisions for unit labeling as required in Condition paragraph (b) of this condition, feed/charge weight measurement as required in paragraph (d) of this condition and flux weight measurement as required in paragraph (h) of this condition.

(j) Monitoring of scrap contamination level by calculation method for group 1 furnace without add-on air pollution control devices [40 CFR 63.1510(q)] - For a group 1 furnace dedicated to processing a distinct type of furnace feed/charge composed of scrap with a uniform composition (such as rejected product from a manufacturing process for which the coating-to-scrap ratio can be documented), the Permittee may include a program in the site-specific monitoring plan for determining, monitoring, and certifying the scrap contaminant level using a calculation method rather than a scrap inspection program. A scrap contaminant monitoring program using a calculation method shall include:

(1) Procedures for the characterization and documentation of the contaminant level of the scrap prior to the performance test;

(2) Limitations on the furnace feed/charge to scrap of the same composition as that used in the performance test - If the performance test was conducted with a mixture of scrap and clean charge, limitations on the proportion of scrap in the furnace feed/charge to no greater than the proportion used during the performance test; and

(3) Operating, monitoring, recordkeeping, and reporting requirements to ensure that no scrap with a contaminant level higher than that used in the performance test is charged to the furnace.

(k) Group 2 furnace [40 CFR 63.1510(r)] - These requirements apply to the group 2 furnace. The Permittee shall:

(1) Record a description of the materials charged to each furnace, including any nonreactive, non-HAP-containing/non-HAP-generating fluxing materials or agents; and

(2) Submit a certification of compliance with the applicable operational standard for charge materials in 40 CFR 63.1506(o) (Condition D.6.8(g)) for each 6-month reporting period. Each certification shall contain the information in 40 CFR 63.1516(b)(2)(v).

(l) Site-specific requirements for secondary aluminum processing units [40 CFR 63.1510(s)]:

(1) The Permittee shall include, within the OM&M plan prepared in accordance with paragraph (a) of this condition, the following information:

(i) The identification of each emission unit in the secondary aluminum processing unit;

(ii) The specific pollution prevention measure to be used for each emission unit in the secondary aluminum processing unit and the date of its installation or application;

(iii) The emission limit calculated for each secondary aluminum processing unit and performance test results with supporting calculations demonstrating initial compliance with each applicable emission limit;

(iv) Information and data demonstrating compliance for each emission unit with all applicable design, equipment, work practice or operational standards of 40 CFR 63 Subpart RRR; and

(v) The monitoring requirements applicable to each emission unit in a secondary aluminum processing unit and the monitoring procedures for daily calculation of the 3-day, 24-hour rolling average using the procedure in paragraph (m) of this condition.

(2) The SAPU compliance procedures within the OM&M plan shall not contain any of the following provisions:

(i) Any averaging among emissions of differing pollutants;

(ii) The inclusion of any affected sources other than emission units in a secondary aluminum processing unit;

(iii) The inclusion of any emission unit while it is shutdown; or

(iv) The inclusion of any periods of startup, shutdown, or malfunction in emission calculations.

(3) To revise the SAPU compliance provisions within the OM&M plan prior to the end of the permit term, the Permittee shall submit a request to the IDEM, OAQ containing the information required by paragraph (l)(1) of this condition and obtain approval of the IDEM, OAQ prior to implementing any revisions.

(m) Secondary aluminum processing unit [40 CFR 63.1510(t)] - The Permittee shall calculate and record the 3-day, 24-hour rolling average emissions of PM, HCl, and D/F for each secondary aluminum processing unit on a daily basis. To calculate the 3-day, 24-hour rolling average, the Permittee shall:

(1) Calculate and record the total weight of material charged to each emission unit in the secondary aluminum processing unit for each 24-hour day of operation using the feed/charge weight information required in paragraph (d) of this condition.

(2) Multiply the total feed/charge weight to the emission unit, for each emission unit for the 24-hour period by the emission rate (in lb/ton of feed/ charge) for that emission unit (as determined during the performance test) to provide emissions for each emission unit for the 24-hour period, in pounds;

(3) Divide the total emissions for each SAPU for the 24-hour period by the total material charged to the SAPU over the 24-hour period to provide the daily emission rate for the SAPU;

(4) Compute the 24-hour daily emission rate using Equation 4:

$$E_{day} = \frac{\sum_{i=1}^{n} \left(T_i * ER_i\right)}{\sum_{i=1}^{n} T_i} \qquad \textbf{(Eq. 4)}$$

Where:

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

T_i = The total amount of feed for emission unit i for the 24-hour period (tons);

ER_i = The measured emission rate for emission unit i as determined in the performance test (lb/ton of feed/charge); and

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

(5) Calculate and record the 3-day, 24-hour rolling average for each pollutant each day by summing the daily emission rates for each pollutant over the 3 most recent consecutive days and dividing by 3.

D.6.18 Bag Leak Detection Systems for Dross Cooling Baghouses and Rotary Group 1 Furnace Baghouse [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

The Permittee shall operate the continuous bag leak detection system for the dross cooling system and for the Rotary Group 1 Furnace Baghouse. The bag leak detection systems shall meet the following requirements:

(a) Each electrodynamic bag leak detection system shall be calibrated, operated, and maintained according to the manufacturer's recommendations;

(b) Each bag leak detection system shall be certified by the manufacturer to be capable of detecting PM emissions at concentrations of ten (10) milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less;

(c) Each bag leak detection system sensor shall provide output of relative or absolute PM loadings;

(d) Each bag leak detection system shall be equipped with a device to continuously record the output signal from the sensor;

(e) Each bag leak detection system shall be equipped with an alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm shall be located where it is easily heard by plant operating personnel;

(f) Each bag leak detector shall be installed downstream of the fabric filter;

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

(h) The baseline outputs shall be established by adjusting the range and the averaging period of each device and establishing the alarm set points and the alarm delay times;

(i) Following initial adjustment of each system, the Permittee shall not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time except as detailed in the PMP. In no case may the sensitivity be increased by more than one hundred (100%) percent or decreased more than fifty (50%) percent over a 365-day period unless such adjustment follows a complete fabric filter inspection which demonstrates that the fabric filter is in good operating condition; and

(j) In the event that a bag leak detection system should malfunction, fail or otherwise need repair, the Permittee shall perform visible emissions notations of the stack exhausts associated with that bag leak detection system as follows:

(1) Visible emission notations of the stack exhausts shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal;

(2) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time;

(3) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions;

(4) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process and

(5) For the dross cooling operation, if abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions and Exceedances. Failure to take response steps in accordance with Section C – Response to Excursions and Exceedances, shall be considered a deviation from this permit.

D.6.19 Bag Leak Detection Alarm Activation [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)

In the event that a bag leak detection system for the dross cooling system alarm is activated for any reason, the Permittee shall take the corrective action specified in Section C - Response to Excursions or Exceedances, and the following response steps:

The tests performed on December 17, 2004, confirmed that the dross cooling operation can meet the PM limit by operating only two small baghouses. For the four (4) dross cooling operation baghouses, which are single compartment baghouses, when more than two (2) of the four (4) baghouses fail, if failure indicated by an opacity violation or a bag leak detection alarm activation that is not a false alarm, or if bag failure is determined by other means, such as daily checks of the particulate concentration readings from electrodynamic bag leak detectors or visible emissions notations, then the associated process will be shut down immediately. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section C - Emergency Provisions).

D.6.20 Visible Emissions Notations for Flux Salt Storage Silo Bin Vent Filter [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) Visible emission notations of the flux salt storage silo bin vent filter stack exhausts shall be performed once per week during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal;

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time;

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions;

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process and

(e) For the flux salt storage silo operation, if abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions and Exceedances. Failure to take response steps in accordance with Section C – Response to Excursions and Exceedances, shall be considered a deviation from this permit.

D.6.21 Water Level Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) The Permittee shall track the operation of the solenoid, which controls a water level electrode of automatic water control boxes on the #2 Offline East Melter Charging rotoclone, #2 Offline West Melter Charging rotoclone, #2 Offline East Melter West Chip Silo rotoclone, and #2 Offline East Melter East Chip Silo rotoclones. Whenever the automatic control fails, the Permittee shall fill the rotoclone by hand.

(b) The failure of the automatic control is not a deviation. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

(c) The Permittee shall completely clean out the #2 Offline East Melter Charging rotoclone, #2 Offline West Melter Charging rotoclone, #2 Offline East Melter West Chip Silo rotoclone, and #2 Offline East Melter East Chip Silo rotoclones at least once per month. In the event that a rotoclone and its associated process have been shutdown, its cleaning schedule shall be amended commencing on the date of the shutdown such that it is cleaned within 4 weeks of the shutdown date. It shall be returned to a cleaning schedule of at least once per month commencing on the date it resumes operation.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-70] [40 CFR 63.1516] [40 CFR 63.1517]

D.6.22 NESHAP Record Keeping Requirements [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-70] [40 CFR 63.1517]

(a) Pursuant to 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 of 40 CFR 63. [40 CFR 63.1617(a)]

(1) The Permittee may retain records on microfilm, computer disks, magnetic tape, or microfiche;

(2) The Permittee shall report required information on paper or on a labeled computer disk using commonly available and EPA-compatible computer software; and

(b) Pursuant to 40 CFR 63.1517(b) - In addition to the general records required by 40 CFR 63.10(b), the Permittee shall maintain records of:

(1) For each affected source and emission unit with emissions controlled by a fabric filter or a lime-injected fabric filter [40 CFR 63.1517(b)(1)]:

(i) If a bag leak detection system is used, the number of total operating hours for the affected source or emission unit during each 6-month reporting period, records of each alarm, the time of the alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action(s) taken.

(2) For each group 1 furnace, subject to D/F and HCl emission standards with emissions controlled by a lime-injected fabric filter, records of 15-minute block average inlet temperatures for each lime-injected fabric filter, including any period when the 3-hour block average temperature exceeds the compliant operating parameter value +14 °C (+25 °F), with a brief explanation of the cause of the excursion and the corrective action taken [40 CFR 63.1517(b)(3)].

(3) For each affected source and emission unit with emissions controlled by a lime-injected fabric filter [40 CFR 63.1517(b)(4)]:

(i) Records of inspections at least once every 8-hour period verifying that lime is present in the feeder hopper or silo and flowing, including any inspection where blockage is found, with a brief explanation of the cause of the blockage and the corrective action taken, and records of inspections at least once every 4-hour period for the subsequent 3 days. If flow monitors, pressure drop sensors or load cells are used to verify that lime is present in the hopper and flowing, records of all monitor or sensor output including any event where blockage was found, with a brief explanation of the cause of the blockage and the corrective action taken;

(ii) If lime feeder setting is monitored, records of daily inspections of feeder setting, including records of any deviation of the feeder setting from the setting used in the performance test, with a brief explanation of the cause of the deviation and the corrective action taken.

(4) For each group 1 furnace (with or without add-on air pollution control devices) and each in-line fluxer [40 CFR 63.1517(b)(5)];

(i) Records of 15-minute block average weights of gaseous or liquid reactive flux injection, total reactive flux injection rate and calculations (including records of the identity, composition, and weight of each addition of gaseous, liquid or solid reactive flux), including records of any period the rate exceeds the compliant operating parameter value and corrective action taken.

(5) For each continuous monitoring system, records required by 40 CFR 63.10(c) [40 CFR 63.1517(b)(6)];

(6) For each emission unit subject to an emission standard in lb/ton of feed/charge, records of feed/charge weights for each operating cycle or time period used in the performance test [40 CFR 63.1517(b)(7)];

(7) Approved site-specific monitoring plan for a group 1 furnace with records documenting conformance with the plan [40 CFR 63.1517(b)(8)];

(8) Records of all charge materials and fluxing materials or agents for a group 2 furnace [40 CFR 63.1517(b)(12)];

(9) Records of monthly inspections for proper unit labeling for each affected emission unit subject to labeling requirements [40 CFR 63.1517(b)(13)];

(10) Records of annual inspections of emission capture/collection and closed vent systems [40 CFR 63.1517(b)(14)];.

(11) Records for any approved alternative monitoring or test procedure [40 CFR 63.1517(b)(15)];

(12) Current copy of all required plans, including any revisions, with records documenting conformance with the applicable plan, including [40 CFR 63.1517(b)(16)]:

(i) Startup, shutdown, and malfunction plan;

(ii) OM&M plan; and

(iii) Site-specific secondary aluminum processing unit emission plan.

(13) For each secondary aluminum processing unit, records of total charge weight, for each 24-hour period and calculations of 3-day, 24-hour rolling average emissions [40 CFR 63.1517(b)(17)];

(14) For each group 1 furnace, records of the 3-day, 24-hour rolling average emissions of PM, HCl, and D/F emissions calculations; and

(15) For each in-line degasser, records of the 3-day, 24-hour rolling average emissions of PM, and HCl emissions calculations.

(c) The Permittee shall keep a record of the written startup, shutdown, and malfunction plan and a program of corrective action for malfunctioning process and air pollution control equipment. The Permittee shall also keep records of each event as required by 40 CFR 63.10(b).

(d) The Permittee shall keep records of each event as required by 40 CFR 63.10(b) and record 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).

(e) The Permittee shall keep records as required by 40 CFR 63.1510(q) (Condition D.6.17(j)).

D.6.23 Record Keeping Requirements

(a) To document compliance with Condition D.6.2(a)(3), the Permittee shall maintain the following:

(1) Records of the natural gas consumption of Melter 8M1.

(2) Records of the natural gas consumption of Melters 8M2 and 8M3.

(3) Records of NOx emissions from Melters 8M1, 8M2, and 8M3.

(b) To document compliance with Condition D.6.2(b)(4) and (c)(4), the Permittee shall maintain records of the combined chlorine and flux salt input rates to 8M1, 8M2, and 8M3.

(c) To document compliance with Conditions D.6.2(b)(5) and (c)(5), the Permittee shall maintain records of PM and PM10 emissions from 8M1, 8M2, and 8M3.

(d) To document compliance with Condition D.6.2(d), the Permittee shall maintain records of the following:

(1) The natural gas consumption of the 8EMC east holding furnace.

(2) The natural gas consumption of the 8EMC west holding furnace.

(3) NOx emissions from the 8EMC east and west holding furnaces.

(e) To document compliance with Conditions D.6.2(e)(4),and (f)(4), the Permittee shall maintain records of the combined chlorine and flux salt rates to 8 EMC east and 8 EMC west holding furnaces.

(f) To document compliance with Conditions D.6.2(e)(5),and (f)(5), the Permittee shall maintain records of PM and PM10 emissions from the 8 EMC east and west holding furnaces.

(g) To document compliance with Condition D.6.2(g), the Permittee shall maintain records of the feed/charge rates of the 8EMC 8EH A622 and 8EMC 8WH A622 in-line degassing units.

(h) To document compliance with Conditions D.6.2(h), and (i), the Permittee shall maintain records of the chlorine input rates to the 8EMC 8EH A622 and 8EMC 8WH A622 in-line degassing units.

(i) To document compliance with Condition D.6.2(j), the Permittee shall maintain records of the feed/charge rate of the #1 complex ACD units.

(j) To document compliance with Condition D.6.2(m) and (n), the Permittee shall maintain records of PM and PM10 emissions from the #1 complex east holding furnace and the #1 complex west holding furnace.

(k) To document compliance with Condition D.6.2(o), the Permittee shall maintain records of flux salt input rates to the #1 complex east holding furnace and the #1 complex west holding furnace.

(l) To document compliance with Condition D.6.2(p), the Permittee shall maintain records of the feed/charge rate for the #1 complex east holding furnace and the #1 complex west holding furnace.

(m) To document compliance with Condition D.6.3(a), the Permittee shall maintain records of the amount of material charged to OLG1, and the OLG1 PM Ef.

(n) To document compliance with Condition D.6.3(b), the Permittee shall maintain records of the amount of natural gas usage for OLG1 furnaces.

(o) To document compliance with Condition D.6.4(a), the Permittee shall maintain records of the throughput of the dross and salt cake.

(p) To document compliance with Conditions D.6.5(a)(4) and D.6.5(b)(4), the Permittee shall maintain records of the following:

(1) The charge/feed rate when the Rotary group 1 Furnace is processing only dross.

(2) The charge/feed rate when the charge/feed processed at the Rotary group 1 Furnace contains any amount of scrap.

(3) Total PM emissions from the Rotary Group 1 Furnace operations.

(4) Total PM10 emissions from the Rotary Group 1 Furnace operations.

(q) To document compliance with Condition D.6.5(c)(4), the Permittee shall maintain records of the following:

(1) The natural gas consumption of the Rotary Group 1 Furnace when processing only dross.

(2) The natural gas consumption of the Rotary Group 1 Furnace when processing any amount of scrap.

(3) The natural gas consumption of the Rotary Group 1 Furnace Duct Heater.

(4) Total NOx emissions from the Rotary Group 1 Furnace and the Rotary Group 1 Furnace Duct Heater.

(r) To document compliance with Condition D.6.14, the Permittee shall maintain records of the average throughput of the Coated Scrap Shredder.

(s) To document compliance with Condition D.6.18(a), the Permittee shall keep a log of the calibration test results for the dross cooling baghouses leak detectors and the Rotary Group 1 Furnace Baghouse leak detectors.

(t) To document compliance with Condition D.6.18(j), the Permittee shall maintain records of daily visible emission notations of the stack exhaust for the dross cooling baghouses and the Rotary Group 1 Furnace Baghouse, when the applicable bag leak detection system malfunctions, fails or otherwise needs repair.

(u) To document compliance with Condition D.6.19, the Permittee shall maintain records of the occurrences of all bag leak detection alarms.

(v) To document compliance with Condition D.6.20 the Permittee shall maintain a weekly record of visible emission notations of flux salt storage silo bin vent filter stack exhausts.

(w) To document compliance with Condition D.6.21(a), the Permittee shall maintain records of the automatic water level control and the response steps taken.

(x) To document compliance with Condition D.6.22(c), the Permittee shall maintain records of cleanout dates for #2 Offline East Melter Charging rotoclone, #2 Offline West Melter Charging rotoclone, #2 Offline East Melter West Chip Silo rotoclone, and #2 Offline East Melter East Chip Silo rotoclone.

(y) The Permittee shall maintain the following as required under Conditions D.6.18, D.6.19, D.6.20, D.6.21, and D.6.22:

(1) Documentation of all response steps implemented per event.

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

D.6.24 NESHAP Reporting Requirements [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-70] [40 CFR 63.1516]

(a) Startup, shutdown, and malfunction plan/reports [40 CFR 63.1516(a)] - The Permittee shall develop and a written plan as described in 40 CFR 63.6(e)(3) that contains specific procedures to be followed for operating and maintaining the source during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the standard. 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; and

(2) Corrective actions to be taken in the event of a malfunction of a process or control device, including procedures for recording the actions taken to correct the malfunction or minimize emissions.

(b) Excess emissions/summary report [40 CFR 63.1516(b)] - As required by 40 CFR 63.10(e)(3), the Permittee shall submit semiannual reports within 60 days after the end of each 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.

(1) A report shall be submitted if any of these conditions occur during a 6-month reporting period:

(i) The corrective action specified in the OM&M plan for a bag leak detection system alarm was not initiated within 1 hour.

(ii) An excursion of a compliant process or operating parameter value or range (e.g., screw feeder setting, total reactive chlorine flux injection rate, afterburner operating temperature, definition of acceptable scrap, or other approved operating parameter);

(iii) 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);

(iv) The emission units (including an emission unit in a secondary aluminum processing unit) was not operated according to the requirements of 40 CFR 63, Subpart RRR; and

(v) A deviation from the 3-day, 24-hour rolling average emission limit for a secondary aluminum processing unit.

(2) Each report shall include each of the following certifications, as applicable:

(i) For each group 2 furnace: Only clean charge materials were processed in any group 2 furnace during this reporting period, and no fluxing was performed or all fluxing performed was conducted using only nonreactive, non-HAP-containing/non-HAP-generating fluxing gases or agents, except for cover fluxes, during this reporting period;

(ii) The Coated Aluminum Shredder did not operate in excess of an hourly aluminum scrap throughput of 25,000 lbs/hr. Compliance with 25,000 lbs/hr aluminum scrap throughput limitation satisfies the PM emissions limitation specified by 40 CFR 63, Subpart RRR, i.e. 0.01 grains / dry standard cubic foot;

(3) The Permittee shall submit the results of any performance test conducted during the reporting period, including one complete report documenting test methods and procedures, process operation, and monitoring parameter ranges or values for each test method used for a particular type of emission point tested.

(c) Annual compliance certifications - For the purpose of annual certifications of compliance required by 40 CFR Part 70, the Permittee shall certify continuing compliance based upon, but not limited to, the following conditions:

(1) Any period of excess emissions, as defined in paragraph (b)(1) of this Condition, that occurred during the year were reported as required by 40 CFR 63 Subpart RRR; and

(2) All monitoring, recordkeeping, and reporting requirements were met during the year.

D.6.25 Reporting Requirements

A monthly summary of the information to document compliance with Conditions D.6.2 (a)(3), (b)(5), (c)(5), (d)(3), (e)(5), (f)(5), (g), (j), (m), (n), and (p), D.6.3(a) and (b), D.6.4(a), and D.6.5(a)(4), (b)(4), and (c)(4) 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 its 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 “responsible official” as defined by 326 IAC 2-7-1(34).

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

NOx Emissions Quarterly Report

Source Name: Alcoa Inc.- Warrick Operations
Source Address: Jct. IN Hwys. 66 & 61, Newburgh, Indiana 47629-0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Part 70 Permit No.: T173-6627-00007
Facility: Melters 8M1, 8M2, and 8M3
Parameter: NOx Emissions
Limit: Shall not exceed 63.18 tons per twelve (12) consecutive month period.

Quarter _____ Year: _____

Month	NOx (tons)	NOx (tons)	NOx (tons)
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this quarter.

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

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Telephone: _____

Attach a signed certification to complete this report.

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

PM Emissions Quarterly Report

Source Name: Alcoa Inc.- Warrick Operations
Source Address: Jct. IN Hwys. 66 & 61, Newburgh, Indiana 47629-0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Part 70 Permit No.: T173-6627-00007
Facility: Melters 8M1, 8M2, and 8M3
Parameter: PM Emissions
Limit: 49.57 tons per twelve (12) consecutive month period

Quarter _____ Year: _____

Month	PM (tons)	PM (tons)	PM (tons)
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this quarter.

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

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Telephone: _____

Attach a signed certification to complete this report.

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

PM_{10} Emissions Quarterly Report

Source Name: Alcoa Inc.- Warrick Operations
Source Address: Jct. IN Hwys. 66 & 61, Newburgh, Indiana 47629-0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Part 70 Permit No.: T173-6627-00007
Facility: Melters 8M1, 8M2, and 8M3
Parameter: PM_{10} Emissions
Limit: 53.54 tons per twelve (12) consecutive month period

Quarter _____ Year: _____

Month	PM_{10} (tons)	PM_{10} (tons)	PM_{10} (tons)
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this quarter.

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

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Telephone: _____

Attach a signed certification to complete this report.

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

NOx Emissions Quarterly Report

Source Name: Alcoa Inc.- Warrick Operations
Source Address: Jct. IN Hwys. 66 & 61, Newburgh, Indiana 47629-0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Part 70 Permit No.: T173-6627-00007
Facility: 8EMC east and 8EMC west holding furnaces
Parameter: NOx Emissions
Limit: Shall not exceed 15.89 tons per twelve (12) consecutive month period

Quarter _____ Year: _____

Month	NOx (tons)	NOx (tons)	NOx (tons)
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this quarter.

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

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Telephone: _____

Attach a signed certification to complete this report.

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

PM Emissions Quarterly Report

Source Name: Alcoa Inc.- Warrick Operations
Source Address: Jct. IN Hwys. 66 & 61, Newburgh, Indiana 47629-0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Part 70 Permit No.: T173-6627-00007
Facility: 8EMC east holding and 8EMC west holding furnace
Parameter: PM
Limit: 34.17 tons per twelve (12) consecutive month period

Quarter _____ Year: _____

Month	PM (tons)	PM (tons)	PM (tons)
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this quarter.

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

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Telephone: _____

Attach a signed certification to complete this report.

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

PM_{10} Emissions Quarterly Report

Source Name: Alcoa Inc.- Warrick Operations
Source Address: Jct. IN Hwys. 66 & 61, Newburgh, Indiana 47629-0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Part 70 Permit No.: T173-6627-00007
Facility: 8EMC east holding and 8EMC west holding furnace
Parameter: PM_{10}
Limit: 49.89 tons per twelve (12) consecutive month period

Quarter _____ Year: _____

Month	PM_{10} (tons)	PM_{10} (tons)	PM_{10} (tons)
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this quarter.

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

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Telephone: _____

Attach a signed certification to complete this report.

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

Feed/Charge Quarterly Report

Source Name: Alcoa, Inc. - Warrick Operations
Source Address: Jct. IN Hwys. 66 & 61, Newburgh, Indiana 47629-0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T173-6627-00007
Facilities: 8EMC 8EH and 8EMC 8WH A622 in-line degassing units
Parameter: Feed/Charge Rate
Limit: 823,440 tons per twelve (12) consecutive month period

Quarter _____ Year: _____

Month	Feed/Charge Rate(tons)	Feed/Charge Rate(tons)	Feed/Charge Rate(tons)
	This Month	Previous 11 Months	12 Month Total
	8EMC 8EH and8EMC 8WH	8EMC 8EH and 8EMC 8WH	8EMC 8EH and8EMC 8WH

☐ No deviation occurred in this quarter

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

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Telephone: _____

Attached a signed certification to complete this report.

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

Feed/Charge Quarterly Report

Source Name: Alcoa, Inc. - Warrick Operations
Source Address: Jct. IN Hwys. 66 & 61, Newburgh, Indiana 47629-0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T173-6627-00007
Facility: #1 complex ACD Units
Parameter: Feed/Charge
Limit: 172,000 tons per twelve (12) consecutive month period

Quarter _____ Year: _____

Month	Feed/Charge (tons)	Feed/Charge (tons)	Feed/Charge (tons)
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this quarter.

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

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Telephone: _____

Attach a signed certification to complete this report.

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

PM Emissions Quarterly Report

Source Name: Alcoa, Inc. - Warrick Operations
Source Address: Jct. IN Hwys. 66 & 61, Newburgh, Indiana 47629-0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T173-6627-00007
Facility: #1 complex east holding furnace and #1 complex west holding furnace
Parameter: PM
Limit: 3.87 tons per twelve (12) consecutive month period

Quarter _____ Year: _____

Month	PM (tons)	PM (tons)	PM (tons)
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this quarter.

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

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Telephone: _____

Attach a signed certification to complete this report.

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

PM_{10} Emissions Quarterly Report

Source Name: Alcoa, Inc. - Warrick Operations
Source Address: Jct. IN Hwys. 66 & 61, Newburgh, Indiana 47629-0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T173-6627-00007
Facility: #1 complex east holding furnace and #1 complex west holding furnace
Parameter: PM_{10}
Limit: 5.65 tons per twelve (12) consecutive month period

Quarter _____ Year: _____

Month	PM_{10} (tons)	PM_{10} (tons)	PM_{10} (tons)
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this quarter.

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

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Telephone: _____

Attach a signed certification to complete this report.

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

Feed/Charge Quarterly Report

Source Name: Alcoa, Inc. - Warrick Operations
Source Address: Jct. IN Hwys. 66 & 61, Newburgh, Indiana 47629-0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T173-6627-00007
Facility: #1 complex East and West Holding Furnaces
Parameter: Feed/Charge
Limit: Total 172,000 tons feed/charge per twelve (12) consecutive month period

Quarter _____ Year: _____

Month	Feed/Charge (tons)	Feed/Charge (tons)	Feed/Charge (tons)
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this quarter.

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

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Telephone: _____

Attach a signed certification to complete this report.

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

PM Emissions Quarterly Report

Source Name: Alcoa, Inc. - Warrick Operations
Source Address: Jct. IN Hwys. 66 & 61, Newburgh, Indiana 47629
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T173-6627-00007
Facility: OLG1 Furnaces
Parameter: PM
Limit: Less than 202 tons per twelve (12) consecutive month period

Quarter _____ Year: _____

Month	PM (tons)	PM (tons)	PM (tons)
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.

Deviation has been reported on:

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Telephone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
Natural Gas Usage Quarterly Report

Source Name: Alcoa, Inc. - Warrick Operations
Source Address: Jct. IN Hwys. 66 & 61, Newburgh, Indiana 47629-0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T173-6627-00007
Facility: OLG1 Furnaces
Natural gas usage Limit: 1,847 million cubic feet per twelve (12) consecutive month period

Quarter _____ Year: _____

Month	Natural Gas (MMCF)	Natural Gas (MMCF)	Natural Gas (MMCF)
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this quarter.

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

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Telephone: _____

Attach a signed certification to complete this report.

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

Dross and Salt Cake Throughput Quarterly Report

Source Name: Alcoa, Inc. - Warrick Operations
Source Address: Jct. IN Hwys. 66 & 61, Newburgh, Indiana 47629
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T173-6627-00007
Facility: Dross Cooling Operation
Parameter: Dross and salt cake
Limit: 38,000 tons per twelve (12) consecutive month period

Quarter _____ Year: _____

Month	Dross (tons)	Dross (tons)	Dross (tons)
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this quarter.

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

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Telephone: _____

Attach a signed certification to complete this report.

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

NOx Emissions Quarterly Report

Source Name: Alcoa Inc.- Warrick Operations
Source Address: Jct. IN Hwys. 66 & 61, Newburgh, Indiana 47629-0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Part 70 Permit No.: T173-6627-00007
Facility: Rotary Group 1 Furnace
Parameter: NOx Emissions
Limit: Shall not exceed 39.90 tons per twelve (12) consecutive month period

Quarter _____ Year: _____

Month	NOx (tons)	NOx (tons)	NOx (tons)
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this quarter.

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

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Telephone: _____

Attach a signed certification to complete this report.

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

PM Emissions Quarterly Report

Source Name: Alcoa Inc.- Warrick Operations
Source Address: Jct. IN Hwys. 66 & 61, Newburgh, Indiana 47629-0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Part 70 Permit No.: T173-6627-00007
Facility: Rotary Group 1 Furnace
Parameter: PM Emissions
Limit: Shall not exceed 24.90 tons per twelve (12) consecutive month period

Quarter _____ Year: _____

Month	PM (tons)	PM (tons)	PM (tons)
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this quarter.

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

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Telephone: _____

Attach a signed certification to complete this report.

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

PM10 Emissions Quarterly Report

Source Name: Alcoa Inc.- Warrick Operations
Source Address: Jct. IN Hwys. 66 & 61, Newburgh, Indiana 47629-0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Part 70 Permit No.: T173-6627-00007
Facility: Rotary Group 1 Furnace
Parameter: PM10 Emissions
Limit: Shall not exceed 14.90 tons per twelve (12) consecutive month period

Quarter _____ Year: _____

Month	PM10 (tons)	PM10 (tons)	PM10 (tons)
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this quarter.

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

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Telephone: _____

Attach a signed certification to complete this report.

SECTION D.7 ROLLING MILLS PLANT FACILITY OPERATION CONDITIONS

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

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

Rolling Mills

(1) One (1) gauge reduction of aluminum facility, identified as hot reversing mill, using mineral spirits as lubricant, constructed in 1964, with a maximum capacity production of aluminum ingot of 225 tons per hour, controlled by a mist eliminator, and exhausting to Stack 811.1;

(2) One (1) gauge reduction of aluminum facility, identified as continuous hot mill, using mineral spirits as lubricant, constructed in 1964, with a maximum capacity production of aluminum ingot of 225 tons per hour, controlled by a mist eliminator, and exhausting to Stack 814.1;

(3) One (1) gauge reduction of aluminum facility, identified as cold mill #2, constructed in 1963, with a maximum capacity production of aluminum sheet of 75 tons per hour, uncontrolled, and exhausting to Stack 816.21;

(4) One (1) gauge reduction of aluminum facility, identified as cold mill #4, constructed in 1970, with a maximum capacity production of aluminum sheet of 88.6 tons per hour, controlled by a mist eliminator, and exhausting to Stacks 816.23 and 816.24.

One (1) mist eliminator, constructed in 1970, and exhausting to Stacks 816.23 and 816.24;

Annealing furnaces

(5) One (1) annealing furnace, identified as annealing furnace #5, constructed in 1964, using natural gas with a maximum heat input rate of 15 MMBtu/hr, exhausting to Stack 816.4;

(6) One (1) annealing furnace, identified as annealing furnace #6, constructed in 1964, using natural gas with a maximum heat input rate of 15 MMBtu/hr, exhausting to Stack 816.5;

(7) One (1) annealing furnace, identified as annealing furnace #7, constructed in 1964, using natural gas with a maximum heat input rate of 15 MMBtu/hr, exhausting to Stack 816.6;

(8) One (1) annealing furnace, identified as annealing furnace #8, constructed in 1964, using natural gas with a maximum heat input rate of 15 MMBtu/hr, exhausting to Stack 816.7;

(9) One (1) annealing furnace, identified as annealing furnace #9, constructed in 1964, using natural gas with a maximum heat input rate of 15 MMBtu/hr, exhausting to Stack 816.8;

(10) One (1) annealing furnace, identified as annealing furnace #10, constructed in 1967, using natural gas with a maximum heat input rate of 15 MMBtu/hr, exhausting to Stack 816.9;

(11) One (1) annealing furnace, identified as annealing furnace #11, constructed in 1967, using natural gas with a maximum heat input rate of 15 MMBtu/hr, exhausting to Stack 816.10;

(12) One (1) annealing furnace, identified as annealing furnace #12, constructed in 1969, using natural gas with a maximum heat input rate of 15 MMBtu/hr, exhausting to Stack 816.11;

(13) One (1) annealing furnace, identified as annealing furnace #13, constructed in 1969, using natural gas with a maximum heat input rate of 15 MMBtu/hr, exhausting to Stack 816.12;

(14) One (1) annealing furnace, identified as annealing furnace #14, constructed in 1970, using natural gas with a maximum heat input rate of 48 MMBtu/hr, exhausting to Stack 816.13;

(15) One (1) annealing furnace, identified as annealing furnace #15, constructed in 1970, using natural gas with a maximum heat input rate of 48 MMBtu/hr, exhausting to Stack 816.14;

(16) One (1) annealing furnace, identified as annealing furnace #16, constructed in 1970, using natural gas with a maximum heat input rate of 48 MMBtu/hr, exhausting to Stack 816.15;

(17) One (1) annealing furnace, identified as annealing furnace #17, constructed in 1972, using natural gas with a maximum heat input rate of 48 MMBtu/hr, exhausting to Stack 816.16;

Preheat furnaces

(18) Five (5) preheat furnaces, identified as preheat furnace #2 - #6, constructed prior to 1973 and rebuilt in 1975, using natural gas with a maximum heat input rate of 18 MMBtu/hr each, and exhausting to Stacks 811.2 thru 811.6;

(19) Ten (10) preheat furnaces, identified as preheat furnace #7 - #10, #28-#29, #31-#34, constructed in 1966, using natural gas with a maximum heat input rate of 18 MMBtu/hr each, and exhausting to Stacks #811.7- #811.10, #811.28-#811.29, and #811.31-#811.34;

(20) One (1) preheat furnaces, identified as preheat furnace #35, constructed in 1966, using natural gas with a maximum heat input rate of 18 MMBtu/hr, and exhausting to Stack 811.35;

(21) Eight (8) preheat furnaces, identified as preheat furnace #12 - #19, constructed in 1965, using natural gas with a maximum heat input rate of 12 MMBtu/hr each, and exhausting to Stacks #811.12-#811.19, and #811.26;

(21A) Three (3) preheat furnaces, identified as preheat furnace #22, #24, and #26, constructed in 1965, using natural gas with a maximum heat input rate of 18 MMBtu/hr each, and exhausting to Stacks #811.22, #811.24, and #811.26;

(22) Five (5) preheat furnaces, identified as preheat furnace #36 - #40, constructed in 1969 and rebuilt in 1978, using natural gas with a maximum heat input rate of 18 MMBtu/hr each, and exhausting to Stacks #811.36- #811.40;

(23) Three (3) preheat furnaces, identified as preheat furnace #41 - #43, constructed in 1973, using natural gas with a maximum heat input rate of 18 MMBtu/hr each, and exhausting to Stacks #811.41-#811.43;

(24) Seven (7) preheat furnaces, identified as preheat furnace #11, #20, #21, #23, #25, #27, and #30, constructed in 1969 and rebuilt in 1990, using natural gas with a maximum heat input rate of 18 MMBtu/hr each, and exhausting to Stacks #811.11, #811.20, #811.21, #811.23, #811.25, #811.27, and #811.30;

Boilers

(25) One (1) natural gas fired boiler, identified as Castrol reprocessing system boiler #1, constructed in 1998, with a maximum heat input rate of 12 MMBtu/hr, exhausting to Stack 816B1;

(26) One (1) natural gas fired, boiler, identified as Castrol reprocessing system boiler #2, constructed in 1998, with a maximum heat input rate of 12 MMBtu/hr, exhausting to Stack 816B2; and

(27) One (1) natural gas fired, boiler, identified as Castrol reprocessing system boiler #3, constructed in 1998, with a maximum heat input rate of 12 MMBtu/hr, exhausting to Stack 816B3.

Ingot Surface Treatment, consisting of:

(28) One (1) scalper step cutter, with a maximum capacity of scalping 172 tons of aluminum ingots per hour, constructed in 2001, exhausting to West Silo No. 1, which is controlled by the West Silo No.1 Cyclone, which exhausts at stack 379.1.

(29) One (1) Hot Ingot Oxide Brushing System, with a maximum capacity of 225 tons of aluminum ingot per hour, constructed in 2000, exhausts inside the rolling bay building, and does not directly exhaust externally.

(30) One (1) silo, identified as West Silo No. 1, with a maximum scrap throughput of 13.76 tons per hour, constructed in 1965, emissions uncontrolled, and exhausts at stack 379.1.

(31) One (1) silo, identified as East Silo No. 2, with a maximum scrap throughput of 15.00 tons per hour, constructed in 1965, emissions uncontrolled, and exhausts at stack 379.2.

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

D.7.1 Particulate Emissions Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Rolling Mills emission units shall be limited as follows:

Facility	Maximum Process Weight Rate (tons/hr)	PM Emission Limit (lbs/hr)
Ingot scalping	13.76	23.75
Ingot preheating operation	172	56.9
Ingot brush	225	59.8
Reversing mills	172	56.9
Continuous hot mills	172	56.9
Annealing furnaces	172	56.9
Ingot cold rolling	172	56.9
East Silo No. 2	15	25.2

The above particulate emissions rates were determined from the following formulae:

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

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

Where: E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour.

Or

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour by use of the equation:

$$E = 55.0\ P^{0.11} - 40$$

Where: E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour.

When the process rate exceeds two hundred (200) tons per hour, the allowable emission may exceed the emission limits shown in the above table; provided the concentration of particulate in the discharge gases to the atmosphere is less than one-tenth (0.10) pound per thousand (1,000) pounds of gases.

D.7.2 General Provisions Relating to NSPS, Subpart Dc [326 IAC 12] [40 CFR Part 60, Subpart A]

The provisions of 40 CFR 60, Subpart A – General Provisions, which are incorporated as 326 IAC 12-1, apply to the boilers described in this section except when otherwise specified in 40 CFR 60, Subpart Dc.

D.7.3 Particulate Emissions Limitations for Sources of Indirect Heating [326 IAC 6-2-3] [326 IAC 6-2-4]

(a) Pursuant to 326 IAC 6-2-4 (Particulate Emissions Limitations for Sources of Indirect Heating), the allowable particulate matter (PM) emissions from boiler #1, boiler #2, and boiler #3 shall be limited to 0.10 lb/MMBtu each. The above particulate emissions rates were determined from the following formula:

$$P_t = \frac{1.09}{Q^{0.26}}$$

Where:

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

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 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.

(b) Pursuant to 326 IAC 6-2-3(b) (Particulate Emissions Limitations for Sources of Indirect Heating), the allowable particulate matter (PM) emissions from annealing furnaces #5-#16, and preheat furnaces #7 - #40 shall be limited to 0.021 lb/MMBtu each. The above particulate emissions rate was determined from the following formula:

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

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 (μ/m3) 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 (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;

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; and

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 emission rate as follows:

$$h = \frac{\sum_{i=1}^{N} H_i * pa_i * Q}{\sum_{i=1}^{N} pa_i * Q}$$

Where:

pa = the actual controlled emission rate in lb/MMBtu using the emission factor from AP-42 or stack test data. Stacks constructed after January 1, 1971, shall be credited with GEP stack height only. GEP stack height shall be calculated as specified in 326 IAC 1-7.

Q, N, and h shall include the parameters for all facilities in operation on June 8, 1972. The resulting Pt is the emission limitation for annealing furnaces #5-#16, and preheat furnaces #7 - #40 and will not be affected by the addition of any subsequent facility.

(c) Pursuant to 326 IAC 6-2-3(a) (Particulate Emissions Limitations for Sources of Indirect Heating), the allowable particulate matter (PM) emissions from annealing furnace #17 shall be limited to 0.021 lb/MMBtu. The above particulate emissions rate was determined from the following formula:

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

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 (µ/m3) 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 (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;

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; and

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 emission rate as follows:

$$h = \frac{\sum_{i=1}^{N} H_i * pa_i * Q}{\sum_{i=1}^{N} pa_i * Q}$$

Where:

pa = the actual controlled emission rate in lb/MMBtu using the emission factor from AP-42 or stack test data. Stacks constructed after January 1, 1971, shall be credited with GEP stack height only. GEP stack height shall be calculated as specified in 326 IAC 1-7.

Q, N, and h shall include the parameters for all facilities in operation prior to the installation of annealing furnace #17. The resulting Pt is the emission limitation for annealing furnace #17 and will not be affected by the addition of any subsequent emissions unit.

(d) Pursuant to 326 IAC 6-2-3(a) (Particulate Emissions Limitations for Sources of Indirect Heating), the allowable particulate matter (PM) emissions from preheat furnaces #2 - #6 shall be limited to 0.020 lb/MMBtu each. The above particulate emissions rate was determined from the following formula:

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

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 (µ/m3) 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 (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;

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; and

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 emission rate as follows:

$$h = \frac{\sum_{i=1}^{N} H_i * pa_i * Q}{\sum_{i=1}^{N} pa_i * Q}$$

Where:

pa = the actual controlled emission rate in lb/MMBtu using the emission factor from AP-42 or stack test data. Stacks constructed after January 1, 1971, shall be credited with GEP stack height only. GEP stack height shall be calculated as specified in 326 IAC 1-7.

Q, N, and h shall include the parameters for all facilities in operation prior to the installation of preheat furnaces #2 - #6. The resulting Pt is the emission limitation for preheat furnaces #2 - #6, and will not be affected by the addition of any subsequent emissions unit.

(e) Pursuant to 326 IAC 6-2-3(a) (Particulate Emissions Limitations for Sources of Indirect Heating), the allowable particulate matter (PM) emissions from preheat furnaces #41 - #43 shall be limited to 0.019 lb/MMBtu each. The above particulate emissions rate was determined from the following formula:

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

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 (μ/m3) 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 (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;

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; and

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 emission rate as follows:

$$h = \frac{\sum_{i=1}^{N} H_i * pa_i * Q}{\sum_{i=1}^{N} pa_i * Q}$$

Where:

pa = the actual controlled emission rate in lb/MMBtu using the emission factor from AP-42 or stack test data. Stacks constructed after January 1, 1971, shall be credited with GEP stack height only. GEP stack height shall be calculated as specified in 326 IAC 1-7.

Q, N, and h shall include the parameters for all facilities in operation prior to the installation of preheat furnaces #41 - #43. The resulting Pt is the emission limitation for preheat furnaces #41 - #43 and will not be affected by the addition of any subsequent emissions unit.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] [326 IAC 12] [40 CFR 60, Subpart Dc]

D.7.4 New Source Performance Standard (NSPS) Record Keeping Requirements [326 IAC 12] [40 CFR 60, Subpart Dc]

Pursuant to 40 CFR 60.48c(g), the Permittee shall record and maintain records of the amounts of natural gas combusted in each boiler during each calendar month.

SECTION D.8 COATING PLANT FACILITY OPERATION CONDITIONS

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

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

(1) One (1) electro coat coil coating line no. 6, identified as CPL6, constructed in 1984, with emissions uncontrolled and exhausting to Stacks 819.7, and 819.13-819.15;

(2) One (1) coil coating line no. 2, identified as CCL2, constructed in 1987, with a temporary total enclosure system surrounding the coating stations. Emissions captured by the temporary total enclosure system and generated within the bake oven are controlled by a thermal oxidizer. Total coating line emissions exhausting to Stacks 826.6.

One (1) thermal oxidizer system exhausting to Stacks 826.5 and 826.6;

(3) One (1) coil coating line no. 3, identified as CCL3, constructed in 1987, with a temporary total enclosure system surrounding the coating stations. Emissions captured by the temporary total enclosure system and generated within the bake oven are controlled by a thermal oxidizer. Total coating line emissions exhausting to Stacks 826.1 and 826.2.

One (1) thermal oxidizer system exhausting to Stacks 826.1;

Mix room

(4) One (1) mixing room of solvents for coil coating lines process vats, installed in 1972, with a maximum of coating and solvents usage of 240,000 tons per year, with no control, and exhausting to Stack 847.2;

(5) Ten (10) coating mix stations, identified as Mix Room Stations #1- #10, with a total of fourteen (14) 400 gallon tanks with flat lids. Each of the fourteen (14) total tanks is vertical fixed roof tank located inside Building 847 with no control devices;

Above ground tank farm

(6) Two (2) fixed roof above ground tanks, identified as tanks, 01 and 02, installed in 1997, with a maximum capacity of coatings or solvents storing 16,000 gallons, with no control, exhausting to Stacks 849.1 and 849.2;

(7) Six (6) fixed roof above ground tanks, identified as tanks, 03, 04, 05, 06, 07, and 08, installed in 1997, with a maximum capacity of coatings or solvents storing of 9,700 gallons, with no control, exhausting to Stacks 849.3 – 849.8;

(8) Four (4) fixed roof above ground tanks, identified as tanks, B, C, D, and E, installed in 1997, with a maximum capacity of coatings or solvents storing of 7,800 gallons, with no control, exhausting to Stacks 849.B – 849.E;

Process Support

(9) One (1) underground storage tank, identified as Hazardous Waste Storage Tank, installed in 1992 with a maximum capacity of 7,500 gallons with no control, exhausting to Stack 847.1;

(10) Two (2) fixed roof above ground tanks, identified as clear and gold electrocoat coating Dump Tanks, installed in 1996, with a maximum capacity of 20,000 gallons each, with no control, exhausting to Stacks 819.16 and 819.17;

(11) One (1) fixed roof above ground tank, identified as gold electrocoat coating Unload Tank, installed in 1996, with a maximum capacity of 8,000 gallons, with no control, exhausting to Stack 819.18;

(12) One (1) fixed roof above ground tank, identified as clear electrocoat coating Day Tank, installed in 1996, with a maximum capacity of 3,500 gallons, with no control, exhausting to stack 820.01;

(13) One (1) fixed roof above ground tank, identified as experimental electrocoat coating Day Tank, installed in 1996, with a maximum capacity of 3,500 gallons, with no control, exhausting inside the building;

(14) One (1) fixed roof above ground tank, identified as gold electrocoat coating Day tank, installed in 1996, with a maximum capacity of 3,500 gallons, with no control, exhausting to Stack 819.19; and

(15) One (1) carbon silo, identified as 879 Carbon Silo, installed in 1998 with a maximum capacity of 50,000 pounds and a fill rate of 12.66 tons per hour, with no control, exhausting to Stack 877.4.

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

D.8.1 Particulate Emissions Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emissions rates from Carbon Silo shall be limited to 22.5 lbs/hr.

The above particulate emissions rate was determined from the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour 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.8.2 PSD Minor Limit [326 IAC 2-2]

(a) Pursuant to CP 173-3276, issued on July 14, 1994, the total amount of volatile organic compounds (VOC) delivered to the coater head of the coil coating line CCL2 shall be less than 7,675 tons per 365 consecutive day period, with compliance demonstrated at the end of each day (the overall control efficiency of the VOC capture and control system shall be no less than 96%). Compliance with these VOC limits and the thermal oxidizer's control efficiency of 96% shall render the requirements of Prevention of Significant Deterioration (PSD) rule, 326 IAC 2-2, not applicable for the coil coating line CCL2.

(b) Pursuant to Amendment A 173-5524 to CP 173-4501 issued on May 6, 1996:

(1) The total amount of volatile organic compounds delivered to the coil coating line CCL3 coater head applicator ("Input") shall be less than the amount determined by equation 1 using parameters from Table 1. In addition, the total amount of volatile organic compounds delivered to the coater head applicator shall be limited such that the calculated volatile organic compound emissions, calculated using equation 2, shall be less than 112 tons per 365 consecutive day period, with compliance demonstrated at the end of each day.

Equation 1:

$$\text{Input Limit (tons/365 days)} = \sum_{y=1}^{365}\left(\frac{I_y}{365}\right)$$

Where:

I = the VOC input parameter from Table 1 on day y;

y = the day number in the 365-day roll;

Equation 2:

$$\text{Emission (tons/365 days)} = \frac{\sum_{y=1}^{365}(100\% - R)_y * \sum^{j}(L_i D_i W)_y}{(2{,}000 \text{ lbs / ton})}$$

Where:

y = the day number in the 365-day roll;

j = each subsequent coating and solvent consumed per day;

R = the most recently demonstrated overall reduction efficiency (ORE) on day 1;

L = the quantity of the coating/solvent consumed per day (gallons/day);

D = the density of the coating/solvent consumed (lb/gallon); and

W = the weight percent VOC content of the coating/solvent consumed (as a decimal fraction).

The Permittee may select alternate overall reduction efficiency/ VOC input parameter combinations from the following list of compliance options (Table 1):

Compliance Option	Required ORE (%)	VOC input parameter (tons/365-days)
1	98.0	5,600
2	98.25	6,400
3	98.5	7,467
4	98.75	8,960
5	99.0	11,200
6	99.25	14,933
7	99.5	22,400

The Permittee indicated its selection of Option #4, commencing on May 1, 2004. The Permittee may establish an alternate option through written notification to OAQ at least 14 days prior to the calendar month in which an alternate option is to begin being used for compliance purposes. This notification shall include the following:

(i) The compliance option presently being used, and the new option to be used;

(ii) The date on which the new compliance option is to take effect;

(iii) Documentation showing that the required ORE associated with the new compliance option is less than or equal to the most recently demonstrated ORE in testing conducted pursuant to 326 IAC 3-2.1 (Source Sampling Procedures) using test methods acceptable to the Commissioner; and

(iv) Calculated VOC emissions for the 365 – day period ending prior to submission of the notification.

(2) The enclosure room, the capture system, and the capture system fan's measuring and recording devices shall be operating properly at all times during actual coating operations, at an electrical current across one or more of the fans that provide ventilation exhaust from the coating enclosure that has been demonstrated to maintain an average facial velocity of at least 200 feet per minute across all natural draft openings as measured by EPA Method 204, Equation 204-3. All doors and windows not classified as natural draft openings remain closed at all times during actual coating operations except for brief periods to allow personnel entrance to and exit from the enclosure room All doors and windows not classified as natural draft openings remain closed at all times during actual coating operations except for brief periods to allow personnel entrance to and exit from the enclosure room, and to replace empty coating or solvent containers.

Compliance with these limits shall render the requirements of PSD rule 326 IAC 2-2 not applicable for the No. 3 coil coating line.

D.8.3 PSD Emission Limit [326 IAC 2-2]

Pursuant to PSD Permit PSD (87) 1549 issued on May 29, 1984:

(a) The total amount of VOC usage from the electro coat coil coating line CPL6 minus the VOC lost to the wastewater, shall not exceed 404 tons per twelve consecutive month period with compliance demonstrated at the end of each month;

(b) The Permittee shall measure the wastewater flow from the electro coat line (CPL6) continuously and record the flow totalizing meter each week. The Permittee shall procure VOC samples of the wastewater each week and analyze for VOC content in the wastewater. The VOC lost to the wastewater shall be calculated monthly by multiplying the monthly average VOC content of the wastewater by the total monthly metered flow; and

(c) The Permittee shall only use water based coatings in coil coating line CPL6.

D.8.4 General Provisions Relating to NESHAP [326 IAC 20-1] [40 CFR Part 63, Subpart A] [326 IAC 20-64] [40 CFR 63.5140]

The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-1, apply to all coating lines except when otherwise specified in 40 CFR Part 63, Subpart SSSS. Table 2 of 40 CFR 63 Subpart SSSS provides cross references to 40 CFR 63, Subpart A, indicating the applicability of the General Provisions requirements to 40 CFR 63, Subpart SSSS.

D.8.5 Coil Coating Lines Emission Limits [326 IAC 12] [326 IAC 20-64] [40 CFR 63.5120] [40 CFR 63.5140] [40 CFR 60.462] [326 IAC 8-2-4]

(a) The Permittee shall limit average equivalent organic HAP emissions from coil coating lines CCL2, CCL3, and CPL6 to the level specified in paragraphs (a)(1) of this condition, and also limit VOC emissions from coating line CPL6 to the level specified in (a)(2) of this condition:

(1) No more than 0.046 kilogram (kg) of organic HAP per liter of solids applied during each 12 - month compliance period; and

(2) No more than 0.28 kilogram (kg) of volatile organic compounds (VOC) per liter of solids applied for each calendar month.

(b) The coil coating lines CCL2 and CCL3 shall be in compliance with the standards in Condition D.8.5(a)(1) and the operating requirements in Condition D.8.6 at all times, except during periods of start-up, shutdown, and malfunction of any capture system and control device used to comply with the standards.

(c) The coil coating line CPL6 shall be in compliance with the standards in Condition D.8.5(a) and (b) at all times, including periods of start-up, shutdown, and malfunction.

D.8.6 Operating Requirements for Coil Coating Lines CCL2 and CCL3 [326 IAC 12] [326 IAC 20-64] [40 CFR Part 63.5121] [40 CFR 60.463]

The Permittee shall establish the operating limits during the performance test according to the requirements in 40 CFR 63.5160(d)(3).The Permittee shall meet the operating limits at all times after the operating limits are established except during periods of start-up, shutdown, and malfunction of any capture system and control device used to comply with the emission limits in Condition D.8.5. The Permittee must meet the applicable operating limits as described below:

(a) The Permittee shall not allow the average combustion temperature of the thermal oxidizer in any 3 – hour period to fall below the combustion temperature limit established according to 40 CFR 63.5160(d)(3)(i). The Permittee shall demonstrate continuous compliance with the operating limit by;

(1) collecting the combustion temperature data according to 40 CFR 63.5150(a)(3);

(2) reducing the data to 3 – hour block averages; and

(3) maintaining the 3 – hour average combustion temperature at or above the temperature limit.

(b) The Permittee shall develop a monitoring plan for the capture system that identifies the operating parameter to be monitored and specifies the operating limits according to 40 CFR 63.5150(a)(4) and conduct monitoring according to 40 CFR 63.5150(a)(4).

D.8.7 General Provisions Relating to Hazardous Air Pollutants [326 IAC 20-1] [40 CFR Part 63, Subpart A]

The provisions of 40 CFR Part 63, Subpart A- General Provisions, which are incorporated by reference as 326 IAC 20-1-1, apply to the affected source, except when otherwise specified by Table 12 to 40 CFR Part 63, Subpart EEEE.

D.8.8 National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution, Non-Gasoline [326 IAC 20-83] [40 CFR Part 63, Subpart EEEE]

The Permittee which engages in the organic liquid coating of aluminum coils shall comply with the following provisions of 40 CFR Part 63, Subpart EEEE (included as Attachment A of this permit), with a compliance date of February 5, 2007:

(1) 40 CFR 63.2343(a),
(2) 40 CFR 63.2343(b)(1)(i),
(3) 40 CFR 63.2343(b)(ii)(B),
(4) 40 CFR 63.2343(b)(iii),
(5) 40 CFR 63.2343(b)(2)(i),
(6) 40 CFR 63.2343(b)(3), and
(7) 40 CFR 63.2343(d).

D.8.9 Organic Liquid Distribution Operations – Affected Sources [326 IAC 20-83] [40 CFR 63.2338]

The following emissions units comprise the affected source that is subject to 40 CFR 63, Subpart EEEE:

(a) Two (2) fixed roof above ground tanks, identified as tanks, 01 and 02;

(b) Six (6) fixed roof above ground tanks, identified as tanks, 05, 06, 07, A;

(c) Four (4) fixed roof above ground tanks, identified as tanks, B, C, D, and E;

(d) One (1) underground storage tank, identified as Hazardous Waste Storage Tank;

(e) One (1) fixed roof above ground tanks, identified as gold electrocoat coating Dump Tank; and

(f) One (1) fixed roof above ground tank, identified as gold electrocoat coating Unload Tank.

Compliance Determination Requirements

D.8.10 Compliance Determination Requirements

Compliance with the PSD Emission Limit in Condition D.8.3 shall be determined by combining the weekly samples and analyzing the composite of the weekly samples once per month.

D.8.11 Compliance Demonstration Requirements [326 IAC 12] [326 IAC 20-64] [40 CFR63.5170] [40 CFR 60.463] [326 IAC 8-2-4]

The Permittee shall include all coating materials (as defined in 40 CFR 63.5110) used in the coating lines when determining compliance with the applicable emission limit in Condition D.8.5.

Table - Compliance Demonstration Requirements Index

Coil Coating Lines	**If the Permittee chooses to demonstrate compliance by:**	**Then the Permittee shall demonstrate that:**
Coating Lines CCL2, CCL3, and CPL6, in combination.	Use of a combination of "as applied" coatings and control devices and maintaining an acceptable equivalent emission rate.	Average equivalent emission rate does not exceed 0.046 kg HAP per liter solids on a rolling 12-month average as applied basis, determined monthly. [D.8.5(a)(1)].

Streamlined Compliance Demonstration for Combination of Coil Coating Lines CCL2, CCL3, and CPL 6

(a) Capture and control to achieve the emission rate limit [40 CFR 63.5170(g)] - Since the Permittee uses two capture systems, two thermal oxidizers, operate one never controlled coating line and limits the organic HAP emission rate to no more than 0.046 kg organic HAP emitted per liter of solids applied on a 12-month average as-applied basis, the Permittee must demonstrate compliance according to the procedures in paragraphs (a), (b), (c), (d), (e), (f), and (g) of this condition.

(b) The Permittee shall use the following procedures to determine the organic HAP emissions from coating lines CCL2 and CCL3:

(1) For each thermal oxidizer, each month of the 12-month compliance period, the Permittee shall:

(i) Monitor combustion temperature of the thermal oxidizers to ensure that the thermal oxidizers's destruction efficiencies are maintained [40 CFR 63.5170(g)(3)(i)];

(ii) Monitor fan motor current (amperes) for each fan specified in the capture monitoring plan as established in 40 CFR 63.5150(a)(4) to ensure capture efficiency [40 CFR 63.5170(g)(3)(ii)]; and

(iii) Determine the organic HAP emissions for coating lines CCL2 and CCL3 in accordance with the following [40 CFR 63.5170(g)(3)(iii)]:

(A) For each oxidizer, determine the oxidizer destruction efficiency, DRE, using the procedure in 40 CFR 63.5160(d) [40 CFR 63.5170(f)(1)(i)];

(B) Whenever a work station is operated, continuously monitor the combustion temperature in accordance with 40 CFR 63.5150(a)(3) [40 CFR 63.5170(f)(1)(ii)];

(C) Determine the capture system capture efficiency, CE, for each coating line in accordance with 40 CFR 63.5160(e) [40 CFR 63.5170(f)(1)(iii)];

(D) Whenever a coating line is operated, continuously monitor the fan motor current (amperes) established in accordance with 40 CFR 63.5150(a)(4) [40 CFR 63.5170(f)(1)(iv)];

(E) Calculate the overall organic HAP control efficiency, R, achieved using equation (7) [40 CFR 63.5170(f)(1)(v)]; and

$$R = 100 * \frac{\sum_{A=1}^{W}\left[\left(DRE_k CE_A\right) * \left(\sum_{i=1}^{p} M_{Ai} C_{vi} + \sum_{j=1}^{q} M_{Aj}\right)\right]}{\sum_{i=1}^{p} M_i C_{vi} + \sum_{j=1}^{q} M_j} \quad \text{(Eq. 7)}$$

Where:

R	=	overall organic HAP control efficiency, percent;
DRE_k	=	organic volatile matter destruction efficiency of the thermal oxidizer, k, percent;
CE_A	=	organic volatile matter capture efficiency of the capture system for work station, A, percent;
M_{Ai}	=	mass of coating material, i, applied on work station, A, in a month, kg;
C_{vi}	=	volatile matter content of coating material, i, expressed as a weight fraction, kg/kg;
M_{Aj}	=	mass of solvent, thinner, reducer, diluent, or other non-solids-containing coating material (including H_2O), j, applied on work station, A, in a month, kg;
M_i	=	mass of coating material, i, applied in a month, kg;
M_j	=	mass of solvent, thinner, reducer, diluent, or other non-solids-containing coating material (excluding H_2O), j, applied in a month, kg;
w	=	number of always-controlled work stations in the facility;
p	=	number of different coating materials applied in a month; and
q	=	number of different solvents, thinners, reducers, diluents, or other non-solids-containing coating materials applied in a month.

(F) Calculate the organic HAP emitted during the month, He, for each month for coating lines CCL2 and CCL3 using equation (8) [40 CFR 63.5170(f)(1)(ix)].

$$H_e = \sum_{A=1}^{w}\left[1-\left(DRE_k\,CE_A\right)*\left(\sum_{i=1}^{p}\left(C_{hi}M_{Ai}+\sum_{j=1}^{q}C_{hij}M_{Aij}\right)\right)\right] \quad \text{Eq. (8)}$$

Where:

H_e = total monthly organic HAP emitted, kg;

DRE_k = organic volatile matter destruction efficiency of control device, k, percent;

CE_A = organic volatile matter capture efficiency of the capture system for work station, A, percent;

C_{hi} = organic HAP content of coating material, i, expressed as a weight-fraction, kg/kg;

M_{Ai} = mass of coating material, i, applied on work station, A, in a month, kg;

C_{hij} = organic HAP content of solvent, j, added to coating material, i, expressed as a weight fraction, kg/kg;

M_{Aij} = mass of solvent, thinner, reducer, diluent, or other non-solids-containing coating material, j, added to solids-containing coating material, i, applied on work station, A, in a month, kg;

w = number of always-controlled work stations in the facility;

p = number of different coating materials applied in a month; and

q = number of different solvents, thinners, reducers, diluents, or other non-solids-containing coating materials applied in a month.

For periods when the thermal oxidizer has not operated within its established operating limit, the control device efficiency is determined to be zero.

(c) The Permittee shall use the following procedures for coating line CPL6 [40 CFR 63.5170 (g)(5)]:

(1) Each month of the 12-month compliance period the Permittee must determine the organic HAP applied on coating line CPL6 using equation 9. The organic HAP emitted from coating line CPL6 is equal to the organic HAP applied on coating line CPL6:

$$H_m = \sum_{A=1}^{x}\left(\sum_{i=1}^{p} C_{hi} M_{Ai} + \sum_{j=1}^{q} C_{hij} MA_{Aij}\right) \qquad \text{Eq. (9)}$$

Where:

H_m = total monthly organic HAP applied on coating line CPL6, kg;

C_{hi} = organic HAP content of coating material, i, expressed as a weight-fraction, kg/kg;

M_{Ai} = mass of coating material, i, applied on coating line CPL6, A, in a month, kg;

C_{hij} = organic HAP content of solvent, j, added to coating material, i, expressed as a weight fraction, kg/kg;

M_{Aij} = mass of solvent, thinner, reducer, diluent, or other non-solids-containing coating material, j, added to solids-containing coating material, i, applied on coating line CPL6, A, in a month, kg;

x = number of uncontrolled coating line = 1;

p = number of different coating materials applied in a month; and

q = number of different solvents, thinners, reducers, diluents, or other non-solids-containing coating materials applied in a month.

(d) In each month of the 12-month compliance period, the Permittee shall determine the solids content of each coating material applied during the month following the procedure in 40 CFR 63.5160(c) [40 CFR 63.5170(g)(6)].

(e) The Permittee shall determine the organic HAP emissions for all coil coating lines for each 12-month compliance period by summing all monthly organic HAP emissions [40 CFR 63.5170(g)(7)].

(f) Organic HAP emission rate based on solids applied for the 12-month compliance period, L_{ANNUAL}. Calculate the organic HAP emission rate based on solids applied for the 12-month compliance period, L_{ANNUAL}, using Equation 6 of this section [40 CFR 63.5170(f)(1)(x):

$$L_{ANNUAL} = \frac{\sum_{y=1}^{12} H_e}{\sum_{y=1}^{12}\left[\sum_{i=1}^{p} C_{si} M_i\right]} \qquad \text{Eq. (6)}$$

Where:

L_{ANNUAL} = mass organic HAP emitted per volume of solids applied for the 12-month compliance period, kg/liter;

H_e = total monthly organic HAP emitted, kg;

C_{si} = solids content of coating material, i, expressed as liter of solids/kg of material;

M_i = mass of coating material, i, applied in a month, kg;

y = identifier for months; and

p = number of different coating materials applied in a month.

(g) Compare actual performance to performance required - The coating lines CCL2, CCL3, and CPL6 are in compliance with condition D.8.5(a) for the 12-month compliance period if all the operating parameters required to be monitored under paragraph (b)(1) of this condition were maintained at the values established in 40 CFR 63.5150; and the total mass of organic HAP emitted by the coating lines was not more than 0.046 kg HAP per liter of solids applied for the 12-month compliance period [40 CFR 63.5170(g)(8)].

<u>Coil Coating Line CPL6 (40 CFR 60, Subpart TT)</u>

(h) Calculate the volume-weighted average of the total mass of VOC's per unit volume of coating solids applied (G) during each calendar month for coil coating line CPL6 as follows:

(1) Calculate the volume-weighted average of the total mass of VOC's consumed per unit volume of coating solids applied (G) during each calendar month, except as provided under paragraph 40 CFR 60.463(c)(1)(iv) as follows:

(i) Calculate the mass of VOC's used (Mo+Md) during each calendar month by the following equation:

$$M_o + M_d = \sum_{i=1}^{n} L_{ci} D_{ci} W_{oi} + \sum_{j=1}^{m} L_{dj} D_{dj}$$

Where:

M_o = Mass of VOC's in coatings consumed, as received in kilogram (kg) based on either formulation data supplied by the manufacturer, or by an analysis of each coating as specified by EPA Method 24;

M_d = Mass of VOC-solvent added to the coatings, in kg;

L_c = the volume of each coating consumed, as received in liters;

L_d = the volume of each VOC-solvent added to the coatings in liters (l)

W_o = the proportion of VOC's in each coating, as received (fraction by weight);

D_d = density of each VOC-solvent added to the coatings (kg/l);

$\Sigma L_{dj} D_{dj}$ = will be 0 if no VOC solvent is added to the coatings, as received;

n = the number of different coatings used during calendar month, and

m = the number of different VOC solvents added to coatings used during the calendar month.

(ii) Calculate the total volume of coating solids used (Ls) in each calendar month by the following equation:

$$L_s = \sum_{i=1}^{n} V_{si} L_{ci}$$

Where:

Vs = the proportion of solids in each coating, as received (fraction by volume);

L_c = the volume of each coating consumed, as received in liters;

L_s = total volume of solids used in a calendar month; and

n = the number of different coatings used during the calendar month.

(iii) Calculate the volume-weighted average mass of VOCs used per unit volume of coating solids applied (G) during the calendar month by the following equation:

$$G = \frac{M_o + M_d}{L_s}$$

(2) If the volume-weighted average mass of VOC's emissions, adjusted for the amount of as-supplied VOC removed in the wastewater and other available material balance data for each calendar month (G) is less than or equal to 0.28 kg/l of coating solids applied, then the coil coating line CPL6 is in compliance with the standard. Each monthly calculation is a performance test.

(3) If each individual coating used in coil coating line CPL6 has a VOC content, as received, that is equal to or less than 0.28 kg/l of coating solids, coil coating line CPL6 is in compliance provided no VOCs are added to the coatings during distribution or application.

D.8.12 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11] [326 IAC 12] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-64] [40 CFR 5160] [40 CFR 60.463]

(a) Organic HAP content and solids volume – The Permittee shall determine the organic HAP weight fraction of each coating material applied by following one of the procedures in paragraphs (a)(1) through (2) of this condition:

(1) Method 311 - The Permittee shall test the material in accordance with Method 311 of 40 CFR 63, appendix A. The Method 311 determination may be performed by the manufacturer of the material and the results provided to the Permittee. The organic HAP content must be calculated according to the criteria and procedures in paragraphs (a)(1)(i) through (iii) of this condition:

(i) Count only those organic HAP that are measured to be present at greater than or equal to 0.1 weight percent for Occupational Safety and Health Administration (OSHA)-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and greater than or equal to 1.0 weight percent for other organic HAP compounds;

(ii) Express the weight fraction of each organic HAP you count according to paragraph (b)(1)(i) of this condition as a value truncated to four places after the decimal point (for example, 0.3791); and

(iii) Calculate the total weight fraction of organic HAP in the tested material by summing the counted individual organic HAP weight fractions and truncating the result to three places after the decimal point (for example, 0.763).

(2) Formulation data - The Permittee may use the formulation data provided that the information represents each organic HAP present at a level equal to or greater than 0.1 percent for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and equal to or greater than 1.0 percent for other organic HAP compounds in any raw material used, weighted by the mass fraction of each raw material used in the material. Formulation data may be provided to the Permittee by the manufacturer of the coating material. In the event of any inconsistency between test data obtained with the test methods specified in paragraphs (a)(1) through (2) of this condition and formulation data, the test data will govern.

(b) Solids content - The Permittee must determine the solids content of each coating material applied. The Permittee may determine the volume solids content using ASTM D2697–86 (Reapproved 1998) or ASTM D6093–97 (incorporated by reference, see §63.14), or an EPA approved alternative method. The ASTM D2697–86 (Reapproved 1998) or ASTM D6093–97 determination may be performed by the manufacturer of the material and the results provided to the Permittee. Alternatively, the Permittee may rely on formulation data provided by material providers to determine the volume solids.

(c) Within 5 years from the date of last compliance stack test or one hundred and eighty (180) days after issuance of this permit, whichever is later, the Permittee must conduct a performance test to establish the overall VOC removal efficiency across coating lines CCL2 and CCL3, according to the methods and procedures in 40 CFR 63.5160(d)(2) and (3)(iii). During the performance test, the Permittee must establish the combustion temperature of each thermal oxidizer, required by 40 CFR 63.5121, according to the methods and procedures in 40 CFR 63.5160(d)(3). This test shall be repeated at least once every five years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

The Permittee shall use the data collected during the performance test to calculate and record the average combustion temperature maintained during the performance test for each thermal oxidizer. The average combustion temperature determined is the minimum operating limit for the thermal oxidizer.

(d) Within 5 years from the date of last compliance test or one hundred and eighty (180) days after issuance of this permit, whichever is later, the Permittee must conduct a performance test to establish the capture efficiency of each capture system, according to the methods and procedures in 40 CFR 63.5160(e)(2) and (3). During the performance test, the Permittee must establish the fan motor current (ampere) for each fan for each capture system, required by 40 CFR 63.5121, according to the methods and procedures in 40 CFR 63.5160(d)(3). This test shall be repeated at least once every five years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

The Permittee shall use the data collected during the performance test to calculate and record the average value of the fan motor current (ampere) maintained during the performance test for each fan for each capture system. The average ampere values determined for the fans of each capture system are the minimum operating limits for the coater to oven fan and the maximum operating limits for the floor sweeps fan. A fan amps range can be specified in the capture monitoring plan if a demonstration is included in the test report demonstrating the impact of the requested range on VOC emissions capture and removal efficiency.

Compliance Monitoring Requirements [326 IAC 2-7-6 (1)] [326 IAC 2-7-5 (1)] [326 IAC 12] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-64] [40 CFR 63.5150] [40 CFR 60.464]

D.8.13 Thermal Oxidizer and Capture System Operating Parameters Monitoring

(a) The Permittee shall calibrate, maintain, and operate temperature monitoring equipment according to the manufacturer's specifications. Each temperature monitoring device shall be equipped with a continuous recorder. The device shall have an accuracy of 0.75 percent of the temperature being monitored in degrees Celsius, or 1 deg. Celsius, whichever is greater. [40 CFR 63.5150(a)(3)(i)] [40 CFR 60.464(c)]

(b) The Permittee shall collect the combustion temperature data according to 40 CFR 3.5150(a)(3); reduce the data to 3-hour block averages; and maintain the 3-hour average combustion temperature at or above the temperature limit.

(c) The records required by 40 CFR 60.7 shall identify each such occurrence and its duration.

(d) The Permittee shall develop a capture system monitoring plan containing the information specified in 40 CFR 63.5150(a)(4)(i) and (ii). The Permittee shall monitor the capture system in accordance with 40 CFR 63.5150 (a)(4)(iii). The monitoring plan shall be available for inspection by IDEM, OAQ upon request.

(1) The monitoring plan shall identify the operating parameter to be monitored to ensure that the capture efficiency measured during the initial compliance test is maintained, explain why this parameter is appropriate for demonstrating ongoing compliance, and identify the specific monitoring procedures.

(2) The plan also must specify operating limits at the capture system operating parameter value, or range of values, that demonstrates compliance with the standards in Condition D.8.5. The operating limits must represent the conditions indicative of proper operation and maintenance of the capture system.

(e) The Permittee has selected to monitor the fan motor current as a capture system operating parameter in the current capture system monitoring plan. The Permittee shall conduct monitoring in accordance with the plan, submitted to IDEM, OAQ.

(f) Any deviation from the required operating parameters, which are monitored in accordance with 40 CFR 63.5150 (a)(3) and (4), unless otherwise excused, will be considered a deviation from the operating limit.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] [326 IAC 12] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-64] [326 IAC 20-83] [40 CFR 60.465] [40 CFR 63.5180] [40 CFR 63.5190]

D.8.14 Record Keeping Requirements

(a) To document compliance with Conditions D.8.2, the Permittee shall maintain records as stated below and shall be complete and sufficient to establish compliance with the VOC usage limit established in Condition D.8.2 for coil coating lines CCL2 and CCL3.

The VOC content of each coating material and solvent used less water. Records shall include recorded VOC and HAP application rates and material safety data sheets (MSDS) necessary to verify the type and amount used.

(b) To document compliance with Conditions D.8.3, the Permittee shall maintain records as stated below and shall be complete and sufficient to establish compliance with the VOC usage limit established in condition D.8.3 for electro coat coil coating line CPL6.

The VOC content of each coating material and solvent used less water. Records shall include recorded VOC and HAP application rates and material safety data sheets (MSDS) necessary to verify the type and amount used.

(c) To document compliance with condition D.8.5, the Permittee shall maintain the records in accordance with 40 CFR 63.10(b)(1):

(1) Records specified in 40 CFR 63.10(b)(2) of all measurements needed to demonstrate compliance, including:

(i) Average combustion temperature and average fan motor current (ampere) data in accordance with 40 CFR 63.5150(a)(3), and (4), respectively;

(ii) Organic HAP content data for the purpose of demonstrating compliance in accordance with 40 CFR 63.5160(b);

(iii) Solids content data for the purpose of demonstrating compliance in accordance with 40 CFR 63.5160(c);

(iv) Overall control efficiency determination in accordance with 40 CFR 63.5160(d) and (e), and

(v) Material usage, HAP usage, volatile matter usage, and solids usage and compliance demonstrations using these data in accordance with 40 CFR 63.5170(g).

(2) Records specified in 40 CFR 63.10(b)(3).

(d) To document compliance with Conditions D.8.2, D.8.3, and D.8.5, the Permittee shall maintain records of all data and calculations used to determine the emission rates specified therein.

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

D.8.15 Reporting Requirements [326 IAC 2-2] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 12] [326 IAC 20-64] [40 CFR 63.5180] [40 CFR 60, Subpart TT]

(a) The Permittee shall submit the reports specified in paragraphs (a) (1) through (3) of this condition to the U.S. EPA Regional Office 5 and to IDEM, OAQ:

(1) Start-up, shutdown, and malfunction reports as specified in 40 CFR 63.10(d)(5) for coating lines CCL2 and CCL3. Separate start-up, shutdown, or malfunction reports are not required if the information is included in the report specified in the following paragraph (5) of this condition.

(2) Semi-annual compliance reports containing the information specified in 40 CFR 63.5180(g)(i) and (ii).

(3) For each deviation occurring at a coil coating line, the semi-annual compliance report containing the information in paragraphs 40 CFR 63.5180(g)(2)(i) through (iv) and the information in 40 CFR 63.5180 (h)(1) through (3).

(b) The Permittee shall submit the reports specified in paragraphs (b) (1) through (4) of this condition to IDEM, OAQ:

(1) Performance test reports as specified in 40 CFR 63.10(d)(2).

(2) Identify, record and submit a written report every calendar quarter of each instance in which the volume weighted average of the total mass of the VOCs emitted per volume of applied coating solids from coil coating line CPL6 is greater than the limit specified under 40 CFR 60.462. If no such instances have occurred during a particular quarter, a report stating this shall be submitted semiannually.

(3) A monthly summary of the information to document compliance with condition D.8.2, for coil coating lines CCL2 and CCL3 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 quarter being reported.

(4) A monthly summary of the information to document compliance with condition D.8.3 and D.8.10 for coil coating line CPL6 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting form located at the end of this permit, or its equivalent, within thirty (30) days after the end of the quarter being reported.

(c) These reports shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit. The reports submitted by the Permittee require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

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

VOC Usage Quarterly Report

Source Name: Alcoa Inc. - Warrick Operations
Source Address: Jct. IN Hwys. 66 & 61, Newburgh, Indiana 47629-0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Part 70 Permit No.: T173-6627-0 0007
Facility: Coil Coating line CCL2
Parameter: VOC Usage
Limit: 7,675 tons/365-days of VOC input

Quarter:_____ Month:_____ Year:_____

Day	This Day (Tons)	Previous 364 Days (Tons)	365 Days Total (Tons)	Day	This Day (Tons)	Previous 364 Days (Tons)	365 Days Total (Tons)
1				**17**			
2				**18**			
3				**19**			
4				**20**			
5				**21**			
6				**22**			
7				**23**			
8				**24**			
9				**25**			
10				**26**			
11				**27**			
12				**28**			
13				**29**			
14				**30**			
15				**31**			
16							

☐ No deviation occurred in this month.

☐ Deviation/s occurred in this month.
Deviation has been reported on:

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

Attach a signed certification to complete this report.

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

VOC Usage Quarterly Report

Source Name: Alcoa Inc. - Warrick Operations
Source Address: Jct. IN Hwys. 66 & 61, Newburgh, Indiana 47629
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Part 70 Permit No.: T173-6627-00007
Facility: Coil Coating line CCL3
Parameter: VOC Usage
Limit: 112 tons/365-days

Quarter:_____ Month:_____ Year:_____

Day	This Day (Tons)	Previous 364 Days (Tons)	365 Days Total (Tons)	Day	This Day (Tons)	Previous 364 Days (Tons)	365 Days Total (Tons)
1				**17**			
2				**18**			
3				**19**			
4				**20**			
5				**21**			
6				**22**			
7				**23**			
8				**24**			
9				**25**			
10				**26**			
11				**27**			
12				**28**			
13				**29**			
14				**30**			
15				**31**			
16							

☐ No deviation occurred in this month.

☐ Deviation/s occurred in this month.
Deviation has been reported on:

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

Attach a signed certification to complete this report.

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

VOC Usage Quarterly Report

Source Name: Alcoa, Inc. - Warrick Operations
Source Address: Jct. IN Hwys. 66 & 61, Newburgh, Indiana 47629-0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T173-6627-00007
Facility: Electro Coat Coating Line CPL6
Parameter: VOC Usage
Limit: 404 tons per twelve (12) consecutive month period

Quarter: **Year:** _____

Month	This Month (tons)	Previous 11 Months (tons)	12 Month Total (tons)

☐ No deviation occurred in this quarter.

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

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Telephone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

PART 70 OPERATING PERMIT
CERTIFICATION

Source Name:	Alcoa, Inc. - Warrick Operations
Source Address:	Jct. IN Hwys. 66 & 61, Newburgh, Indiana 47629-0010
Mailing Address:	Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.:	T173-6627-00007

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

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify)

☐ Report (specify)

☐ Notification (specify)

☐ Affidavit (specify)

☐ Other (specify)

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

Signature:
Printed Name:
Title/Position:
Phone:
Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

COMPLIANCE BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name:	Alcoa, Inc. - Warrick Operations
Source Address:	Jct. IN Hwys. 66 & 61, Newburgh, Indiana 47629-0010
Mailing Address:	Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.:	T173-6627-00007

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

☐ 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 317-233-0178, ask for Compliance Section); and

X The Permittee must submit notice in writing or by facsimile within two (**2**) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

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

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

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

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO2, VOC, NOX, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by:

Title / Position:

Date:

Phone:

A certification is not required for this report.

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

PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Alcoa, Inc. - Warrick Operations
Source Address: Jct. IN Hwys. 66 & 61, Newburgh, Indiana 47629-0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T173-6627-00007

Months: to _____ Year:

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

☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

☐ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

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

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

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

Form Completed By:

Title/Position:

Date:

Phone:

Attach a signed certification to complete this report.

Attachment A –National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline) [40 CFR Part 63, Subpart EEEE] [326 IAC 20-83]

Source Description and Location

Source Name:	Alcoa, Inc. – Warrick Operations
Source Location:	Jct. IN Highways 66 and 61, Newburgh, Indiana 47629-0010
Source Mailing Address:	Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
County:	Warrick
SIC Code:	3334 and 3352
Operation Permit No.:	T 173-6627-00007
Operation Permit Issuance Date:	January 5, 2007
Significant Source Modification No.:	173-26029-00007
Significant Permit Modification No.:	173-26037-00007
Permit Reviewer:	Kimberly Cottrell

NESHAP [40 CFR Part 63, Subpart EEEE]

Subpart EEEE—National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)

Source: 69 FR 5063, Feb. 3, 2004, unless otherwise noted.

What This Subpart Covers

§ 63.2330 What is the purpose of this subpart?

This subpart establishes national emission limitations, operating limits, and work practice standards for organic hazardous air pollutants (HAP) emitted from organic liquids distribution (OLD) (non-gasoline) operations at major sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations, operating limits, and work practice standards.

§ 63.2334 Am I subject to this subpart?

(a) Except as provided for in paragraphs (b) and (c) of this section, you are subject to this subpart if you own or operate an OLD operation that is located at, or is part of, a major source of HAP emissions. An OLD operation may occupy an entire plant site or be collocated with other industrial (*e.g.,* manufacturing) operations at the same plant site.

(b) Organic liquid distribution operations located at research and development facilities, consistent with section 112(c)(7) of the Clean Air Act (CAA), are not subject to this subpart.

(c) Organic liquid distribution operations do not include the activities and equipment, including product loading racks, used to process, store, or transfer organic liquids at facilities listed in paragraph (c) (1) and (2) of this section.

(1) Oil and natural gas production field facilities, as the term “facility” is defined in §63.761 of subpart HH.

(2) Natural gas transmission and storage facilities, as the term “facility” is defined in §63.1271 of subpart HHH.

§ 63.2338 What parts of my plant does this subpart cover?

(a) This subpart applies to each new, reconstructed, or existing OLD operation affected source.

(b) Except as provided in paragraph (c) of this section, the affected source is the collection of activities and equipment used to distribute organic liquids into, out of, or within a facility that is a major source of HAP. The affected source is composed of:

(1) All storage tanks storing organic liquids.

(2) All transfer racks at which organic liquids are loaded into or unloaded out of transport vehicles and/or containers.

(3) All equipment leak components in organic liquids service that are associated with:

(i) Storage tanks storing organic liquids;

(ii) Transfer racks loading or unloading organic liquids;

(iii) Pipelines that transfer organic liquids directly between two storage tanks that are subject to this subpart;

(iv) Pipelines that transfer organic liquids directly between a storage tank subject to this subpart and a transfer rack subject to this subpart; and

(v) Pipelines that transfer organic liquids directly between two transfer racks that are subject to this subpart.

(4) All transport vehicles while they are loading or unloading organic liquids at transfer racks subject to this subpart.

(5) All containers while they are loading or unloading organic liquids at transfer racks subject to this subpart.

(c) The equipment listed in paragraphs (c)(1) through (4) of this section and used in the identified operations is excluded from the affected source.

(1) Storage tanks, transfer racks, transport vehicles, containers, and equipment leak components that are part of an affected source under another 40 CFR part 63 national emission standards for hazardous air pollutants (NESHAP).

(2) Non-permanent storage tanks, transfer racks, transport vehicles, containers, and equipment leak components when used in special situation distribution loading and unloading operations (such as maintenance or upset liquids management).

(3) Storage tanks, transfer racks, transport vehicles, containers, and equipment leak components when used to conduct maintenance activities, such as stormwater management, liquid removal from tanks for inspections and maintenance, or changeovers to a different liquid stored in a storage tank.

(d) An affected source is a new affected source if you commenced construction of the affected source after April 2, 2002, and you meet the applicability criteria in §63.2334 at the time you commenced operation.

(e) An affected source is reconstructed if you meet the criteria for reconstruction as defined in §63.2.

(f) An affected source is existing if it is not new or reconstructed.

[69 FR 5063, Feb. 3, 2004, as amended at 71 FR 42904, July 28, 2006]

§ 63.2342 When do I have to comply with this subpart?

(a) If you have a new or reconstructed affected source, you must comply with this subpart according to the schedule identified in paragraph (a)(1), (a)(2), or (a)(3) of this section, as applicable.

(1)(i) Except as provided in paragraph (a)(1)(ii) of this section, if you startup your new affected source on or before February 3, 2004 or if you reconstruct your affected source on or before February 3, 2004, you must comply with the emission limitations, operating limits, and work practice standards for new and reconstructed sources in this subpart no later than February 3, 2004.

(ii) For any emission source listed in paragraph §63.2338(b) at an affected source that commenced construction or reconstruction after April 2, 2002, but before February 3, 2004, that is required to be controlled based on the applicability criteria in this subpart, but:

(A) Would not have been required to be controlled based on the applicability criteria as proposed for this subpart, you must comply with the emission limitations, operating limits, and work practice standards for each such emission source based on the schedule found in paragraph (b) of this section or at startup, whichever is later; or

(B) Would have been subject to a less stringent degree of control requirement as proposed for this subpart, you must comply with the emission limitations, operating limits, and work practice standards in this subpart for each such emission source based on the schedule found in paragraph (b) of this section or at startup, whichever is later, and if you start up your affected new or reconstructed source before February 5, 2007, you must comply with the emission limitations, operating limits, and work practice standards for each such emission source as proposed for this subpart, until you are required to comply with the emission limitations, operating limits, and work practice standards in this subpart for each such emission source based on the schedule found in paragraph (b) of this section.

(2) If you commence construction of or reconstruct your affected source after February 3, 2004, you must comply with the emission limitations, operating limits, and work practice standards for new and reconstructed sources in this subpart upon startup of your affected source.

(3) If, after startup of a new affected source, the total actual annual facility-level organic liquid loading volume at that source exceeds the criteria for control in Table 2 to this subpart, items 9 and 10, the owner or operator must comply with the transfer rack requirements specified in §63.2346(b) immediately; that is, be in compliance the first day of the period following the end of the 3-year period triggering the control criteria.

(b)(1) If you have an existing affected source, you must comply with the emission limitations, operating limits, and work practice standards for existing affected sources no later than February 5, 2007, except as provided in paragraphs (b)(2) and (3) of this section.

(2) Floating roof storage tanks at existing affected sources must be in compliance with the work practice standards in Table 4 to this subpart, item 1, at all times after the next degassing and cleaning activity or within 10 years after February 3, 2004, whichever occurs first. If the first degassing and cleaning activity occurs during the 3 years following February 3, 2004, the compliance date is February 5, 2007.

(3)(i) If an addition or change other than reconstruction as defined in §63.2 is made to an existing affected facility that causes the total actual annual facility-level organic liquid loading volume to exceed the criteria for control in Table 2 to this subpart, items 7 and 8, the owner or operator must comply with the transfer rack requirements specified in §63.2346(b) immediately; that is, be in compliance the first day of the period following the end of the 3-year period triggering the control criteria.

(ii) If the owner or operator believes that compliance with the transfer rack emission limits cannot be achieved immediately, as specified in paragraph (b)(3)(i) of this section, the owner or operator may submit a request for a compliance extension, as specified in paragraphs (b)(3)(ii)(A) through (I) of this section. Subject to paragraph (b)(3)(ii)(B) of this section, until an extension of compliance has been granted by the Administrator (or a State with an approved permit program) under this paragraph (b)(3)(ii), the owner or operator of the transfer rack subject to the requirements of this section shall comply with all applicable requirements of this subpart. Advice on requesting an extension of compliance may be obtained from the Administrator (or the State with an approved permit program).

(A) *Submittal.* The owner or operator shall submit a request for a compliance extension to the Administrator (or a State, when the State has an approved 40 CFR part 70 permit program and the source is required to obtain a 40 CFR part 70 permit under that program, or a State, when the State has been delegated the authority to implement and enforce the emission standard for that source) seeking an extension allowing the source up to 1 additional year to comply with the transfer rack standard, if such additional period is necessary for the installation of controls. The owner or operator of the affected source who has requested an extension of compliance under this paragraph

(b)(3)(ii)(A) and who is otherwise required to obtain a title V permit shall apply for such permit, or apply to have the source's title V permit revised to incorporate the conditions of the extension of compliance. The conditions of an extension of compliance granted under this paragraph (b)(3)(ii)(A) will be incorporated into the affected source's title V permit according to the provisions of 40 CFR part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever are applicable.

(B) *When to submit.* (*1*) Any request submitted under paragraph (b)(3)(ii)(A) of this section must be submitted in writing to the appropriate authority no later than 120 days prior to the affected source's compliance date (as specified in paragraph (b)(3)(i) of this section), except as provided for in paragraph (b)(3)(ii)(B)(*2*) of this section. Nonfrivolous requests submitted under this paragraph (b)(3)(ii)(B)(*1*) will stay the applicability of the rule as to the emission points in question until such time as the request is granted or denied. A denial will be effective as of the date of denial.

(*2*) An owner or operator may submit a compliance extension request after the date specified in paragraph (b)(3)(ii)(B)(*1*) of this section provided the need for the compliance extension arose after that date, and before the otherwise applicable compliance date and the need arose due to circumstances beyond reasonable control of the owner or operator. This request must include, in addition to the information required in paragraph (b)(3)(ii)(C) of this section, a statement of the reasons additional time is needed and the date when the owner or operator first learned of the problems. Nonfrivolous requests submitted under this paragraph (b)(3)(ii)(B)(*2*) will stay the applicability of the rule as to the emission points in question until such time as the request is granted or denied. A denial will be effective as of the original compliance date.

(C) *Information required.* The request for a compliance extension under paragraph (b)(3)(ii)(A) of this section shall include the following information:

(*1*) The name and address of the owner or operator and the address of the existing source if it differs from the address of the owner or operator;

(*2*) The name, address, and telephone number of a contact person for further information;

(*3*) An identification of the organic liquid distribution operation and of the specific equipment for which additional compliance time is required;

(*4*) A description of the controls to be installed to comply with the standard;

(*5*) Justification for the length of time being requested; and

(*6*) A compliance schedule, including the date by which each step toward compliance will be reached. At a minimum, the list of dates shall include:

(*i*) The date by which on-site construction, installation of emission control equipment, or a process change is planned to be initiated;

(*ii*) The date by which on-site construction, installation of emission control equipment, or a process change is to be completed; and

(*iii*) The date by which final compliance is to be achieved.

(D) *Approval of request for extension of compliance.* Based on the information provided in any request made under paragraph (b)(3)(ii)(C) of this section, or other information, the Administrator (or the State with an approved permit program) may grant an extension of compliance with the transfer rack emission standard, as specified in paragraph (b)(3)(ii) of this section. The extension will be in writing and will—

(*1*) Identify each affected source covered by the extension;

(*2*) Specify the termination date of the extension;

(*3*) Specify the dates by which steps toward compliance are to be taken, if appropriate;

(*4*) Specify other applicable requirements to which the compliance extension applies (e.g., performance tests);

(*5*) Specify the contents of the progress reports to be submitted and the dates by which such reports are to be submitted, if required pursuant to paragraph (b)(3)(ii)(E) of this section.

(*6*) Under paragraph (b)(3)(ii) of this section, specify any additional conditions that the Administrator (or the State) deems necessary to assure installation of the necessary controls and protection of the health of persons during the extension period.

(E) *Progress reports.* The owner or operator of an existing source that has been granted an extension of compliance under paragraph (b)(3)(ii)(D) of this section may be required to submit to the Administrator (or the State with an approved permit program) progress reports indicating whether the steps toward compliance outlined in the compliance schedule have been reached.

(F) *Notification of approval or intention to deny.* (*1*) The Administrator (or the State with an approved permit program) will notify the owner or operator in writing of approval or intention to deny approval of a request for an extension of compliance within 30 calendar days after receipt of sufficient information to evaluate a request submitted under paragraph (b)(3)(ii) of this section. The Administrator (or the State) will notify the owner or operator in writing of the status of his/her application; that is, whether the application contains sufficient information to make a determination, within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that is submitted. The 30-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. Failure by the Administrator to act within 30 calendar days to approve or disapprove a request submitted under paragraph (b)(3)(ii) of this section does not constitute automatic approval of the request.

(*2*) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(*3*) Before denying any request for an extension of compliance, the Administrator (or the State with an approved permit program) will notify the owner or operator in writing of the Administrator's (or the State's) intention to issue the denial, together with:

(*i*) Notice of the information and findings on which the intended denial is based; and

(*ii*) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator (or the State) before further action on the request.

(*4*) The Administrator's final determination to deny any request for an extension will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 30 calendar days after presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(G) *Termination of extension of compliance.* The Administrator (or the State with an approved permit program) may terminate an extension of compliance at an earlier date than specified if any specification under paragraph (b)(3)(ii)(D)(*3*) or paragraph (b)(3)(ii)(D)(*4*) of this section is not met. Upon a determination to terminate, the Administrator will notify, in writing, the owner or operator of the Administrator's determination to terminate, together with:

(*1*) Notice of the reason for termination; and

(*2*) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the determination to terminate, additional information or arguments to the Administrator before further action on the termination.

(*3*) A final determination to terminate an extension of compliance will be in writing and will set forth the specific grounds on which the termination is based. The final determination will be made within 30 calendar days after presentation of additional information or arguments, or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(H) The granting of an extension under this section shall not abrogate the Administrator's authority under section 114 of the CAA.

(I) *Limitation on use of compliance extension.* The owner or operator may request an extension of compliance under the provisions specified in paragraph (b)(3)(ii) of this section only once for each facility.

(c) If you have an area source that does not commence reconstruction but increases its emissions or its potential to emit such that it becomes a major source of HAP emissions and an existing affected source subject to this subpart, you must be in compliance by 3 years after the area source becomes a major source.

(d) You must meet the notification requirements in §§63.2343 and 63.2382(a), as applicable, according to the schedules in §63.2382(a) and (b)(1) through (3) and in subpart A of this part. Some of these notifications must be submitted before the compliance dates for the emission limitations, operating limits, and work practice standards in this subpart.

[69 FR 5063, Feb. 3, 2004, as amended at 71 FR 42905, July 28, 2006]

§ 63.2343 What are my requirements for emission sources not requiring control?

This section establishes the notification, recordkeeping, and reporting requirements for emission sources identified in §63.2338 that do not require control under this subpart (i.e., under paragraphs (a) through (e) of §63.2346). Such emission sources are not subject to any other notification, recordkeeping, or reporting sections in this subpart, including §63.2350(c), except as indicated in paragraphs (a) through (d) of this section.

(a) For each storage tank subject to this subpart having a capacity of less than 18.9 cubic meters (5,000 gallons) and for each transfer rack subject to this subpart that only unloads organic liquids (i.e., no organic liquids are loaded at any of the transfer racks), you must keep documentation that verifies that each storage tank and transfer rack identified in paragraph (a) of this section is not required to be controlled. The documentation must be kept up-to-date (i.e., all such emission sources at a facility are identified in the documentation regardless of when the documentation was last compiled) and must be in a form suitable and readily available for expeditious inspection and review according to §63.10(b)(1), including records stored in electronic form in a separate location. The documentation may consist of identification of the tanks and transfer racks identified in paragraph (a) of this section on a plant site plan or process and instrumentation diagram (P&ID).

(b) For each storage tank subject to this subpart having a capacity of 18.9 cubic meters (5,000 gallons) or more that is not subject to control based on the criteria specified in Table 2 to this subpart, items 1 through 6, you must comply with the requirements specified in paragraphs (b)(1) through (3) of this section.

(1)(i) You must submit the information in §63.2386(c)(1), (2), (3), and (10)(i) in either the Notification of Compliance Status, according to the schedule specified in Table 12 to this subpart, or in your first Compliance report, according to the schedule specified in §63.2386(b), whichever occurs first.

(ii)(A) If you submit your first Compliance report before your Notification of Compliance Status, the Notification of Compliance Status must contain the information specified in §63.2386(d)(3) and (4) if any of the changes identified in paragraph (d) of this section have occurred since the filing of the first Compliance report. If none of the changes identified in paragraph (d) of this section have occurred since the filing of the first Compliance report, you do not need to report the information specified in §63.2386(c)(10)(i) when you submit your Notification of Compliance Status.

(B) If you submit your Notification of Compliance Status before your first Compliance report, your first Compliance report must contain the information specified in §63.2386(d)(3) and (4) if any of the changes specified in paragraph (d) of this section have occurred since the filing of the Notification of Compliance Status.

(iii) If you are already submitting a Notification of Compliance Status or a first Compliance report under §63.2386(c), you do not need to submit a separate Notification of Compliance Status or first Compliance report for each storage tank that meets the conditions identified in paragraph (b) of this section (i.e., a single Notification of Compliance Status or first Compliance report should be submitted).

(2)(i) You must submit a subsequent Compliance report according to the schedule in §63.2386(b) whenever any of the events in paragraph (d) of this section occur, as applicable.

(ii) Your subsequent Compliance reports must contain the information in §63.2386(c)(1), (2), (3) and, as applicable, in §63.2386(d)(3) and (4). If you are already submitting a subsequent Compliance report under §63.2386(d), you do not need to submit a separate subsequent Compliance report for each storage tank that meets the conditions identified in paragraph (b) of this section (i.e., a single subsequent Compliance report should be submitted).

(3) For each storage tank that meets the conditions identified in paragraph (b) of this section, you must keep documentation, including a record of the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid, that verifies the storage tank is not required to be controlled under this subpart. The documentation must be kept up-to-date and must be in a form suitable and readily available for expeditious inspection and review according to §63.10(b)(1), including records stored in electronic form in a separate location.

(c) For each transfer rack subject to this subpart that loads organic liquids but is not subject to control based on the criteria specified in Table 2 to this subpart, items 7 through 10, you must comply with the requirements specified in paragraphs (c)(1) through (3) of this section.

(1)(i) You must submit the information in §63.2386(c)(1), (2), (3), and (10)(i) in either the Notification of Compliance Status, according to the schedule specified in Table 12 to this subpart, or a first Compliance report, according to the schedule specified in §63.2386(b), whichever occurs first.

(ii)(A) If you submit your first Compliance report before your Notification of Compliance Status, the Notification of Compliance Status must contain the information specified in §63.2386(d)(3) and (4) if any of the changes identified in paragraph (d) of this section have occurred since the filing of the first Compliance report. If none of the changes identified in paragraph (d) of this section have occurred since the filing of the first Compliance report, you do not need to report the information specified in §63.2386(c)(10)(i) when you submit your Notification of Compliance Status.

(B) If you submit your Notification of Compliance Status before your first Compliance report, your first Compliance report must contain the information specified in §63.2386(d)(3) and (4) if any of the changes specified in paragraph (d) of this section have occurred since the filing of the Notification of Compliance Status.

(iii) If you are already submitting a Notification of Compliance Status or a first Compliance report under §63.2386(c), you do not need to submit a separate Notification of Compliance Status or first Compliance report for each transfer rack that meets the conditions identified in paragraph (b) of this section (i.e., a single Notification of Compliance Status or first Compliance report should be submitted).

(2)(i) You must submit a subsequent Compliance report according to the schedule in §63.2386(b) whenever any of the events in paragraph (d) of this section occur, as applicable.

(ii) Your subsequent Compliance reports must contain the information in §63.2386(c)(1), (2), (3) and, as applicable, in §63.2386(d)(3) and (4). If you are already submitting a subsequent Compliance report under §63.2386(d), you do not need to submit a separate subsequent Compliance report for each transfer rack that meets the conditions identified in paragraph (c) of this section (i.e., a single subsequent Compliance report should be submitted).

(3) For each transfer rack that meets the conditions identified in paragraph (c) of this section, you must keep documentation, including the records specified in §63.2390(d), that verifies the transfer rack is not required to be controlled under this subpart. The documentation must be kept up-to-date and must be in a form suitable and readily available for expeditious inspection and review according to §63.10(b)(1), including records stored in electronic form in a separate location.

(d) If one or more of the events identified in paragraphs (d)(1) through (4) of this section occur since the filing of the Notification of Compliance Status or the last Compliance report, you must submit a subsequent Compliance report as specified in paragraphs (b)(3) and (c)(3) of this section.

(1) Any storage tank or transfer rack became subject to control under this subpart EEEE; or

(2) Any storage tank equal to or greater than 18.9 cubic meters (5,000 gallons) became part of the affected source but is not subject to any of the emission limitations, operating limits, or work practice standards of this subpart; or

(3) Any transfer rack (except those racks at which only unloading of organic liquids occurs) became part of the affected source; or

(4) Any of the information required in §63.2386(c)(1), §63.2386(c)(2), or §63.2386(c)(3) has changed.

[71 FR 42906, July 28, 2006]

Emission Limitations, Operating Limits, and Work Practice Standards

§ 63.2346 What emission limitations, operating limits, and work practice standards must I meet?

(a) *Storage tanks.* For each storage tank storing organic liquids that meets the tank capacity and liquid vapor pressure criteria for control in Table 2 to this subpart, items 1 through 5, you must comply with paragraph (a)(1), (a)(2), (a)(3), or (a)(4) of this section. For each storage tank storing organic liquids that meets the tank capacity and liquid vapor pressure criteria for control in Table 2 to this subpart, item 6, you must comply with paragraph (a)(1), (a)(2), or (a)(4) of this section.

(1) Meet the emission limits specified in Table 2 to this subpart and comply with the applicable requirements specified in 40 CFR part 63, subpart SS, for meeting emission limits, except substitute the term “storage tank” at each occurrence of the term “storage vessel” in subpart SS.

(2) Route emissions to fuel gas systems or back into a process as specified in 40 CFR part 63, subpart SS.

(3) Comply with 40 CFR part 63, subpart WW (control level 2).

(4) Use a vapor balancing system that complies with the requirements specified in paragraphs (a)(4)(i) through (vii) of this section and with the recordkeeping requirements specified in §63.2390(e).

(i) The vapor balancing system must be designed and operated to route organic HAP vapors displaced from loading of the storage tank to the transport vehicle from which the storage tank is filled.

(ii) Transport vehicles must have a current certification in accordance with the United States Department of Transportation (U.S. DOT) pressure test requirements of 49 CFR part 180 for cargo tanks and 49 CFR 173.31 for tank cars.

(iii) Organic liquids must only be unloaded from cargo tanks or tank cars when vapor collection systems are connected to the storage tank's vapor collection system.

(iv) No pressure relief device on the storage tank, or on the cargo tank or tank car, shall open during loading or as a result of diurnal temperature changes (breathing losses).

(v) Pressure relief devices must be set to no less than 2.5 pounds per square inch guage (psig) at all times to prevent breathing losses. Pressure relief devices may be set at values less than 2.5 psig if the owner or operator provides rationale in the notification of compliance status report explaining why the alternative value is sufficient to prevent breathing losses at all times. The owner or operator shall comply with paragraphs (a)(4)(iv)(A) through (C) of this section for each pressure relief valve.

(A) The pressure relief valve shall be monitored quarterly using the method described in §63.180(b).

(B) An instrument reading of 500 parts per million by volume (ppmv) or greater defines a leak.

(C) When a leak is detected, it shall be repaired as soon as practicable, but no later than 5 days after it is detected, and the owner or operator shall comply with the recordkeeping requirements of §63.181(d)(1) through (4).

(vi) Cargo tanks and tank cars that deliver organic liquids to a storage tank must be reloaded or cleaned at a facility that utilizes the control techniques specified in paragraph (a)(4)(vi)(A) or (a)(4)(vi)(B) of this section.

(A) The cargo tank or tank car must be connected to a closed-vent system with a control device that reduces inlet emissions of total organic HAP by 95 percent by weight or greater or to an exhaust concentration less than or equal to 20 ppmv, on a dry basis corrected to 3 percent oxygen for combustion devices using supplemental combustion air.

(B) A vapor balancing system designed and operated to collect organic HAP vapor displaced from the cargo tank or tank car during reloading must be used to route the collected vapor to the storage tank from which the liquid being transferred originated or to another storage tank connected to a common header.

(vii) The owner or operator of the facility where the cargo tank or tank car is reloaded or cleaned must comply with paragraphs (a)(4)(vii)(A) through (D) of this section.

(A) Submit to the owner or operator of the storage tank and to the Administrator a written certification that the reloading or cleaning facility will meet the requirements of paragraph (a)(4)(vii)(A) through (C) of this section. The certifying entity may revoke the written certification by sending a written statement to the owner or operator of the storage tank giving at least 90 days notice that the certifying entity is rescinding acceptance of responsibility for compliance with the requirements of this paragraph (a)(4)(vii) of this section.

(B) If complying with paragraph (a)(4)(vi)(A) of this section, comply with the requirements for a closed vent system and control device as specified in this subpart EEEE. The notification requirements in §63.2382 and the reporting requirements in §63.2386 do not apply to the owner or operator of the offsite cleaning or reloading facility.

(C) If complying with paragraph (a)(4)(vi)(B) of this section, keep the records specified in §63.2390(e)(3) or equivalent recordkeeping approved by the Administrator.

(D) After the compliance dates specified in §63.2342, at an offsite reloading or cleaning facility subject to §63.2346(a)(4), compliance with the monitoring, recordkeeping, and reporting provisions of any other subpart of this part 63 that has monitoring, recordkeeping, and reporting provisions constitutes compliance with the monitoring, recordkeeping and reporting provisions of §63.2346(a)(4)(vii)(B) or §63.2346(a)(4)(vii)(C). You must identify in your notification of compliance status report required by §63.2382(d) the subpart of this part 63 with which the owner or operator of the offsite reloading or cleaning facility complies.

(b) *Transfer racks.* For each transfer rack that is part of the collection of transfer racks that meets the total actual annual facility-level organic liquid loading volume criterion for control in Table 2 to this subpart, items 7 through 10, you must comply with paragraph (b)(1), (b)(2), or (b)(3) of this section for each arm in the transfer rack loading an organic liquid whose organic HAP content meets the organic HAP criterion for control in Table 2 to this subpart, items 7 through 10. For existing affected sources, you must comply with paragraph (b)(1), (b)(2), or (b)(3)(i) of this section during the loading of organic liquids into transport vehicles. For new affected sources, you must comply with paragraph (b)(1), (b)(2), or (b)(3)(i) and (ii) of this section during the loading of organic liquids into transport vehicles and containers. If the total actual annual facility-level organic liquid loading volume at any affected source is equal to or greater than the loading volume criteria for control in Table 2 to this subpart, but at a later date is less than the loading volume criteria for control, compliance with paragraph (b)(1), (b)(2), or (b)(3) of this section is no longer required. For new sources and reconstructed sources, as defined in §63.2338(d) and (e), if at a later date, the total actual annual facility-level organic liquid loading volume again becomes equal to or greater than the loading volume criteria for control in Table 2 to this subpart, the owner or operator must comply with paragraph (b)(1), (b)(2), or (b)(3)(i) and (ii) of this section immediately, as specified in §63.2342(a)(3). For existing sources, as defined in §63.2338(f), if at a later date, the total actual annual facility-level organic liquid loading volume again becomes equal to or greater than the loading volume criteria for control in Table 2 to this subpart, the owner or operator must comply with paragraph (b)(1), (b)(2), or (b)(3)(i) of this section immediately, as specified in §63.2342(b)(3)(i), unless an

alternative compliance schedule has been approved under §63.2342(b)(3)(ii) and subject to the use limitation specified in §63.2342(b)(3)(ii)(I).

(1) Meet the emission limits specified in Table 2 to this subpart and comply with the applicable requirements for transfer racks specified in 40 CFR part 63, subpart SS, for meeting emission limits.

(2) Route emissions to fuel gas systems or back into a process as specified in 40 CFR part 63, subpart SS.

(3)(i) Use a vapor balancing system that routes organic HAP vapors displaced from the loading of organic liquids into transport vehicles to the storage tank from which the liquid being loaded originated or to another storage tank connected to a common header.

(ii) Use a vapor balancing system that routes the organic HAP vapors displaced from the loading of organic liquids into containers directly (e.g., no intervening tank or containment area such as a room) to the storage tank from which the liquid being loaded originated or to another storage tank connected to a common header.

(c) *Equipment leak components.* For each pump, valve, and sampling connection that operates in organic liquids service for at least 300 hours per year, you must comply with the applicable requirements under 40 CFR part 63, subpart TT (control level 1), subpart UU (control level 2), or subpart H. Pumps, valves, and sampling connectors that are insulated to provide protection against persistent sub-freezing temperatures are subject to the “difficult to monitor” provisions in the applicable subpart selected by the owner or operator. This paragraph only applies if the affected source has at least one storage tank or transfer rack that meets the applicability criteria for control in Table 2 to this subpart.

(d) *Transport vehicles.* For each transport vehicle equipped with vapor collection equipment that is loaded at a transfer rack that is subject to control based on the criteria specified in Table 2 to this subpart, items 7 through 10, you must comply with paragraph (d)(1) of this section. For each transport vehicle without vapor collection equipment that is loaded at a transfer rack that is subject to control based on the criteria specified in Table 2 to this subpart, items 7 through 10, you must comply with paragraph (d)(2) of this section.

(1) Follow the steps in 40 CFR 60.502(e) to ensure that organic liquids are loaded only into vapor-tight transport vehicles and comply with the provisions in 40 CFR 60.502(f) through (i), except substitute the term “transport vehicle” at each occurrence of the term “tank truck” or “gasoline tank truck” in those paragraphs.

(2) Ensure that organic liquids are loaded only into transport vehicles that have a current certification in accordance with the U.S. Department of Transportation (DOT) pressure test requirements in 49 CFR part 180 for cargo tanks or 49 CFR 173.31 for tank cars.

(e) *Operating limits.* For each high throughput transfer rack, you must meet each operating limit in Table 3 to this subpart for each control device used to comply with the provisions of this subpart whenever emissions from the loading of organic liquids are routed to the control device. For each storage tank and low throughput transfer rack, you must comply with the requirements for monitored parameters as specified in subpart SS of this part for storage vessels and, during the loading of organic liquids, for low throughput transfer racks, respectively. Alternatively, you may comply with the operating limits in Table 3 to this subpart.

(f) If you elect to demonstrate compliance with a percent reduction requirement in Table 2 to this subpart using total organic compounds (TOC) rather than organic HAP, you must first demonstrate, subject to approval of the Administrator, that TOC is an appropriate surrogate for organic HAP in your case; that is, for your storage tank(s) and/or transfer rack(s), the percent destruction of organic HAP is equal to or higher than the percent destruction of TOC. This demonstration must be conducted prior to or during the initial compliance test.

(g) As provided in §63.6(g), you may request approval from the Administrator to use an alternative to the emission limitations, operating limits, and work practice standards in this section. You must follow the procedures in §63.177(b) through (e) in applying for permission to use such an alternative. If you apply for permission to use an alternative to the emission limitations, operating limits, and work practice standards in this section, you must submit the information described in §63.6(g)(2).

(h) [Reserved]

(i) Opening of a safety device is allowed at any time that it is required to avoid unsafe operating conditions.

(j) If you elect to comply with this subpart by combining emissions from different emission sources subject to this subpart in a single control device, then you must comply with the provisions specified in §63.982(f).

[69 FR 5063, Feb. 3, 2004, as amended at 71 FR 42908, July 28, 2006]

General Compliance Requirements

§ 63.2350 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations, operating limits, and work practice standards in this subpart at all times when the equipment identified in §63.2338(b)(1) through (4) is in OLD operation.

(b) You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in §63.6(e)(1)(i).

(c) Except for emission sources not required to be controlled as specified in §63.2343, you must develop a written startup, shutdown, and malfunction (SSM) plan according to the provisions in §63.6(e)(3).

[69 FR 5063, Feb. 3, 2004, as amended at 71 FR 42909, July 28, 2006]

Testing and Initial Compliance Requirements

§ 63.2354 What performance tests, design evaluations, and performance evaluations must I conduct?

(a)(1) For each performance test that you conduct, you must use the procedures specified in subpart SS of this part and the provisions specified in paragraph (b) of this section.

(2) For each design evaluation you conduct, you must use the procedures specified in subpart SS of this part.

(3) For each performance evaluation of a continuous emission monitoring system (CEMS) you conduct, you must follow the requirements in §63.8(e).

(b)(1) For nonflare control devices, you must conduct each performance test according to the requirements in §63.7(e)(1), and either §63.988(b), §63.990(b), or §63.995(b), using the procedures specified in §63.997(e).

(2) You must conduct three separate test runs for each performance test on a nonflare control device as specified in §§63.7(e)(3) and 63.997(e)(1)(v). Each test run must last at least 1 hour, except as provided in §63.997(e)(1)(v)(A) and (B).

(3)(i) In addition to EPA Method 25 or 25A of 40 CFR part 60, appendix A, to determine compliance with the organic HAP or TOC emission limit, you may use EPA Method 18 of 40 CFR part 60, appendix A, as specified in paragraph (b)(3)(i) of this section. As an alternative to EPA Method 18, you may use ASTM D6420–99 (Reapproved 2004), Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry (incorporated by reference, see §63.14), under the conditions specified in paragraph (b)(3)(ii) of this section.

(A) If you use EPA Method 18 to measure compliance with the percentage efficiency limit, you must first determine which organic HAP are present in the inlet gas stream (i.e., uncontrolled emissions) using knowledge of the organic liquids or the screening procedure described in EPA Method 18. In conducting the performance test, you must analyze samples collected as specified in EPA Method 18, simultaneously at the inlet and outlet of the control device. Quantify the emissions for the same organic HAP identified as present in the inlet gas stream for both the inlet and outlet gas streams of the control device.

(B) If you use EPA Method 18 of 40 CFR part 60, appendix A, to measure compliance with the emission concentration limit, you must first determine which organic HAP are present in the inlet gas stream using knowledge of the organic liquids or the screening procedure described in EPA Method 18. In conducting the performance test, analyze samples collected as specified in EPA Method 18 at the outlet of the control device. Quantify the control device outlet emission concentration for the same organic HAP identified as present in the inlet or uncontrolled gas stream.

(ii) You may use ASTM D6420–99 (Reapproved 2004), Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry (incorporated by reference, see §63.14), as an alternative to EPA Method 18 if the target concentration is between 150 parts per billion by volume and 100 ppmv and either of the conditions specified in paragraph (b)(2)(ii)(A) or (B) of this section exists. For target compounds not listed in Section 1.1 of ASTM D6420–99 (Reapproved 2004) and not amenable to detection by mass spectrometry, you may not use ASTM D6420–99 (Reapproved 2004).

(A) The target compounds are those listed in Section 1.1 of ASTM D6420–99 (Reapproved 2004), Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry (incorporated by reference, see §63.14),; or

(B) For target compounds not listed in Section 1.1 of ASTM D6420–99 (Reapproved 2004), Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry (incorporated by reference, see §63.14), but potentially detected by mass spectrometry, the additional system continuing calibration check after each run, as detailed in ASTM D6420–99 (Reapproved 2004), Section 10.5.3, must be followed, met, documented, and submitted with the data report, even if there is no moisture condenser used or the compound is not considered water-soluble.

(4) If a principal component of the uncontrolled or inlet gas stream to the control device is formaldehyde, you may use EPA Method 316 of appendix A of this part instead of EPA Method 18 of 40 CFR part 60, appendix A, for measuring the formaldehyde. If formaldehyde is the predominant organic HAP in the inlet gas stream, you may use EPA Method 316 alone to measure formaldehyde either at the inlet and outlet of the control device using the formaldehyde control efficiency as a surrogate for total organic HAP or TOC efficiency, or at the outlet of a combustion device for determining compliance with the emission concentration limit.

(5) You may not conduct performance tests during periods of SSM, as specified in §63.7(e)(1).

(c) To determine the HAP content of the organic liquid, you may use EPA Method 311 of 40 CFR part 63, appendix A, or other method approved by the Administrator. In addition, you may use other means, such as voluntary consensus standards, material safety data sheets (MSDS), or certified product data sheets, to determine the HAP content of the organic liquid. If the method you select to determine the HAP content provides HAP content ranges, you must use the upper end of each HAP content range in determining the total HAP content of the organic liquid. The EPA may require you to test the HAP content of an organic liquid using EPA Method 311 or other method approved by the Administrator. If the results of the EPA Method 311 (or any other approved method) are different from the HAP content determined by another means, the EPA Method 311 (or approved method) results will govern.

[69 FR 5063, Feb. 3, 2004, as amended at 71 FR 42909, July 28, 2006]

§ 63.2358 By what date must I conduct performance tests and other initial compliance demonstrations?

(a) You must conduct initial performance tests and design evaluations according to the schedule in §63.7(a)(2), or by the compliance date specified in any applicable State or Federal new source review construction permit to which the affected source is already subject, whichever is earlier.

(b)(1) For storage tanks and transfer racks at existing affected sources complying with the emission limitations listed in Table 2 to this subpart, you must demonstrate initial compliance with the emission limitations within 180 days after February 5, 2007.

(2) For storage tanks and transfer racks at reconstructed or new affected sources complying with the emission limitations listed in Table 2 to this subpart, you must conduct your initial compliance demonstration with the emission limitations within 180 days after the initial startup date for the affected source or February 3, 2004, whichever is later.

(c)(1) For storage tanks at existing affected sources complying with the work practice standard in Table 4 to this subpart, you must conduct your initial compliance demonstration the next time the storage tank is emptied and degassed, but not later than 10 years after February 3, 2004.

(2) For transfer racks and equipment leak components at existing affected sources complying with the work practice standards in Table 4 to this subpart, you must conduct your initial compliance demonstration within 180 days after February 5, 2007.

(d) For storage tanks, transfer racks, and equipment leak components at reconstructed or new affected sources complying with the work practice standards in Table 4 to this subpart, you must conduct your initial compliance demonstration within 180 days after the initial startup date for the affected source.

§ 63.2362 When must I conduct subsequent performance tests?

(a) For nonflare control devices, you must conduct subsequent performance testing required in Table 5 to this subpart, item 1, at any time the EPA requests you to in accordance with section 114 of the CAA.

(b)(1) For each transport vehicle that you own that is equipped with vapor collection equipment and that is loaded with organic liquids at a transfer rack that is subject to control based on the criteria specified in Table 2 to this subpart, items 7 through 10, you must perform the vapor tightness testing required in Table 5 to this subpart, item 2, on that transport vehicle at least once per year.

(2) For transport vehicles that you own that do not have vapor collection equipment, you must maintain current certification in accordance with the U.S. DOT pressure test requirements in 49 CFR part 180 for cargo tanks or 49 CFR 173.31 for tank cars.

[69 FR 5063, Feb. 3, 2004, as amended at 71 FR 42910, July 28, 2006]

§ 63.2366 What are my monitoring installation, operation, and maintenance requirements?

(a) You must install, operate, and maintain a CMS on each control device required in order to comply with this subpart. If you use a continuous parameter monitoring system (CPMS) (as defined in §63.981), you must comply with the applicable requirements for CPMS in subpart SS of this part for the control device being used. If you use a continuous emissions monitoring system (CEMS), you must comply with the requirements in §63.8.

(b) For nonflare control devices controlling storage tanks and low throughput transfer racks, you must submit a monitoring plan according to the requirements in subpart SS of this part for monitoring plans.

§ 63.2370 How do I demonstrate initial compliance with the emission limitations, operating limits, and work practice standards?

(a) You must demonstrate initial compliance with each emission limitation and work practice standard that applies to you as specified in Tables 6 and 7 to this subpart.

(b) You demonstrate initial compliance with the operating limits requirements specified in §63.2346(e) by establishing the operating limits during the initial performance test or design evaluation.

(c) You must submit the results of the initial compliance determination in the Notification of Compliance Status according to the requirements in §63.2382(d).

[69 FR 5063, Feb. 3, 2004, as amended at 71 FR 42910, July 28, 2006]

Continuous Compliance Requirements

§ 63.2374 When do I monitor and collect data to demonstrate continuous compliance and how do I use the collected data?

(a) You must monitor and collect data according to subpart SS of this part and paragraphs (b) and (c) of this section.

(b) When using a control device to comply with this subpart, you must monitor continuously or collect data at all required intervals at all times that the emission source and control device are in OLD operation, except for CMS malfunctions (including any malfunction preventing the CMS from operating properly), associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments).

(c) Do not use data recorded during CMS malfunctions, associated repairs, required quality assurance or control activities, or periods when emissions from organic liquids are not routed to the control device in data averages and calculations used to report emission or operating levels. Do not use such data in fulfilling a minimum data availability requirement, if applicable. You must use all of the data collected during all other periods, including periods of SSM, in assessing the operation of the control device.

§ 63.2378 How do I demonstrate continuous compliance with the emission limitations, operating limits, and work practice standards?

(a) You must demonstrate continuous compliance with each emission limitation, operating limit, and work practice standard in Tables 2 through 4 to this subpart that applies to you according to the methods specified in subpart SS of this part and in Tables 8 through 10 to this subpart, as applicable.

(b) You must follow the requirements in §63.6(e)(1) and (3) during periods of startup, shutdown, malfunction, or nonoperation of the affected source or any part thereof. In addition, the provisions of paragraphs (b)(1) through (3) of this section apply.

(1) The emission limitations in this subpart apply at all times except during periods of nonoperation of the affected source (or specific portion thereof) resulting in cessation of the emissions to which this subpart applies. The emission limitations of this subpart apply during periods of SSM, except as provided in paragraphs (b)(2) and (3) of this section. However, if a SSM, or period of nonoperation of one portion of the affected source does not affect the ability of a particular emission source to comply with the emission limitations to which it is subject, then that emission source is still required to comply with the applicable emission limitations of this subpart during the startup, shutdown, malfunction, or period of nonoperation.

(2) The owner or operator must not shut down control devices or monitoring systems that are required or utilized for achieving compliance with this subpart during periods of SSM while emissions are being routed to such items of equipment if the shutdown would contravene requirements of this subpart applicable to such items of equipment. This paragraph (b)(2) does not apply if the item of equipment is malfunctioning. This paragraph (b)(2) also does not apply if the owner or operator shuts down the compliance equipment (other than monitoring systems) to avoid damage due to a contemporaneous SSM of the affected source or portion thereof. If the owner or operator has reason to believe that monitoring equipment would be damaged due to a contemporaneous SSM of the affected source of portion thereof, the owner or operator must provide documentation supporting such a claim in the next Compliance report required in Table 11 to this subpart, item 1. Once approved by the Administrator, the provision for ceasing to collect, during a SSM, monitoring data that would otherwise be required by the provisions of this subpart must be incorporated into the SSM plan.

(3) During SSM, you must implement, to the extent reasonably available, measures to prevent or minimize excess emissions. For purposes of this paragraph (b)(3), the term “excess emissions” means emissions greater than those allowed by the emission limits that apply during normal operational periods. The measures to be taken must be identified in the SSM plan, and may include, but are not limited to, air pollution control technologies, recovery technologies, work practices, pollution prevention, monitoring, and/or changes in the manner of operation of the affected source. Back-up control devices are not required, but may be used if available.

(c) Periods of planned routine maintenance of a control device used to control storage tanks or transfer racks, during which the control device does not meet the emission limits in Table 2 to this subpart, must not exceed 240 hours per year.

(d) If you elect to route emissions from storage tanks or transfer racks to a fuel gas system or to a process, as allowed by §63.982(d), to comply with the emission limits in Table 2 to this subpart, the total aggregate amount of time during which the emissions bypass the fuel gas system or process during the calendar year without being routed to a control device, for all reasons (except SSM or product changeovers of flexible operation units and periods when a storage tank has been emptied and degassed), must not exceed 240 hours.

[69 FR 5063, Feb. 3, 2004, as amended at 71 FR 20463, Apr. 20, 2006]

Notifications, Reports, and Records

§ 63.2382 What notifications must I submit and when and what information should be submitted?

(a) You must submit each notification in subpart SS of this part, Table 12 to this subpart, and paragraphs (b) through (d) of this section that applies to you. You must submit these notifications according to the schedule in Table 12 to this subpart and as specified in paragraphs (b) through (d) of this section.

(b)(1) *Initial Notification.* If you startup your affected source before February 3, 2004, you must submit the Initial Notification no later than 120 calendar days after February 3, 2004.

(2) If you startup your new or reconstructed affected source on or after February 3, 2004, you must submit the Initial Notification no later than 120 days after initial startup.

(c) If you are required to conduct a performance test, you must submit the Notification of Intent to conduct the test at least 60 calendar days before it is initially scheduled to begin as required in §63.7(b)(1).

(d)(1) *Notification of Compliance Status.* If you are required to conduct a performance test, design evaluation, or other initial compliance demonstration as specified in Table 5, 6, or 7 to this subpart, you must submit a Notification of Compliance Status.

(2) The Notification of Compliance Status must include the information required in §63.999(b) and in paragraphs (d)(2)(i) through (viii) of this section.

(i) The results of any applicability determinations, emission calculations, or analyses used to identify and quantify organic HAP emissions from the affected source.

(ii) The results of emissions profiles, performance tests, engineering analyses, design evaluations, flare compliance assessments, inspections and repairs, and calculations used to demonstrate initial compliance according to Tables 6 and 7 to this subpart. For performance tests, results must include descriptions of sampling and analysis procedures and quality assurance procedures.

(iii) Descriptions of monitoring devices, monitoring frequencies, and the operating limits established during the initial compliance demonstrations, including data and calculations to support the levels you establish.

(iv) Descriptions of worst-case operating and/or testing conditions for the control device(s).

(v) Identification of emission sources subject to overlapping requirements described in §63.2396 and the authority under which you will comply.

(vi) The applicable information specified in §63.1039(a)(1) through (3) for all pumps and valves subject to the work practice standards for equipment leak components in Table 4 to this subpart, item 4.

(vii) If you are complying with the vapor balancing work practice standard for transfer racks according to Table 4 to this subpart, item 3.a, include a statement to that effect and a statement that the pressure vent settings on the affected storage tanks are greater than or equal to 2.5 psig.

(viii) The information specified in §63.2386(c)(10)(i), unless the information has already been submitted with the first Compliance report. If the information specified in §63.2386(c)(10)(i) has already been submitted with the first Compliance report, the information specified in §63.2386(d)(3) and (4), as applicable, shall be submitted instead.

[69 FR 5063, Feb. 3, 2004, as amended at 71 FR 42910, July 28, 2006]

§ 63.2386 What reports must I submit and when and what information is to be submitted in each?

(a) You must submit each report in subpart SS of this part, Table 11 to this subpart, Table 12 to this subpart, and in paragraphs (c) through (e) of this section that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report according to Table 11 to this subpart and by the dates shown in paragraphs (b)(1) through (3) of this section, by the dates shown in subpart SS of this part, and by the dates shown in Table 12 to this subpart, whichever are applicable.

(1)(i) The first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.2342 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your affected source in §63.2342.

(ii) The first Compliance report must be postmarked no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in §63.2342.

(2)(i) Each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(ii) Each subsequent Compliance report must be postmarked no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(3) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) and (2) of this section.

(c) *First Compliance report.* The first Compliance report must contain the information specified in paragraphs (c)(1) through (10) of this section.

(1) Company name and address.

(2) Statement by a responsible official, including the official's name, title, and signature, certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

(3) Date of report and beginning and ending dates of the reporting period.

(4) Any changes to the information listed in §63.2382(d)(2) that have occurred since the submittal of the Notification of Compliance Status.

(5) If you had a SSM during the reporting period and you took actions consistent with your SSM plan, the Compliance report must include the information described in §63.10(d)(5)(i).

(6) If there are no deviations from any emission limitation or operating limit that applies to you and there are no deviations from the requirements for work practice standards, a statement that there were no deviations from the emission limitations, operating limits, or work practice standards during the reporting period.

(7) If there were no periods during which the CMS was out of control as specified in §63.8(c)(7), a statement that there were no periods during which the CMS was out of control during the reporting period.

(8) For closed vent systems and control devices used to control emissions, the information specified in paragraphs (c)(8)(i) and (ii) of this section for those planned routine maintenance activities that would require the control device to not meet the applicable emission limit.

(i) A description of the planned routine maintenance that is anticipated to be performed for the control device during the next 6 months. This description must include the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods.

(ii) A description of the planned routine maintenance that was performed for the control device during the previous 6 months. This description must include the type of maintenance performed and the total number of hours during those 6 months that the control device did not meet the applicable emission limit due to planned routine maintenance.

(9) A listing of all transport vehicles into which organic liquids were loaded at transfer racks that are subject to control based on the criteria specified in table 2 to this subpart, items 7 through 10, during the previous 6 months for which vapor tightness documentation as required in §63.2390(c) was not on file at the facility.

(10)(i) A listing of all transfer racks (except those racks at which only unloading of organic liquids occurs) and of tanks greater than or equal to 18.9 cubic meters (5,000 gallons) that are part of the affected source but are not subject to any of the emission limitations, operating limits, or work practice standards of this subpart.

(ii) If the information specified in paragraph (c)(10)(i) of this section has already been submitted with the Notification of Compliance Status, the information specified in paragraphs (d)(3) and (4) of this section, as applicable, shall be submitted instead.

(d) *Subsequent Compliance reports* . Subsequent Compliance reports must contain the information in paragraphs (c)(1) through (9) of this section and, where applicable, the information in paragraphs (d)(1) through (4) of this section.

(1) For each deviation from an emission limitation occurring at an affected source where you are using a CMS to comply with an emission limitation in this subpart, you must include in the Compliance report the applicable information in paragraphs (d)(1)(i) through (xii) of this section. This includes periods of SSM.

(i) The date and time that each malfunction started and stopped.

(ii) The dates and times that each CMS was inoperative, except for zero (low-level) and high-level checks.

(iii) For each CMS that was out of control, the information in §63.8(c)(8).

(iv) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of SSM, or during another period.

(v) A summary of the total duration of the deviations during the reporting period, and the total duration as a percentage of the total emission source operating time during that reporting period.

(vi) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(vii) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percentage of the total emission source operating time during that reporting period.

(viii) An identification of each organic HAP that was potentially emitted during each deviation based on the known organic HAP contained in the liquid(s).

(ix) A brief description of the emission source(s) at which the CMS deviation(s) occurred.

(x) A brief description of each CMS that was out of control during the period.

(xi) The date of the latest certification or audit for each CMS.

(xii) A brief description of any changes in CMS, processes, or controls since the last reporting period.

(2) Include in the Compliance report the information in paragraphs (d)(2)(i) through (iii) of this section, as applicable.

(i) For each storage tank and transfer rack subject to control requirements, include periods of planned routine maintenance during which the control device did not comply with the applicable emission limits in table 2 to this subpart.

(ii) For each storage tank controlled with a floating roof, include a copy of the inspection record (required in §63.1065(b)) when inspection failures occur.

(iii) If you elect to use an extension for a floating roof inspection in accordance with §63.1063(c)(2)(iv)(B) or (e)(2), include the documentation required by those paragraphs.

(3)(i) A listing of any storage tank that became subject to controls based on the criteria for control specified in table 2 to this subpart, items 1 through 6, since the filing of the last Compliance report.

(ii) A listing of any transfer rack that became subject to controls based on the criteria for control specified in table 2 to this subpart, items 7 through 10, since the filing of the last Compliance report.

(4)(i) A listing of tanks greater than or equal to 18.9 cubic meters (5,000 gallons) that became part of the affected source but are not subject to any of the emission limitations, operating limits, or work practice standards of this subpart, since the last Compliance report.

(ii) A listing of all transfer racks (except those racks at which only the unloading of organic liquids occurs) that became part of the affected source but are not subject to any of the emission limitations, operating limits, or work practice standards of this subpart, since the last Compliance report.

(e) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to table 11 to this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission limitation in this subpart, we will consider submission of the Compliance report as satisfying any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report will not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the applicable title V permitting authority.

[69 FR 5063, Feb. 3, 2004, as amended at 71 FR 42910, July 28, 2006]

§ 63.2390 What records must I keep?

(a) For each emission source identified in §63.2338 that does not require control under this subpart, you must keep all records identified in §63.2343.

(b) For each emission source identified in §63.2338 that does require control under this subpart:

(1) You must keep all records identified in subpart SS of this part and in table 12 to this subpart that are applicable, including records related to notifications and reports, SSM, performance tests, CMS, and performance evaluation plans; and

(2) You must keep the records required to show continuous compliance, as required in subpart SS of this part and in tables 8 through 10 to this subpart, with each emission limitation, operating limit, and work practice standard that applies to you.

(c) For each transport vehicle into which organic liquids are loaded at a transfer rack that is subject to control based on the criteria specified in table 2 to this subpart, items 7 through 10, you must keep the applicable records in paragraphs (c)(1) and (2) of this section or alternatively the verification records in paragraph (c)(3) of this section.

(1) For transport vehicles equipped with vapor collection equipment, the documentation described in 40 CFR 60.505(b), except that the test title is: Transport Vehicle Pressure Test-EPA Reference Method 27.

(2) For transport vehicles without vapor collection equipment, current certification in accordance with the U.S. DOT pressure test requirements in 49 CFR part 180 for cargo tanks or 49 CFR 173.31 for tank cars.

(3) In lieu of keeping the records specified in paragraph (c)(1) or (2) of this section, as applicable, the owner or operator shall record that the verification of U.S. DOT tank certification or Method 27 of appendix A to 40 CFR part 60 testing, required in table 5 to this subpart, item 2, has been performed. Various methods for the record of verification can be used, such as: A check-off on a log sheet, a list of U.S. DOT serial numbers or Method 27 data, or a position description for gate security showing that the security guard will not allow any trucks on site that do not have the appropriate documentation.

(d) You must keep records of the total actual annual facility-level organic liquid loading volume as defined in §63.2406 through transfer racks to document the applicability, or lack thereof, of the emission limitations in table 2 to this subpart, items 7 through 10.

(e) An owner or operator who elects to comply with §63.2346(a)(4) shall keep the records specified in paragraphs (e)(1) through (3) of this section.

(1) A record of the U.S. DOT certification required by §63.2346(a)(4)(ii).

(2) A record of the pressure relief vent setting specified in §63.2348(a)(4)(v).

(3) If complying with §63.2348(a)(4)(vi)(B), keep the records specified in paragraphs (e)(3)(i) and (ii) of this section.

(i) A record of the equipment to be used and the procedures to be followed when reloading the cargo tank or tank car and displacing vapors to the storage tank from which the liquid originates.

(ii) A record of each time the vapor balancing system is used to comply with §63.2348(a)(4)(vi)(B).

[69 FR 5063, Feb. 3, 2004, as amended at 71 FR 42910, July 28, 2006]

§ 63.2394 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious inspection and review according to §63.10(b)(1), including records stored in electronic form at a separate location.

(b) As specified in §63.10(b)(1), you must keep your files of all information (including all reports and notifications) for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You may keep the records off site for the remaining 3 years.

[69 FR 5063, Feb. 3, 2004, as amended at 71 FR 42911, July 28, 2006]

Other Requirements and Information

§ 63.2396 What compliance options do I have if part of my plant is subject to both this subpart and another subpart?

(a) *Compliance with other regulations for storage tanks* . (1) After the compliance dates specified in §63.2342, you are in compliance with the provisions of this subpart for any storage tank that is assigned to the OLD affected source and that is both controlled with a floating roof and is in compliance with the provisions of either 40 CFR part 60, subpart Kb, or 40 CFR part 61, subpart Y, except that records shall be kept for 5 years rather than 2 years for storage tanks that are assigned to the OLD affected source.

(2) After the compliance dates specified in §63.2342, you are in compliance with the provisions of this subpart for any storage tank with a fixed roof that is assigned to the OLD affected source and that is both controlled with a closed vent system and control device and is in compliance with either 40 CFR part 60, subpart Kb, or 40 CFR part 61, subpart Y, except that you must comply with the monitoring, recordkeeping, and reporting requirements in this subpart.

(3) As an alternative to paragraphs (a)(1) and (2) of this section, if a storage tank assigned to the OLD affected source is subject to control under 40 CFR part 60, subpart Kb, or 40 CFR part 61, subpart Y, you may elect to comply only with the requirements of this subpart for storage tanks meeting the applicability criteria for control in table 2 to this subpart.

(b) *Compliance with other regulations for transfer racks* . After the compliance dates specified in §63.2342, if you have a transfer rack that is subject to 40 CFR part 61, subpart BB, and that transfer rack is in OLD operation, you must meet all of the requirements of this subpart for that transfer rack when the transfer rack is in OLD operation during the loading of organic liquids.

(c) *Compliance with other regulations for equipment leak components.* (1) After the compliance dates specified in §63.2342, if you have pumps, valves, or sampling connections that are subject to a 40 CFR part 60 subpart, and those pumps, valves, and sampling connections are in OLD operation and in organic liquids service, as defined in this subpart, you must comply with the provisions of each subpart for those equipment leak components.

(2) After the compliance dates specified in §63.2342, if you have pumps, valves, or sampling connections subject to 40 CFR part 63, subpart GGG, and those pumps, valves, and sampling connections are in OLD operation and in organic liquids service, as defined in this subpart, you may elect to comply with the provisions of this subpart for all such equipment leak components. You must identify in the Notification of Compliance Status required by §63.2382(b) the provisions with which you will comply.

(d) [Reserved]

(e) *Overlap with other regulations for monitoring, recordkeeping, and reporting* —(1) *Control devices* . After the compliance dates specified in §63.2342, if any control device subject to this subpart is also subject to monitoring, recordkeeping, and reporting requirements of another 40 CFR part 63 subpart, the owner or operator must be in compliance with the monitoring, recordkeeping, and reporting requirements of this subpart EEEE. If complying with the monitoring, recordkeeping, and reporting requirements of the other subpart satisfies the monitoring, recordkeeping, and reporting requirements of this subpart, the owner or operator may elect to continue to comply with the monitoring, recordkeeping, and reporting requirements of the other subpart. In such instances, the owner or operator will be deemed to be in compliance with the monitoring, recordkeeping, and reporting requirements of this subpart. The owner or operator must identify the other subpart being complied with in the Notification of Compliance Status required by §63.2382(b).

(2) *Equipment leak components* . After the compliance dates specified in §63.2342, if you are applying the applicable recordkeeping and reporting requirements of another 40 CFR part 63 subpart to the valves, pumps, and sampling connection systems associated with a transfer rack subject to this subpart that only unloads organic liquids directly to or via pipeline to a non-tank process unit component or to a storage tank subject to the other 40 CFR part 63 subpart, the owner or operator must be in compliance with the recordkeeping and reporting requirements of this subpart EEEE. If complying with the recordkeeping and reporting requirements of the other subpart satisfies the recordkeeping and reporting requirements of this subpart, the owner or operator may elect to continue to comply with the recordkeeping and reporting requirements of the other subpart. In such instances, the owner or operator will be deemed to be in compliance with the recordkeeping and reporting requirements of this subpart. The owner or operator must identify the other subpart being complied with in the Notification of Compliance Status required by §63.2382(b).

[69 FR 5063, Feb. 3, 2004, as amended at 71 FR 42911, July 28, 2006]

§ 63.2398 What parts of the General Provisions apply to me?

Table 12 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you.

§ 63.2402 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by the U.S. Environmental Protection Agency (U.S. EPA) or a delegated authority such as your State, local, or eligible tribal agency. If the EPA Administrator has delegated authority to your State, local, or eligible tribal agency, then that agency, as well as the EPA, has the authority to implement and enforce this subpart. You should contact your EPA Regional Office (see list in §63.13) to find out if this subpart is delegated to your State, local, or eligible tribal agency.

(b) In delegating implementation and enforcement authority for this subpart to a State, local, or eligible tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraphs (b)(1) through (4) of this section are retained by the EPA Administrator and are not delegated to the State, local, or eligible tribal agency.

(1) Approval of alternatives to the nonopacity emission limitations, operating limits, and work practice standards in §63.2346(a) through (c) under §63.6(g).

(2) Approval of major changes to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.

(3) Approval of major changes to monitoring under §63.8(f) and as defined in §63.90.

(4) Approval of major changes to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

[69 FR 5063, Feb. 3, 2004, as amended at 71 FR 42911, July 28, 2006]

§ 63.2406 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in §63.2, 40 CFR part 63, subparts H, PP, SS, TT, UU, and WW, and in this section. If the same term is defined in another subpart and in this section, it will have the meaning given in this section for purposes of this subpart. Notwithstanding the introductory language in §63.921, the terms “container” and “safety device” shall have the meaning found in this subpart and not in §63.921.

Actual annual average temperature, for organic liquids, means the temperature determined using the following methods:

(1) For heated or cooled storage tanks, use the calculated annual average temperature of the stored organic liquid as determined from a design analysis of the storage tank.

(2) For ambient temperature storage tanks:

(i) Use the annual average of the local (nearest) normal daily mean temperatures reported by the National Climatic Data Center; or

(ii) Use any other method that the EPA approves.

Annual average true vapor pressure means the equilibrium partial pressure exerted by the total table 1 organic HAP in the stored or transferred organic liquid. For the purpose of determining if a liquid meets the definition of an organic liquid, the vapor pressure is determined using standard conditions of 77 degrees F and 29.92 inches of mercury. For the purpose of determining whether an organic liquid meets the applicability criteria in table 2, items 1 through 6, to this subpart, use the actual annual average temperature as defined in this subpart. The vapor pressure value in either of these cases is determined:

(1) In accordance with methods described in American Petroleum Institute Publication 2517, Evaporative Loss from External Floating-Roof Tanks (incorporated by reference, see §63.14);

(2) Using standard reference texts;

(3) By the American Society for Testing and Materials Method D2879–83, 96 (incorporated by reference, see §63.14); or

(4) Using any other method that the EPA approves.

Bottoms receiver means a tank that collects distillation bottoms before the stream is sent for storage or for further processing downstream.

Cargo tank means a liquid-carrying tank permanently attached and forming an integral part of a motor vehicle or truck trailer. This term also refers to the entire cargo tank motor vehicle or trailer. For the purpose of this subpart, vacuum trucks used exclusively for maintenance or spill response are not considered cargo tanks.

Closed vent system means a system that is not open to the atmosphere and is composed of piping, ductwork, connections, and, if necessary, flow-inducing devices that transport gas or vapors from an emission point to a control device. This system does not include the vapor collection system that is part of some transport vehicles or the loading arm or hose that is used for vapor return. For transfer racks, the closed vent system begins at, and includes, the first block valve on the downstream side of the loading arm or hose used to convey displaced vapors.

Combustion device means an individual unit of equipment, such as a flare, oxidizer, catalytic oxidizer, process heater, or boiler, used for the combustion of organic emissions.

Container means a portable unit in which a material can be stored, transported, treated, disposed of, or otherwise handled. Examples of containers include, but are not limited to, drums and portable cargo containers known as “portable tanks” or “totes.”

Control device means any combustion device, recovery device, recapture device, or any combination of these devices used to comply with this subpart. Such equipment or devices include, but are not limited to, absorbers, adsorbers, condensers, and combustion devices. Primary condensers, steam strippers, and fuel gas systems are not considered control devices.

Crude oil means any of the naturally occurring liquids commonly referred to as crude oil, regardless of specific physical properties. Only those crude oils downstream of the first point of custody transfer after the production field are considered crude oils in this subpart.

Custody transfer means the transfer of hydrocarbon liquids after processing and/or treatment in the producing operations, or from storage tanks or automatic transfer facilities to pipelines or any other forms of transportation.

Design evaluation means a procedure for evaluating control devices that complies with the requirements in §63.985(b)(1)(i).

Deviation means any instance in which an affected source subject to this subpart, or portion thereof, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limitation (including any operating limit) or work practice standard;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart, and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation (including any operating limit) or work practice standard in this subpart during SSM.

Emission limitation means an emission limit, opacity limit, operating limit, or visible emission limit.

Equipment leak component means each pump, valve, and sampling connection system used in organic liquids service at an OLD operation. Valve types include control, globe, gate, plug, and ball. Relief and check valves are excluded.

Gasoline means any petroleum distillate or petroleum distillate/alcohol blend having a Reid vapor pressure of 27.6 kilopascals (4.0 pounds per square inch absolute (psia)) or greater which is used as a fuel for internal combustion engines. Aviation gasoline is included in this definition.

High throughput transfer rack means those transfer racks that transfer into transport vehicles (for existing affected sources) or into transport vehicles and containers (for new affected sources) a total of 11.8 million liters per year or greater of organic liquids.

In organic liquids service means that an equipment leak component contains or contacts organic liquids having 5 percent by weight or greater of the organic HAP listed in Table 1 to this subpart.

Low throughput transfer rack means those transfer racks that transfer into transport vehicles (for existing affected sources) or into transport vehicles and containers (for new affected sources) less than 11.8 million liters per year of organic liquids.

On-site or *on site* means, with respect to records required to be maintained by this subpart or required by another subpart referenced by this subpart, that records are stored at a location within a major source which encompasses the affected source. On-site includes, but is not limited to, storage at the affected source to which the records pertain, storage in central files elsewhere at the major source, or electronically available at the site.

Organic liquid means:

(1) Any non-crude oil liquid or liquid mixture that contains 5 percent by weight or greater of the organic HAP listed in Table 1 to this subpart, as determined using the procedures specified in §63.2354(c).

(2) Any crude oils downstream of the first point of custody transfer.

(3) Organic liquids for purposes of this subpart do not include the following liquids:

(i) Gasoline (including aviation gasoline), kerosene (No. 1 distillate oil), diesel (No. 2 distillate oil), asphalt, and heavier distillate oils and fuel oils;

(ii) Any fuel consumed or dispensed on the plant site directly to users (such as fuels for fleet refueling or for refueling marine vessels that support the operation of the plant);

(iii) Hazardous waste;

(iv) Wastewater;

(v) Ballast water: or

(vi) Any non-crude oil liquid with an annual average true vapor pressure less than 0.7 kilopascals (0.1 psia).

Organic liquids distribution (OLD) operation means the combination of activities and equipment used to store or transfer organic liquids into, out of, or within a plant site regardless of the specific activity being performed. Activities include, but are not limited to, storage, transfer, blending, compounding, and packaging.

Permitting authority means one of the following:

(1) The State Air Pollution Control Agency, local agency, or other agency authorized by the EPA Administrator to carry out a permit program under 40 CFR part 70; or

(2) The EPA Administrator, in the case of EPA-implemented permit programs under title V of the CAA (42 U.S.C. 7661) and 40 CFR part 71.

Plant site means all contiguous or adjoining surface property that is under common control, including surface properties that are separated only by a road or other public right-of-way. Common control includes surface properties that are owned, leased, or operated by the same entity, parent entity, subsidiary, or any combination.

Research and development facility means laboratory and pilot plant operations whose primary purpose is to conduct research and development into new processes and products, where the operations are under the close supervision of technically trained personnel, and which are not engaged in the manufacture of products for commercial sale, except in a *de minimis* manner.

Responsible official means responsible official as defined in 40 CFR 70.2 and 40 CFR 71.2, as applicable.

Safety device means a closure device such as a pressure relief valve, frangible disc, fusible plug, or any other type of device that functions exclusively to prevent physical damage or permanent deformation to a unit or its air emission control equipment by venting gases or vapors directly to the atmosphere during unsafe conditions resulting from an unplanned, accidental, or emergency event.

Shutdown means the cessation of operation of an OLD affected source, or portion thereof (other than as part of normal operation of a batch-type operation), including equipment required or used to comply with this subpart, or the emptying and degassing of a storage tank. Shutdown as defined here includes, but is not limited to, events that result from periodic maintenance, replacement of equipment, or repair.

Startup means the setting in operation of an OLD affected source, or portion thereof (other than as part of normal operation of a batch-type operation), for any purpose. Startup also includes the placing in operation of any individual piece of equipment required or used to comply with this subpart including, but not limited to, control devices and monitors.

Storage tank means a stationary unit that is constructed primarily of nonearthen materials (such as wood, concrete, steel, or reinforced plastic) that provide structural support and is designed to hold a bulk quantity of liquid. Storage tanks do not include:

(1) Units permanently attached to conveyances such as trucks, trailers, rail cars, barges, or ships;

(2) Pressure vessels designed to operate in excess of 204.9 kilopascals and without emissions to the atmosphere;

(3) Bottoms receivers;

(4) Surge control vessels;

(5) Vessels storing wastewater; or

(6) Reactor vessels associated with a manufacturing process unit.

Surge control vessel means feed drums, recycle drums, and intermediate vessels. Surge control vessels are used within chemical manufacturing processes when in-process storage, mixing, or management of flow rates or volumes is needed to assist in production of a product.

Tank car means a car designed to carry liquid freight by rail, and including a permanently attached tank.

Total actual annual facility-level organic liquid loading volume means the total facility-level actual volume of organic liquid loaded for transport within or out of the facility through transfer racks that are part of the affected source into transport vehicles (for existing affected sources) or into transport vehicles and containers (for new affected sources) based on a 3-year rolling average, calculated annually.

(1) For existing affected sources, each 3-year rolling average is based on actual facility-level loading volume during each calendar year (January 1 through December 31) in the 3-year period. For calendar year 2004 only (the first year of the initial 3-year rolling average), if an owner or operator of an affected source does not have actual loading volume data for the time period from January 1, 2004, through February 2, 2004 (the time period prior to the effective date of the OLD NESHAP), the owner or operator shall compute a facility-level loading volume for this time period as follows: At the end of the 2004 calendar year, the owner or operator shall calculate a daily average facility-level loading volume (based on the actual loading volume for February 3, 2004, through December 31, 2004) and use that daily average to estimate the facility-level loading volume for the period of time from January 1, 2004, through February 2, 2004. The owner or operator shall then sum the estimated facility-level loading volume from January 1, 2004, through February 2, 2004, and the actual facility-level loading volume from February 3, 2004, through December 31, 2004, to calculate the annual facility-level loading volume for calendar year 2004.

(2)(i) For new affected sources, the 3-year rolling average is calculated as an average of three 12-month periods. An owner or operator must select as the beginning calculation date with which to start the calculations as either the initial startup date of the new affected source or the first day of the calendar month following the month in which startup occurs. Once selected, the date with which the calculations begin cannot be changed.

(ii) The initial 3-year rolling average is based on the projected maximum facility-level annual loading volume for each of the 3 years following the selected beginning calculation date. The second 3-year rolling average is based on actual facility-level loading volume for the first year of operation plus a new projected maximum facility-level annual loading volume for second and third years following the selected beginning calculation date. The third 3-year rolling average is based on actual facility-level loading volume for the first 2 years of operation plus a new projected maximum annual facility-level loading volume for the third year following the beginning calculation date. Subsequent 3-year rolling averages are based on actual facility-level loading volume for each year in the 3-year rolling average.

Transfer rack means a single system used to load organic liquids into, or unload organic liquids out of, transport vehicles or containers. It includes all loading and unloading arms, pumps, meters, shutoff valves, relief valves, and other piping and equipment necessary for the transfer operation. Transfer equipment and operations that are physically separate (i.e., do not share common piping, valves, and other equipment) are considered to be separate transfer racks.

Transport vehicle means a cargo tank or tank car.

Vapor balancing system means:

(1) A piping system that collects organic HAP vapors displaced from transport vehicles or containers during loading and routes the collected vapors to the storage tank from which the liquid being loaded originated or to another storage tank connected to a common header. For containers, the piping system must route the displaced vapors directly to the appropriate storage tank or to another storage tank connected to a common header in order to qualify as a vapor balancing system; or

(2) A piping system that collects organic HAP vapors displaced from the loading of a storage tank and routes the collected vapors to the transport vehicle from which the storage tank is filled.

Vapor collection system means any equipment located at the source (i.e., at the OLD operation) that is not open to the atmosphere; that is composed of piping, connections, and, if necessary, flow-inducing devices; and that is used for:

(1) Containing and conveying vapors displaced during the loading of transport vehicles to a control device;

(2) Containing and directly conveying vapors displaced during the loading of containers; or

(3) Vapor balancing. This does not include any of the vapor collection equipment that is installed on the transport vehicle.

Vapor-tight transport vehicle means a transport vehicle that has been demonstrated to be vapor-tight. To be considered vapor-tight, a transport vehicle equipped with vapor collection equipment must undergo a pressure change of no more than 250 pascals (1 inch of water) within 5 minutes after it is pressurized to 4,500 pascals (18 inches of water). This capability must be demonstrated annually using the procedures specified in EPA Method 27 of 40 CFR part 60, appendix A. For all other transport vehicles, vapor tightness is demonstrated by performing the U.S. DOT pressure test procedures for tank cars and cargo tanks.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the CAA.

[69 FR 5063, Feb. 3, 2004, as amended at 71 FR 42911, July 28, 2006]

Table 1 to Subpart EEEE of Part 63—Organic Hazardous Air Pollutants

You must use the organic HAP information listed in the following table to determine which of the liquids handled at your facility meet the HAP content criteria in the definition of Organic Liquid in §63.2406.

Compound name	CAS No.[1]
2,4-D salts and esters	94–75–7
Acetaldehyde	75–07–0
Acetonitrile	75–05–8
Acetophenone	98–86–2
Acrolein	107–02–8
Acrylamide	79–06–1
Acrylic acid	79–10–7
Acrylonitrile	107–13–1
Allyl chloride	107–05–1
Aniline	62–53–3
Benzene	71–43–2
Biphenyl	92–52–4
Butadiene (1,3-)	106–99–0
Carbon tetrachloride	56–23–5
Chloroacetic acid	79–11–8
Chlorobenzene	108–90–7
2-Chloro-1,3-butadiene (Chloroprene)	126–99–8

Table 1 to Subpart EEEE of Part 63—Organic Hazardous Air Pollutants	
You must use the organic HAP information listed in the following table to determine which of the liquids handled at your facility meet the HAP content criteria in the definition of Organic Liquid in §63.2406.	
Compound name	**CAS No.[1]**
Chloroform	67–66–3
m-Cresol	108–39–4
o-Cresol	95–48–7
p-Cresol	106–44–5
Cresols/cresylic acid	1319–77–3
Cumene	98–82–8
Dibenzofurans	132–64–9
Dibutylphthalate	84–74–2
Dichloroethane (1,2-) (Ethylene dichloride) (EDC)	107–06–2
Dichloropropene (1,3-)	542–75–6
Diethanolamine	111–42–2
Diethyl aniline (N,N-)	121–69–7
Diethylene glycol monobutyl ether	112–34–5
Diethylene glycol monomethyl ether	111–77–3
Diethyl sulfate	64–67–5
Dimethyl formamide	68–12–2
Dimethylhydrazine (1,1-)	57–14–7
Dioxane (1,4-) (1,4-Diethyleneoxide)	123–91–1
Epichlorohydrin (1-Chloro-2,3-epoxypropane)	106–89–8
Epoxybutane (1,2-)	106–88–7
Ethyl acrylate	140–88–5
Ethylbenzene	100–41–4
Ethyl chloride (Chloroethane)	75–00–3
Ethylene dibromide (Dibromomethane)	106–93–4
Ethylene glycol	107–21–1
Ethylene glycol dimethyl ether	110–71–4
Ethylene glycol monomethyl ether	109–86–4
Ethylene glycol monomethyl ether acetate	110–49–6
Ethylene glycol monophenyl ether	122–99–6
Ethylene oxide	75–21–8
Ethylidene dichloride (1,1-Dichloroethane)	75–34–3

Table 1 to Subpart EEEE of Part 63—Organic Hazardous Air Pollutants	
You must use the organic HAP information listed in the following table to determine which of the liquids handled at your facility meet the HAP content criteria in the definition of Organic Liquid in §63.2406.	
Compound name	**CAS No.[1]**
Formaldehyde	50–00–0
Hexachloroethane	67–72–1
Hexane	110–54–3
Hydroquinone	123–31–9
Isophorone	78–59–1
Maleic anhydride	108–31–6
Methanol	67–56–1
Methyl chloride (Chloromethane)	74–87–3
Methylene chloride (Dichloromethane)	75–09–2
Methylenedianiline (4,4′-)	101–77–9
Methylene diphenyl diisocyanate	101–68–8
Methyl hydrazine	60–34–4
Methyl isobutyl ketone (Hexone) (MIBK)	108–10–1
Methyl methacrylate	80–62–6
Methyl tert-butyl ether (MTBE)	1634–04–4
Naphthalene	91–20–3
Nitrobenzene	98–95–3
Phenol	108–9–52
Phthalic anhydride	85–44–9
Polycyclic organic matter	50–32–8
Propionaldehyde	123–38–6
Propylene dichloride (1,2-Dichloropropane)	78–87–5
Propylene oxide	75–56–9
Quinoline	91–22–5
Styrene	100–42–5
Styrene oxide	96–09–3
Tetrachloroethane (1,1,2,2-)	79–34–5
Tetrachloroethylene (Perchloroethylene)	127–18–4
Toluene	108–88–3
Toluene diisocyanate (2,4-)	584–84–9
o-Toluidine	95–53–4

Table 1 to Subpart EEEE of Part 63—Organic Hazardous Air Pollutants	
You must use the organic HAP information listed in the following table to determine which of the liquids handled at your facility meet the HAP content criteria in the definition of Organic Liquid in §63.2406.	
Compound name	**CAS No.[1]**
Trichlorobenzene (1,2,4-)	120–82–1
Trichloroethane (1,1,1-) (Methyl chloroform)	71–55–6
Trichloroethane (1,1,2-) (Vinyl trichloride)	79–00–5
Trichloroethylene	79–01–6
Triethylamine	121–44–8
Trimethylpentane (2,2,4-)	540–84–1
Vinyl acetate	108–05–4
Vinyl chloride (Chloroethylene)	75–01–4
Vinylidene chloride (1,1-Dichloroethylene)	75–35–4
Xylene (m-)	108–38–3
Xylene (o-)	95–47–6
Xylene (p-)	106–42–3
Xylenes (isomers and mixtures)	1330–20–7

[1]CAS numbers refer to the Chemical Abstracts Services registry number assigned to specific compounds, isomers, or mixtures of compounds.

[69 FR 5063, Feb. 3, 2004, as amended at 71 FR 42913, July 28, 2006]

Table 2 to Subpart EEEE of Part 63—Emission Limits		
As stated in §63.2346, you must comply with the emission limits for the organic liquids distribution emission sources as follows:		
If you own or operate...	**And if...**	**Then you must...**
1. A storage tank at an existing affected source with a capacity ≥18.9 cubic meters (5,000 gallons) and <189.3 cubic meters (50,000 gallons).	a. The stored organic liquid is not crude oil and if the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid is ≥27.6 kilopascals (4.0 psia) and <76.6 kilopascals (11.1 psia).	i. Reduce emissions of total organic HAP (or, upon approval, TOC) by at least 95 weight-percent or, as an option, to an exhaust concentration less than or equal to 20 ppmv, on a dry basis corrected to 3 percent oxygen for combustion devices using supplemental combustion air, by venting emissions through a closed vent system to any combination of control devices meeting the applicable requirements of 40 CFR part 63, subpart SS; OR
		ii. Comply with the work practice standards specified in table 4 to this subpart, items 1.a, 1.b, or 1.c for tanks storing liquids described in that table.

Table 2 to Subpart EEEE of Part 63—Emission Limits		
As stated in §63.2346, you must comply with the emission limits for the organic liquids distribution emission sources as follows:		
If you own or operate...	**And if...**	**Then you must...**
	b. The stored organic liquid is crude oil.	i. See the requirement in item 1.a.i or 1.a.ii of this table.
2. A storage tank at an existing affected source with a capacity ≥189.3 cubic meters (50,000 gallons).	a. The stored organic liquid is not crude oil and if the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid is <76.6 kilopascals (11.1 psia).	i. See the requirement in item 1.a.i or 1.a.ii of this table.
	b. The stored organic liquid is crude oil.	i. See the requirement in item 1.a.i or 1.a.ii of this table.
3. A storage tank at a reconstructed or new affected source with a capacity ≥18.9 cubic meters (5,000 gallons) and <37.9 cubic meters (10,000 gallons).	a. The stored organic liquid is not crude oil and if the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid is ≥27.6 kilopascals (4.0 psia) and <76.6 kilopascals (11.1 psia).	i. See the requirement in item 1.a.i or 1.a.ii of this table.
	b. The stored organic liquid is crude oil.	i. See the requirement in item 1.a.i or 1.a.ii of this table.
4. A storage tank at a reconstructed or new affected source with a capacity ≥37.9 cubic meters (10,000 gallons) and <189.3 cubic meters (50,000 gallons).	a. The stored organic liquid is not crude oil and if the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid is ≥0.7 kilopascals (0.1 psia) and <76.6 kilopascals (11.1 psia).	i. See the requirement in item 1.a.i or 1.a.ii of this table.
	b. The stored organic liquid is crude oil.	i. See the requirement in item 1.a.i or 1.a.ii of this table.
5. A storage tank at a reconstructed or new affected source with a capacity ≥189.3 cubic meters (50,000 gallons).	a. The stored organic liquid is not crude oil and if the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid is <76.6 kilopascals (11.1 psia).	i. See the requirement in item 1.a.i or 1.a.ii of this table.
	b. The stored organic liquid is crude oil.	i. See the requirement in item 1.a.i or 1.a.ii of this table.
6. A storage tank at an	a. The stored organic liquid	i. Reduce emissions of total organic HAP

Table 2 to Subpart EEEE of Part 63—Emission Limits		
As stated in §63.2346, you must comply with the emission limits for the organic liquids distribution emission sources as follows:		
If you own or operate...	**And if...**	**Then you must...**
existing, reconstructed, or new affected source meeting the capacity criteria specified in table 2 of this subpart, items 1 through 5.	is not crude oil and if the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid is ≥76.6 kilopascals (11.1 psia).	(or, upon approval, TOC) by at least 95 weight-percent or, as an option, to an exhaust concentration less than or equal to 20 ppmv, on a dry basis corrected to 3 percent oxygen for combustion devices using supplemental combustion air, by venting emissions through a closed vent system to any combination of control devices meeting the applicable requirements of 40 CFR part 63, subpart SS; OR
		ii. Comply with the work practice standards specified in table 4 to this subpart, item 2.a, for tanks storing the liquids described in that table.
7. A transfer rack at an existing facility where the total actual annual facility-level organic liquid loading volume through transfer racks is equal to or greater than 800,000 gallons and less than 10 million gallons.	a. The total table 1 organic HAP content of the organic liquid being loaded through one or more of the transfer rack's arms is at least 98 percent by weight and is being loaded into a transport vehicle.	i. For all such loading arms at the rack, reduce emissions of total organic HAP (or, upon approval, TOC) from the loading of organic liquids either by venting the emissions that occur during loading through a closed vent system to any combination of control devices meeting the applicable requirements of 40 CFR part 63, subpart SS, achieving at least 98 weight-percent HAP reduction, OR, as an option, to an exhaust concentration less than or equal to 20 ppmv, on a dry basis corrected to 3 percent oxygen for combustion devices using supplemental combustion air; OR
		ii. During the loading of organic liquids, comply with the work practice standards specified in item 3 of table 4 to this subpart.
8. A transfer rack at an existing facility where the total actual annual facility-level organic liquid loading volume through transfer racks is ≥10 million gallons.	a. One or more of the transfer rack's arms is loading an organic liquid into a transport vehicle.	i. See the requirements in items 7.a.i and 7.a.ii of this table.
9. A transfer rack at a new facility where the total actual annual facility-level organic liquid loading volume through transfer racks is less than 800,000 gallons.	a. The total table 1 organic HAP content of the organic liquid being loaded through one or more of the transfer rack's arms is at least 25 percent by weight and is being loaded into a transport vehicle.	i. See the requirements in items 7.a.i and 7.a.ii of this table.

Table 2 to Subpart EEEE of Part 63—Emission Limits		
As stated in §63.2346, you must comply with the emission limits for the organic liquids distribution emission sources as follows:		
If you own or operate...	**And if...**	**Then you must...**
	b. One or more of the transfer rack's arms is filling a container with a capacity equal to or greater than 55 gallons.	i. For all such loading arms at the rack during the loading of organic liquids, comply with the provisions of §§63.924 through 63.927 of 40 CFR part 63, Subpart PP—National Emission Standards for Containers, Container Level 3 controls; OR
		ii. During the loading of organic liquids, comply with the work practice standards specified in item 3.a of table 4 to this subpart.
10. A transfer rack at a new facility where the total actual annual facility-level organic liquid loading volume through transfer racks is equal to or greater than 800,000 gallons.	a. One or more of the transfer rack's arms is loading an organic liquid into a transport vehicle.	i. See the requirements in items 7.a.i and 7.a.ii of this table.
	b. One or more of the transfer rack's arms is filling a container with a capacity equal to or greater than 55 gallons.	i. For all such loading arms at the rack during the loading of organic liquids, comply with the provisions of §§63.924 through 63.927 of 40 CFR part 63, Subpart PP—National Emission Standards for Containers, Container Level 3 controls; OR
		ii. During the loading of organic liquids, comply with the work practice standards specified in item 3.a of table 4 to this subpart.

[69 FR 5063, Feb. 3, 2004, as amended at 71 FR 42913, July 28, 2006]

Table 3 to Subpart EEEE of Part 63—Operating Limits—High Throughput Transfer Racks	
As stated in §63.2346(e), you must comply with the operating limits for existing, reconstructed, or new affected sources as follows:	
For each existing, each reconstructed, and each new affected source using...	**You must...**
1. A thermal oxidizer to comply with an emission limit in table 2 to this subpart	Maintain the daily average fire box or combustion zone temperature greater than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.
2. A catalytic oxidizer to comply with an emission limit in table 2 to this subpart	a. Replace the existing catalyst bed before the age of the bed exceeds the maximum allowable age established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND

Table 3 to Subpart EEEE of Part 63—Operating Limits—High Throughput Transfer Racks	
As stated in §63.2346(e), you must comply with the operating limits for existing, reconstructed, or new affected sources as follows:	
For each existing, each reconstructed, and each new affected source using...	**You must...**
	b. Maintain the daily average temperature at the inlet of the catalyst bed greater than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND
	c. Maintain the daily average temperature difference across the catalyst bed greater than or equal to the minimum temperature difference established during the design evaluation or performance test that demonstrated compliance with the emission limit.
3. An absorber to comply with an emission limit in table 2 to this subpart	a. Maintain the daily average concentration level of organic compounds in the absorber exhaust less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR
	b. Maintain the daily average scrubbing liquid temperature less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND
	Maintain the difference between the specific gravities of the saturated and fresh scrubbing fluids greater than or equal to the difference established during the design evaluation or performance test that demonstrated compliance with the emission limit.
4. A condenser to comply with an emission limit in table 2 to this subpart	a. Maintain the daily average concentration level of organic compounds at the condenser exit less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR
	b. Maintain the daily average condenser exit temperature less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.
5. An adsorption system with adsorbent regeneration to comply with an emission limit in table 2 to this subpart	a. Maintain the daily average concentration level of organic compounds in the adsorber exhaust less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR
	b. Maintain the total regeneration stream mass flow during the adsorption bed regeneration cycle greater than or equal to the reference stream mass flow established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND
	Before the adsorption cycle commences, achieve and maintain the temperature of the adsorption bed after regeneration less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND

Table 3 to Subpart EEEE of Part 63—Operating Limits—High Throughput Transfer Racks	
As stated in §63.2346(e), you must comply with the operating limits for existing, reconstructed, or new affected sources as follows:	
For each existing, each reconstructed, and each new affected source using...	**You must...**
	Achieve a pressure reduction during each adsorption bed regeneration cycle greater than or equal to the pressure reduction established during the design evaluation or performance test that demonstrated compliance with the emission limit.
6. An adsorption system without adsorbent regeneration to comply with an emission limit in table 2 to this subpart	a. Maintain the daily average concentration level of organic compounds in the adsorber exhaust less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR
	b. Replace the existing adsorbent in each segment of the bed with an adsorbent that meets the replacement specifications established during the design evaluation or performance test before the age of the adsorbent exceeds the maximum allowable age established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND
	Maintain the temperature of the adsorption bed less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.
7. A flare to comply with an emission limit in table 2 to this subpart	a. Comply with the equipment and operating requirements in §63.987(a); AND b. Conduct an initial flare compliance assessment in accordance with §63.987(b); AND
	c. Install and operate monitoring equipment as specified in §63.987(c).
8. Another type of control device to comply with an emission limit in table 2 to this subpart	Submit a monitoring plan as specified in §§63.995(c) and 63.2366(b), and monitor the control device in accordance with that plan.

[69 FR 5063, Feb. 3, 2004, as amended at 71 FR 42914, July 28, 2006]

Table 4 to Subpart EEEE of Part 63—Work Practice Standards	
As stated in §63.2346, you may elect to comply with one of the work practice standards for existing, reconstructed, or new affected sources in the following table. If you elect to do so...	
For each...	**You must...**
1. Storage tank at an existing, reconstructed, or new affected source meeting any set of tank capacity and organic HAP vapor pressure criteria specified in table 2 to this subpart, items 1 through 5	a. Comply with the requirements of 40 CFR part 63, subpart WW (control level 2), if you elect to meet 40 CFR part 63, subpart WW (control level 2) requirements as an alternative to the emission limit in table 2 to this subpart, items 1 through 5; OR
	b. Comply with the requirements of §63.984 for routing emissions to a fuel gas system or back to a process; OR

Table 4 to Subpart EEEE of Part 63—Work Practice Standards	
As stated in §63.2346, you may elect to comply with one of the work practice standards for existing, reconstructed, or new affected sources in the following table. If you elect to do so...	
For each...	**You must...**
	c. Comply with the requirements of §63.2346(a)(4) for vapor balancing emissions to the transport vehicle from which the storage tank is filled.
2. Storage tank at an existing, reconstructed, or new affected source meeting any set of tank capacity and organic HAP vapor pressure criteria specified in table 2 to this subpart, item 6	a. Comply with the requirements of §63.984 for routing emissions to a fuel gas system or back to a process; OR b. Comply with the requirements of §63.2346(a)(4) for vapor balancing emissions to the transport vehicle from which the storage tank is filled.
3. Transfer rack subject to control based on the criteria specified in table 2 to this subpart, items 7 through 10, at an existing, reconstructed, or new affected source	a. If the option of a vapor balancing system is selected, install and, during the loading of organic liquids, operate a system that meets the requirements in table 7 to this subpart, item 3.b.i and item 3.b.ii, as applicable; OR
	b. Comply with the requirements of §63.984 during the loading of organic liquids, for routing emissions to a fuel gas system or back to a process.
4. Pump, valve, and sampling connection that operates in organic liquids service at least 300 hours per year at an existing, reconstructed, or new affected source	Comply with the requirements for pumps, valves, and sampling connections in 40 CFR part 63, subpart TT (control level 1), subpart UU (control level 2), or subpart H.
5. Transport vehicles equipped with vapor collection equipment that are loaded at transfer racks that are subject to control based on the criteria specified in table 2 to this subpart, items 7 through 10	Follow the steps in 40 CFR 60.502(e) to ensure that organic liquids are loaded only into vapor-tight transport vehicles, and comply with the provisions in 40 CFR 60.502(f), (g), (h), and (i), except substitute the term transport vehicle at each occurrence of tank truck or gasoline tank truck in those paragraphs.
6. Transport vehicles equipped without vapor collection equipment that are loaded at transfer racks that are subject to control based on the criteria specified in table 2 to this subpart, items 7 through 10	Ensure that organic liquids are loaded only into transport vehicles that have a current certification in accordance with the U.S. DOT pressure test requirements in 49 CFR 180 (cargo tanks) or 49 CFR 173.31 (tank cars).

[71 FR 42915, July 28, 2006]

Table 5 to Subpart EEEE of Part 63—Requirements for Performance Tests and Design Evaluations					
As stated in §§63.2354(a) and 63.2362, you must comply with the requirements for performance tests and design evaluations for existing, reconstructed, or new affected sources as follows:					
For...	**You must conduct...**	**According to...**	**Using...**	**To determine...**	**According to the following requirements...**
1. Each existing, each reconstructed,	a. A performance test to	i. §63.985(b)(1)(ii), §63.988(b), §63.990(b), or	(1) EPA Method 1 or 1A in appendix A of 40	(A) Sampling port locations and the	(i) Sampling sites must be located at the inlet and outlet

Table 5 to Subpart EEEE of Part 63—Requirements for Performance Tests and Design Evaluations					
As stated in §§63.2354(a) and 63.2362, you must comply with the requirements for performance tests and design evaluations for existing, reconstructed, or new affected sources as follows:					
For...	**You must conduct...**	**According to...**	**Using...**	**To determine...**	**According to the following requirements...**
and each new affected source using a nonflare control device to comply with an emission limit in table 2 to this subpart, items 1 through 10	determine the organic HAP (or, upon approval, TOC) control efficiency of each nonflare control device, OR the exhaust concentration of each combustion device; OR	§63.995(b)	CFR part 60, as appropriate	required number of traverse points	of each control device if complying with the control efficiency requirement or at the outlet of the control device if complying with the exhaust concentration requirement; AND (ii) The outlet sampling site must be located at each control device prior to any releases to the atmosphere.
			(2) EPA Method 2, 2A, 2C, 2D, 2F, or 2G in appendix A of 40 CFR part 60, as appropriate	(A) Stack gas velocity and volumetric flow rate	See the requirements in items 1.a.i.(1)(A)(i) and (ii) of this table.
			(3) EPA Method 3 or 3B in appendix A of 40 CFR part 60, as appropriate	(A) Concentration of $CO_2$and $O_2$and dry molecular weight of the stack gas	See the requirements in items 1.a.i.(1)(A)(i) and (ii) of this table.
			(4) EPA Method 4 in appendix A of 40 CFR part 60	(A) Moisture content of the stack gas	See the requirements in items 1.a.i.(1)(A)(i) and (ii) of this table.
			(5) EPA Method 18, 25, or 25A in appendix A of 40 CFR part 60, as appropriate, or EPA Method 316 in appendix A of 40 CFR part 63 for measuring formaldehyde	(A) Total organic HAP (or, upon approval, TOC), or formaldehyde emissions	(i) The organic HAP used for the calibration gas for EPA Method 25A must be the single organic HAP representing the largest percent by volume of emissions; AND

Table 5 to Subpart EEEE of Part 63—Requirements for Performance Tests and Design Evaluations					
As stated in §§63.2354(a) and 63.2362, you must comply with the requirements for performance tests and design evaluations for existing, reconstructed, or new affected sources as follows:					
For...	**You must conduct...**	**According to...**	**Using...**	**To determine...**	**According to the following requirements...**
					(ii) During the performance test, you must establish the operating parameter limits within which total organic HAP (or, upon approval, TOC) emissions are reduced by the required weight-percent or, as an option for nonflare combustion devices, to 20 ppmv exhaust concentration.
		b. A design evaluation (for nonflare control devices) to determine the organic HAP (or, upon approval, TOC) control efficiency of each nonflare control device, or the exhaust concentration of each combustion control device.	§63.985(b)(1)(i).		During a design evaluation, you must establish the operating parameter limits within which total organic HAP, (or, upon approval, TOC) emissions are reduced by at least 95 weight-percent for storage tanks or 98 weight-percent for transfer racks, or, as an option for nonflare combustion devices, to 20 ppmv exhaust concentration.
2. Each transport vehicle that you own that is equipped with vapor collection equipment and is loaded with	A performance test to determine the vapor tightness of the tank and then repair as needed until it		EPA Method 27 in appendix A of 40 CFR part 60	Vapor tightness	The pressure change in the tank must be no more than 250 pascals (1 inch of water) in 5 minutes after it is pressurized to

Table 5 to Subpart EEEE of Part 63—Requirements for Performance Tests and Design Evaluations					
As stated in §§63.2354(a) and 63.2362, you must comply with the requirements for performance tests and design evaluations for existing, reconstructed, or new affected sources as follows:					
For...	**You must conduct...**	**According to...**	**Using...**	**To determine...**	**According to the following requirements...**
organic liquids at a transfer rack that is subject to control based on the criteria specified in table 2 to this subpart, items 7 through 10, at an existing, reconstructed, or new affected source	passes the test.				4,500 pascals (18 inches of water).

[71 FR 42916, July 28, 2006]

Table 6 to Subpart EEEE of Part 63—Initial Compliance With Emission Limits		
As stated in §§63.2370(a) and 63.2382(b), you must show initial compliance with the emission limits for existing, reconstructed, or new affected sources as follows:		
For each…	**For the following emission limit…**	**You have demonstrated initial compliance if…**
1. Storage tank at an existing, reconstructed, or new affected source meeting either set of tank capacity and liquid organic HAP vapor pressure criteria specified in table 2 to this subpart, items 1 through 6	Reduce total organic HAP (or, upon approval, TOC) emissions by at least 95 weight-percent, or as an option for combustion devices to an exhaust concentration of ≤20 ppmv	Total organic HAP (or, upon approval, TOC) emissions, based on the results of the performance testing or design evaluation specified in table 5 to this subpart, item 1.a or 1.b, respectively, are reduced by at least 95 weight-percent or as an option for nonflare combustion devices to an exhaust concentration ≤20 ppmv.
2. Transfer rack that is subject to control based on the criteria specified in table 2 to this subpart, items 7 through 10, at an existing, reconstructed, or new affected source	Reduce total organic HAP (or, upon approval, TOC) emissions from the loading of organic liquids by at least 98 weight-percent, or as an option for nonflare combustion devices to an exhaust concentration of ≤20 ppmv	Total organic HAP (or, upon approval, TOC) emissions from the loading of organic liquids, based on the results of the performance testing or design evaluation specified in table 5 to this subpart, item 1.a or 1.b, respectively, are reduced by at least 98 weight-percent or as an option for nonflare combustion devices to an exhaust concentration of ≤20 ppmv.

[71 FR 42918, July 28, 2006]

Table 7 to Subpart EEEE of Part 63—Initial Compliance With Work Practice Standards		
For each…	**If you…**	**You have demonstrated initial compliance if…**
1. Storage tank at an existing affected source meeting either set of tank capacity and liquid organic HAP vapor pressure criteria specified in table 2 to this subpart, items 1 or 2	a. Install a floating roof or equivalent control that meets the requirements in table 4 to this subpart, item 1.a	i. After emptying and degassing, you visually inspect each internal floating roof before the refilling of the storage tank and perofrm seal gap inspections of the primary and secondary rim seals of each external floating roof within 90 days after the refilling of the storage tank.
	b. Route emissions to a fuel gas system or back to a process	i. You meet the requirements in §63.984(b) and submit the statement of connection required by §63.984(c).
	c. Install and, during the filling of the storage tank with organic liquids, operate a vapor balancing system	i. You meet the requirements in §3.2346(a)(4).
2. Storage tank at a reconstructed or new affected source meeting any set of tank capacity and liquid organic HAP vapor pressure criteria specified in table 2 to this subpart, items 3 through 5	a. Install a floating roof or equivalent control that meets the requirements in table 4 to this subpart, item 1.a	i. You visually inspect each internal floating roof before the initial filling of the storage tank, and perform seal gap inspections of the primary and secondary rim seals of each external floating roof within 90 days after the initial filling of the storage tank.
	b. Route emissions to a fuel gas system or back to a process	i. See item 1.b.i of this table.
	c. Install and, during the filling of the storage tank with organic liquids, operate a vapor balancing system	i. See item 1.c.i of this table.
3. Transfer rack that is subject to control based on the criteria specified in table 2 to this subpart, items 7 through 10, at an existing, reconstructed, or new affected source	a. Load organic liquids only into transport vehicles having current vapor tightness certification as described in table 4 to this subpart, item 5 and item 6	i. You comply with the provisions specified in table 4 to this subpart, item 5 or item 6, as applicable.
	b. Install and, during the loading of organic liquids, operate a vapor balancing system	i. You design and operate the vapor balancing system to route organic HAP vapors displaced from loading of organic liquids into transport vehicles to the storage tank from which the liquid being loaded originated or to another storage tank connected to a common header. ii. You design and operate the vapor balancing system to route organic HAP vapors displaced from loading of organic liquids into containers directly (e.g., no intervening tank or

Table 7 to Subpart EEEE of Part 63—Initial Compliance With Work Practice Standards		
For each…	**If you…**	**You have demonstrated initial compliance if…**
		containment area such as a room) to the storage tank from which the liquid being loaded originated or to another storage tank connected to a common header.
	c. Route emissions to a fuel gas system or back to a process	i. See item 1.b.i of this table.
4. Equipment leak component, as defined in §63.2406, that operates in organic liquids service ≥300 hours per year at an existing, reconstructed, or new affected source	a. Carry out a leak detection and repair program or equivalent control according to one of the subparts listed in table 4 to this subpart, item 4.a	i. You specify which one of the control programs listed in table 4 to this subpart you have selected, OR ii. Provide written specifications for your equivalent control approach.

[71 FR 42918, July 28, 2006]

Table 8 to Subpart EEEE of Part 63—Continuous Compliance With Emission Limits		
As stated in §§63.2378(a) and (b) and 63.2390(b), you must show continuous compliance with the emission limits for existing, reconstructed, or new affected sources according to the following table:		
For each...	**For the following emission limit…**	**You must demonstrate continuous compliance by…**
1. Storage tank at an existing, reconstructed, or new affected source meeting any set of tank capacity and liquid organic HAP vapor pressure criteria specified in table 2 to this subpart, items 1 through 6	a. Reduce total organic HAP (or, upon approval, TOC) emissions from the closed vent system and control device by 95 weight-percent or greater, or as an option to 20 ppmv or less of total organic HAP (or, upon approval, TOC) in the exhaust of combustion devices	i. Performing CMS monitoring and collecting data according to §§63.2366, 63.2374, and 63.2378; AND ii. Maintaining the operating limits established during the design evaluation or performance test that demonstrated compliance with the emission limit.
2. Transfer rack that is subject to control based on the criteria specified in table 2 to this subpart, items 7 through 10, at an existing, reconstructed, or new affected source	a. Reduce total organic HAP (or, upon approval, TOC) emissions during the loading of organic liquids from the closed vent system and control device by 98 weight-percent or greater, or as an option to 20 ppmv or less of total organic HAP (or, upon approval, TOC) in the exhaust of combustion devices	i. Performing CMS monitoring and collecting data according to §§63.2366, 63.2374, and 63.2378 during the loading of organic liquids; AND ii. Maintaining the operating limits established during the design evaluation or performance test that demonstrated compliance with the emission limit during the loading of organic liquids.

[71 FR 42919, July 28, 2006]

Table 9 to Subpart EEEE of Part 63—Continuous Compliance With Operating Limits—High Throughput Transfer Racks		
As stated in §§63.2378(a) and (b) and 63.2390(b), you must show continuous compliance with the operating limits for existing, reconstructed, or new affected sources according to the following table:		
For each existing, reconstructed, and each new affected source using...	**For the following operating limit...**	**You must demonstrate continuous compliance by...**
1. A thermal oxidizer to comply with an emission limit in table 2 to this subpart.	a. Maintain the daily average fire box or combustion zone, as applicable, temperature greater than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.	i. Continuously monitoring and recording fire box or combustion zone, as applicable, temperature every 15 minutes and maintaining the daily average fire box temperature greater than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Keeping the applicable records required in §63.998.
2. A catalytic oxidizer to comply with an emission limit in table 2 to this subpart.	a. Replace the existing catalyst bed before the age of the bed exceeds the maximum allowable age established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND	i. Replacing the existing catalyst bed before the age of the bed exceeds the maximum allowable age established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Keeping the applicable records required in §63.998.
	b. Maintain the daily average temperature at the inlet of the catalyst bed greater than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND	i. Continuously monitoring and recording the temperature at the inlet of the catalyst bed at least every 15 minutes and maintaining the daily average temperature at the inlet of the catalyst bed greater than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Keeping the applicable records required in §63.998.
	c. Maintain the daily average temperature difference across the catalyst bed greater than or equal to the minimum temperature difference established during the design evaluation or performance test that demonstrated compliance with the emission limit.	i. Continuously monitoring and recording the temperature at the outlet of the catalyst bed every 15 minutes and maintaining the daily average temperature difference across the catalyst bed greater than or equal to the minimum temperature difference established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Keeping the applicable records required in §63.998.
3. An absorber to	a. Maintain the daily average	i. Continuously monitoring the organic

Table 9 to Subpart EEEE of Part 63—Continuous Compliance With Operating Limits—High Throughput Transfer Racks		
As stated in §§63.2378(a) and (b) and 63.2390(b), you must show continuous compliance with the operating limits for existing, reconstructed, or new affected sources according to the following table:		
For each existing, reconstructed, and each new affected source using...	**For the following operating limit...**	**You must demonstrate continuous compliance by...**
comply with an emission limit in table 2 to this subpart.	concentration level of organic compounds in the absorber exhaust less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR	concentration in the absorber exhaust and maintaining the daily average concentration less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Keeping the applicable records required in §63.998.
	b. Maintain the daily average scrubbing liquid temperature less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND Maintain the difference between the specific gravities of the saturated and fresh scrubbing fluids greater than or equal to the difference established during the design evaluation or performance test that demonstrated compliance with the emission limit.	i. Continuously monitoring the scrubbing liquid temperature and maintaining the daily average temperature less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Maintaining the difference between the specific gravities greater than or equal to the difference established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND iii. Keeping the applicable records required in §63.998.
4. A condenser to comply with an emission limit in table 2 to this subpart.	a. Maintain the daily average concentration level of organic compounds at the exit of the condenser less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR	i. Continuously monitoring the organic concentration at the condenser exit and maintaining the daily average concentration less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Keeping the applicable records required in §63.998.
	b. Maintain the daily average condenser exit temperature less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.	i. Continuously monitoring and recording the temperature at the exit of the condenser at least every 15 minutes and maintaining the daily average temperature less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND

Table 9 to Subpart EEEE of Part 63—Continuous Compliance With Operating Limits—High Throughput Transfer Racks		
As stated in §§63.2378(a) and (b) and 63.2390(b), you must show continuous compliance with the operating limits for existing, reconstructed, or new affected sources according to the following table:		
For each existing, reconstructed, and each new affected source using...	**For the following operating limit...**	**You must demonstrate continuous compliance by...**
		ii. Keeping the applicable records required in §63.998.
5. An adsorption system with adsorbent regeneration to comply with an emission limit in table 2 to this subpart.	a. Maintain the daily average concentration level of organic compounds in the adsorber exhaust less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR	i. Continuously monitoring the daily average organic concentration in the adsorber exhaust and maintaining the concentration less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Keeping the applicable records required in §63.998.
	b. Maintain the total regeneration stream mass flow during the adsorption bed regeneration cycle greater than or equal to the reference stream mass flow established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND Before the adsorption cycle commences, achieve and maintain the temperature of the adsorption bed after regeneration less than or equal to the reference temperature established during the design evaluation or performance test; AND Achieve greater than or equal to the pressure reduction during the adsorption bed regeneration cycle established during the design evaluation or performance test that demonstrated compliance with the emission limit.	i. Maintaining the total regeneration stream mass flow during the adsorption bed regeneration cycle greater than or equal to the reference stream mass flow established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Maintaining the temperature of the adsorption bed after regeneration less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND iii. Achieving greater than or equal to the pressure reduction during the regeneration cycle established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND iv. Keeping the applicable records required in §63.998.
6. An adsorption system without adsorbent regeneration to comply with an emission limit in table 2 to this subpart.	a. Maintain the daily average concentration level of organic compounds in the adsorber exhaust less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR	i. Continuously monitoring the organic concentration in the adsorber exhaust and maintaining the concentration less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Keeping the applicable records required in §63.998.

Table 9 to Subpart EEEE of Part 63—Continuous Compliance With Operating Limits—High Throughput Transfer Racks		
As stated in §§63.2378(a) and (b) and 63.2390(b), you must show continuous compliance with the operating limits for existing, reconstructed, or new affected sources according to the following table:		
For each existing, reconstructed, and each new affected source using...	**For the following operating limit...**	**You must demonstrate continuous compliance by...**
	b. Replace the existing adsorbent in each segment of the bed before the age of the adsorbent exceeds the maximum allowable age established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND Maintain the temperature of the adsorption bed less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.	i. Replacing the existing adsorbent in each segment of the bed with an adsorbent that meets the replacement specifications established during the design evaluation or performance test before the age of the adsorbent exceeds the maximum allowable age established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Maintaining the temperature of the adsorption bed less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND iii. Keeping the applicable records required in §63.998.
7. A flare to comply with an emission limit in table 2 to this subpart.	a. Maintain a pilot flame in the flare at all times that vapors may be vented to the flare (§63.11(b)(5)); AND	i. Continuously operating a device that detects the presence of the pilot flame; AND ii. Keeping the applicable records required in §63.998.
	b. Maintain a flare flame at all times that vapors are being vented to the flare (§63.11(b)(5)); AND	i. Maintaining a flare flame at all times that vapors are being vented to the flare; AND ii. Keeping the applicable records required in §63.998.
	c. Operate the flare with no visible emissions, except for up to 5 minutes in any 2 consecutive hours (§63.11(b)(4)); AND EITHER	i. Operating the flare with no visible emissions exceeding the amount allowed; AND ii. Keeping the applicable records required in §63.998.
	d.1. Operate the flare with an exit velocity that is within the applicable limits in §63.11(b)(7) and (8) and with a net heating value of the gas being combusted greater than the applicable minimum value in §63.11(b)(6)(ii); OR	i. Operating the flare within the applicable exit velocity limits; AND ii. Operating the flare with the gas heating value greater than the applicable minimum value; AND iii. Keeping the applicable records required in §63.998.
	d.2. Adhere to the requirements in §63.11(b)(6)(i).	i. Operating the flare within the applicable limits in 63.11(b)(6)(i); AND ii. Keeping the applicable records required

Table 9 to Subpart EEEE of Part 63—Continuous Compliance With Operating Limits—High Throughput Transfer Racks		
As stated in §§63.2378(a) and (b) and 63.2390(b), you must show continuous compliance with the operating limits for existing, reconstructed, or new affected sources according to the following table:		
For each existing, reconstructed, and each new affected source using...	**For the following operating limit...**	**You must demonstrate continuous compliance by...**
		in §63.998.
8. Another type of control device to comply with an emission limit in table 2 to this subpart.	Submit a monitoring plan as specified in §§63.995(c) and 63.2366(c), and monitor the control device in accordance with that plan.	Submitting a monitoring plan and monitoring the control device according to that plan.

[69 FR 5063, Feb. 3, 2004, as amended at 71 FR 42919, July 28, 2006]

Table 10 to Subpart EEEE of Part 63—Continuous Compliance With Work Practice Standards		
As stated in §§63.2378(a) and (b) and 63.2386(c)(6), you must show continuous compliance with the work practice standards for existing, reconstructed, or new affected sources according to the following table:		
For each...	**For the following standard...**	**You must demonstrate continuous compliance by...**
1. Internal floating roof (IFR) storage tank at an existing, reconstructed, or new affected source meeting any set of tank capacity, and vapor pressure criteria specified in table 2 to this subpart, items 1 through 5.	a. Install a floating roof designed and operated according to the applicable specifications in §63.1063(a) and (b).	i. Visually inspecting the floating roof deck, deck fittings, and rim seals of each IFR once per year (§63.1063(d)(2)); AND ii. Visually inspecting the floating roof deck, deck fittings, and rim seals of each IFR either each time the storage tank is completely emptied and degassed or every 10 years, whichever occurs first (§63.1063(c)(1), (d)(1), and (e)); AND iii. Keeping the tank records required in §63.1065.
2. External floating roof (EFR) storage tank at an existing, reconstructed, or new affected source meeting any set of tank capacity and vapor pressure criteria specified in table 2 to this subpart, items 1 through 5.	a. Install a floating roof designed and operated according to the applicable specifications in §63.1063(a) and (b).	i. Visually inspecting the floating roof deck, deck fittings, and rim seals of each EFR either each time the storage tank is completely emptied and degassed or every 10 years, whichever occurs first (§63.1063(c)(2), (d), and (e)); AND ii. Performing seal gap measurements on the secondary seal of each EFR at least once every year, and on the primary seal of each EFR at least every 5 years (§63.1063(c)(2), (d), and (e)); AND iii. Keeping the tank records required in §63.1065.
3. IFR or EFR tank at an existing, reconstructed, or new	a. Repair the conditions causing storage tank	i. Repairing conditions causing inspection failures: before refilling the storage tank with

Table 10 to Subpart EEEE of Part 63—Continuous Compliance With Work Practice Standards		
As stated in §§63.2378(a) and (b) and 63.2386(c)(6), you must show continuous compliance with the work practice standards for existing, reconstructed, or new affected sources according to the following table:		
For each...	**For the following standard...**	**You must demonstrate continuous compliance by...**
affected source meeting any set of tank capacity and vapor pressure criteria specified in table 2 to this subpart, items 1 through 5.	inspection failures (§63.1063(e)).	organic liquid, or within 45 days (or up to 105 days with extensions) for a tank containing organic liquid; AND ii. Keeping the tank records required in §63.1065(b).
4. Transfer rack that is subject to control based on the criteria specified in table 2 to this subpart, items 7 through 10, at an existing, reconstructed, or new affected source.	a. Ensure that organic liquids are loaded into transport vehicles in accordance with the requirements in table 4 to this subpart, items 5 or 6, as applicable.	i. Ensuring that organic liquids are loaded into transport vehicles in accordance with the requirements in table 4 to this subpart, items 5 or 6, as applicable.
	b. Install and, during the loading of organic liquids, operate a vapor balancing system.	i. Monitoring each potential source of vapor leakage in the system quarterly during the loading of a transport vehicle or the filling of a container using the methods and procedures described in the rule requirements selected for the work practice standard for equipment leak components as specified in table 4 to this subpart, item 4. An instrument reading of 500 ppmv defines a leak. Repair of leaks is performed according to the repair requirements specified in your selected equipment leak standards.
	c. Route emissions to a fuel gas system or back to a process.	i. Continuing to meet the requirements specified in §63.984(b).
5. Equipment leak component, as defined in §63.2406, that operates in organic liquids service at least 300 hours per year.	a. Comply with the requirements of 40 CFR part 63, subpart TT, UU, or H.	i. Carrying out a leak detection and repair program in accordance with the subpart selected from the list in item 5.a of this table.
6. Storage tank at an existing, reconstructed, or new affected source meeting any of the tank capacity and vapor pressure criteria specified in table 2 to this subpart, items 1 through 6.	a. Route emissions to a fuel gas system or back to the process.	i. Continuing to meet the requirements specified in §63.984(b).
	b. Install and, during the filling of the storage tank with organic liquids, operate a vapor balancing system.	i. Monitoring each potential source of vapor leakage in the system quarterly during the loading of a transport vehicle or the filling of a container using the methods and procedures described in the rule requirements selected for the work practice standard for equipment leak

Table 10 to Subpart EEEE of Part 63—Continuous Compliance With Work Practice Standards		
As stated in §§63.2378(a) and (b) and 63.2386(c)(6), you must show continuous compliance with the work practice standards for existing, reconstructed, or new affected sources according to the following table:		
For each...	**For the following standard...**	**You must demonstrate continuous compliance by...**
		components as specified in table 4 to this subpart, item 4. An instrument reading of 500 ppmv defines a leak. Repair of leaks is performed according to the repair requirements specified in your selected equipment leak standards.

[69 FR 5063, Feb. 3, 2004, as amended at 71 FR 42922, July 28, 2006]

Table 11 to Subpart EEEE of Part 63—Requirements for Reports		
As stated in §63.2386(a), (b), and (f), you must submit compliance reports and startup, shutdown, and malfunction reports according to the following table:		
You must submit a(n)...	**The report must contain...**	**You must submit the report...**
1. Compliance report or Periodic Report	a. The information specified in §63.2386(c), (d), (e). If you had a SSM during the reporting period and you took actions consistent with your SSM plan, the report must also include the information in §63.10(d)(5)(i); AND	Semiannually, and it must be postmarked by January 31 or July 31, in accordance with §63.2386(b).
	b. The information required by 40 CFR part 63, subpart TT, UU, or H, as applicable, for pumps, valves, and sampling connections; AND	See the submission requirement in item 1.a of this table.
	c. The information required by §63.999(c); AND	See the submission requirement in item 1.a of this table.
	d. The information specified in §63.1066(b) including: Notification of inspection, inspection results, requests for alternate devices, and requests for extensions, as applicable.	See the submission requirement in item 1.a. of this table.
2. Immediate SSM report if you had a SSM that resulted in an applicable emission standard in the relevant standard being exceeded, and you took an action that was not consistent with your SSM plan	a. The information required in §63.10(d)(5)(ii)	i. By letter within 7 working days after the end of the event unless you have made alternative arrangements with the permitting authority (§63.10(d)(5)(ii)).

[71 FR 42923, July 28, 2006]

Table 12 to Subpart EEEE of Part 63—Applicability of General Provisions to Subpart EEEE			
As stated in §§63.2382 and 63.2398, you must comply with the applicable General Provisions requirements as follows:			
Citation	**Subject**	**Brief description**	**Applies to subpart EEEE**
§63.1	Applicability	Initial applicability determination; Applicability after standard established; Permit requirements; Extensions, Notifications	Yes.
§63.2	Definitions	Definitions for part 63 standards	Yes.
§63.3	Units and Abbreviations	Units and abbreviations for part 63 standards	Yes.
§63.4	Prohibited Activities and Circumvention	Prohibited activities; Circumvention, Severability	Yes.
§63.5	Construction/Reconstruction	Applicability; Applications; Approvals	Yes.
§63.6(a)	Compliance with Standards/O&M Applicability	GP apply unless compliance extension; GP apply to area sources that become major	Yes.
§63.6(b)(1)–(4)	Compliance Dates for New and Reconstructed Sources	Standards apply at effective date; 3 years after effective date; upon startup; 10 years after construction or reconstruction commences for section 112(f)	Yes.
§63.6(b)(5)	Notification	Must notify if commenced construction or reconstruction after proposal	Yes.
§63.6(b)(6)	[Reserved].		
§63.6(b)(7)	Compliance Dates for New and Reconstructed Area Sources That Become Major	Area sources that become major must comply with major source standards immediately upon becoming major, regardless of whether required to comply when they were an area source	Yes.
§63.6(c)(1)–(2)	Compliance Dates for Existing Sources	Comply according to date in this subpart, which must be no later than 3 years after effective date; for section 112(f) standards, comply within 90 days of effective date unless compliance extension	Yes.
§63.6(c)(3)–(4)	[Reserved].		

Table 12 to Subpart EEEE of Part 63—Applicability of General Provisions to Subpart EEEE			
As stated in §§63.2382 and 63.2398, you must comply with the applicable General Provisions requirements as follows:			
Citation	**Subject**	**Brief description**	**Applies to subpart EEEE**
§63.6(c)(5)	Compliance Dates for Existing Area Sources That Become Major	Area sources that become major must comply with major source standards by date indicated in this subpart or by equivalent time period (*e.g* ., 3 years)	Yes.
§63.6(d)	[Reserved].		
§63.6(e)(1)	Operation & Maintenance	Operate to minimize emissions at all times; correct malfunctions as soon as practicable; and operation and maintenance requirements independently enforceable; information Administrator will use to determine if operation and maintenance requirements were met	Yes.
§63.6(e)(2)	[Reserved].		
§63.6(e)(3)	SSM Plan	Requirement for SSM plan; content of SSM plan; actions during SSM	Yes; however, (1) the 2-day reporting requirement in paragraph §63.6(e)(3)(iv) does not apply and (2) §63.6(e)(3) does not apply to emissions sources not requiring control.
§63.6(f)(1)	Compliance Except During SSM	You must comply with emission standards at all times except during SSM	Yes.
§63.6(f)(2)–(3)	Methods for Determining Compliance	Compliance based on performance test, operation and maintenance plans, records, inspection	Yes.
§63.6(g)(1)–(3)	Alternative Standard	Procedures for getting an alternative standard	Yes.
§63.6(h)	Opacity/Visible Emission Standards	Requirements for compliance with opacity and visible emission standards	No; except as it applies to flares for which Method 22 observations are required as part of a flare compliance assessment.
§63.6(i)(1)–(14)	Compliance Extension	Procedures and criteria for	Yes.

Table 12 to Subpart EEEE of Part 63—Applicability of General Provisions to Subpart EEEE			
As stated in §§63.2382 and 63.2398, you must comply with the applicable General Provisions requirements as follows:			
Citation	**Subject**	**Brief description**	**Applies to subpart EEEE**
		Administrator to grant compliance extension	
§63.6(j)	Presidential Compliance Exemption	President may exempt any source from requirement to comply with this subpart	Yes.
§63.7(a)(2)	Performance Test Dates	Dates for conducting initial performance testing; must conduct 180 days after compliance date	Yes.
§63.7(a)(3)	Section 114 Authority	Adminsitrator may require a performance test under CAA section 114 at any time	Yes.
§63.7(b)(1)	Notification of Performance Test	Must notify Administrator 60 days before the test	Yes.
§63.7(b)(2)	Notification of Rescheduling	If you have to reschedule performance test, must notify Administrator of rescheduled date as soon as practicable and without delay	Yes.
§63.7(c)	Quality Assurance (QA)/Test Plan	Requirement to submit site-specific test plan 60 days before the test or on date Administrator agrees with; test plan approval procedures; performance audit requirements; internal and external QA procedures for testing	Yes.
§63.7(d)	Testing Facilities	Requirements for testing facilities	Yes.
§63.7(e)(1)	Conditions for Conducting Performance Tests	Performance tests must be conducted under representative conditions; cannot conduct performance tests during SSM	Yes.
§63.7(e)(2)	Conditions for Conducting Performance Tests	Must conduct according to this subpart and EPA test methods unless Administrator approves alternative	Yes.
§63.7(e)(3)	Test Run Duration	Must have three test runs of at least 1 hour each; compliance is based on arithmetic mean of	Yes; however, for transfer racks per §§63.987(b)(3)(i)(A)–(B)

Table 12 to Subpart EEEE of Part 63—Applicability of General Provisions to Subpart EEEE			
As stated in §§63.2382 and 63.2398, you must comply with the applicable General Provisions requirements as follows:			
Citation	**Subject**	**Brief description**	**Applies to subpart EEEE**
		three runs; conditions when data from an additional test run can be used	and 63.997(e)(1)(v)(A)–(B) provide exceptions to the requirement for test runs to be at least 1 hour each.
§63.7(f)	Alternative Test Method	Procedures by which Administrator can grant approval to use an intermediate or major change, or alternative to a test method	Yes.
§63.7(g)	Performance Test Data Analysis	Must include raw data in performance test report; must submit performance test data 60 days after end of test with the Notification of Compliance Status; keep data for 5 years	Yes; however, performance test data is to be submitted with the Notification of Compliance Status according to the schedule specified in §63.9(h)(1)–(6) below.
§63.7(h)	Waiver of Tests	Procedures for Administrator to waive performance test	Yes.
§63.8(a)(1)	Applicability of Monitoring Requirements	Subject to all monitoring requirements in standard	Yes.
§63.8(a)(2)	Performance Specifications	Performance Specifications in appendix B of 40 CFR part 60 apply	Yes.
§63.8(a)(3)	[Reserved].		
§63.8(a)(4)	Monitoring of Flares	Monitoring requirements for flares in §63.11	Yes; however, monitoring requirements in §63.987(c) also apply.
§63.8(b)(1)	Monitoring	Must conduct monitoring according to standard unless Administrator approves alternative	Yes.
§63.8(b)(2)–(3)	Multiple Effluents and Multiple Monitoring Systems	Specific requirements for installing monitoring systems; must install on each affected source or after combined with another affected source before it is released to the atmosphere provided the monitoring is sufficient to demonstrate compliance with the standard; if	Yes.

Table 12 to Subpart EEEE of Part 63—Applicability of General Provisions to Subpart EEEE			
As stated in §§63.2382 and 63.2398, you must comply with the applicable General Provisions requirements as follows:			
Citation	**Subject**	**Brief description**	**Applies to subpart EEEE**
		more than one monitoring system on an emission point, must report all monitoring system results, unless one monitoring system is a backup	
§63.8(c)(1)	Monitoring System Operation and Maintenance	Maintain monitoring system in a manner consistent with good air pollution control practices	Yes.
§63.8(c)(1)(i)—(iii)	Routine and Predictable SSM	Keep parts for routine repairs readily available; reporting requirements for SSM when action is described in SSM plan.	Yes.
§63.8(c)(2)–(3)	Monitoring System Installation	Must install to get representative emission or parameter measurements; must verify operational status before or at performance test	Yes.
§63.8(c)(4)	CMS Requirements	CMS must be operating except during breakdown, out-of control, repair, maintenance, and high-level calibration drifts; COMS must have a minimum of one cycle of sampling and analysis for each successive 10-second period and one cycle of data recording for each successive 6-minute period; CEMS must have a minimum of one cycle of operation for each successive 15-minute period	Yes; however, COMS are not applicable.
§63.8(c)(5)	COMS Minimum Procedures	COMS minimum procedures	No.
§63.8(c)(6)–(8)	CMS Requirements	Zero and high level calibration check requirements. Out-of-control periods	Yes, but only applies for CEMS. 40 CFR part 63, subpart SS provides requirements for CPMS.
§63.8(d)	CMS Quality Control	Requirements for CMS quality control, including calibration, etc.; must keep quality control plan on record for 5 years; keep old versions for 5 years after revisions	Yes, but only applies for CEMS. 40 CFR part 63, subpart SS provides requirements for CPMS.
§63.8(e)	CMS Performance Evaluation	Notification, performance evaluation test plan, reports	Yes, but only applies for CEMS.

Table 12 to Subpart EEEE of Part 63—Applicability of General Provisions to Subpart EEEE			
As stated in §§63.2382 and 63.2398, you must comply with the applicable General Provisions requirements as follows:			
Citation	**Subject**	**Brief description**	**Applies to subpart EEEE**
§63.8(f)(1)–(5)	Alternative Monitoring Method	Procedures for Administrator to approve alternative monitoring	Yes, but 40 CFR part 63, subpart SS also provides procedures for approval of CPMS.
§63.8(f)(6)	Alternative to Relative Accuracy Test	Procedures for Administrator to approve alternative relative accuracy tests for CEMS	Yes.
§63.8(g)	Data Reduction	COMS 6-minute averages calculated over at least 36 evenly spaced data points; CEMS 1 hour averages computed over at least 4 equally spaced data points; data that cannot be used in average	Yes; however, COMS are not applicable.
§63.9(a)	Notification Requirements	Applicability and State delegation	Yes.
§63.9(b)(1)–(2), (4)–(5)	Initial Notifications	Submit notification within 120 days after effective date; notification of intent to construct/reconstruct, notification of commencement of construction/reconstruction, notification of startup; contents of each	Yes.
§63.9(c)	Request for Compliance Extension	Can request if cannot comply by date or if installed best available control technology or lowest achievable emission rate (BACT/LAER)	Yes.
§63.9(d)	Notification of Special Compliance Requirements for New Sources	For sources that commence construction between proposal and promulgation and want to comply 3 years after effective date	Yes.
§63.9(e)	Notification of Performance Test	Notify Administrator 60 days prior	Yes.
§63.9(f)	Notification of VE/Opacity Test	Notify Administrator 30 days prior	No.
§63.9(g)	Additional Notifications When Using CMS	Notification of performance evaluation; notification about use of COMS data; notification	Yes; however, there are no opacity standards.

Table 12 to Subpart EEEE of Part 63—Applicability of General Provisions to Subpart EEEE			
As stated in §§63.2382 and 63.2398, you must comply with the applicable General Provisions requirements as follows:			
Citation	**Subject**	**Brief description**	**Applies to subpart EEEE**
		that exceeded criterion for relative accuracy alternative	
§63.9(h)(1)–(6)	Notification of Compliance Status	Contents due 60 days after end of performance test or other compliance demonstration, except for opacity/visible emissions, which are due 30 days after; when to submit to Federal vs. State authority	Yes; however, (1) there are no opacity standards and (2) all initial Notification of Compliance Status, including all performance test data, are to be submitted at the same time, either within 240 days after the compliance date or within 60 days after the last performance test demonstrating compliance has been completed, whichever occurs first.
§63.9(i)	Adjustment of Submittal Deadlines	Procedures for Administrator to approve change in when notifications must be submitted	Yes.
§63.9(j)	Change in Previous Information	Must submit within 15 days after the change	No. These changes will be reported in the first and subsequent compliance reports.
§63.10(a)	Recordkeeping/Reporting	Applies to all, unless compliance extension; when to submit to Federal vs. State authority; procedures for owners of more than one source	Yes.
§63.10(b)(1)	Recordkeeping/Reporting	General requirements; keep all records readily available; keep for 5 years	Yes.
§63.10(b)(2)(i)–(iv)	Records Related to Startup, Shutdown, and Malfunction	Occurrence of each for operations (process equipment); occurrence of each malfunction of air pollution control equipment; maintenance on air pollution control equipment; actions during SSM	Yes.
§63.10(b)(2)(vi)–	CMS Records	Malfunctions, inoperative,	Yes.

Table 12 to Subpart EEEE of Part 63—Applicability of General Provisions to Subpart EEEE			
As stated in §§63.2382 and 63.2398, you must comply with the applicable General Provisions requirements as follows:			
Citation	**Subject**	**Brief description**	**Applies to subpart EEEE**
(xi)		out-of-control periods	
§63.10(b)(2)(xii)	Records	Records when under waiver	Yes.
§63.10(b)(2)(xiii)	Records	Records when using alternative to relative accuracy test	Yes.
§63.10(b)(2)(xiv)	Records	All documentation supporting initial notification and notification of compliance status	Yes.
§63.10(b)(3)	Records	Applicability determinations	Yes.
§63.10(c)	Records	Additional records for CMS	Yes.
§63.10(d)(1)	General Reporting Requirements	Requirement to report	Yes.
§63.10(d)(2)	Report of Performance Test Results	When to submit to Federal or State authority	Yes.
§63.10(d)(3)	Reporting Opacity or VE Observations	What to report and when	Yes.
§63.10(d)(4)	Progress Reports	Must submit progress reports on schedule if under compliance extension	Yes.
§63.10(d)(5)	SSM Reports	Contents and submission	Yes.
§63.10(e)(1)–(2)	Additional CMS Reports	Must report results for each CEMS on a unit; written copy of CMS performance evaluation; 2–3 copies of COMS performance evaluation	Yes; however, COMS are not applicable.
§63.10(e)(3)(i)–(iii)	Reports	Schedule for reporting excess emissions and parameter monitor exceedance (now defined as deviations)	Yes; however, note that the title of the report is the compliance report; deviations include excess emissions and parameter exceedances.
§63.10(e)(3)(iv)–(v)	Excess Emissions Reports	Requirement to revert to quarterly submission if there is an excess emissions or parameter monitoring exceedance (now defined as deviations); provision to request semiannual reporting after compliance for 1 year; submit report by 30th day following end	Yes.

Table 12 to Subpart EEEE of Part 63—Applicability of General Provisions to Subpart EEEE			
As stated in §§63.2382 and 63.2398, you must comply with the applicable General Provisions requirements as follows:			
Citation	**Subject**	**Brief description**	**Applies to subpart EEEE**
		of quarter or calendar half; if there has not been an exceedance or excess emissions (now defined as deviations), report contents in a statement that there have been no deviations; must submit report containing all of the information in §§63.8(c)(7)–(8) and 63.10(c)(5)–(13)	
§63.10(e)(3)(vi)–(viii)	Excess Emissions Report and Summary Report	Requirements for reporting excess emissions for CMS (now called deviations); requires all of the information in §§63.10(c)(5)–(13) and 63.8(c)(7)–(8)	Yes.
§63.10(e)(4)	Reporting COMS Data	Must submit COMS data with performance test data	No.
§63.10(f)	Waiver for Recordkeeping/Reporting	Procedures for Administrator to waive	Yes.
§63.11(b)	Flares	Requirements for flares	Yes; §63.987 requirements apply, and the section references §63.11(b).
§63.12	Delegation	State authority to enforce standards	Yes.
§63.13	Addresses	Addresses where reports, notifications, and requests are sent	Yes.
§63.14	Incorporation by Reference	Test methods incorporated by reference	Yes.
§63.15	Availability of Information	Public and confidential information	Yes.

[69 FR 5063, Feb. 3, 2004, as amended at 71 FR 20463, Apr. 20, 2006; 71 FR 42924, July 28, 2006]

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the Technical Support Document (TSD)
for a Part 70 Significant Source Modification
for a Part 70 Significant Permit Modification

Source Description and Location

Source Name:	Alcoa, Inc. – Warrick Operations
Source Location:	Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629-0010
County:	Warrick
SIC Code:	3334 and 3352
Operation Permit No.:	T 173-6627-00007
Operation Permit Issuance Date:	January 5, 2007
Significant Source Modification No.:	173-26029-00007
Significant Permit Modification No.:	173-26037-00007
Permit Reviewer:	Kimberly Cottrell

Public Notice Information

On June 5, 2008, the Office of Air Quality (OAQ) had a notice published in Boonville Stand in Boonville, Indiana, stating that the Alcoa, Inc. – Warrick Operations had applied for a significant modification to their Part 70 Operating Permit issued on January 5, 2007. 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.

ALCOA Comments and IDEM's Responses

On July, 2008, OAQ received comments from Sam Bruntz, on behalf of the Alcoa, Inc. – Warrick Operations. The summary of the comments and IDEM, OAQ responses, including changes to the permit (language deleted is shown in ~~strikeout~~ and language added is shown in **bold**) are as follows:

Company Comment 1:

Alcoa Inc. has no comments with respect to the draft significant source modification, significant permit modification, or TSD. However, Alcoa asks that IDEM confirm that the joint agreement and motion for stay of contested permit provisions, filed with the OEA on June 5, 2007 remains in effect.

In the event that this modification affects, alters, or re-issues any portion of the Title V operating permit outside the changes identified in the TSD, Alcoa incorporates by reference all comments and issues raised in Alcoa's PETITION FOR ADJUDICATORY HEARING AND ADMINISTRATIVE APPEAL filed on February 6, 2007 with the OEA, which initiated the pending appeal of the Title V operating permit, CAUSE NO. 07-A-J-3869. Alcoa further incorporates by reference any additional issues raised or addressed in the joint agreement and motion for stay of contested permit provisions for the same cause.

IDEM Response 1:

The joint agreement and motion for stay of contested permit provisions, filed with the OEA on June 5, 2007, under CAUSE NO. 07-A-J-3869 remains in effect.

IDEM Contact

Questions regarding this proposed permit can be directed to:

Kimberly Cottrell
Indiana Department Environmental Management
Office of Air Quality
100 North Senate Avenue
MC 61-53, Room 1003
Indianapolis, Indiana 46204-2251
Toll free (within Indiana): 1-800-451-6027 extension 3-0870
Or dial directly: (317) 233-0870
kcottrel@idem.in.gov

Please refer to Significant Source Modification No. 173-26029-00007 and Significant Permit Modification No. 173-26037-00007 in all correspondence.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD)
for a Part 70 Significant Source Modification
and Part 70 Significant Permit Modification

Source Description and Location

Source Name:	Alcoa, Inc. – Warrick Operations
Source Location:	Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629-0010
County:	Warrick
SIC Code:	3334 and 3352
Operation Permit No.:	T 173-6627-00007
Operation Permit Issuance Date:	January 5, 2007
Significant Source Modification No.:	173-26029-00007
Significant Permit Modification No.:	173-26037-00007
Permit Reviewer:	Kimberly Cottrell

Source Definition

This company consists of two (2) plants:

(a) Alcoa aluminum production plant, the primary operation, is located at Jct. IN Hwys. 66 & 61, Newburgh, Indiana.

(b) Alcoa power plant, the supporting operation, is located at 4700 Darlington Road, Newburgh, Indiana.

Since the two (2) plants are located in contiguous properties, and are owned by one (1) company, they will be considered one (1) source.

Separate Part 70 permits will be issued to Alcoa Inc.- Warrick Operations and Alcoa Warrick Power Plant solely for administrative purposes.

These two plants have different plant identification numbers.

Alcoa Inc. – Warrick Operations ID - 173-00007
Alcoa Warrick Power Plant ID - 173-00002

Existing Approvals

The source was issued Part 70 Operating Permit No. T 173-6627-00007 on January 5, 2007. The source has since received the following approvals:

(a) Significant Source Modification No.: T 173-24020-00007, issued on September 24, 2007.

(b) Significant Permit Modification No.: T 173-24585-00007, issued on October 30, 2007.

(c) Exemption No.: E 173-25797-00007, issued on January 11, 2008.

County Attainment Status

The source is located in Warrick County

Table 1: County Attainment Status

Pollutant	Designation
CO	Unclassifiable or attainment effective November 15, 1990.
Pb	Not designated.
NO_2	Cannot be classified or better than national standards.
O_3	Attainment effective January 30, 2006, for the Evansville area, including Warrick County, for the 8-hour ozone standard.[1]
PM_{10}	Unclassifiable effective November 15, 1990.
SO_2	Cannot be classified.

[1]Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.
Basic nonattainment designation effective federally April 5, 2005, for PM2.5.

(a) Volatile organic compounds (VOC) and Nitrogen Oxides (NO_X) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC emissions and NO_X emissions are considered when evaluating the rule applicability relating to ozone. Warrick County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions and NO_X emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.

(b) U.S. EPA, in the Federal Register Notice 70 FR 943 dated January 5, 2005, has designated Warrick County as nonattainment for $PM_{2.5}$. On March 7, 2005 the Indiana Attorney General's Office, on behalf of IDEM, filed a law suit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of nonattainment areas without sufficient data. However, in order to ensure that sources are not potentially liable for a violation of the Clean Air Act, the OAQ is following the U.S. EPA's guidance to regulate PM_{10} emissions as a surrogate for $PM_{2.5}$ emissions pursuant to the requirements of 326 IAC 2-1.1-5 (Nonattainment New Source Review (NSR)).

(c) Warrick County has been classified as attainment or unclassifiable for CO, Lead, NO_2, PM_{10}, and SO_2. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(d) Since this source is classified as a secondary metal production plant and a primary aluminum ore reduction plant, it is considered one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).

(e) Fugitive Emissions
Since this type of operation is in one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are counted toward the determination of PSD and Emission Offset applicability.

Source Status

The table below summarizes the potential to emit of the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

Table 2: Source Status PTE

Pollutant	**Emissions** (ton/yr)
CO	Greater than 100
NO_X	Greater than 100
PM	Greater than 100
PM_{10}	Greater than 100
SO_2	Greater than 100
VOC	Greater than 100
Single HAP	Greater than 10
Combined HAPs	Greater than 25

(a) This existing source is a major stationary source, under PSD (326 IAC 2-2), because a regulated pollutant is emitted at a rate of 100 tons per year or more, and it is one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).

(b) This existing source is a major stationary source, under nonattainment new source review rules (326 IAC 2-1.1-5) since PM_{10} (a surrogate for $PM_{2.5}$) is emitted at a rate of 100 tons per year or more.

(c) These emissions are based upon Significant Source Modification No. T 173-24020-00007, issued on September 24, 2007.

(d) This existing source is a major source of HAPs, as defined in 40 CFR 63.41, because HAP emissions are greater than ten (10) tons per year for a single HAP and greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, this source is a major source under Section 112 of the Clean Air Act (CAA).

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2006 OAQ emission data.

Table 3: Actual Emissions

Pollutant	**Actual Emissions** (ton/yr)
Carbon Monoxide	23,639.24
Lead	0.0275
Nitrogen Oxides	256.47
Primary PM10	2,252.77
Primary PM2.5	1,335.56
Total Particulate Matter	2,191.665
Sulfur Dioxide	2,537.80
Volatile Organic Compounds	867.74
HAP: 2,3,7,8-Tetrachlorodibenzo-p-dioxin	0.0000020346
HAP: Carbonyl sulfide	328.71
HAP: Chlorine	5.42

Table 3: Actual Emissions	
Pollutant	**Actual Emissions** (ton/yr)
HAP: Ethylbenzene	2.44
HAP: Formaldehyde	0.125
HAP: Hydrochloric acid	78.75
HAP: Hydrogen fluoride	84.065
HAP: Methyl isobutyl ketone	1.61
HAP: Naphthalene 4	2.20
HAP: Toluene	10.52
HAP: Triethylamine	0.505
HAP: Xylenes	14.78
Total HAPs	529.125

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by Alcoa, Inc. – Warrick Operations on February 1, 2008.

(a) The kerosene portion of the rolling lubricant system is being replaced with mineral spirits. Kerosene results in lubricant contamination and increased waste disposal. The replacement of kerosene with mineral spirits is expected to significantly improve the quality of the lubricant. The present kerosene portion (to be replaced by mineral spirits) of the lubricant system is a required component, in order for the hot mills to operate properly.

(b) Alcoa is installing a PCME broken bag detector probe in the common exhaust stack of the pitch fume treatment system and in the exhaust stack of the DC-218 baghouse.

(c) ALCOA is replacing the airslide for the Potline 2 Alumina and Alumina Fluoride Handling System.

This draft significant modification contains requirements for the new PCME bag leak detector probe and the new Potline 2 airslide. These are insignificant activities that do not result in an increase in emissions of air pollutants; however, some conditions from previously issued permits/approvals have been corrected, changed or removed.

Enforcement Issues

There are no pending enforcement actions.

Emission Calculations

See Appendix A of this Technical Support Document for detailed emission calculations.

Permit Level Determination – Part 70

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emission unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA, IDEM, or the appropriate local air pollution control agency."

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Table 4: PTE Before Controls of the Modification

Pollutant	**Potential To Emit** (ton/yr)
CO	0
NO_X	0
PM	0
PM_{10}	0
SO_2	0
VOC	89.65
HAP	0

This source modification is subject to 326 IAC 2-7-10.5(f)(4) because the potential to emit volatile organic compounds (VOC) is greater than twenty-five (25) tons per year before control. Additionally, the modification will be incorporated into the Part 70 Operating Permit through a significant permit modification issued pursuant to 326 IAC 2-7-12(d), because a case-by-case determination of an emission limitation is being determined.

Permit Level Determination – PSD or Emission Offset

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 modification, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Table 5: Potential to Emit (ton/yr)

Process / Emission Unit	**Installation Date**	**PM**	**PM_{10}**	**SO_2**	**VOC**	**CO**	**NO_X**
Hot Reversing Mill	1964	0	0	0	30.89	0	0
Hot Continuous Mill	1964	0	0	0	58.76	0	0
Potline #2		0	0	0	0	0	0
Total for Modification		0	0	0	89.65	0	0
PSD Significant Level		25	15	40	40	100	40

The VOC emissions from this modification exceed the PSD significant level; however, pursuant to 326 IAC 2-2-1(ee)(2)(E)(i), this modification does not constitute a major modification under the PSD regulations because the processes were capable of accommodating the use of this mineral spirits prior to January 6, 1975. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

Federal Rule Applicability Determination

The following federal rules are applicable to the source due to this modification:

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

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) applicable to this proposed modification.

(c) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to new or modified emission units that involve a pollutant-specific emission unit and meet the following criteria:

(1) has a potential to emit before controls equal to or greater than the major source threshold for the pollutant involved;

(2) is subject to an emission limitation or standard for that pollutant; and

(3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

There are no control devices for the Hot Mills; therefore, the requirements of 40 CFR Part 64, CAM, are not applicable to the Hot Mills.

State Rule Applicability Determination

The following state rules are applicable to the source due to this modification:

326 IAC 2-2 and 2-3 (PSD and Emission Offset)
PSD and Emission Offset applicability is discussed under the Permit Level Determination – PSD and Emission Offset section.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
There is no physical modification associated with this process modification and the operation of the Hot Mills will emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 8 (Volatile Organic Compounds Rules)
The provisions of 326 IAC 8 (Volatile Organic Compounds Rules) do not apply to the modification because there is no physical change associated with the process modification.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

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

Changes to the compliance determination and monitoring requirements are detailed in the Proposed Changes section of this document.

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. T 173-6627-00007. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

Change No. 1 IDEM has clarified the General Record Keeping Requirements pertaining to "reasonable possibility" in Condition C.18 (original paragraph (c), now paragraphs (c) and (d)) as follows:

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

~~(c) If there is a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, other than a project at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:~~

~~(1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, document and maintain the following records:~~

~~(A) A description of the project.~~

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

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

~~(i) Baseline actual emissions;~~

~~(ii) Projected actual emissions;~~

~~(iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1 (mm)(2)(A)(iii); and~~

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

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

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

(c) If there is a reasonable possibility (as defined in 40 CFR 51.165 (a)(6)(vi)(A), 40 CFR 51.165 (a)(6)(vi)(B), 40 CFR 51.166 (r)(6)(vi)(a), and/or 40 CFR 51.166 (r)(6)(vi)(b)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:

(1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, document and maintain the following records:

(A) A description of the project.

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

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

(i) Baseline actual emissions;

(ii) Projected actual emissions;

(iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1 (mm)(2)(A)(iii); and

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

(d) If there is a reasonable possibility (as defined in 40 CFR 51.165 (a)(6)(vi)(A) and/or 40 CFR 51.166 (r)(6)(vi)(a)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:

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

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

Change No. 2 IDEM has updated the General Reporting Requirements in Condition C.19, paragraphs (f), (f)(2), (g) and (h)(2) as follows to correct the references to Condition C.18:

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

~~(f) If the Permittee is required to comply with the recordkeeping provisions of (c) in Section C - General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:~~

~~(1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (xx) and/or 326 IAC 2-3-1 (qq), for that regulated NSR pollutant, and~~

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

~~(g) The report for project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:~~

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

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

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

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

~~Reports required in this part shall be submitted to:~~

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

~~(h)~~

(f) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C – General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll) at an existing Electric Utility Steam Generating Unit, then for that project the Permittee shall:

(1) Submit to IDEM, OAQ a copy of the information required by (c)(1) in Section C – General Record Keeping Requirements

(2) Submit a report to IDEM, OAQ within sixty (60) days after the end of each year during which records are generated in accordance with (d)(1) and (2) in Section C – General Record Keeping Requirements. The report shall contain all information and data describing the annual emissions for the emissions units during the calendar year that preceded the submission of report.

Reports required in this part shall be submitted to:

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

(g) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C – General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll) at an existing emissions unit other than an Electric Utility Steam Generating Unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:

(1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C – General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C – General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1(xx) and/or 326 IAC 2-3-1(qq), for that regulated NSR pollutant, and

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

(h) The report for a project at an existing emissions unit other than Electric Utility Steam Generating Unit shall be submitted within sixty (60) days after the end of the year and contain the following:

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

(2) The annual emissions calculated in accordance with (d)(1) and (2) in Section C – General Record Keeping Requirements.

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

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

Reports required in this part shall be submitted to:

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

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

Change No. 3 ALCOA is replacing the airslides for the Potline 2 Alumina and Alumina Fluoride Handling System. The emission unit description for the distribution box listed as item (20) has been updated and all references to the airslide have been updated throughout Section D.1. Additionally, the requirements for visible emissions notations (Condition D.1.7) has been updated to specify the requirements for the new exhaust stack configuration.

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

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

Potlines 1 and 2 Alumina and Alumina Fluoride Handling System:

(20) One (1) distribution box, **constructed in 1962**, and vibratory screen and airslide transferring fresh alumina to fluidized bed scrubber and Baghouse C1, identified as the **Alumina Vibratory Screen and C1 East and C1 West Feed Airslide** ~~C1~~, constructed in **2008** ~~1962~~, with a capacity of 18 tons per hour, controlled by the vibratory screen and C1 **east and C1 west** Airslide**s** ~~C1~~ **vibratory screen and C1 east and C1 west airslide bin vents #1, #2, #3, and #4**~~, Baghouse~~, and exhausting at Stack**s** 160C1.37**-1, 160C1.37-2, 160C1.37-3, and 160C1.37-4.**

4 bin vents ~~One baghouse~~, identified as the **vibratory screen and C1 east and C1 west Airslide bin vents**~~C1 Baghouse~~, **each** with an airflow rate of **250** ~~3,500~~ acfm at a temperature **120^{0}F** ~~70^{0}F~~, and exhausting at Stack**s** 160C.37**-1, 160C.37-2, 160C.37-3, and 160C.37-4.**

D.1.1 Particulate Emissions Limitations for Manufacturing Processes [326 IAC 6-3-2]

Facility	Control Device	Maximum Process Weight Rate (tons/hr)	PM Emission Limit (lbs/hr)
Alumina Feed Vibratory Screen and C1 east and C1 west Airslide**s** ~~C1~~	**Vibratory screen and C1 east and C1 west** Airslide ~~C1~~ **Bin Vents #1, #2, #3, and #4** ~~Baghouse~~	18	28.4

Compliance Determination Requirements

D.1.3 Particulate Control [326 IAC 2-7-6(6)]

(a) In order to comply with Condition D.1.1, the PM emissions from the following facilities shall be controlled by the baghouses as indicated in the table below. Each baghouse shall be in operation and control emissions from its associated facility at all times when a facility that the baghouse controls is in operation.

Facility	Baghouse
Vibratory Screen and C1 east and C1 west Alumina Feed Airslide**s** ~~C1~~	**Vibratory screen and C1 east and C1 west Airslide** ~~C1 Baghouse~~ **bin vents #1, #2, #3, and #4**

D.1.7 Visible Emissions Notations

(a) Visible emission notations of the exhaust from Stacks 60.2 and 60.3, 60.6, 60.8, 61A.1, 62.1, 62.2, 61B.1, 140.1, 104.1, 144.1, 160M.2, 160B2.16, 141.1(NE), 161.B5.37, **160C1.37** and 161.B6.37, shall be performed once per day during normal daylight operations. **When the baghouse exhausting to stack 160C1.37 is permanently idled, visible emission notations of the exhaust from bin vent exhausts 160C1.37-1, 160C1.37-2, 160C1.37-3, and 160C1.37-4, shall be performed once per day during daylight operations.** A trained employee shall record whether emissions are normal or abnormal.

Change No. 4 Alcoa is installing a PCME broken bag detector probe in the common exhaust stack of the pitch fume treatment system and in the exhaust stack of the DC-218 baghouse. As a result of this change, visible emissions notations will no longer be required for the DC-218 exhaust stack. Portions of Conditions D.3.9 [first paragraph, (j), and (j)(5)] and D.3.10 [paragraph (a)] have been updated as follows:

D.3.8 Emission Monitoring Requirements [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-24] [40 CFR 63.847] [40 CFR 63.848]

(a) Pursuant to 40 CFR 63.848(g), 40 CFR 63.8(f), and Condition D.3.9, the Permittee shall operate the continuous bag leak detection systems installed on the exhaust duct of each baghouse of the pitch fume treatment system **until such time that the continuous broken bag detection system for the pitch fume treatment system common exhaust stack has been installed and calibrated**. **After the continuous broken bag detection system for the pitch fume treatment system common exhaust stack has been installed and calibrated, the Permittee shall comply with the provisions of 40 CFR 63.848(g) and 40 CFR 63.8(f) using the pitch fume treatment system common exhaust stack continuous broken bag detection system.** Whenever the bag leak detection systems are not operational, the Permittee shall visually inspect the exhaust stacks of the pitch fume treatment system on a daily basis for evidence of any visible emissions indicating abnormal operation.

D.3.9 Bag Leak Detection System and Alternative Monitoring Plan (AMP) [SPM 173-21948-00007] [326 IAC 20-24] [40 CFR 63.847] [40 CFR 63.848]

Upon installation and calibration, the Permittee shall operate the continuous bag leak detection system installed on the common exhaust stack of the Pitch Fume Treatment System and the exhaust stack of the DC-218 baghouse. The Permittee shall **continue to** operate the continuous bag leak detection system installed on the exhaust duct of each baghouse of the pitch fume treatment system **until the continuous bag leak detection system for the common exhaust stack has been installed and calibrated**. The bag leak detection system**s** shall meet the following requirements:

(j) In the event that a bag leak detection system should malfunction, fail or otherwise need repair, the Permittee shall perform visible emissions notations of the **Pitch Fume Treatment System and/or DC-218** stack exhaust**s** associated with that bag leak detection system as follows:

(5) Pursuant to 40 CFR 63.848(f), if the alarm on ~~any of~~ the bag leak detection systems **probe on the common exhaust stack of the Pitch Fume Treatment System** activates, or if visible emissions indicating abnormal operation are observed from the **common** exhaust stack~~s~~ of the pitch fume treatment system during the time the bag leak detection system is malfunctioning, then the Permittee shall initiate the corrective action procedures identified in the SSM plan within one (1) hour. Failure to initiate the corrective action procedures within one (1) hour or to take the necessary corrective actions to remedy the problem is a violation.

D.3.10 Visible Emissions Notations

(a) Visible emission notations of the stack exhaust for ~~DC-218,~~ DC-153, DCF-221A, DCF-221B, and Check-Weigh Scale baghouses shall be performed once per day. A trained employee shall record whether emissions are normal or abnormal.

D.3.13 Record Keeping Requirements

(b) To document compliance with Condition D.3.9(a), the Permittee shall keep a log of the calibration test results for pitch fume treatment system baghouses leak detectors. **Upon installation and calibration of the pitch fume treatment system common stack and DC-218 baghouse bag leak detection system, the Permittee shall keep a log of the calibration results for those detectors. Upon installation and calibration of the pitch fume treatment system common exhaust stack bag leak detection system; Permittee will no longer be required to calibrate and operate the bag leak detection system on each baghouse of the pitch fume treatment system in order to comply with the provisions of 40 CFR 63.848(g) and 40 CFR 63.8(f).**

~~(f) The Permittee shall maintain the following as required under Conditions D.3.10, D.3.11, and D.3.12:~~

~~(1) Documentation of all response steps implemented per event.~~

(f) The Permittee shall maintain documentation of all response steps implemented per event as required under Conditions D.3.10, D.3.11, and D.3.12.

Change No. 5 The kerosene portion of the rolling lubricant system is being replaced with mineral spirits. Kerosene results in lubricant contamination and increased waste disposal. The replacement of kerosene with mineral spirits is expected to significantly improve the quality of the lubricant. The present kerosene portion (to be replaced by mineral spirits) of the lubricant system is a required component, in order for the hot mills to operate properly. IDEM has modified the facility description for the hot mills in Section D.7 of the permit as follows:

Rolling Mills

(1) One (1) gauge reduction of aluminum facility, identified as hot reversing mill, **using mineral spirits as lubricant,** constructed in 1964, with a maximum capacity production of aluminum ingot of 225 tons per hour, controlled by a mist eliminator, and exhausting to Stack 811.1;

(2) One (1) gauge reduction of aluminum facility, identified as continuous hot mill, **using mineral spirits as lubricant,** constructed in 1964, with a maximum capacity production of aluminum ingot of 225 tons per hour, controlled by a mist eliminator, and exhausting to Stack 814.1;

Change No. 6 Alcoa has provided documentation that the wastewater samples have very little variation from week to week; therefore, IDEM has determined that the following sampling method is acceptable to determine compliance with the PSD Emission Limit in Condition D.8.3(b). New Condition D.8.10 has been added and paragraph (c) of original Condition D.8.14 (now D.8.15) has been revised to reference this new condition. The changes to original Condition D.8.14 (now D.8.15) are shown with the changes for the next comment.

D.8.10 Compliance Determination Requirements

Compliance with the PSD Emission Limit in Condition D.8.3 shall be determined by combining the weekly samples and analyzing the composite of the weekly samples once per month.

Change No. 7 original Condition D.8.14 (now D.8.15) has been revised to clarify the applicable reporting requirements as follows:

~~D.8.14~~ **D.8.15** Reporting Requirements **[326 IAC 2-2]** [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 12] [326 IAC 20-64] [40 CFR 63.5180] [40 CFR 60, Subpart TT]

(a) The Permittee shall submit the reports specified in paragraphs **(a) (1)** ~~(b)~~ through **(3)** ~~(i)~~ of this condition to the U.S. EPA Regional Office 5 and to IDEM, OAQ:

~~(1) Performance test reports as specified in 40 CFR 63.10(d)(2).~~

~~(2)~~ **(1) Start-up, shutdown, and malfunction reports as specified in 40 CFR 63.10(d)(5) for coating lines CCL2 and CCL3. Separate start-up, shutdown, or malfunction reports are not required if the information is included in the report specified in the following paragraph (5) of this condition.**

~~(3)~~ **(2)** Semi-annual compliance reports containing the information specified in 40 CFR 63.5180(g)(i) and (ii).

~~(4)~~ **(3)** For each deviation occurring at a coil coating line, the semi-annual compliance report containing the information in paragraphs 40 CFR 63.5180(g)(2)(i) through (iv) and the information in 40 CFR 63.5180 (h)(1) through (3).

~~(5) Identify, record and submit a written report every calendar quarter of each~~

~~instance in which the volume weighted average of the total mass of the VOCs emitted per volume of applied coating solids from coil coating line CPL6 is greater than the limit specified under 40 CFR 60.462. If no such instances have occurred during a particular quarter, a report stating this shall be submitted semiannually.~~

(b) The Permittee shall submit the reports specified in paragraphs (b) (1) through (4) of this condition to IDEM, OAQ:

(1) Performance test reports as specified in 40 CFR 63.10(d)(2).

(2) Identify, record and submit a written report every calendar quarter of each instance in which the volume weighted average of the total mass of the VOCs emitted per volume of applied coating solids from coil coating line CPL6 is greater than the limit specified under 40 CFR 60.462. If no such instances have occurred during a particular quarter, a report stating this shall be submitted semiannually.

~~(b)~~**(3)** A monthly summary of the information to document compliance with condition D.8.2, for coil coating lines CCL2 and CCL3 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 quarter being reported. ~~The reports submitted by the Permittee do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).~~

~~(c)~~ **(4)** A monthly summary of the information to document compliance with condition D.8.3 **and D.8.10** for coil coating line CPL6 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting form located at the end of this permit, or its 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 "responsible official" as defined by 326 IAC 2-7-1(34).~~

(c) These reports shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit. The reports submitted by the Permittee require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Change No. 8 Since the final MACT standard for Organic Liquids Distribution, Non-Gasoline (40 CFR Part 63, Subpart EEEE) was promulgated on February 3, 2004, the provisions of Condition D.8.16 to submit a Part 2 MACT Application are no longer required. IDEM has revised Section D.8 to list the applicable portions of the NESHAP and remove unnecessary conditions (D.8.15 and D.8.16). Subsequent permit conditions have been renumbered. The full text of the NESHAP requirements is included as an attachment to the permit. The revisions are as follows:

D.8.7 General Provisions Relating to **Hazardous Air Pollutants** ~~HAPs~~ [326 IAC 20-1] [40 CFR Part 63, Subpart A] ~~[326 IAC 20-83] [Table 12 to 40 CFR Part 63, Subpart EEEE] [40 CFR 63.2398]~~

~~(a)~~ The provisions of 40 CFR Part 63, Subpart A- General Provisions, which are incorporated by reference as 326 IAC 20-1-1, apply to the affected source, except when otherwise specified by Table 12 to 40 CFR Part 63, Subpart EEEE.

~~(b) Since the applicable requirements associated with the compliance options are not included and specifically identified in this permit, the permit shield authorized by the B section of this permit in the condition titled Permit Shield, and set out in 326 IAC 2-7-15 does not apply to paragraph (a) of this condition, except as otherwise provided in this condition. The permit shield applies to Condition D.8.15, Notification Requirements.~~

D.8.8 National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution, Non-Gasoline ~~[326 IAC 20-1] [40 CFR Part 63, Subpart A]~~ [326 IAC 20-83] [40 CFR Part 63, Subpart EEEE]

The Permittee which engages in the organic liquid coating of aluminum coils shall comply with the following provisions of 40 CFR Part 63, Subpart EEEE (included as Attachment A of this permit), with a compliance date of February 5, 2007:

(1) 40 CFR 63.2343(a),
(2) 40 CFR 63.2343(b)(1)(i),
(3) 40 CFR 63.2343(b)(ii)(B),
(4) 40 CFR 63.2343(b)(iii),
(5) 40 CFR 63.2343(b)(2)(i),
(6) 40 CFR 63.2343(b)(3), and
(7) 40 CFR 63.2343(d).

~~(a) The provisions of 40 CFR Part 63, Subpart EEEE (National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution, Non-Gasoline) apply to the affected source. A copy of this rule is available on the US EPA Air Toxics Website at http://www.epa.gov/ttn/atw/orgliq/orgliqpg.html.~~

~~(b) Pursuant to 40 CFR 63.2342(b)(1), the Permittee shall comply with the emission limitations, operating limits, and work practice standards for existing affected sources no later than February 5, 2007, except as provided in 40 CFR 63.6.~~

~~(c) Since the applicable requirements associated with the compliance options are not included and specifically identified in this permit, the permit shield authorized by the B section of this permit in the condition titled Permit Shield, and set out in 326 IAC 2-7-15 does not apply to paragraphs (a), (b), and (c) of this condition, except as otherwise provided in this condition. The permit shield applies to Condition D.8.15, Notification Requirements.~~

~~(d) Terminology used in this section is defined in the CAA, in 40 CFR Part 63, Section 63.2, and in 40 CFR 63.2406, and are applicable to the affected source.~~

~~D.8.15 Notifications Requirements [326 IAC 12] [326 IAC 20-1] [40 CFR 63, Subpart A] [326 IAC 20-64] [326 IAC 20-83] [40 CFR 63.5180] [40 CFR 63.2382]~~

~~(a) The Permittee shall submit each notification in Table 12 to 40 CFR Part 63, Subpart EEEE, and paragraphs (b) through (d) of 40 CFR 63.2382 that applies to the Permittee. The Permittee shall submit the notifications, required by 40 CFR 63, Subpart EEEE, according to the schedule in Table 12 to 40 CFR Part 63, Subpart EEEE and as specified in paragraphs (b) through (d) of 40 CFR 63.2382.~~

~~(b) The Permittee shall submit the Notification of Intent to conduct a performance test at least 60 calendar days before it is initially scheduled to begin as required in 40 CFR 63.7(b)(1).~~

~~(c) Notification of Compliance Status - If the Permittee is required to conduct a performance test, design evaluation, or other initial compliance demonstration as specified in Table 5, 6, or 7 to 40 CFR Part 63, Subpart EEEE, the Permittee shall submit a Notification of Compliance Status. The Notification of Compliance Status must include the information required in 40 CFR Part 63, Section 63.999(b) and in 40 CFR 63.2382, paragraphs (d)(2)(i) through (viii).~~

~~D.8.16 Requirement to Submit a Significant Permit Modification Application [326 IAC 2-7-12] [326 IAC 2-7-5]~~

~~The Permittee shall submit an application for a significant permit modification to IDEM, OAQ to include information regarding which compliance option or options will be chosen in the Part 70 permit.~~

~~(a) The significant permit modification application shall be consistent with 326 IAC 2-7-12, including information sufficient for IDEM, OAQ to incorporate into the Part 70 permit the applicable requirements of 40 CFR 63, Subpart EEEE, a description of the affected source and activities subject to the standard, and a description of how the Permittee will meet the applicable requirements of the standard.~~

~~(b) The significant permit modification application shall be submitted no later than 45 days after IDEM grants the extension for the compliance deadline as provided by 40 CFR 63.6.~~

~~(c) The significant permit modification application shall be submitted to:~~

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

Conclusion and Recommendation

The construction of this proposed modification shall be subject to the conditions of the attached proposed Significant Source Modification No. 173-26029-00007 and Significant Permit Modification No. 173-26037-00007. The staff recommend to the Commissioner that this Part 70 Significant Source Modification and Part 70 Significant Permit Modification be approved.

IDEM Contact

Questions regarding this proposed permit can be directed to:

Kimberly Cottrell
Indiana Department Environmental Management
Office of Air Quality
100 North Senate Avenue
MC 61-53, Room 1003
Indianapolis, Indiana 46204-2251
Toll free (within Indiana): 1-800-451-6027 extension 3-0870
Or dial directly: (317) 233-0870
kcottrel@idem.in.gov

Please refer to Significant Source Modification No. 173-26029-00007 and Significant Permit Modification No. 173-26037-00007 in all correspondence.

Indiana Department of Environmental Management
Office of Air Quality

Appendix A – Emission Calculations
Technical Support Document (TSD)
Significant Source Modification (SSM) of Part 70 Operating Permit
Significant Permit Modification (SPM) of Part 70 Operating Permit

Source Description and Location

Company Name:	Alcoa, Inc. – Warrick Operations
Address City IN Zip:	Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629-0010
County:	Warrick
SIC / NAICS Code:	3334 and 3352
Significant Source Modification No.:	173-26029-00007
Significant Permit Modification No.:	173-26037-00007
Permit Reviewer:	Kimberly Cottrell
Date:	May 27, 2008

Summary of Potential to Emit

The tables below summarize the potential to emit calculations submitted by Alcoa, Inc. – Warrick Operations. IDEM has reviewed these calculations and verified their accuracy.

Increase in Potential to Emit (tpy)	PM	VOC
Hot Reversing Mill	0.00	30.89
Hot Continuous Mill	0.00	58.76
Potline 2 Airslides	0.00	0.00
Total:	*0.00*	*89.65*

Hot Mills Modification

Kerosene - to be discontinued												
				Emission Factor		Controlled Emissions		Controlled Emissions		Control Efficiency	Uncontrolled Emissions	P>60,000 lb/hr
	capacity			PM	VOC	PM	VOC	PM	VOC	PM	PM	E = 55 P^0.11 - 40
Process	*ton/hr*	*lb/hr*	*ton/yr*	*lb/ton*	*lb/ton*	*lb/hr*	*lb/hr*	*tpy*	*tpy*	*%*	*tpy*	*E (lb/hr)*
Hot Reversing Mill	172	344,000	1,506,720	0.016	0.074	2.75	12.73	12.05	55.75	85%	80.36	56.89
Hot Continuous Mill	172	344,000	1,506,720	0.084	0.764	14.45	131.41	63.28	575.57	85%	421.88	56.89
Totals:						17.20	144.14	75.34	631.32		502.24	

Mineral Spirits - replacing the kerosene												
				Emission Factor		Controlled Emissions		Controlled Emissions		Control Efficiency	Uncontrolled Emissions	P>60,000 lb/hr
	capacity			PM	VOC	PM	VOC	PM	VOC	PM	PM	E = 55 P^0.11 - 40
Process	*ton/hr*	*lb/hr*	*ton/yr*	*lb/ton*	*lb/ton*	*lb/hr*	*lb/hr*	*tpy*	*tpy*	*%*	*tpy*	*E (lb/hr)*
Hot Reversing Mill	172	344,000	1,506,720	0.016	0.115	2.75	19.78	12.05	86.64	85%	80.36	56.89
Hot Continuous Mill	172	344,000	1,506,720	0.084	0.842	14.45	144.82	63.28	634.33	85%	421.88	56.89
Totals:						17.20	164.60	75.34	720.97		502.24	

Methodogy:

Controlled Emissions lb/hr = capacity ton/hr x Emission Factor lb/ton

Controlled Emissions tpy = capacity ton/yr x Emission Factor lb/ton x 1 ton / 2000 lb

Uncontrolled Emissions tpy = $\frac{\text{Controlled Emissions tpy}}{(1 - \text{Control Efficiency})}$

Potline #2 Modification

Process	Controlled Emissions PM tpy	Control Efficiency PM %	Uncontrolled Emissions PM tpy	P<=60,000 lb/hr E = 4.10 P^0.67 E (lb/hr)
Potline #2 with Current Airslide	7.43	99%	743.35	0.7852
Potline #2 with Replaced Airslide (total)	0.34	99%	205.83	0.3322
Potline #2 with Replaced Airslide (each baghouse)	*0.09*		*51.46*	*0.1312*
Change in PTE	-7.09		-537.52	

Current Airslide Methodogy:

$$\text{Controlled Emissions (tpy)} = \frac{0.06 \text{ gr/dscf} \times 3300 \text{ dscf/min} \times 8760 \text{ hr/yr}}{7000 \text{ lb/gr} \quad 60 \text{ min/hr} \quad 2000 \text{ lb/ton}}$$

$$\text{Uncontrolled Emissions (tpy)} = \frac{\text{Controlled Emissions}}{(1 - \text{Control Efficiency})}$$

Proposed Airslide Methodogy:

$$\text{Controlled Emissions (tpy)} = \frac{\mathbf{0.01} \text{ gr/dscf} \times 8760 \text{ hr/yr} \quad 1000 \text{ CF/min} \times 530 \text{ Rankine (ambient)}}{7000 \text{ lb/gr} \quad 2000 \text{ lb/ton} \quad 60 \text{ min/hr} \quad 580 \text{ Rankine (stack)}}$$

$$\text{Uncontrolled Emissions (tpy)} = \frac{\mathbf{0.06} \text{ gr/dscf} \times 8760 \text{ hr/yr} \quad 1000 \text{ CF/min} \times 530 \text{ Rankine (ambient)}}{7000 \text{ lb/gr} \quad 2000 \text{ lb/ton} \quad 60 \text{ min/hr} \quad 580 \text{ Rankine (stack)}}$$

$$(1 - \text{Control Efficiency})$$

Temperature Conversion:

The exhaust temp will be 120 F; however, the ambient temperature (70 F) is used for calculations.
The temperatures were converted to the Rankine scale for the conversion calculations.

[°R]	=	[°F]	+	459.67
579.67	=	120	+	459.67
529.67	=	70	+	459.67