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: December 30, 2011

RE: Alcoa, Inc. – Warrick Operations / 173-30796-00007

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 13-17-3-4 and 326 IAC 2, this permit modification is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-7-3 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 Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) 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.

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

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

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

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

Enclosures
FNTV-PMOD.doc 3/27/08

IDEM

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Ms. Chris Allen
Alcoa, Inc. – Warrick Operations
Bldg. 860 E, P.O. Box 10
Newburgh, IN 47629

December 30, 2011

Re: Re: 173-30796-00007
Significant Permit Modification to
Part 70 No.: T 173-6627-00007

Dear Ms. Allen:

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 August 8, 2011. Pursuant to the provisions of 326 IAC 2-7-12 a significant permit modification to this permit is hereby approved as described in the attached Technical Support Document.

Alcoa Inc. Warrick Operations has applied to add a railcar unloading system supporting Tank 62 that will serve as a backup system for receiving alumina whenever the barge unloading operations are unavailable or unable to provide an adequate supply.

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. A copy of this permit is available on the Internet at: www.in.gov/ai/appfiles/idem-caats/.

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.

Sincerely,

Tripurari Sinha

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

Attachments:
- Updated Permit
- Technical Support Document
- PTE Calculations

TPS/klc

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

Mr. Ed Hemmersbach
Alcoa, Inc. – Warrick Operations
Bldg. 01, P.O. Box 10
Newburgh, IN 47629

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

Operation Permit No.: T 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

First Significant Permit Modification No.: 173-24585-00007, issued on October 30, 2007,
Exemption No.: 173-25797-00007, issued on January 11, 2008,
Second Significant Permit Modification No.: 173-26037-00007, issued on July 25, 2008,
Third Significant Permit Modification No.: 173-27019-00007, issued on December 30, 2008,
Fourth Significant Permit Modification N: 173-27454-00007, issued on June 16, 2009, and
Minor Permit Modification No.: 173-27764-00007, issued on June 18, 2009.
Fifth Significant Permit Modification No.: 173-28362-00007, issued November 13, 2009.
Sixth Significant Permit Modification No.: 173-29035-00007, issued September 14, 2010.

Significant Permit Modification No.: T 173-30796-00007	
Issued by: Tripurari Sinha Tripurari R. Sinha, Ph.D., Section Chief Permits Branch Office of Air Quality	Issuance Date: December 30, 2011 Expiration Date: January 5, 2012

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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 Attainment for all other criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD 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 on 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.

(i) One (1) portable BL Pergson 428 fixed hammer impactor (Brick crusher), with a capacity of 100 tons per hour, with a 20 to 1 reduction ratio, with a 3306 caterpillar diesel engine, with a capacity of 300 hp and using a four (4) wet suppression for control of particulate matters (four sprays, two on the conveyor and two on the impactor).

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

and

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

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

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

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

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

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

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

The submittal by the Permittee does require 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 or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:

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

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

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

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

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

The PMP extension notification does not require 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 and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

(A) A description of the emergency;

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

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require 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 and Enforcement Branch, 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
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

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

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified 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
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

and

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

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

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b),(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 modification, construction, or reconstruction is governed by the requirements of 326 IAC 2.

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

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

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

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

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

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

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

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

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

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

Indiana Department of Environmental Management
Permit Administration and Support Section, 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). 326 IAC 6-4-2(4) is not federally enforceable.

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

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

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

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

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

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

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

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

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

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

All required notifications shall be submitted to:

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require 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 and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

The notification which shall be submitted by the Permittee does require 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 or ninety (90) days of initial start-up, whichever is later.

(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 except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted 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 and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

(d) 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 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 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
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53, IGCN 1003
Indianapolis, Indiana 46204-2251

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

Stratospheric Ozone Protection

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

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

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

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

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

SECTION D.1 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^{o}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^{o}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^{o}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 500 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 275 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 275 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 240 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 141BS, constructed in 1969, with a maximum storage capacity of 300 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 and alumina 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) Seven (7) 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.36;

(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 ^{0}F , 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 or 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 or B6 Baghouse, and exhausting at Stack 161.B5.37.

One (1) baghouse, identified as Airslide B5 Baghouse, with an airflow rate of 4,600 acfm at a temperature 70^{o}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 B5 or B6 Baghouse, and exhausting at Stack 161.B6.37.

One (1) baghouse, identified as Airslide B6 Baghouse, with an airflow rate of 4,600 acfm at a temperature 70^{o}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 or Airslide B6 Baghouse, and exhausts at Stacks 161.B5.37 or 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 2000, 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 2000, 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.

(54) One (1) railcar unloading operation supporting Tank 62, permitted in 2011, with a maximum unloading capacity of 16 railcars per day, and a maximum railcar capacity of 90 tons of alumina per railcar. Particulate emissions are controlled by plastic enclosure during unloading of alumina.

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 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			
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 and Polllution Control System Alumina Feed Airslide B6	Airslide B5 or 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			
(7) GTC Reacted Alumina 161B3-SC-02 Vibratory Screen			

Facility	Control Device	Maximum Process Weight Rate (tons/hr)	PM Emission Limit (lbs/hr)
Equipment controlled by Baghouse 166			
(1) Airslide 166-FM-01 (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	Baghouse 166	100	51.3

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.

D.1.3 PSD Minor Limits [326 IAC 2-2] and Particulate Emissions Limitations for Manufacturing Processes [326 IAC 6-3-2]

(a) PM emissions from the railcar unloading operation supporting Tank 62 shall not exceed 3.14 lb/ton alumina.

(b) PM_{10} emissions from the railcar unloading operation supporting Tank 62 shall not exceed 1.88 lb/ton alumina.

(c) $PM_{2.5}$ emissions from the railcar unloading operation supporting Tank 62 shall not exceed 1.25 lb/ton alumina.

(d) The amount of Alumina unloaded by railcar for Tank 62 shall not exceed 15,900 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with these emission limits will limit the potential to emit from the railcar unloading operation supporting Tank 62 to less than twenty-five (25) tons of PM per year, less than fifteen (15) tons of PM_{10} per year, and less than ten (10) tons of $PM_{2.5}$ per year. Therefore the requirements of 326 IAC 2-2 (PSD) are not applicable to the railcar unloading operation supporting Tank 62 approved under Significant Source Modification No.: 173-30774-00007.

This will also satisfy the requirements of 326 IAC 6-3-2, Particulate Emissions Limitations for Manufacturing Processes.

D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan is required for the railcar unloading operation supporting Tank 62. Section B - Preventive Maintenance Plan contains the Permittee's obligations with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.1.5 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

Facility	Baghouse
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
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 and Pollution Control System Alumina Feed Airslide B6	Airslide Baghouse B5 or 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	

Facility	Baghouse
(11) Airslide 166-FM-10	
(12) Tank 151B Distribution Box 151-FM-1B	
(13) Tanks 151A and 151B	
Equipment controlled by Baghouse 166	Baghouse 166
(1) Airslide166-FM-01	
(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	
(14) Airlift 166-AE-01	
(15) Airslide 166-FM-05	

(c) In order to comply with Condition D.1.3, the PM, PM_{10} , and $PM_{2.5}$ emissions from the Railcar unloading for Tank 62 shall be controlled by minimizing the freefall distance of the alumina and utilizing plastic to enclose the bottom of the railcar during unloading.

(d) 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.1.6 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]

In order to demonstrate compliance with Conditions D.1.1 and D.1.2, and no later than January 5, 2010 or no later than 5 years from the date of the last valid compliance test, whichever is later, the Permittee shall perform PM and PM_{10} testing for Baghouse 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. Section C – Performance Testing contains the Permittee's obligations with regard to the testing required by this condition. PM_{10} includes filterable and condensable PM_{10}. 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.1.7 Bag Leak Detection System

In order to comply with Condition D.1.2, and 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 representative of 50% of the combined permit limit for both bag leak detection systems such that an initial investigation alarm shall be activated for Baghouse 112A, whenever PM emissions from Stack 112A.1 are greater than or equal to 1.35 pounds of PM per hour; and for Baghouse 166, whenever PM emissions from Stack 166.1 are greater than or equal 1.47 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 or Exceedances. Abnormal emissions alone are 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.

D.1.8 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.1.9 Broken or Failed Bag Detection except Baghouse 112A and Baghouse 166

(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.

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

(c) If visible emissions are observed, an employee certified to perform an EPA Method 9 evaluation shall determine whether opacity exceeds forty percent (40%) in one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4, and:

(1) If opacity does not exceed forty percent (40%) per Method 9, the Permittee shall shutdown the associated process as soon as practical unless either:

(i) the Permittee is able to bring the opacity below forty percent (40%) within a reasonable period of time, or

(ii) the situation qualifies as an "emergency" under 326 IAC 2-7-1(12).

If the Permittee continues to operate the associated process after determining the opacity exceeds forty percent (40%) per Method 9, then the Permittee shall perform an additional Method 9 reading every four (4) daylight hours until the opacity is below forty percent (40%) per Method 9.

(2) If opacity does not exceed forty percent (40%) per the Method 9 observation referenced above, inspection of the baghouse shall be scheduled at the next available process down time. Repairs shall be scheduled as expeditiously as practical, based on the inspection results.

(3) If opacity exceeds twenty percent (20%) per any Method 9 observations referenced above, the Permittee shall notify IDEM, if the Permittee anticipates that operations will continue for ten (10) days or more before the failed baghouse units will be repaired or replaced.

Failure to take the response steps required by Condition D.1.11(c) upon observation of visible emissions shall be considered a deviation from this permit.

D.1.10 Visible Emissions Notations

(a) Daily visible emission notations of the Railcar Unloading Operations supporting Tank 62 shall be performed during normal daylight operations whenever alumina is unloaded by railcar. 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) If abnormal emissions are observed, the Permittee shall take reasonable response steps. Observation of abnormal emissions that do not violate an applicable opacity limit is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit. Section C – Response to Excursions or Exceedances contains the Permittee's obligations with regard to the reasonable response steps required by this condition.

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

D.1.11 Record Keeping Requirements

(a) To document the compliance status with Condition D.1.7(a), the Permittee shall keep a log of the calibration test results for Baghouse 112A and Baghouse 166 leak detectors.

(b) To document the compliance status with Condition D.1.7(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 the compliance status with Condition D.1.8(a), the Permittee shall maintain records of each bag leak detection alarm activation for Baghouse 112A and Baghouse 166.

(d) To document the compliance status with Condition D.1.8(b), when bag failure occurs at either Baghouse 112A or Baghouse 166, the Permittee shall keep a log of the hourly PM and PM_{10} emission rates recorded by the electrodynamic bag leak detector's data acquisition system.

(e) To document the compliance status with Conditions D.1.9 and D.1.10, 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 the compliance status with Condition D.1.9, the Permittee shall maintain records of the Method 9 readings.

(g) The Permittee shall maintain documentation of all response steps implemented per event as required under Conditions D.1.5, D.1.7, D.1.8, and D.1.9.

(h) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the record keeping required by this condition.

D.1.12 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.1.3(d) shall be submitted using the reporting forms located at the end of this permit, or their equivalent, no later than thirty (30) days following the end of each quarter. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official” as defined by 326 IAC 2-7-1(34). Section C - General Reporting Requirements contains the Permittee's obligations with regard to the reporting required by this condition.

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

Part 70 Quarterly Report

Source Name: Alcoa, Inc. – Warrick Operations
Source Address: Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629 0010
Part 70 Permit No.: T 173-6627-00007
Facility: Railcar Unloading for tank 62
Parameter: Alumina Unloaded
Limit: The amount of Alumina unloaded by railcar for Tank 62 shall not exceed 15,900 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

QUARTER: ______ **YEAR:** ______

Month	**Alumina Unloaded for This Month** (tons)	**Alumina Unloaded for Previous 11 Months** (tons)	**Alumina Unloaded for 12-Month Period** (tons)

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ____________________

Title/Position: ____________________

Signature: ____________________

Date: ____________________

Phone: ____________________

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) advanced technology potline, consisting of 10-15 research pots, identified as Potline No.1, modified in 2010, with a maximum aluminum production rate of 0.86 tons per hour and 5,000 tons per year. Primary emissions are either controlled by either the Potline No.1 A-398 pollution control system (B2) and exhaust at Stacks 160B2.1-160B2.14 or controlled by a new air pollution control system to be sized for the reduced airflow needed only for the research pots. Secondary emissions are uncontrolled and exhaust at roof monitor 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 or a newly designed system to be sized for a maximum reduced airflow of 52,500 acfm at 200F required for 10-15 research pots and exhausting at a new exhaust stack;;

(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 200^0F, 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	0.86	3.71
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

Facility	Maximum Process Weight Rate (tons/hr)	PM Emission Limit (lbs/hr)
Potline No.6	83.38	49.5
Pot Digging	2.85	8.27
Crucible Digging	0.86	3.70
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

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

D.2.6 HAP Minor Limit for Potline 1 [326 IAC 2-4.1]

The total emissions of Hydrogen Fluoride from Potline No. 1 shall be less than 10 tons per per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with this limit shall limit the total potential to emit of any single HAP from Potline No. 1 to less than ten (10) tons per twelve (12) consecutive month period and PTE of combined HAPs to less than 25 tons per twelve (12) consecutive month period and shall render 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP) not applicable to Potline No. 1.

Compliance Determination Requirements

D.2.7 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) or a newly installed system
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

D.2.8 SO2 Emissions Determination [326 IAC 7-4-10 (b) and (c)]

(a) Compliance with SO2 pounds per hour limitation shall be based on.material balance data and shall include the supporting information upon which the material balance data is based.

(c) 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.2.9 HAP Emission Determination

In order to determine the compliance status with Condition D.2.6, the Permittee shall use the following equation:

T_{P1} * EF_{P1HF} = Hydrogen Fluoride Emissions from Potline No. 1

Where:
T_{P1} = total aluminum throughput to Potline No.1 in tons, per month.
EF_{P1HF} = Emission Factor determined by the most recent compliant stack test, lbs of HF per ton of aluminum tapped

D.2.10 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 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.

(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) For each potline except potline 1, 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:

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

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.2.11 HAP Testing Requirements

Not later than 180 after startup of the research pots in Potline No. 1, in order to demonstrate the compliance status with Condition D.2.6, the Permittee shall perform hydrogen fluoride testing on Potline No.1, utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.

D.2.12 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.2.13 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 except Potline No.1 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.2.14 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 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 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 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 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.2.15 Visible Emissions Notations

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

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

(c) If visible emissions are observed, an employee certified to perform an EPA Method 9 evaluation shall determine whether opacity exceeds forty percent (40%) in one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4, and:

(1) If opacity does not exceed forty percent (40%) per Method 9, the Permittee shall shutdown the associated process as soon as practical unless either:

(i) the Permittee is able to bring the opacity below forty percent (40%) within a reasonable period of time, or

(ii) the situation qualifies as an "emergency" under 326 IAC 2-7-1(12).

If the Permittee continues to operate the associated process after determining the opacity exceeds forty percent (40%) per Method 9, then the Permittee shall perform an additional Method 9 reading every four (4) daylight hours until the opacity is below forty percent (40%) per Method 9.

(2) If opacity does not exceed forty percent (40%) per the Method 9 observation referenced above, inspection of the baghouse shall be scheduled at the next available process down time. Repairs shall be scheduled as expeditiously as pratical, based on the inspection results.

(3) If opacity exceeds twenty percent (20%) per any Method 9 observations referenced above, the Permittee shall notify IDEM, if the Permittee anticipates that operations will continue for ten (10) days or more before the failed baghouse units will be repaired or replaced.

Failure to take the response steps required by Condition D.2.15(c) upon observation of visible emissions shall be considered a deviation from this permit.

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.2.16 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) To document compliance with Condition D.2.6, the Permittee shall maintain records in accordance with (1) and (2) below:

(5) Total aluminum throughput to Potline No. 1 in a month; and

(6) The most recent HF stack testing results.

(c) The Permittee shall maintain records of daily visible emission notations of each stack exhaust for the baghouses as required by Condition D.2.15. 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) The Permittee shall maintain daily records of Method 9 readings, as required by Condition D.2.15.

(e) The Permittee shall maintain the following as required under Condition D.2.15:

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

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

D.2.17 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.2.18 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.2.19 HAP Reporting Requirements

A quarterly report of the information to document the compliance status with Conditions D.2.6 shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days following the end of each calendar quarter. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34). Section C - General Reporting Requirements contains the Permittee's obligations with regard to the reporting required by this condition.

D.2.20 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: Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629 0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T 173-6627-00007
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

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ______________________________

Title/Position: ______________________________

Signature: ______________________________

Date: ______________________________

Phone: ______________________________

Attach a signed certification to complete this report.

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

Part 70 HF Quarterly Report

Source Name: Alcoa, Inc. – Warrick Operations
Source Address: Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629 0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T 173-6627-00007
Facility: Potline No. 1
Parameter: HF Emissions
Limit: The total emissions of Hydrogen Flouride from Potline No. 1 shall be less than 10 tons per per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: ______ YEAR: ______

Month	HF (tons)	HF (tons)	HF (tons)
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this quarter.

☐ Deviations 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^{o}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^{o}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^{o}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 ^{o}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 ^{o}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

Facility	Control Equipment	Maximum Process Weight Rate (tons/hr)	PM Emission Limit (lbs/hr)
Intermediate Classifier CL-82	DCF-221A baghouse	15.4	25.6
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, and no later than January 5, 2010 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. Section C – Performance Testing contains the Permittee's obligations with regard to the testing required by this condition. 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.

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

(c) If visible emissions are observed, an employee certified to perform and EPA Method 9 evaluation shall determine whether opacity exceeds forty percent (40%) in one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4, and:

(1) If opacity does not exceed forty percent (40%) per Method 9, the Permittee shall shutdown the associated process as soon as practical unless either:

(i) the Permittee is able to bring the opacity below forty percent (40%) within a reasonable period of time, or

(ii) the situation qualifies as an “emergency” under 326 IAC 2-7-1(12).

If the Permittee continues to operate the associated process after determining the opacity exceeds forty percent (40%) per Method 9, then the Permittee shall perform an additional Method 9 reading every four (4) daylight hours until the opacity is below forty percent (40%) per Method 9.

(2) If opacity does not exceed forty percent (40%) per the Method 9 observation referenced above, inspection of the baghouse shall be scheduled at the next available process down time. Repairs shall be scheduled as expeditiously as pratical, based on the inspection results.

(3) If opacity exceeds twenty percent (20%) per any Method 9 observations referenced above, the Permittee shall notify IDEM, if the Permittee anticipates that operations will continue for ten (10) days or more before the failed baghouse units will be repaired or replaced.

Failure to take the response steps required by Condition D.3.10(c) upon observation of visible emissions shall be considered a deviation from this permit.

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.3.11 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.3.10, the Permittee shall maintain records of the Method 9 readings.

(f) The Permittee shall maintain documentation of all response steps implemented per event as required under Condition D.3.10.

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

D.3.12 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.3.13 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^{o}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^{o}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^{o}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);

$Eb = \underline{(Cs \times Qsd)}$ (Equation 2)

(Pb x K)

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:

Cs = 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), and no later than January 5, 2010 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. Section C – Performance Testing contains the Permittee's obligations with regard to the testing required by this condition. 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) and no later than January 5, 2010 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) and no later than January 5, 2010 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.

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

(c) If visible emissions are observed, an employee certified to perform an EPA Method 9 evaluation shall determine whether opacity exceeds forty percent (40%) in one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4, and:

(1) If opacity does not exceed forty percent (40%) per Method 9, the Permittee shall shutdown the associated process as soon as practical unless either:

(iii) the Permittee is able to bring the opacity below forty percent (40%) within a reasonable period of time, or

(iv) the situation qualifies as an “emergency” under 326 IAC 2-7-1(12).

If the Permittee continues to operate the associated process after determining the opacity exceeds forty percent (40%) per Method 9, then the Permittee shall perform an additional Method 9 reading every four (4) daylight hours until the opacity is below forty percent (40%) per Method 9.

(2) If opacity does not exceed forty percent (40%) per the Method 9 observation referenced above, inspection of the baghouse shall be scheduled at the next available process down time. Repairs shall be scheduled as expeditiously as pratical, based on the inspection results.

(3) If opacity exceeds twenty percent (20%) per any Method 9 observations referenced above, the Permittee shall notify IDEM, if the Permittee anticipates that operations will continue for ten (10) days or more before the failed baghouse units will be repaired or replaced.

Failure to take the response steps required by Condition D.4.18(c) upon observation of visible emissions shall be considered a deviation from this permit.

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.4.19 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.4.18, the Permittee shall maintain records of the Method 9 readings.

(i) The Permittee shall maintain the following as required under Conditions D.4.10 and D.4.18:

(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.4.20 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.4.21 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.4.22 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 MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Green Anode Throughput Quarterly Report

Source Name: Alcoa, Inc. – Warrick Operations
Source Address: Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629 0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T 173-6627-00007
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 quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ____________________

Title/Position: ____________________

Signature: ____________________

Date: ____________________

Phone: ____________________

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: Alcoa, Inc. – Warrick Operations
Source Address: Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629 0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T 173-6627-00007
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 quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ________________________________

Title/Position: ________________________________

Signature: ________________________________

Date: ________________________________

Phone: ________________________________

Attach a signed certification to complete this report.

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

Part 70 Anode Baking Furnace Natural Gas Quarterly Report

Source Name: Alcoa, Inc. – Warrick Operations
Source Address: Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629 0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T 173-6627-00007
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 quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ______________________________

Title/Position: ______________________________

Signature: ______________________________

Date: ______________________________

Phone: ______________________________

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: Alcoa, Inc. – Warrick Operations
Source Address: Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629 0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T 173-6627-00007
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 quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ____________________

Title/Position: ____________________

Signature: ____________________

Date: ____________________

Phone: ____________________

Attach a signed certification to complete this report.

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

Part 70 Anode Baking Plant SO_2 Quarterly Report

Source Name: Alcoa, Inc. – Warrick Operations
Source Address: Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629 0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T 173-6627-00007
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.

☐ Deviations 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]

In order to demonstrate compliance with Conditions D.5.1 and D.5.2 and no later than July 9, 2013 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. Section C – Performance Testing contains the Permittee's obligations with regard to the testing required by this condition. 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 or Exceedances. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances, shall be considered a deviation from this permit.

D.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 or 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.

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

(c) If visible emissions are observed, an employee certified to perform and EPA Method 9 evaluation shall determine whether opacity exceeds forty percent (40%) in one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4, and:

(1) If opacity does not exceed forty percent (40%) per Method 9, the Permittee shall shutdown the associated process as soon as practical unless either:

(v) the Permittee is able to bring the opacity below forty percent (40%) within a reasonable period of time, or

(vi) the situation qualifies as an "emergency" under 326 IAC 2-7-1(12).

If the Permittee continues to operate the associated process after determining the opacity exceeds forty percent (40%) per Method 9, then the Permittee shall perform an additional Method 9 reading every four (4) daylight hours until the opacity is below forty percent (40%) per Method 9.

(2) If opacity does not exceed forty percent (40%) per the Method 9 observation referenced above, inspection of the baghouse shall be scheduled at the next available process down time. Repairs shall be scheduled as expeditiously as pratical, based on the inspection results.

(3) If opacity exceeds twenty percent (20%) per any Method 9 observations referenced above, the Permittee shall notify IDEM, if the Permittee anticipates that operations will continue for ten (10) days or more before the failed baghouse units will be repaired or replaced.

Failure to take the response steps required by Condition D.5.7(c) upon observation of visible emissions shall be considered a deviation from this permit.

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

D.5.8 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.5.7, the Permittee shall maintain daily records of Method 9 readings.

(f) The Permittee shall maintain the following as required under Conditions D.5.5, D.5.6, and D.5.7,:

  (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):

#1 Coil Casting Complex

(1) One (1) group 1 furnace, identified as #1 Casting Complex 1M2, 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 Stack 134.64;

(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;

#5 Furnace Complex

(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;

#6 Furnace Complex

(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;

#8 EMC Ingot Casting Complex

(7) One (1) group 1 furnace, identified as #8 EMC Complex Melter 8M3, constructed in 1985, with a maximum aluminum production rate of 60.0 tons per hour, approved for modification in 2009 with the addition of low NO_X burners, emissions uncontrolled, and exhausting at Stack 134.89;

(8) Two (2) group 1 furnaces, identified as #8 EMC Complex Melters 8M1 and 8M2, constructed in 1985, with a maximum aluminum production rate of 47 tons per hour each, emissions uncontrolled, and exhausting at Stacks 134.84 and 134.80, respectively;

(9) One (1) group 1 furnace, identified as #8 EMC Complex East Holder 8EH, constructed in 1985, with a maximum aluminum production rate of 46.02 tons per hour, emissions uncontrolled, and exhausting at Stack 134.83;

(10) One (1) group 1 furnace, identified as #8 EMC Complex West Holder 8WH, constructed in 1985, with a maximum aluminum production rate of 58.75 tons per hour, approved for modification in 2009 with the addition of low NO_X burners, emissions uncontrolled, and exhausting at Stack 134.87.

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 46.02 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 70.5 tons per hour, emissions uncontrolled, and exhausting at Stack 134.87;

Rotary Group 1

(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 ^{0}F, 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^{o}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^{o}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^{o}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 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.6.2 PSD and Nonattainment New Source Review Minor Limitations [326 IAC 2-2] [326 IAC 2-1.1-5]

The Permittee shall comply with the following limits:

8M1, 8M2, and 8M3 Melters

(a) Nitrogen Oxides (NOx)

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:

The following equation shall be utilized to determine NOx emissions:

NOx Emissions = (Z1*A1 + Z2*A2 + Z3*A3)/2000

Where:

Z1 = the natural gas usage (MMCF) at Melter 8M1

Z2 = the natural gas usage (MMCF) at Melters 8M2

Z3 = the natural gas usage (MMCF) at Melter 8M3

A1 = the NOx emission factor, as determined from the most recent stack test performed for the 8M1 melt furnace, pursuant to Condition D.6.12(d).

A2 = the NOx emission factor, as determined from the most recent stack test performed for the 8M2 melt furnace, pursuant to Condition D.6.12(d).

A3 before the modification = the NOx emission factor as determined from the most recent stack test for the 8M3 melt furnace.

A3 after the modification = 110.5 pounds of NOx per MMCF of natural gas or the NOx emission factor as determined from the most recent stack test for the 8M3 melt furnace after modification.

(b) Particulate Matter (PM)

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 PM emissions:

PM Emissions = (X1*A1 + X2*A2*1 ton/2000 lbs)

Where:

X1 = tons of charges that contain 24,876 pounds or less of purchased oily scrap and utilize salt input rates less than or equal to 1.65 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 12/07 OMM, this factor is 0.0943 lb/ton) or the PM emission factor as determined from the most recent stack test;

X2 = tons of charges that contain no purchased oily scrap, but do contain plastic banded scrap or alloy of less than or equal to 24,633 lbs per charge and utilize salt input rates less than or equal to 1.52 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 12/07 OMM, this factor is 0.158 lb/ton) or the PM emission factor as determined from the most recent stack test;

(c) Particulate Matter with aerodynamic diameter of less than or equal to 10 micrometers (PM10)

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 PM_{10} emissions:

PM_{10} Emissions = 1.08[(Y1*A1 + Y2*A2)]/2,000

Where:

Y1 = tons of charges that contain 24,876 pounds or less of purchased oily scrap and utilize combined chlorine and salt input rates less than or equal to 1.65 lbs/ton of feed;

A1 = the PM_{10} emission factor for the Y1 operating condition, as provided in the most recently approved Operating, Monitoring, and Maintenance plan (Per the 12/07 OMM, this factor is 0.0943 lb/ton) or the PM_{10} emission factor as determined from the most recent stack test;

Y2 = tons of charges that contain no purchased oily scrap but do contain plastic banded scrap or alloy of less than or equal to 24,633 lbs per charge, and utilize salt input rates less than or equal to 1.52 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 12/07 OMM, this factor is 0.158 lb/ton) or the PM_{10} emission factor as determined from the most recent stack test;

8EMC East Holding Furnace and 8EMC West Holding Furnace

(d) Nitrogen Oxides (NOx)

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:

Until the modification to the 8EMC west furnace is complete the NOx emission factor as established from the most recent test of either the 8 EMC east or west furnace shall remain valid. If modifications are not made to the 8 EMC west furnace, retesting of the 8EMC east or west furnace shall be conducted no later than 5 years from the most recent stack test. Upon modification of the 8 EMC west furnace, NOx testing shall be conducted on the 8 EMC west furnace within 180 days of startup and then no later than 5 years from the most recent valid compliance test of the 8 EMC east and west furnaces.

The following equation shall be utilized to determine NOx emissions:

NOx Emissions = (Y1*A1 + Y2*A2)/2000

Where:

Y1 = the natural gas (MMCF) usage at 8EMC east holding furnace

A1 before the modification of the 8EMC west holding furnace = the NOx emission factor as determined from the most recent stack test for either the 8EMC east holding furnace or the 8EMC west holding furnace.

A1 after the modification of the 8EMC west holding furnace = the NOx emission factor as determined from the most recent stack test for either the 8EMC east holding furnace or the 8EMC west holding furnace.

Y2 = the natural gas (MMCF) usage at 8EMC west holding furnace

A2 before the modification = the NOx emission factor as determined from the most recent stack test for either the 8EMC west holding furnace or the 8EMC west holding furnace.

A2 after the modification = 88.3 lbs of NOx per MMCF of natural gas or the NOx emission factor as determined from the most recent stack test for the 8EMC west holding furnace.

(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).

<u>8EMC 8EH A622 and 8EMC 8WH A622 in-line degassing units</u>

(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 0.02 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 8.24 tons per year;

(i) The PM10 emissions from the 8EMC 8EH A622 and 8EMC 8WH A622 in-line degassing units shall not exceed 0.021 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 8.56 tons per year;

<u>#1 Complex Alcan Compact Degassing (ACD) units</u>

(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;

<u>#1 Complex East Holding Furnace and #1 Complex West Holding Furnace</u>

(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:

$$\sum_{i=l}^{n}(\text{OLG1 tons charged X OLG1 PM Ef/2000}) < 202 \text{ tons/year;}$$

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.

(3) Total PM emissions when processing any amount of scrap shall not exceed 0.702 pound per 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.

(3) Total PM10 emissions when processing any amount of scrap shall not exceed 0.582 pound per 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:

$$L_{cPM} = \frac{\sum_{i=1}^{n}\left(L_{tiPM} \times T_{ti}\right)}{\sum_{i=1}^{n}\left(T_{ti}\right)} \quad \text{(Eq. 1)}$$

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:

$$L_{cHCL} = \frac{\sum_{i=1}^{n}\left(L_{tiHCL} \times T_{ti}\right)}{\sum_{i=1}^{n}\left(T_{ti}\right)} \quad \text{(Eq. 2)}$$

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:

$$L_{cD/F} = \frac{\sum_{i=1}^{n}\left(L_{tiD/F} \times T_{ti}\right)}{\sum_{i=1}^{n}\left(T_{ti}\right)} \quad \text{(Eq. 3)}$$

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;

$$W_t = F_1 W_1 + F_2 W_2 \quad (Eq. 5)$$

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)).

$$E_{C_{PM}} = \frac{\sum_{i=1}^{n}\left(E_{ti_{PM}} \times T_{ti}\right)}{\sum_{i=1}^{n}\left(T_{ti}\right)} \qquad \text{(Eq. 9)}$$

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)).

$$E_{C_{HCl}} = \frac{\sum_{i=1}^{n}\left(E_{ti_{HCl}} \times T_{ti}\right)}{\sum_{i=1}^{n}\left(T_{ti}\right)} \qquad \text{(Eq. 10)}$$

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)).

$$E_{C_{D/F}} = \frac{\sum_{i=1}^{n}\left(E_{ti_{D/F}} \times T_{ti}\right)}{\sum_{i=1}^{n}\left(T_{ti}\right)} \qquad \text{(Eq. 11)}$$

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) In order to demonstrate compliance with Condition D.6.4 and no later than August 20, 2013 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 (2) 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) No later than January 5, 2010 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 #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), the Permittee shall perform NOx testing for the 8EMC Melter 8M3, before it is modified no later than January 5, 2010 and not later than one hundred eighty (180) days after initial startup of the modified 8M3 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) No later than January 5, 2010, in order to demonstrate compliance with D.6.2(a), the Permittee shall perform NOx testing for the 8EMC Melter 8M1 and 8EMC Melter 8M2, 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 D.6.2(d), “A2 after the modification”, the Permittee shall perform NOx testing for the 8EMC west holding furnace (8WH), not later than one hundred eighty (180) days after initial startup of the modified 8EMC west holding furnace (8WH), 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. No later than January 7, 2010, in order to demonstrate compliance with D.6.2(d), A1 and A2 before the modification, the Permittee shall perform NOx testing on a representative 8EMC holder (east holding furnace or west holding furnace), utilizing methods approved by the Commissioner. Testing shall be conducted in accordance with Section C - Performance Testing. No later than October 2, 2014, in order to demonstrate compliance with D.6.2(d), A1 after the 8 EMC west holding furnace has been modified, the Permittee shall perform NOx testing on the 8 EMC east holding furnace, utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with Section C - Performance Testing. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration.

(f) No later than August 19, 2013 and 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, 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.

(g) No later than August 19, 2013 and 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, 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.

(h) No later than August 19, 2013 and 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, 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, or move dross to the rotary group I furnace 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:

$$E_{day} = \frac{\sum_{i=1}^{n} \left(T_i * ER_i\right)}{\sum_{i=1}^{n} T_i} \qquad \text{(Eq. 4)}$$

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 or Exceedances. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances, shall be considered a deviation from this permit.

D.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 or Exceedances. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances, shall be considered a deviation from this permit.

D.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

NO_X Emissions Quarterly Report

Source Name: Alcoa, Inc. – Warrick Operations
Source Address: Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629 0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T 173-6627-00007
Facility: Melters 8M1, 8M2, and 8M3
Parameter: NO_X Emissions
Limit: Shall not exceed 63.18 tons per twelve (12) consecutive month period.

QUARTER: ______ YEAR: ______

Month	NO_X (tons)	NO_X (tons)	NO_X (tons)
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ______________________________

Title/Position: ______________________________

Signature: ______________________________

Date: ______________________________

Phone: ______________________________

Attach a signed certification to complete this report.

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

PM Emissions Quarterly Report

Source Name: Alcoa, Inc. – Warrick Operations
Source Address: Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629 0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T 173-6627-00007
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.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ____________________

Title/Position: ____________________

Signature: ____________________

Date: ____________________

Phone: ____________________

Attach a signed certification to complete this report.

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

PM_{10} Emissions Quarterly Report

Source Name: Alcoa, Inc. – Warrick Operations
Source Address: Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629 0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T 173-6627-00007
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.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ______________________________

Title/Position: ______________________________

Signature: ______________________________

Date: ______________________________

Phone: ______________________________

Attach a signed certification to complete this report.

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

NO_X Emissions Quarterly Report

Source Name: Alcoa, Inc. – Warrick Operations
Source Address: Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629 0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T 173-6627-00007
Facility: 8EMC east and 8EMC west holding furnaces
Parameter: NO_X Emissions
Limit: Shall not exceed 15.89 tons per twelve (12) consecutive month period

QUARTER: ______ YEAR: ______

Month	NO_X (tons)	NO_X (tons)	NO_X (tons)
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ______________________________

Title/Position: ______________________________

Signature: ______________________________

Date: ______________________________

Phone: ______________________________

Attach a signed certification to complete this report.

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

PM Emissions Quarterly Report

Source Name: Alcoa, Inc. – Warrick Operations
Source Address: Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629 0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T 173-6627-00007
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.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ____________________

Title/Position: ____________________

Signature: ____________________

Date: ____________________

Phone: ____________________

Attach a signed certification to complete this report.

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

PM_{10} Emissions Quarterly Report

Source Name: Alcoa, Inc. – Warrick Operations
Source Address: Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629 0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T 173-6627-00007
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.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ____________________

Title/Position: ____________________

Signature: ____________________

Date: ____________________

Phone: ____________________

Attach a signed certification to complete this report.

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

Feed/Charge Quarterly Report

Source Name: Alcoa, Inc. – Warrick Operations
Source Address: Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629 0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T 173-6627-00007
Facilities: 8EMC 8EH A622 and 8EMC 8WH A622 in-line degassing units
Parameter: Feed/Charge Rate
Limit: Total 823,440 tons per twelve (12) consecutive month period

QUARTER: ______ YEAR: ______

Month	Feed/Charge Rate(tons) This Month 8EMC 8EH and8EMC 8WH	Feed/Charge Rate(tons) Previous 11 Months 8EMC 8EH and 8EMC 8WH	Feed/Charge Rate(tons) 12 Month Total 8EMC 8EH and8EMC 8WH

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ______________________________

Title/Position: ______________________________

Signature: ______________________________

Date: ______________________________

Phone: ______________________________

Attach a signed certification to complete this report.

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

Feed/Charge Quarterly Report

Source Name: Alcoa, Inc. – Warrick Operations
Source Address: Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629 0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T 173-6627-00007
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.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ____________________________________

Title/Position: ____________________________________

Signature: ____________________________________

Date: ____________________________________

Phone: ____________________________________

Attach a signed certification to complete this report.

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

PM Emissions Quarterly Report

Source Name: Alcoa, Inc. – Warrick Operations
Source Address: Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629 0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T 173-6627-00007
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.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ______________________________

Title/Position: ______________________________

Signature: ______________________________

Date: ______________________________

Phone: ______________________________

Attach a signed certification to complete this report.

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

PM_{10} Emissions Quarterly Report

Source Name: Alcoa, Inc. – Warrick Operations
Source Address: Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629 0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T 173-6627-00007
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.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ____________________

Title/Position: ____________________

Signature: ____________________

Date: ____________________

Phone: ____________________

Attach a signed certification to complete this report.

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

Feed/Charge Quarterly Report

Source Name: Alcoa, Inc. – Warrick Operations
Source Address: Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629 0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T 173-6627-00007
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.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ____________________

Title/Position: ____________________

Signature: ____________________

Date: ____________________

Phone: ____________________

Attach a signed certification to complete this report.

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

PM Emissions Quarterly Report

Source Name: Alcoa, Inc. – Warrick Operations
Source Address: Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629 0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T 173-6627-00007
Facility: OLG1 Furnaces
Parameter: PM
Limit: Less than 202 tons per twelve (12) consecutive month period

QUARTER: ______ **YEAR:** ______

Month	PM (tons) This Month	PM (tons) Previous 11 Months	PM (tons) 12 Month Total

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ______________________________

Title/Position: ______________________________

Signature: ______________________________

Date: ______________________________

Phone: ______________________________

Attach a signed certification to complete this report.

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

Natural Gas Usage Quarterly Report

Source Name: Alcoa, Inc. – Warrick Operations
Source Address: Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629 0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T 173-6627-00007
Facility: OLG1 Furnaces
Parameter: 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.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ______________________________

Title/Position: ______________________________

Signature: ______________________________

Date: ______________________________

Phone: ______________________________

Attach a signed certification to complete this report.

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

Dross and Salt Cake Throughput Quarterly Report

Source Name: Alcoa, Inc. – Warrick Operations
Source Address: Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629 0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T 173-6627-00007
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.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ______________________________

Title/Position: ______________________________

Signature: ______________________________

Date: ______________________________

Phone: ______________________________

Attach a signed certification to complete this report.

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

NO_X Emissions Quarterly Report

Source Name:	Alcoa, Inc. – Warrick Operations
Source Address:	Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629 0010
Mailing Address:	Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.:	T 173-6627-00007
Facility:	Rotary Group 1 Furnace
Parameter:	NO_X Emissions
Limit:	Shall not exceed 39.90 tons per twelve (12) consecutive month period

QUARTER: ______ **YEAR:** ______

Month	NO_X (tons)	NO_X (tons)	NO_X (tons)
	This Month	Previous 11 Months	12 Month Total

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ______________________________

Title/Position: ______________________________

Signature: ______________________________

Date: ______________________________

Phone: ______________________________

Attach a signed certification to complete this report.

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

PM Emissions Quarterly Report

Source Name: Alcoa, Inc. – Warrick Operations
Source Address: Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629 0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T 173-6627-00007
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.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ______________________________

Title/Position: ______________________________

Signature: ______________________________

Date: ______________________________

Phone: ______________________________

Attach a signed certification to complete this report.

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

PM_{10} Emissions Quarterly Report

Source Name: Alcoa, Inc. – Warrick Operations
Source Address: Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629 0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T 173-6627-00007
Facility: Rotary Group 1 Furnace
Parameter: PM_{10} Emissions
Limit: Shall not exceed 14.90 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.

☐ Deviations 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.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, using base oil as a coolant, emissions are 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, using base oil as a coolant, emissions are 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 826.5 and 826.6.

One (1) thermal oxidizer system exhausting to Stacks 826.5;

(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. One (1) fixed roof above ground Unload tank, installed in 1996, with a maximum capacity of 8,000 gallons with no

control, exhausting to stack 819.20;

(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 to stack 820.02;

(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, 03, 04, 05, 06, 07, and 08;

(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

$$R = 100 * \frac{\sum_{A=1}^{w}\left[\left(DRE_k\,CE_A\right) * \left(\sum_{i=1}^{p} M_{Ai}C_{vi} + \sum_{j=1}^{q} M_{Aj}\right)\right]}{\sum_{i=1}^{p} M_iC_{vi} + \sum_{j=1}^{q} M_j} \quad \text{(Eq. 7)}$$

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)].

$$H_e = \sum_{A=1}^{w}\left[1-\left(DRE_k\, CE_A\right)*\left(\sum_{i=1}^{p}\left(C_{hi}\, M_{Ai} + \sum_{j=1}^{q} C_{hij}\, M_{Aij}\right)\right)\right] \qquad \text{Eq. (8)}$$

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).

SECTION D.9 FACILITY OPERATION CONDITIONS

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

(i) One (1) portable BL Pergson 428 fixed hammer impactor (Brick Crusher), with a capacity of 100 tons per hour, with a 20 to 1 reduction ratio, with a 3306 caterpillar diesel engine, with a capacity of 300 hp and using a four (4) wet suppression for control of particulate matters (four sprays, two on the conveyor and two on the impactor).

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

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

D.9.1 PSD Minor Limits and Part 70 Minor Source Modification [326 IAC 2-2] [326 IAC 2-7-10.5]

Pursuant to 326 IAC 2-7-10.5(d)(4)(B):

(a) The total hours of operation for the diesel engine shall be less than 720 hours per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The NOx emissions shall not exceed 9.3 pounds per hour.

Compliance with the above limits will limit the diesel engine NOx emissions to less than 25 tons per year and render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-7-10.5 (Minor Source Limit) not applicable to this emission unit.

D.9.2 Particulate Emissions Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the allowable particulate matter (PM) from the fixed hammer impactor (brick crusher) shall not exceed 51.28 pounds per hour when operating at a process weight rate of 100 tons per hour. The pound per hour limitation was calculated with the following equation:

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

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

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

D.9.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

Compliance Determination Requirements

D.9.4 Particulate Matter (PM)

In order to comply with Condition D.9.2, all four (4) wet suppressions shall be in operation at all times when the four sprays are in operation.

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

D.9.5 Record Keeping Requirements

(a) To document compliance with Condition D.9.1, the Permittee shall maintain monthly records of hours of operation of the Diesel engine.

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

D.9.6 Reporting Requirements

(a) A quarterly summary of the information to document compliance with Conditions D.9.1 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 reports 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

VOC Usage Quarterly Report

Source Name: Alcoa, Inc. – Warrick Operations
Source Address: Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629 0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T 173-6627-00007
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 quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ________________________________

Title/Position: ________________________________

Signature: ________________________________

Date: ________________________________

Phone: ________________________________

Attach a signed certification to complete this report.

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

VOC Usage Quarterly Report

Source Name: Alcoa, Inc. – Warrick Operations
Source Address: Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629 0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T 173-6627-00007
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 quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ________________________________

Title/Position: ________________________________

Signature: ________________________________

Date: ________________________________

Phone: ________________________________

Attach a signed certification to complete this report.

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

VOC Usage Quarterly Report

Source Name: Alcoa, Inc. – Warrick Operations
Source Address: Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629 0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T 173-6627-00007
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.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ____

Title/Position: ____

Signature: ____

Date: ____

Phone: ____

Attach a signed certification to complete this report.

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

Quarterly Report

Source Name: Alcoa, Inc. – Warrick Operations
Source Address: Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629 0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T 173-6627-00007
Facility: Diesel Engine
Parameter: NO_X Emissions
Limit: less than 720 hours of operation per twelve (12) consecutive month period

QUARTER: ______ YEAR: ______

Month	This Month (hours)	Previous 11 Months (hours)	12 Month Total (hours)

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: ____________________

Submitted By: ____________________

Title/Position: ____________________

Signature: ____________________

Date: ____________________

Phone: ____________________

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

PART 70 OPERATING PERMIT
CERTIFICATION

Source Name:	Alcoa, Inc. – Warrick Operations
Source Address:	Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629 0010
Mailing Address:	Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.:	T 173-6627-00007

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 AND ENFORCEMENT BRANCH

100 North Senate Avenue
MC 61-53, IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: Alcoa, Inc. – Warrick Operations
Source Address: Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629 0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T 173-6627-00007

This form consists of 2 pages — Page 1 of 2

☐ This is an emergency as defined in 326 IAC 2-7-1(12)
- 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 and Enforcement Branch); and
- The Permittee must submit notice in writing or by facsimile within two (**2**) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

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

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

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

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

Form Completed By: ______________________________

Title/Position: ______________________________

Date: ______________________________

Phone: ______________________________

A certification is not required for this report.

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

PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Alcoa, Inc. – Warrick Operations
Source Address: Junction of Indiana Highways 66 and 61, Newburgh, Indiana 47629 0010
Mailing Address: Bldg. 860 E, P.O. Box 10, Newburgh, Indiana 47629
Operation Permit No.: T 173-6627-00007

Months: __________ to __________ Year: ________

Page 1 of 2

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 – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units [40 CFR Part 60, Subpart Dc] [326 IAC 12]

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.:	173-30774-00007
Significant Permit Modification No.:	173-30796-00007
Permit Reviewer:	Kimberly Cottrell

NSPS [40 CFR Part 60, Subpart Dc]

Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

Source: 72 FR 32759, June 13, 2007, unless otherwise noted.

§ 60.40c Applicability and delegation of authority.

(a) Except as provided in paragraphs (d), (e), (f), and (g) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr)) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr).

(b) In delegating implementation and enforcement authority to a State under section 111(c) of the Clean Air Act, §60.48c(a)(4) shall be retained by the Administrator and not transferred to a State.

(c) Steam generating units that meet the applicability requirements in paragraph (a) of this section are not subject to the sulfur dioxide (SO_2) or particulate matter (PM) emission limits, performance testing requirements, or monitoring requirements under this subpart (§§60.42c, 60.43c, 60.44c, 60.45c, 60.46c, or 60.47c) during periods of combustion research, as defined in §60.41c.

(d) Any temporary change to an existing steam generating unit for the purpose of conducting combustion research is not considered a modification under §60.14.

(e) Heat recovery steam generators that are associated with combined cycle gas turbines and meet the applicability requirements of subpart KKKK of this part are not subject to this subpart. This subpart will continue to apply to all other heat recovery steam generators that are capable of combusting more than or equal to 2.9 MW (10 MMBtu/hr) heat input of fossil fuel but less than or equal to 29 MW (100 MMBtu/hr) heat input of fossil fuel. If the heat recovery steam generator is subject to this subpart, only emissions resulting from combustion of fuels in the steam generating unit are subject to this subpart. (The gas turbine emissions are subject to subpart GG or KKKK, as applicable, of this part).

(f) Any facility covered by subpart AAAA of this part is not subject by this subpart.

(g) Any facility covered by an EPA approved State or Federal section 111(d)/129 plan implementing subpart BBBB of this part is not subject by this subpart.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009]

§ 60.41c Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

Annual capacity factor means the ratio between the actual heat input to a steam generating unit from an individual fuel or combination of fuels during a period of 12 consecutive calendar months and the potential heat input to the steam generating unit from all fuels had the steam generating unit been operated for 8,760 hours during that 12-month period at the maximum design heat input capacity. In the case of steam generating units that are rented or leased, the actual heat input shall be determined based on the combined heat input from all operations of the affected facility during a period of 12 consecutive calendar months.

Coal means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see §60.17), coal refuse, and petroleum coke. Coal-derived synthetic fuels derived from coal for the purposes of creating useful heat, including but not limited to solvent refined coal, gasified coal not meeting the definition of natural gas, coal-oil mixtures, and coal-water mixtures, are also included in this definition for the purposes of this subpart.

Coal refuse means any by-product of coal mining or coal cleaning operations with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (kJ/kg) (6,000 Btu per pound (Btu/lb) on a dry basis.

Cogeneration steam generating unit means a steam generating unit that simultaneously produces both electrical (or mechanical) and thermal energy from the same primary energy source.

Combined cycle system means a system in which a separate source (such as a stationary gas turbine, internal combustion engine, or kiln) provides exhaust gas to a steam generating unit.

Combustion research means the experimental firing of any fuel or combination of fuels in a steam generating unit for the purpose of conducting research and development of more efficient combustion or more effective prevention or control of air pollutant emissions from combustion, provided that, during these periods of research and development, the heat generated is not used for any purpose other than preheating combustion air for use by that steam generating unit (*i.e.* , the heat generated is released to the atmosphere without being used for space heating, process heating, driving pumps, preheating combustion air for other units, generating electricity, or any other purpose).

Conventional technology means wet flue gas desulfurization technology, dry flue gas desulfurization technology, atmospheric fluidized bed combustion technology, and oil hydrodesulfurization technology.

Distillate oil means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396 (incorporated by reference, see §60.17) or diesel fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D975 (incorporated by reference, see §60.17).

Dry flue gas desulfurization technology means a SO_2control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline reagent and water, whether introduced separately or as a premixed slurry or solution and forming a dry powder material. This definition includes devices where the dry powder material is subsequently converted to another form. Alkaline reagents used in dry flue gas desulfurization systems include, but are not limited to, lime and sodium compounds.

Duct burner means a device that combusts fuel and that is placed in the exhaust duct from another source (such as a stationary gas turbine, internal combustion engine, kiln, etc.) to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a steam generating unit.

Emerging technology means any SO_2 control system that is not defined as a conventional technology under this section, and for which the owner or operator of the affected facility has received approval from the Administrator to operate as an emerging technology under §60.48c(a)(4).

Federally enforceable means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR parts 60 and 61, requirements within any applicable State implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 51.24.

Fluidized bed combustion technology means a device wherein fuel is distributed onto a bed (or series of beds) of limestone aggregate (or other sorbent materials) for combustion; and these materials are forced upward in the device by the flow of combustion air and the gaseous products of combustion. Fluidized bed combustion technology includes, but is not limited to, bubbling bed units and circulating bed units.

Fuel pretreatment means a process that removes a portion of the sulfur in a fuel before combustion of the fuel in a steam generating unit.

Heat input means heat derived from combustion of fuel in a steam generating unit and does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust gases from other sources (such as stationary gas turbines, internal combustion engines, and kilns).

Heat transfer medium means any material that is used to transfer heat from one point to another point.

Maximum design heat input capacity means the ability of a steam generating unit to combust a stated maximum amount of fuel (or combination of fuels) on a steady state basis as determined by the physical design and characteristics of the steam generating unit.

Natural gas means:

(1) A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or

(2) Liquefied petroleum (LP) gas, as defined by the American Society for Testing and Materials in ASTM D1835 (incorporated by reference, see §60.17); or

(3) A mixture of hydrocarbons that maintains a gaseous state at ISO conditions. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 34 and 43 megajoules (MJ) per dry standard cubic meter (910 and 1,150 Btu per dry standard cubic foot).

Noncontinental area means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

Oil means crude oil or petroleum, or a liquid fuel derived from crude oil or petroleum, including distillate oil and residual oil.

Potential sulfur dioxide emission rate means the theoretical SO_2 emissions (nanograms per joule (ng/J) or lb/MMBtu heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.

Process heater means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

Residual oil means crude oil, fuel oil that does not comply with the specifications under the definition of distillate oil, and all fuel oil numbers 4, 5, and 6, as defined by the American Society for Testing and Materials in ASTM D396 (incorporated by reference, see §60.17).

Steam generating unit means a device that combusts any fuel and produces steam or heats water or heats any heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system. This term does not include process heaters as defined in this subpart.

Steam generating unit operating day means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

Wet flue gas desulfurization technology means an SO_2 control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a liquid material. This definition includes devices where the liquid material is subsequently converted to another form. Alkaline reagents used in wet flue gas desulfurization systems include, but are not limited to, lime, limestone, and sodium compounds.

Wet scrubber system means any emission control device that mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of PM or SO_2.

Wood means wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including but not limited to sawdust, sanderdust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from wood or other forest residues.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009]

§ 60.42c Standard for sulfur dioxide (SO_2).

(a) Except as provided in paragraphs (b), (c), and (e) of this section, on and after the date on which the performance test is completed or required to be completed under §60.8, whichever date comes first, the owner or operator of an affected facility that combusts only coal shall neither: cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2 in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO_2 emission rate (90 percent reduction), nor cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2 in excess of 520 ng/J (1.2 lb/MMBtu) heat input. If coal is combusted with other fuels, the affected facility shall neither: cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2 in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO_2 emission rate (90 percent reduction), nor cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2 in excess of the emission limit is determined pursuant to paragraph (e)(2) of this section.

(b) Except as provided in paragraphs (c) and (e) of this section, on and after the date on which the performance test is completed or required to be completed under §60.8, whichever date comes first, the owner or operator of an affected facility that:

(1) Combusts only coal refuse alone in a fluidized bed combustion steam generating unit shall neither:

(i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 20 percent (0.20) of the potential SO_2 emission rate (80 percent reduction); nor

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of SO_2 in excess of 520 ng/J (1.2 lb/MMBtu) heat input. If coal is fired with coal refuse, the affected facility subject to paragraph (a) of this section. If oil or any other fuel (except coal) is fired with coal refuse, the affected facility is subject to the 87 ng/J (0.20 lb/MMBtu) heat input SO_2 emissions limit or the 90 percent SO_2 reduction requirement specified in paragraph (a) of this section and the emission limit is determined pursuant to paragraph (e)(2) of this section.

(2) Combusts only coal and that uses an emerging technology for the control of SO_2 emissions shall neither:

(i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of 50 percent (0.50) of the potential SO_2 emission rate (50 percent reduction); nor

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2in excess of 260 ng/J (0.60 lb/MMBtu) heat input. If coal is combusted with other fuels, the affected facility is subject to the 50 percent SO_2reduction requirement specified in this paragraph and the emission limit determined pursuant to paragraph (e)(2) of this section.

(c) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, alone or in combination with any other fuel, and is listed in paragraphs (c)(1), (2), (3), or (4) of this section shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2in excess of the emission limit determined pursuant to paragraph (e)(2) of this section. Percent reduction requirements are not applicable to affected facilities under paragraphs (c)(1), (2), (3), or (4).

(1) Affected facilities that have a heat input capacity of 22 MW (75 MMBtu/hr) or less.

(2) Affected facilities that have an annual capacity for coal of 55 percent (0.55) or less and are subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for coal of 55 percent (0.55) or less.

(3) Affected facilities located in a noncontinental area.

(4) Affected facilities that combust coal in a duct burner as part of a combined cycle system where 30 percent (0.30) or less of the heat entering the steam generating unit is from combustion of coal in the duct burner and 70 percent (0.70) or more of the heat entering the steam generating unit is from exhaust gases entering the duct burner.

(d) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts oil shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2in excess of 215 ng/J (0.50 lb/MMBtu) heat input; or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. The percent reduction requirements are not applicable to affected facilities under this paragraph.

(e) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, or coal and oil with any other fuel shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2in excess of the following:

(1) The percent of potential SO_2emission rate or numerical SO_2emission rate required under paragraph (a) or (b)(2) of this section, as applicable, for any affected facility that

(i) Combusts coal in combination with any other fuel;

(ii) Has a heat input capacity greater than 22 MW (75 MMBtu/hr); and

(iii) Has an annual capacity factor for coal greater than 55 percent (0.55); and

(2) The emission limit determined according to the following formula for any affected facility that combusts coal, oil, or coal and oil with any other fuel:

$$E_s = \frac{(K_a H_a + K_b H_b + K_c H_c)}{(H_a + H_b + H_c)}$$

Where:

E_s= SO_2emission limit, expressed in ng/J or lb/MMBtu heat input;

K_a= 520 ng/J (1.2 lb/MMBtu);

K_b= 260 ng/J (0.60 lb/MMBtu);

K_c= 215 ng/J (0.50 lb/MMBtu);

H_a= Heat input from the combustion of coal, except coal combusted in an affected facility subject to paragraph (b)(2) of this section, in Joules (J) [MMBtu];

H_b= Heat input from the combustion of coal in an affected facility subject to paragraph (b)(2) of this section, in J (MMBtu); and

H_c= Heat input from the combustion of oil, in J (MMBtu).

(f) Reduction in the potential SO_2emission rate through fuel pretreatment is not credited toward the percent reduction requirement under paragraph (b)(2) of this section unless:

(1) Fuel pretreatment results in a 50 percent (0.50) or greater reduction in the potential SO_2emission rate; and

(2) Emissions from the pretreated fuel (without either combustion or post-combustion SO_2control) are equal to or less than the emission limits specified under paragraph (b)(2) of this section.

(g) Except as provided in paragraph (h) of this section, compliance with the percent reduction requirements, fuel oil sulfur limits, and emission limits of this section shall be determined on a 30-day rolling average basis.

(h) For affected facilities listed under paragraphs (h)(1), (2), or (3) of this section, compliance with the emission limits or fuel oil sulfur limits under this section may be determined based on a certification from the fuel supplier, as described under §60.48c(f), as applicable.

(1) Distillate oil-fired affected facilities with heat input capacities between 2.9 and 29 MW (10 and 100 MMBtu/hr).

(2) Residual oil-fired affected facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 MMBtu/hr).

(3) Coal-fired facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 MMBtu/hr).

(i) The SO_2emission limits, fuel oil sulfur limits, and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.

(j) For affected facilities located in noncontinental areas and affected facilities complying with the percent reduction standard, only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this section. No credit is provided for the heat input to the affected facility from wood or other fuels or for heat derived from exhaust gases from other sources, such as stationary gas turbines, internal combustion engines, and kilns.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009]

§ 60.43c Standard for particulate matter (PM).

(a) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts coal or combusts mixtures of coal with other fuels and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emission limits:

(1) 22 ng/J (0.051 lb/MMBtu) heat input if the affected facility combusts only coal, or combusts coal with other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.

(2) 43 ng/J (0.10 lb/MMBtu) heat input if the affected facility combusts coal with other fuels, has an annual capacity factor for the other fuels greater than 10 percent (0.10), and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor greater than 10 percent (0.10) for fuels other than coal.

(b) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts wood or combusts mixtures of wood with other fuels (except coal) and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emissions limits:

(1) 43 ng/J (0.10 lb/MMBtu) heat input if the affected facility has an annual capacity factor for wood greater than 30 percent (0.30); or

(2) 130 ng/J (0.30 lb/MMBtu) heat input if the affected facility has an annual capacity factor for wood of 30 percent (0.30) or less and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for wood of 30 percent (0.30) or less.

(c) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that can combust coal, wood, or oil and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. Owners and operators of an affected facility that elect to install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for measuring PM emissions according to the requirements of this subpart and are subject to a federally enforceable PM limit of 0.030 lb/MMBtu or less are exempt from the opacity standard specified in this paragraph.

(d) The PM and opacity standards under this section apply at all times, except during periods of startup, shutdown, or malfunction.

(e)(1) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 13 ng/J (0.030 lb/MMBtu) heat input, except as provided in paragraphs (e)(2), (e)(3), and (e)(4) of this section.

(2) As an alternative to meeting the requirements of paragraph (e)(1) of this section, the owner or operator of an affected facility for which modification commenced after February 28, 2005, may elect to meet the requirements of this paragraph. On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005 shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of both:

(i) 22 ng/J (0.051 lb/MMBtu) heat input derived from the combustion of coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels; and

(ii) 0.2 percent of the combustion concentration (99.8 percent reduction) when combusting coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels.

(3) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005, and that combusts over 30 percent wood (by heat input) on an annual basis and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 43 ng/J (0.10 lb/MMBtu) heat input.

(4) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, an owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts only oil that contains no more than 0.50 weight percent sulfur or a mixture of 0.50 weight percent sulfur oil with other fuels not subject to a PM standard under §60.43c and not using a post-combustion technology (except a wet scrubber) to reduce PM or SO_2 emissions is not subject to the PM limit in this section.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]

§ 60.44c Compliance and performance test methods and procedures for sulfur dioxide.

(a) Except as provided in paragraphs (g) and (h) of this section and §60.8(b), performance tests required under §60.8 shall be conducted following the procedures specified in paragraphs (b), (c), (d), (e), and (f) of this section, as applicable. Section 60.8(f) does not apply to this section. The 30-day notice required in §60.8(d) applies only to the initial performance test unless otherwise specified by the Administrator.

(b) The initial performance test required under §60.8 shall be conducted over 30 consecutive operating days of the steam generating unit. Compliance with the percent reduction requirements and SO_2 emission limits under §60.42c shall be determined using a 30-day average. The first operating day included in the initial performance test shall be scheduled within 30 days after achieving the maximum production rate at which the affect facility will be operated, but not later than 180 days after the initial startup of the facility. The steam generating unit load during the 30-day period does not have to be the maximum design heat input capacity, but must be representative of future operating conditions.

(c) After the initial performance test required under paragraph (b) of this section and §60.8, compliance with the percent reduction requirements and SO_2 emission limits under §60.42c is based on the average percent reduction and the average SO_2 emission rates for 30 consecutive steam generating unit operating days. A separate performance test is completed at the end of each steam generating unit operating day, and a new 30-day average percent reduction and SO_2 emission rate are calculated to show compliance with the standard.

(d) If only coal, only oil, or a mixture of coal and oil is combusted in an affected facility, the procedures in Method 19 of appendix A of this part are used to determine the hourly SO_2 emission rate (E_{ho}) and the 30-day average SO_2 emission rate (E_{ao}). The hourly averages used to compute the 30-day averages are obtained from the CEMS. Method 19 of appendix A of this part shall be used to calculate E_{ao} when using daily fuel sampling or Method 6B of appendix A of this part.

(e) If coal, oil, or coal and oil are combusted with other fuels:

(1) An adjusted E_{ho} (E_{ho}o) is used in Equation 19–19 of Method 19 of appendix A of this part to compute the adjusted E_{ao} (E_{ao}o). The E_{ho}o is computed using the following formula:

$$E_{ho}o = \frac{E_{ho} - E_w(1 - X_1)}{X_1}$$

Where:

E_{ho}o = Adjusted E_{ho}, ng/J (lb/MMBtu);

E_{ho} = Hourly SO_2 emission rate, ng/J (lb/MMBtu);

E_w = SO_2 concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 9 of appendix A of this part, ng/J (lb/MMBtu). The value E_w for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure E_w if the owner or operator elects to assume E_w = 0.

X_k= Fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19 of appendix A of this part.

(2) The owner or operator of an affected facility that qualifies under the provisions of §60.42c(c) or (d) (where percent reduction is not required) does not have to measure the parameters $E_w$or $X_k$if the owner or operator of the affected facility elects to measure emission rates of the coal or oil using the fuel sampling and analysis procedures under Method 19 of appendix A of this part.

(f) Affected facilities subject to the percent reduction requirements under §60.42c(a) or (b) shall determine compliance with the SO_2emission limits under §60.42c pursuant to paragraphs (d) or (e) of this section, and shall determine compliance with the percent reduction requirements using the following procedures:

(1) If only coal is combusted, the percent of potential SO_2emission rate is computed using the following formula:

$$\%P_s = 100\left(1 - \frac{\%R_g}{100}\right)\left(1 - \frac{\%R_f}{100}\right)$$

Where:

$\%P_s$= Potential SO_2emission rate, in percent;

$\%R_g$= SO_2removal efficiency of the control device as determined by Method 19 of appendix A of this part, in percent; and

$\%R_f$= SO_2removal efficiency of fuel pretreatment as determined by Method 19 of appendix A of this part, in percent.

(2) If coal, oil, or coal and oil are combusted with other fuels, the same procedures required in paragraph (f)(1) of this section are used, except as provided for in the following:

(i) To compute the $\%P_s$, an adjusted $\%R_g$($\%R_go$) is computed from $E_{ao}o$ from paragraph (e)(1) of this section and an adjusted average SO_2inlet rate ($E_{ai}o$) using the following formula:

$$\%R_go = 100\left(1 - \frac{E_{ao}^{o}}{E_{ai}^{o}}\right)$$

Where:

$\%R_go$ = Adjusted $\%R_g$, in percent;

$E_{ao}o$ = Adjusted E_{ao}, ng/J (lb/MMBtu); and

$E_{ai}o$ = Adjusted average SO_2inlet rate, ng/J (lb/MMBtu).

(ii) To compute $E_{ai}o$, an adjusted hourly SO_2inlet rate ($E_{hi}o$) is used. The $E_{hi}o$ is computed using the following formula:

$$E_{hi}o = \frac{E_{hi} - E_w(1 - X_1)}{X_1}$$

Where:

$E_{hi}o$ = Adjusted E_{hi}, ng/J (lb/MMBtu);

E_{hi}= Hourly SO_2 inlet rate, ng/J (lb/MMBtu);

E_w= SO_2 concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 19 of appendix A of this part, ng/J (lb/MMBtu). The value E_w for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure E_w if the owner or operator elects to assume E_w= 0; and

X_k= Fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19 of appendix A of this part.

(g) For oil-fired affected facilities where the owner or operator seeks to demonstrate compliance with the fuel oil sulfur limits under §60.42c based on shipment fuel sampling, the initial performance test shall consist of sampling and analyzing the oil in the initial tank of oil to be fired in the steam generating unit to demonstrate that the oil contains 0.5 weight percent sulfur or less. Thereafter, the owner or operator of the affected facility shall sample the oil in the fuel tank after each new shipment of oil is received, as described under §60.46c(d)(2).

(h) For affected facilities subject to §60.42c(h)(1), (2), or (3) where the owner or operator seeks to demonstrate compliance with the SO_2 standards based on fuel supplier certification, the performance test shall consist of the certification from the fuel supplier, as described in §60.48c(f), as applicable.

(i) The owner or operator of an affected facility seeking to demonstrate compliance with the SO_2 standards under §60.42c(c)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

(j) The owner or operator of an affected facility shall use all valid SO_2 emissions data in calculating $\%P_s$ and E_{ho} under paragraphs (d), (e), or (f) of this section, as applicable, whether or not the minimum emissions data requirements under §60.46c(f) are achieved. All valid emissions data, including valid data collected during periods of startup, shutdown, and malfunction, shall be used in calculating $\%P_s$ or E_{ho} pursuant to paragraphs (d), (e), or (f) of this section, as applicable.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]

§ 60.45c Compliance and performance test methods and procedures for particulate matter.

(a) The owner or operator of an affected facility subject to the PM and/or opacity standards under §60.43c shall conduct an initial performance test as required under §60.8, and shall conduct subsequent performance tests as requested by the Administrator, to determine compliance with the standards using the following procedures and reference methods, except as specified in paragraph (c) of this section.

(1) Method 1 of appendix A of this part shall be used to select the sampling site and the number of traverse sampling points.

(2) Method 3A or 3B of appendix A–2 of this part shall be used for gas analysis when applying Method 5 or 5B of appendix A–3 of this part or 17 of appendix A–6 of this part.

(3) Method 5, 5B, or 17 of appendix A of this part shall be used to measure the concentration of PM as follows:

(i) Method 5 of appendix A of this part may be used only at affected facilities without wet scrubber systems.

(ii) Method 17 of appendix A of this part may be used at affected facilities with or without wet scrubber systems provided the stack gas temperature does not exceed a temperature of 160 °C (320 °F). The procedures of Sections 8.1 and 11.1 of Method 5B of appendix A of this part may be used in Method 17 of appendix A of this part only if Method 17 of appendix A of this part is used in conjunction with a wet scrubber system. Method 17 of appendix A of this part shall not be used in conjunction with a wet scrubber system if the effluent is saturated or laden with water droplets.

(iii) Method 5B of appendix A of this part may be used in conjunction with a wet scrubber system.

(4) The sampling time for each run shall be at least 120 minutes and the minimum sampling volume shall be 1.7 dry standard cubic meters (dscm) [60 dry standard cubic feet (dscf)] except that smaller sampling times or volumes may be approved by the Administrator when necessitated by process variables or other factors.

(5) For Method 5 or 5B of appendix A of this part, the temperature of the sample gas in the probe and filter holder shall be monitored and maintained at 160 ±14 °C (320±25 °F).

(6) For determination of PM emissions, an oxygen (O_2) or carbon dioxide (CO_2) measurement shall be obtained simultaneously with each run of Method 5, 5B, or 17 of appendix A of this part by traversing the duct at the same sampling location.

(7) For each run using Method 5, 5B, or 17 of appendix A of this part, the emission rates expressed in ng/J (lb/MMBtu) heat input shall be determined using:

(i) The O_2 or CO_2 measurements and PM measurements obtained under this section, (ii) The dry basis F factor, and

(iii) The dry basis emission rate calculation procedure contained in Method 19 of appendix A of this part.

(8) Method 9 of appendix A–4 of this part shall be used for determining the opacity of stack emissions.

(b) The owner or operator of an affected facility seeking to demonstrate compliance with the PM standards under §60.43c(b)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

(c) In place of PM testing with Method 5 or 5B of appendix A–3 of this part or Method 17 of appendix A–6 of this part, an owner or operator may elect to install, calibrate, maintain, and operate a CEMS for monitoring PM emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility who elects to continuously monitor PM emissions instead of conducting performance testing using Method 5 or 5B of appendix A–3 of this part or Method 17 of appendix A–6 of this part shall install, calibrate, maintain, and operate a CEMS and shall comply with the requirements specified in paragraphs (c)(1) through (c)(14) of this section.

(1) Notify the Administrator 1 month before starting use of the system.

(2) Notify the Administrator 1 month before stopping use of the system.

(3) The monitor shall be installed, evaluated, and operated in accordance with §60.13 of subpart A of this part.

(4) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under §60.8 of subpart A of this part or within 180 days of notification to the Administrator of use of CEMS if the owner or operator was previously determining compliance by Method 5, 5B, or 17 of appendix A of this part performance tests, whichever is later.

(5) The owner or operator of an affected facility shall conduct an initial performance test for PM emissions as required under §60.8 of subpart A of this part. Compliance with the PM emission limit shall be determined by using the CEMS specified in paragraph (d) of this section to measure PM and calculating a 24-hour block arithmetic average emission concentration using EPA Reference Method 19 of appendix A of this part, section 4.1.

(6) Compliance with the PM emission limit shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emission concentrations using CEMS outlet data.

(7) At a minimum, valid CEMS hourly averages shall be obtained as specified in paragraph (c)(7)(i) of this section for 75 percent of the total operating hours per 30-day rolling average.

(i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.

(ii) [Reserved]

(8) The 1-hour arithmetic averages required under paragraph (c)(7) of this section shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the boiler operating day daily arithmetic average emission concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under §60.13(e)(2) of subpart A of this part.

(9) All valid CEMS data shall be used in calculating average emission concentrations even if the minimum CEMS data requirements of paragraph (c)(7) of this section are not met.

(10) The CEMS shall be operated according to Performance Specification 11 in appendix B of this part.

(11) During the correlation testing runs of the CEMS required by Performance Specification 11 in appendix B of this part, PM and O_2(or CO_2) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and performance tests conducted using the following test methods.

(i) For PM, Method 5 or 5B of appendix A–3 of this part or Method 17 of appendix A–6 of this part shall be used; and

(ii) For O2 (or CO_2), Method 3A or 3B of appendix A–2 of this part, as applicable shall be used.

(12) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 2 in appendix F of this part. Relative Response Audit's must be performed annually and Response Correlation Audits must be performed every 3 years.

(13) When PM emissions data are not obtained because of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by the Administrator or EPA Reference Method 19 of appendix A of this part to provide, as necessary, valid emissions data for a minimum of 75 percent of total operating hours on a 30-day rolling average.

(14) After July 1, 2011, within 90 days after the date of completing each performance evaluation required by paragraph (c)(11) of this section, the owner or operator of the affected facility must either submit the test data to EPA by successfully entering the data electronically into EPA's WebFIRE data base available at *http://cfpub.epa.gov/oarweb/index.cfm?action=fire.main* or mail a copy to: United States Environmental Protection Agency; Energy Strategies Group; 109 TW Alexander DR; Mail Code: D243–01; RTP, NC 27711.

(d) The owner or operator of an affected facility seeking to demonstrate compliance under §60.43c(e)(4) shall follow the applicable procedures under §60.48c(f). For residual oil-fired affected facilities, fuel supplier certifications are only allowed for facilities with heat input capacities between 2.9 and 8.7 MW (10 to 30 MMBtu/hr).

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009; 76 FR 3523, Jan. 20, 2011]

§ 60.46c Emission monitoring for sulfur dioxide.

(a) Except as provided in paragraphs (d) and (e) of this section, the owner or operator of an affected facility subject to the SO_2 emission limits under §60.42c shall install, calibrate, maintain, and operate a CEMS for measuring SO_2 concentrations and either O_2 or CO_2 concentrations at the outlet of the SO_2 control device (or the outlet of the steam generating unit if no SO_2 control device is used), and shall record the output of the system. The owner or operator of an affected facility subject to the percent reduction requirements under §60.42c shall measure SO_2 concentrations and either O_2 or CO_2 concentrations at both the inlet and outlet of the SO_2 control device.

(b) The 1-hour average SO_2 emission rates measured by a CEMS shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates under §60.42c. Each 1-hour average SO_2 emission rate must be based on at least 30 minutes of operation, and shall be calculated using the data points required under §60.13(h)(2). Hourly SO_2 emission rates are not calculated if the affected facility is operated less than 30 minutes in a 1-hour period and are not counted toward determination of a steam generating unit operating day.

(c) The procedures under §60.13 shall be followed for installation, evaluation, and operation of the CEMS.

(1) All CEMS shall be operated in accordance with the applicable procedures under Performance Specifications 1, 2, and 3 of appendix B of this part.

(2) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 of appendix F of this part.

(3) For affected facilities subject to the percent reduction requirements under §60.42c, the span value of the SO_2 CEMS at the inlet to the SO_2 control device shall be 125 percent of the maximum estimated hourly potential SO_2 emission rate of the fuel combusted, and the span value of the SO_2 CEMS at the outlet from the SO_2 control device shall be 50 percent of the maximum estimated hourly potential SO_2 emission rate of the fuel combusted.

(4) For affected facilities that are not subject to the percent reduction requirements of §60.42c, the span value of the SO_2 CEMS at the outlet from the SO_2 control device (or outlet of the steam generating unit if no SO_2 control device is used) shall be 125 percent of the maximum estimated hourly potential SO_2 emission rate of the fuel combusted.

(d) As an alternative to operating a CEMS at the inlet to the SO_2 control device (or outlet of the steam generating unit if no SO_2 control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO_2 emission rate by sampling the fuel prior to combustion. As an alternative to operating a CEMS at the outlet from the SO_2 control device (or outlet of the steam generating unit if no SO_2 control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO_2 emission rate by using Method 6B of appendix A of this part. Fuel sampling shall be conducted pursuant to either paragraph (d)(1) or (d)(2) of this section. Method 6B of appendix A of this part shall be conducted pursuant to paragraph (d)(3) of this section.

(1) For affected facilities combusting coal or oil, coal or oil samples shall be collected daily in an as-fired condition at the inlet to the steam generating unit and analyzed for sulfur content and heat content according the Method 19 of appendix A of this part. Method 19 of appendix A of this part provides procedures for converting these measurements into the format to be used in calculating the average SO_2 input rate.

(2) As an alternative fuel sampling procedure for affected facilities combusting oil, oil samples may be collected from the fuel tank for each steam generating unit immediately after the fuel tank is filled and before any oil is combusted. The owner or operator of the affected facility shall analyze the oil sample to determine the sulfur content of the oil. If a partially empty fuel tank is refilled, a new sample and analysis of the fuel in the tank would be required upon filling. Results of the fuel analysis taken after each new shipment of oil is received shall be used as the daily value when calculating the 30-day rolling average until the next shipment is received. If the fuel analysis shows that the sulfur content in the fuel tank is greater than 0.5 weight percent sulfur, the owner or operator shall ensure that the sulfur content of subsequent oil shipments is low enough to cause the 30-day rolling average sulfur content to be 0.5 weight percent sulfur or less.

(3) Method 6B of appendix A of this part may be used in lieu of CEMS to measure SO_2 at the inlet or outlet of the SO_2 control system. An initial stratification test is required to verify the adequacy of the Method 6B of appendix A of this part sampling location. The stratification test shall consist of three paired runs of a suitable SO_2 and CO_2 measurement train operated at the candidate location and a second similar train operated according to the procedures in §3.2 and the applicable procedures in section 7 of Performance Specification 2 of appendix B of this

part. Method 6B of appendix A of this part, Method 6A of appendix A of this part, or a combination of Methods 6 and 3 of appendix A of this part or Methods 6C and 3A of appendix A of this part are suitable measurement techniques. If Method 6B of appendix A of this part is used for the second train, sampling time and timer operation may be adjusted for the stratification test as long as an adequate sample volume is collected; however, both sampling trains are to be operated similarly. For the location to be adequate for Method 6B of appendix A of this part 24-hour tests, the mean of the absolute difference between the three paired runs must be less than 10 percent (0.10).

(e) The monitoring requirements of paragraphs (a) and (d) of this section shall not apply to affected facilities subject to §60.42c(h) (1), (2), or (3) where the owner or operator of the affected facility seeks to demonstrate compliance with the SO_2 standards based on fuel supplier certification, as described under §60.48c(f), as applicable.

(f) The owner or operator of an affected facility operating a CEMS pursuant to paragraph (a) of this section, or conducting as-fired fuel sampling pursuant to paragraph (d)(1) of this section, shall obtain emission data for at least 75 percent of the operating hours in at least 22 out of 30 successive steam generating unit operating days. If this minimum data requirement is not met with a single monitoring system, the owner or operator of the affected facility shall supplement the emission data with data collected with other monitoring systems as approved by the Administrator.

§ 60.47c Emission monitoring for particulate matter.

(a) Except as provided in paragraphs (c), (d), (e), (f), and (g) of this section, the owner or operator of an affected facility combusting coal, oil, or wood that is subject to the opacity standards under §60.43c shall install, calibrate, maintain, and operate a continuous opacity monitoring system (COMS) for measuring the opacity of the emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility subject to an opacity standard in §60.43c(c) that is not required to use a COMS due to paragraphs (c), (d), (e), or (f) of this section that elects not to use a COMS shall conduct a performance test using Method 9 of appendix A–4 of this part and the procedures in §60.11 to demonstrate compliance with the applicable limit in §60.43c by April 29, 2011, within 45 days of stopping use of an existing COMS, or 180 days after initial startup of the facility, whichever is later, and shall comply with either paragraphs (a)(1), (a)(2), or (a)(3) of this section. The observation period for Method 9 of appendix A–4 of this part performance tests may be reduced from 3 hours to 60 minutes if all 6-minute averages are less than 10 percent and all individual 15-second observations are less than or equal to 20 percent during the initial 60 minutes of observation.

(1) Except as provided in paragraph (a)(2) and (a)(3) of this section, the owner or operator shall conduct subsequent Method 9 of appendix A–4 of this part performance tests using the procedures in paragraph (a) of this section according to the applicable schedule in paragraphs (a)(1)(i) through (a)(1)(iv) of this section, as determined by the most recent Method 9 of appendix A–4 of this part performance test results.

(i) If no visible emissions are observed, a subsequent Method 9 of appendix A–4 of this part performance test must be completed within 12 calendar months from the date that the most recent performance test was conducted;

(ii) If visible emissions are observed but the maximum 6-minute average opacity is less than or equal to 5 percent, a subsequent Method 9 of appendix A–4 of this part performance test must be completed within 6 calendar months from the date that the most recent performance test was conducted;

(iii) If the maximum 6-minute average opacity is greater than 5 percent but less than or equal to 10 percent, a subsequent Method 9 of appendix A–4 of this part performance test must be completed within 3 calendar months from the date that the most recent performance test was conducted; or

(iv) If the maximum 6-minute average opacity is greater than 10 percent, a subsequent Method 9 of appendix A–4 of this part performance test must be completed within 45 calendar days from the date that the most recent performance test was conducted.

(2) If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 of appendix A–4 of this part performance test, the owner or operator may, as an alternative to performing subsequent Method 9 of appendix A–4 of this part performance tests, elect to perform subsequent monitoring using Method 22 of appendix A–7 of this part according to the procedures specified in paragraphs (a)(2)(i) and (ii) of this section.

(i) The owner or operator shall conduct 10 minute observations (during normal operation) each operating day the affected facility fires fuel for which an opacity standard is applicable using Method 22 of appendix A–7 of this part and demonstrate that the sum of the occurrences of any visible emissions is not in excess of 5 percent of the observation period (*i.e.* , 30 seconds per 10 minute period). If the sum of the occurrence of any visible emissions is greater than 30 seconds during the initial 10 minute observation, immediately conduct a 30 minute observation. If the sum of the occurrence of visible emissions is greater than 5 percent of the observation period (*i.e.,* 90 seconds per 30 minute period), the owner or operator shall either document and adjust the operation of the facility and demonstrate within 24 hours that the sum of the occurrence of visible emissions is equal to or less than 5 percent during a 30 minute observation (*i.e.,* 90 seconds) or conduct a new Method 9 of appendix A–4 of this part performance test using the procedures in paragraph (a) of this section within 45 calendar days according to the requirements in §60.45c(a)(8).

(ii) If no visible emissions are observed for 30 operating days during which an opacity standard is applicable, observations can be reduced to once every 7 operating days during which an opacity standard is applicable. If any visible emissions are observed, daily observations shall be resumed.

(3) If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 of appendix A–4 of this part performance test, the owner or operator may, as an alternative to performing subsequent Method 9 of appendix A–4 performance tests, elect to perform subsequent monitoring using a digital opacity compliance system according to a site-specific monitoring plan approved by the Administrator. The observations shall be similar, but not necessarily identical, to the requirements in paragraph (a)(2) of this section. For reference purposes in preparing the monitoring plan, see OAQPS "Determination of Visible Emission Opacity from Stationary Sources Using Computer-Based Photographic Analysis Systems." This document is available from the U.S. Environmental Protection Agency (U.S. EPA); Office of Air Quality and Planning Standards; Sector Policies and Programs Division; Measurement Policy Group (D243–02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emission Measurement Center Preliminary Methods.

(b) All COMS shall be operated in accordance with the applicable procedures under Performance Specification 1 of appendix B of this part. The span value of the opacity COMS shall be between 60 and 80 percent.

(c) Owners and operators of an affected facilities that burn only distillate oil that contains no more than 0.5 weight percent sulfur and/or liquid or gaseous fuels with potential sulfur dioxide emission rates of 26 ng/J (0.060 lb/MMBtu) heat input or less and that do not use a post-combustion technology to reduce SO2 or PM emissions and that are subject to an opacity standard in §60.43c(c) are not required to operate a COMS if they follow the applicable procedures in §60.48c(f).

(d) Owners or operators complying with the PM emission limit by using a PM CEMS must calibrate, maintain, operate, and record the output of the system for PM emissions discharged to the atmosphere as specified in §60.45c(c). The CEMS specified in paragraph §60.45c(c) shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.

(e) Owners and operators of an affected facility that is subject to an opacity standard in §60.43c(c) and that does not use post-combustion technology (except a wet scrubber) for reducing PM, SO_2, or carbon monoxide (CO) emissions, burns only gaseous fuels or fuel oils that contain less than or equal to 0.5 weight percent sulfur, and is operated such that emissions of CO discharged to the atmosphere from the affected facility are maintained at levels less than or equal to 0.15 lb/MMBtu on a boiler operating day average basis is not required to operate a COMS. Owners and operators of affected facilities electing to comply with this paragraph must demonstrate compliance according to the procedures specified in paragraphs (e)(1) through (4) of this section; or

(1) You must monitor CO emissions using a CEMS according to the procedures specified in paragraphs (e)(1)(i) through (iv) of this section.

(i) The CO CEMS must be installed, certified, maintained, and operated according to the provisions in §60.58b(i)(3) of subpart Eb of this part.

(ii) Each 1-hour CO emissions average is calculated using the data points generated by the CO CEMS expressed in parts per million by volume corrected to 3 percent oxygen (dry basis).

(iii) At a minimum, valid 1-hour CO emissions averages must be obtained for at least 90 percent of the operating hours on a 30-day rolling average basis. The 1-hour averages are calculated using the data points required in §60.13(h)(2).

(iv) Quarterly accuracy determinations and daily calibration drift tests for the CO CEMS must be performed in accordance with procedure 1 in appendix F of this part.

(2) You must calculate the 1-hour average CO emissions levels for each steam generating unit operating day by multiplying the average hourly CO output concentration measured by the CO CEMS times the corresponding average hourly flue gas flow rate and divided by the corresponding average hourly heat input to the affected source. The 24-hour average CO emission level is determined by calculating the arithmetic average of the hourly CO emission levels computed for each steam generating unit operating day.

(3) You must evaluate the preceding 24-hour average CO emission level each steam generating unit operating day excluding periods of affected source startup, shutdown, or malfunction. If the 24-hour average CO emission level is greater than 0.15 lb/MMBtu, you must initiate investigation of the relevant equipment and control systems within 24 hours of the first discovery of the high emission incident and, take the appropriate corrective action as soon as practicable to adjust control settings or repair equipment to reduce the 24-hour average CO emission level to 0.15 lb/MMBtu or less.

(4) You must record the CO measurements and calculations performed according to paragraph (e) of this section and any corrective actions taken. The record of corrective action taken must include the date and time during which the 24-hour average CO emission level was greater than 0.15 lb/MMBtu, and the date, time, and description of the corrective action.

(f) Owners and operators of an affected facility that is subject to an opacity standard in §60.43c(c) and that uses a bag leak detection system to monitor the performance of a fabric filter (baghouse) according to the most recent requirements in section §60.48Da of this part is not required to operate a COMS.

(g) Owners and operators of an affected facility that is subject to an opacity standard in §60.43c(c) and that burns only gaseous fuels or fuel oils that contain less than or equal to 0.5 weight percent sulfur and operates according to a written site-specific monitoring plan approved by the permitting authority is not required to operate a COMS. This monitoring plan must include procedures and criteria for establishing and monitoring specific parameters for the affected facility indicative of compliance with the opacity standard.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009; 76 FR 3523, Jan. 20, 2011]

§ 60.48c Reporting and recordkeeping requirements.

(a) The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction and actual startup, as provided by §60.7 of this part. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

(2) If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under §60.42c, or §60.43c.

(3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

(4) Notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of §60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

(b) The owner or operator of each affected facility subject to the SO_2 emission limits of §60.42c, or the PM or opacity limits of §60.43c, shall submit to the Administrator the performance test data from the initial and any subsequent performance tests and, if applicable, the performance evaluation of the CEMS and/or COMS using the applicable performance specifications in appendix B of this part.

(c) In addition to the applicable requirements in §60.7, the owner or operator of an affected facility subject to the opacity limits in §60.43c(c) shall submit excess emission reports for any excess emissions from the affected facility that occur during the reporting period and maintain records according to the requirements specified in paragraphs (c)(1) through (3) of this section, as applicable to the visible emissions monitoring method used.

(1) For each performance test conducted using Method 9 of appendix A–4 of this part, the owner or operator shall keep the records including the information specified in paragraphs (c)(1)(i) through (iii) of this section.

(i) Dates and time intervals of all opacity observation periods;

(ii) Name, affiliation, and copy of current visible emission reading certification for each visible emission observer participating in the performance test; and

(iii) Copies of all visible emission observer opacity field data sheets;

(2) For each performance test conducted using Method 22 of appendix A–4 of this part, the owner or operator shall keep the records including the information specified in paragraphs (c)(2)(i) through (iv) of this section.

(i) Dates and time intervals of all visible emissions observation periods;

(ii) Name and affiliation for each visible emission observer participating in the performance test;

(iii) Copies of all visible emission observer opacity field data sheets; and

(iv) Documentation of any adjustments made and the time the adjustments were completed to the affected facility operation by the owner or operator to demonstrate compliance with the applicable monitoring requirements.

(3) For each digital opacity compliance system, the owner or operator shall maintain records and submit reports according to the requirements specified in the site-specific monitoring plan approved by the Administrator

(d) The owner or operator of each affected facility subject to the SO_2 emission limits, fuel oil sulfur limits, or percent reduction requirements under §60.42c shall submit reports to the Administrator.

(e) The owner or operator of each affected facility subject to the SO_2 emission limits, fuel oil sulfur limits, or percent reduction requirements under §60.42c shall keep records and submit reports as required under paragraph (d) of this section, including the following information, as applicable.

(1) Calendar dates covered in the reporting period.

(2) Each 30-day average SO_2 emission rate (ng/J or lb/MMBtu), or 30-day average sulfur content (weight percent), calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of corrective actions taken.

(3) Each 30-day average percent of potential SO_2 emission rate calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of the corrective actions taken.

(4) Identification of any steam generating unit operating days for which SO_2 or diluent (O_2 or CO_2) data have not been obtained by an approved method for at least 75 percent of the operating hours; justification for not obtaining sufficient data; and a description of corrective actions taken.

(5) Identification of any times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and a description of corrective actions taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit.

(6) Identification of the F factor used in calculations, method of determination, and type of fuel combusted.

(7) Identification of whether averages have been obtained based on CEMS rather than manual sampling methods.

(8) If a CEMS is used, identification of any times when the pollutant concentration exceeded the full span of the CEMS.

(9) If a CEMS is used, description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specifications 2 or 3 of appendix B of this part.

(10) If a CEMS is used, results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of this part.

(11) If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under paragraph (f)(1), (2), (3), or (4) of this section, as applicable. In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.

(f) Fuel supplier certification shall include the following information:

(1) For distillate oil:

(i) The name of the oil supplier;

(ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in §60.41c; and

(iii) The sulfur content or maximum sulfur content of the oil.

(2) For residual oil:

(i) The name of the oil supplier;

(ii) The location of the oil when the sample was drawn for analysis to determine the sulfur content of the oil, specifically including whether the oil was sampled as delivered to the affected facility, or whether the sample was drawn from oil in storage at the oil supplier's or oil refiner's facility, or other location;

(iii) The sulfur content of the oil from which the shipment came (or of the shipment itself); and

(iv) The method used to determine the sulfur content of the oil.

(3) For coal:

(i) The name of the coal supplier;

(ii) The location of the coal when the sample was collected for analysis to determine the properties of the coal, specifically including whether the coal was sampled as delivered to the affected facility or whether the sample was collected from coal in storage at the mine, at a coal preparation plant, at a coal supplier's facility, or at another location. The certification shall include the name of the coal mine (and coal seam), coal storage facility, or coal preparation plant (where the sample was collected);

(iii) The results of the analysis of the coal from which the shipment came (or of the shipment itself) including the sulfur content, moisture content, ash content, and heat content; and

(iv) The methods used to determine the properties of the coal.

(4) For other fuels:

(i) The name of the supplier of the fuel;

(ii) The potential sulfur emissions rate or maximum potential sulfur emissions rate of the fuel in ng/J heat input; and

(iii) The method used to determine the potential sulfur emissions rate of the fuel.

(g)(1) Except as provided under paragraphs (g)(2) and (g)(3) of this section, the owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day.

(2) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in §60.48c(f) to demonstrate compliance with the SO_2 standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month.

(3) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility or multiple affected facilities located on a contiguous property unit where the only fuels combusted in any steam generating unit (including steam generating units not subject to this subpart) at that property are natural gas, wood, distillate oil meeting the most current requirements in §60.42C to use fuel certification to demonstrate compliance with the SO_2 standard, and/or fuels, excluding coal and residual oil, not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month.

(h) The owner or operator of each affected facility subject to a federally enforceable requirement limiting the annual capacity factor for any fuel or mixture of fuels under §60.42c or §60.43c shall calculate the annual capacity factor individually for each fuel combusted. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of the calendar month.

(i) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

(j) The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]

Attachment B – Standards of Performance for Primary Aluminum Reduction Plants [40 CFR Part 60, Subpart S] [326 IAC 12]

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.:	173-30774-00007
Significant Permit Modification No.:	173-30796-00007
Permit Reviewer:	Kimberly Cottrell

NSPS [40 CFR Part 60, Subpart S]

Subpart S—Standards of Performance for Primary Aluminum Reduction Plants

Source: 45 FR 44207, June 30, 1980, unless otherwise noted.

§ 60.190 Applicability and designation of affected facility.

(a) The affected facilities in primary aluminum reduction plants to which this subpart applies are potroom groups and anode bake plants.

(b) Except as provided in paragraph (c) of this section, any affected facility under paragraph (a) of this section that commences construction or modification after October 23, 1974, is subject to the requirements of this subpart.

(c) An owner or operator of an affected facility under paragraph (a) of this section may elect to comply with the requirements of this subpart or the requirements of subpart LL of part 63 of this chapter.

[42 FR 37937, July 25, 1977, as amended at 45 FR 44206, June 30, 1980; 62 FR 52399, Oct. 7, 1997]

§ 60.191 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

Aluminum equivalent means an amount of aluminum which can be produced from a Mg of anodes produced by an anode bake plant as determined by §60.195(g).

Anode bake plant means a facility which produces carbon anodes for use in a primary aluminum reduction plant.

Potroom means a building unit which houses a group of electrolytic cells in which aluminum is produced.

Potroom group means an uncontrolled potroom, a potroom which is controlled individually, or a group of potrooms or potroom segments ducted to a common control system.

Primary aluminum reduction plant means any facility manufacturing aluminum by electrolytic reduction.

Primary control system means an air pollution control system designed to remove gaseous and particulate flourides from exhaust gases which are captured at the cell.

Roof monitor means that portion of the roof of a potroom where gases not captured at the cell exit from the potroom.

Total fluorides means elemental fluorine and all fluoride compounds as measured by reference methods specified in §60.195 or by equivalent or alternative methods (see §60.8(b)).

§ 60.192 Standard for fluorides.

(a) On and after the date on which the initial performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases containing total fluorides, as measured according to §60.195, in excess of:

(1) 1.0 kg/Mg (2.0 lb/ton) of aluminum produced for potroom groups at Soderberg plants: except that emissions between 1.0 kg/Mg and 1.3 kg/Mg (2.6 lb/ton) will be considered in compliance if the owner or operator demonstrates that exemplary operation and maintenance procedures were used with respect to the emission control system and that proper control equipment was operating at the affected facility during the performance tests;

(2) 0.95 kg/Mg (1.9 lb/ton) of aluminum produced for potroom groups at prebake plants; except that emissions between 0.95 kg/Mg and 1.25 kg/Mg (2.5 lb/ton) will be considered in compliance if the owner or operator demonstrates that exemplary operation and maintenance procedures were used with respect to the emission control system and that proper control equipment was operating at the affected facility during the performance test; and

(3) 0.05 kg/Mg (0.1 lb/ton) of aluminum equivalent for anode bake plants.

(b) Within 30 days of any performance test which reveals emissions which fall between the 1.0 kg/Mg and 1.3 kg/Mg levels in paragraph (a)(1) of this section or between the 0.95 kg/Mg and 1.25 kg/Mg levels in paragraph (a)(2) of this section, the owner or operator shall submit a report indicating whether all necessary control devices were on-line and operating properly during the performance test, describing the operating and maintenance procedures followed, and setting forth any explanation for the excess emissions, to the Director of the Enforcement Division of the appropriate EPA Regional Office.

[45 FR 44207, June 30, 1980, as amended at 65 FR 61757, Oct. 17, 2000]

§ 60.193 Standard for visible emissions.

(a) On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere:

(1) From any potroom group any gases which exhibit 10 percent opacity or greater, or

(2) From any anode bake plant any gases which exhibit 20 percent opacity or greater.

§ 60.194 Monitoring of operations.

(a) The owner or operator of any affected facility subject to the provisions of this subpart shall install, calibrate, maintain, and operate monitoring devices which can be used to determine daily the weight of aluminum and anode produced. The weighing devices shall have an accuracy of ±5 percent over their operating range.

(b) The owner or operator of any affected facility shall maintain a record of daily production rates of aluminum and anodes, raw material feed rates, and cell or potline voltages.

(c) Following the initial performance test as required under §60.8(a), an owner or operator shall conduct a performance test at least once each month during the life of the affected facility, except when malfunctions prevent representative sampling, as provided under §60.8(c). The owner or operator shall give the Administrator at least 15 days advance notice of each test. The Administrator may require additional testing under section 114 of the Clean Air Act.

(d) An owner or operator may petition the Administrator to establish an alternative testing requirement that requires testing less frequently than once each month for a primary control system or an anode bake plant. If the owner or operator show that emissions from the primary control system or the anode bake plant have low variability during day-to-day operations, the Administrator may establish such an alternative testing requirement. The alternative testing requirement shall include a testing schedule and, in the case of a primary control system, the method to be used to determine primary control system emissions for the purpose of performance tests. The Administrator shall publish the alternative testing requirement in the Federal Register .

(1) Alternative testing requirements are established for Anaconda Aluminum Company's Sebree plant in Henderson, Kentucky: The anode bake plant and primary control system are to be tested once a year rather than once a month.

(2) Alternative testing requirements are established for Alumax of South Carolina's Mt. Holly Plant in Mt. Holly, South Carolina: The anode bake plant and primary control system are to be tested once a year rather than once a month.

[45 FR 44207, June 30, 1980, as amended at 54 FR 6669, Feb. 14, 1989]

§ 60.195 Test methods and procedures.

(a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b).

(b) The owner or operator shall determine compliance with the total fluorides and visible emission standards in §§60.192 and 60.193 as follows:

(1) The emission rate (E_p) of total fluorides from potroom groups shall be computed for each run using the following equation:

$$E_p=[(C_sQ_{sd})_1+(C_sQ_{sd})_2]/(P\ K)$$

where:

E_p=emission rate of total fluorides from a potroom group, kg/Mg (lb/ton).

C_s=concentration of total fluorides, mg/dscm (gr/dscf).

Q_{sd}=volumetric flow rate of effluent gas, dscm/hr (dscf/hr).

P=aluminum production rate, Mg/hr (ton/hr).

K=conversion factor, 10^6 mg/kg (7,000 gr/lb).

1=subscript for primary control system effluent gas.

2=subscript for secondary control system or roof monitor effluent gas.

(2) The emission rate (E_b) of total fluorides from anode bake plants shall be computed for each run using the following equation:

$$E_b=(C_sQ_{sd})/(P_eK)$$

where:

E_b=emission rate of total fluorides, kg/Mg (lb/ton) of aluminum equivalent.

C_s=concentration of total fluorides, mg/dscm (gr/dscf).

Q_{sd}=volumetric flow rate of effluent gas, dscm/hr (dscf/hr).

P_e=aluminum equivalent for anode production rate, Mg/hr (ton/hr).

K=conversion factor, 10^6 mg/kg (7,000 gr/lb).

(3) Methods 13A or 13B shall be used for ducts or stacks, and Method 14 for roof monitors not employing stacks or pollutant collection systems, to determine the total fluorides concentration (C_s) and volumetric flow rate (Q_{sd}) of the effluent gas. The sampling time and sample volume for each run shall be at least 8 hours and 6.80 dscm (240 dscf) for potroom groups and at least 4 hours and 3.40 dscm (120 dscf) for anode bake plants.

(4) The monitoring devices of §60.194(a) shall be used to determine the daily weight of aluminum and anode produced.

(i) The aluminum production rate (P) shall be determined by dividing 720 hours into the weight of aluminum tapped from the affected facility during a period of 30 days before and including the final run of a performance test.

(ii) The aluminum equivalent production rate (P_e) for anodes shall be determined as 2 times the average weight of anode produced during a representative oven cycle divided by the cycle time. An owner or operator may establish a multiplication factor other than 2 by submitting production records of the amount of aluminum produced and the concurrent weight of anodes consumed by the potrooms.

(5) Method 9 and the procedures in §60.11 shall be used to determine opacity.

[54 FR 6669, Feb. 14, 1989, as amended at 65 FR 61757, Oct. 17, 2000]

Attachment C –National Emission Standards for Hazardous Air Pollutants for Primary Aluminum Reduction Plants [40 CFR Part 63, Subpart LL] [326 IAC 20-24]

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.:	173-30774-00007
Significant Permit Modification No.:	173-30796-00007
Permit Reviewer:	Kimberly Cottrell

NESHAP [40 CFR Part 63, Subpart LL]

Subpart LL—National Emission Standards for Hazardous Air Pollutants for Primary Aluminum Reduction Plants

Source: 62 FR 52407, Oct. 7, 1997, unless otherwise noted.

§ 63.840 Applicability.

(a) Except as provided in paragraph (b) of this section, the requirements of this subpart apply to the owner or operator of each new pitch storage tank and new or existing potline, paste production plant, or anode bake furnace associated with primary aluminum production and located at a major source as defined in §63.2.

(b) The requirements of this subpart do not apply to any existing anode bake furnace that is not located on the same site as a primary aluminum reduction plant. The owner or operator shall comply with the State MACT determination established by the applicable regulatory authority.

(c) An owner or operator of an affected facility (potroom group or anode bake furnace) under §60.190 of this chapter may elect to comply with either the requirements of §63.845 of this subpart or the requirements of subpart S of part 60 of this chapter.

§ 63.841 Incorporation by reference.

(a) The following material is incorporated by reference in the corresponding sections noted. This incorporation by reference was approved by the Director of the Federal Register on October 7, 1997, in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist on the date of approval, and notice of any change in the materials will be published in theFederal Register.Revisions to “Industrial Ventilation: A Manual of Recommended Practice” (22nd ed.) are applicable only after publication of a document in the Federal Register to amend subpart LL to require use of the new information.

(1) Chapter 3, “Local Exhaust Hoods” and Chapter 5, “Exhaust System Design Procedure” of “Industrial Ventilation: A Manual of Recommended Practice,” American Conference of Governmental Industrial Hygienists, 22nd edition, 1995, IBR approved for §§63.843(b) and 63.844(b); and

(2) ASTM D 2986–95A, Standard Practice for Evaluation of Air Assay Media by the Monodisperse DOP (Dioctyl Phthalate) Smoke Test, IBR approved for section 7.1.1 of Method 315 in appendix A to this part.

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

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

(2) American Society for Testing and Materials, 100 Bar Harbour Drive, West Conshohocken, Pennsylvania 19428, telephone number (610) 832–9500.

[62 FR 52407, Oct. 7, 1997, as amended at 69 FR 18803, Apr. 9, 2004]

§ 63.842 Definitions.

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

Anode bake cycle means the period during which the regularly repeated sequence of loading, preheating, firing, cooling, and removing anodes from all sections within an anode bake furnace occurs one time.

Anode bake furnace means an oven in which the formed green anodes are baked for use in a prebake process. This definition includes multiple anode bake furnaces controlled by a common control device (bake furnaces controlled by a common control device are considered to be one source).

Center-worked prebake (CWPB) process means a method of primary aluminum reduction using the prebake process in which the alumina feed is added down the center of the reduction cell.

Center-worked prebake one (CWPB1) means all existing center-worked prebake potlines not defined as center-worked prebake two (CWPB2) or center-worked prebake three (CWPB3) potlines.

Center-worked prebake two (CWPB2) means all existing center-worked prebake potlines located at Alcoa in Rockdale, Texas; Kaiser Aluminum in Mead, Washington; Ormet Corporation in Hannibal, Ohio; Ravenswood Aluminum in Ravenswood, West Virginia; Reynolds Metals in Troutdale, Oregon; and Vanalco Aluminum in Vancouver, Washington.

Center-worked prebake three (CWPB3) means all existing center-worked prebake potlines that produce very high purity aluminum, have a wet scrubber for the primary control system, and are located at the NSA primary aluminum plant in Hawesville, Kentucky.

Continuous parameter monitoring system means the total equipment that may be required to meet the data acquisition and availability requirements of this subpart, used to sample, condition (if applicable), analyze, and provide a record of process or control system parameters.

Horizontal stud Soderberg (HSS) process means a method of primary aluminum reduction using the Soderberg process in which the electrical current is introduced to the anode by steel rods (studs) inserted into the side of a monolithic anode.

Modified potroom group means an existing potroom group to which any physical change in, or change in the method of operation of, results in an increase in the amount of total fluoride emitted into the atmosphere by that potroom group.

Paste production plant means the processes whereby calcined petroleum coke, coal tar pitch (hard or liquid), and/or other materials are mixed, transferred, and formed into briquettes or paste for vertical stud Soderberg (VSS) and HSS processes or into green anodes for a prebake process. This definition includes all operations from initial mixing to final forming (i.e., briquettes, paste, green anodes) within the paste plant, including conveyors and units managing heated liquid pitch.

Pitch storage tank means any fixed roof tank that is used to store liquid pitch that is not part of the paste production plant.

Polycyclic organic matter (POM) means organic matter extractable by methylene chloride as determined by Method 315 in appendix A to this part or by an approved alternative method.

Potline means a single, discrete group of electrolytic reduction cells electrically connected in series, in which alumina is reduced to form aluminum.

Potroom means a building unit that houses a group of electrolytic cells in which aluminum is produced.

Potroom group means an uncontrolled potroom, a potroom that is controlled individually, or a group of potrooms or potroom segments ducted to a common control system.

Prebake process means a method of primary aluminum reduction that uses an anode that was baked in an anode bake furnace, which is introduced into the top of the reduction cell and consumed as part of the reduction process.

Primary aluminum reduction plant means any facility manufacturing aluminum by electrolytic reduction.

Primary control system means the equipment used to capture the gases and particulate matter evacuated directly from the reduction cell and the emission control device(s) used to remove pollutants prior to discharge of the cleaned gas to the atmosphere. A roof scrubber is not part of the primary control system.

Primary emissions means the emissions discharged from the primary control system.

Reconstructed potroom group means an existing potroom group for which the components are replaced to such an extent that the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new potroom group, and for which it is technologically and economically feasible to meet the applicable emission limits for total fluoride set forth in this subpart.

Reconstruction means the replacement of components of a source to such an extent that:

(1) All of the major components of the source are replaced (for example, the major components of a potline include the raw material handling system, reduction cells, superstructure, hooding, ductwork, etc.); and

(2) It is technologically and economically feasible for the reconstructed source to meet the standards for new sources established in this subpart.

Roof monitor means that portion of the roof of a potroom building where gases not captured at the cell exit from the potroom.

Secondary emissions means the fugitive emissions that are not captured and controlled by the primary control system and that escape through the roof monitor or through roof scrubbers.

Side-worked prebake (SWPB) process means a method of primary aluminum reduction using the prebake process, in which the alumina is added along the sides of the reduction cell.

Soderberg process means a method of primary aluminum reduction in which the anode paste mixture is baked in the reduction pot by the heat resulting from the electrolytic process.

Total fluorides (TF) means elemental fluorine and all fluoride compounds as measured by Methods 13A or 13B in appendix A to part 60 of this chapter or by an approved alternative method.

Vertical stud Soderberg (VSS) process means a method of primary aluminum reduction using the Soderberg process, in which the electrical current is introduced to the anode by steel rods (studs) inserted into the top of a monolithic anode.

Vertical stud Soderberg one (VSS1) means all existing vertical stud Soderberg potlines located either at Northwest Aluminum in The Dalles, Oregon, or at Goldendale Aluminum in Goldendale, Washington.

Vertical stud Soderberg two (VSS2) means all existing vertical stud Soderberg potlines located at Columbia Falls Aluminum in Columbia Falls, Montana.

[62 FR 52407, Oct. 7, 1997, as amended at 70 FR 66284, Nov. 2, 2005]

§ 63.843 Emission limits for existing sources.

(a) *Potlines.* The owner or operator shall not discharge or cause to be discharged into the atmosphere any emissions of TF or POM in excess of the applicable limits in paragraphs (a)(1) and (a)(2) of this section.

(1) *TF limits.* Emissions of TF shall not exceed:

(i) 0.95 kg/Mg (1.9 lb/ton) of aluminum produced for each CWPB1 potline;

(ii) 1.5 kg/Mg (3.0 lb/ton) of aluminum produced for each CWPB2 potline;

(iii) 1.25 kg/Mg (2.5 lb/ton) of aluminum produced for each CWPB3 potline;

(iv) 0.8 kg/Mg (1.6 lb/ton) of aluminum produced for each SWPB potline;

(v) 1.1 kg/Mg (2.2 lb/ton) of aluminum produced for each VSS1 potline;

(vi) 1.35 kg/Mg (2.7 lb/ton) of aluminum produced for each VSS2 potline; and

(vii) 1.35 kg/Mg (2.7 lb/ton) of aluminum produced for each HSS potline.

(2) *POM limits.* Emissions of POM shall not exceed:

(i) 2.35 kg/Mg (4.7 lb/ton) of aluminum produced for each HSS potline;

(ii) 1.2 kg/Mg (2.4 lb/ton) of aluminum produced for each VSS1 potline; and

(iii) 2.85 kg/Mg (5.7 lb/ton) of aluminum produced for each VSS2 potline.

(3) *Change in subcategory.* Any potline, other than a reconstructed potline, that is changed such that its applicable subcategory also changes shall meet the applicable emission limit in this subpart for the original subcategory or the new subcategory, whichever is more stringent.

(b) *Paste production plants.* The owner or operator shall install, operate, and maintain equipment to capture and control POM emissions from each paste production plant.

(1) The emission capture system shall be installed and operated 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 §63.841 of this part); and

(2) Captured emissions shall be routed through a closed system to a dry coke scrubber; or

(3) The owner or operator may submit a written request for use of an alternative control device to the applicable regulatory authority for review and approval. The request shall contain information and data demonstrating that the alternative control device achieves POM emissions less than 0.011 lb/ton of paste for plants with continuous mixers or POM emissions less than 0.024 lb/ton of paste for plants with batch mixers. The POM emission rate shall be determined by sampling using Method 315 in appendix A to this part.

(c) *Anode bake furnaces.* The owner or operator shall not discharge or cause to be discharged into the atmosphere any emissions of TF or POM in excess of the limits in paragraphs (c)(1) and (c)(2) of this section.

(1) *TF limit.* Emissions of TF shall not exceed 0.10 kg/Mg (0.20 lb/ton) of green anode; and

(2) *POM limit.* Emissions of POM shall not exceed 0.09 kg/Mg (0.18 lb/ton) of green anode.

[62 FR 52407, Oct. 7, 1997, as amended at 70 FR 66284, Nov. 2, 2005]

§ 63.844 Emission limits for new or reconstructed sources.

(a) *Potlines.* The owner or operator shall not discharge or cause to be discharged into the atmosphere any emissions of TF or POM in excess of the limits in paragraphs (a)(1) and (a)(2) of this section.

(1) *TF limit.* Emissions of TF shall not exceed 0.6 kg/Mg (1.2 lb/ton) of aluminum produced; and

(2) *POM limit.* Emissions of POM from Soderberg potlines shall not exceed 0.32 kg/Mg (0.63 lb/ton) of aluminum produced.

(b) *Paste production plants.* The owner or operator shall meet the requirements in §63.843(b) for existing paste production plants.

(c) *Anode bake furnaces.* The owner or operator shall not discharge or cause to be discharged into the atmosphere any emissions of TF or POM in excess of the limits in paragraphs (c)(1) and (c)(2) of this section.

(1) *TF limit.* Emissions of TF shall not exceed 0.01 kg/Mg (0.02 lb/ton) of green anode; and

(2) *POM limit.* Emissions of POM shall not exceed 0.025 kg/Mg (0.05 lb/ton) of green anode.

(d) *Pitch storage tanks.* Each pitch storage tank shall be equipped with an emission control system designed and operated to reduce inlet emissions of POM by 95 percent or greater.

§ 63.845 Incorporation of new source performance standards for potroom groups.

(a) *Applicability.* The provisions in paragraphs (a) through (i) of this section shall apply to any Soderberg, CWPB2, and CWPB3 potline that adds a new potroom group to an existing potline or that is associated with a potroom group that meets the definition of “modified potroom group” or “reconstructed potroom group.”

(1) The following shall not, by themselves, be considered to result in a potroom group modification:

(i) Maintenance, repair, and replacement that the applicable regulatory authority determines to be routine for the potroom group;

(ii) An increase in production rate of an existing potroom group, if that increase can be accomplished without a capital expenditure on that potroom group;

(iii) An increase in the hours of operation;

(iv) Use of an alternative fuel or raw material if, prior to the effective date of this subpart, the existing potroom group was designed to accommodate that alternative use;

(v) The addition or use of any system or device whose primary function is the reduction of air pollutants, except when an emission control system is removed or is replaced by a system that the applicable regulatory authority determines to be less environmentally beneficial; and

(vi) The relocation or change in ownership of an existing potroom group.

(2) The provisions in paragraphs (a)(2)(i) through (a)(2)(iv) of this section apply when the applicable regulatory authority must determine if a potroom group meets the definition of reconstructed potroom group.

(i) “Fixed capital cost” means the capital needed to provide all the depreciable components.

(ii) If an owner or operator of an existing potroom group proposes to replace components, and the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new potroom group, he/she shall notify the applicable regulatory authority of the proposed replacements. The notice must be postmarked 60 days (or as soon as practicable) before construction of the replacements is commenced and must include the following information:

(A) Name and address of the owner or operator;

(B) The location of the existing potroom group;

(C) A brief description of the existing potroom group and the components that are to be replaced;

(D) A description of the existing air pollution control equipment and the proposed air pollution control equipment;

(E) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new potroom group;

(F) The estimated life of the existing potroom group after the replacements; and

(G) A discussion of any economic or technical limitations the potroom group may have in complying with the applicable standards of performance after the proposed replacements.

(iii) The applicable regulatory authority will determine, within 30 days of the receipt of the notice required by paragraph (a)(2)(ii) of this section and any additional information he/she may reasonably require, whether the proposed replacement constitutes a reconstructed potroom group.

(iv) The applicable regulatory authority's determination under paragraph (a)(2)(iii) of this section shall be based on:

(A) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new potroom group;

(B) The estimated life of the potroom group after the replacements compared to the life of a comparable entirely new potroom group;

(C) The extent to which the components being replaced cause or contribute to the emissions from the potroom group; and

(D) Any economic or technical limitations on compliance with applicable standards of performance that are inherent in the proposed replacements.

(b) *Lower TF emission limit.* The owner or operator shall calculate a lower TF emission limit for any potline associated with the modified potroom group, reconstructed potroom group, or new potroom group using the following equation:

$$L_1 = f_1 \times L_{PG1} + (1 - f_1) \times L_{PL}$$

Where:

L_1=the lower TF emission limit in kg/Mg (lb/ton);

f_1=the fraction of the potline's total aluminum production capacity that is contained within all modified potroom groups, reconstructed potroom groups, and new potroom groups;

L_{PG1}=0.95 kg/Mg (1.9 lb/ton) for prebake potlines and 1.0 kg/Mg (2.0 lb/ton) for Soderberg potlines; and

L_{PL}=the TF emission limit from §63.843(a)(1) for the appropriate potline subcategory that would have otherwise applied to the potline.

(c) *Upper TF emission limit.* The owner or operator shall calculate an upper TF emission limit for any potline associated with the modified potroom group, reconstructed potroom group, or new potroom group using the following equation:

$$L_2 = f_1 \times L_{PG2} + (1 - f_1) \times L_{PL}$$

Where:

L_2=the upper TF emission limit in kg/Mg (lb/ton); and

L_{PG2}=1.25 kg/Mg (2.5 lb/ton) for prebake potlines and 1.3 kg/Mg (2.6 lb/ton) for Soderberg potlines.

(d) *Recalculation.* The TF emission limits in paragraphs (b) and (c) of this section shall be recalculated each time a new potroom group is added to the potline and each time an additional potroom group meets the definition of "modified potroom group" or "reconstructed potroom group."

(e) *Emission limitation.* The owner or operator shall not discharge or cause to be discharged into the atmosphere emissions of TF from any potline associated with the modified potroom group, reconstructed potroom group, or new potroom group that exceed the lower emission limit calculated in paragraph (b) of this section, except that emissions less than the upper limit calculated in paragraph (c) of this section will be considered in compliance if the owner or operator demonstrates that exemplary operation and maintenance procedures were used with respect to the emission control system and that proper control equipment was operating at the potline during the performance test.

(f) *Report.* Within 30 days of any performance test that reveals emissions that fall between the lower limit calculated in paragraph (b) of this section and the upper limit calculated in paragraph (c) of this section, the owner or operator shall submit to the applicable regulatory authority a report indicating whether all necessary control devices were online and operating properly during the performance test, describing the operating and maintenance procedures followed, and setting forth any explanation for the excess emissions.

(g) *Procedures to determine TF emissions.* The owner or operator shall determine TF emissions for the potline using the following procedures:

(1) Determine the emission rate of TF in kg/Mg (lb/ton) from sampling secondary emissions and the primary control system for all new potroom groups, modified potroom groups, and reconstructed potroom groups using the procedures, equations, and test methods in §§63.847, 63.848, and 63.849.

(2) Determine the emission rate of TF in kg/Mg (lb/ton) from sampling secondary emissions and the primary control system for potroom groups or sections of potroom groups within the potline that are not new potroom groups,

modified potroom groups, or reconstructed potroom groups according to paragraphs (g)(2)(i) or (g)(2)(ii) of this section.

(i) Determine the mass emission rate of TF in kg/Mg (lb/ton) from at least one potroom group within the potline that is not a new potroom group, modified potroom group, or reconstructed potroom group using the procedures, equations, and test methods in §§63.847, 63.848, and 63.849, or

(ii) Use the results of the testing required by paragraph (g)(1) of this section to represent the entire potline based on a demonstration that the results are representative of the entire potline. Representativeness shall be based on showing that all of the potroom groups associated with the potline are substantially equivalent in terms of their structure, operability, type of emissions, volume of emissions, and concentration of emissions.

(3) Calculate the TF emissions for the potline in kg/Mg (lb/ton) based on the production-weighted average of the TF emission rates from paragraphs (g)(1) and (g)(2) of this section using the following equation:

$$E=f_1\times E_{PG1}+(1-f_1)\times E_{PL}$$

where:

E=the TF emission rate for the entire potline, kg/Mg (lb/ton);

f_1=the fraction of the potline's total aluminum production rate that is contained within all modified potroom groups, reconstructed potroom groups, and new potroom groups;

E_{PG1}=the TF emission rate from paragraph (g)(1) of this section for all modified potroom groups, reconstructed potroom groups, and new potroom groups, kg/Mg (lb/ton); and

E_{PL}=the TF emission rate for the balance of the potline from paragraph (g)(2) of this section, kg/Mg (lb/ton).

Compliance is demonstrated when TF emissions for the potline meet the requirements in paragraph (e) of this section.

(4) As an alternative to sampling as required in paragraphs (g)(1) and (g)(2) of this section, the owner or operator may perform representative sampling of the entire potline subject to the approval of the applicable regulatory authority. Such sampling shall provide coverage by the sampling equipment of both the new, modified, or reconstructed potroom group and the balance of the potline. The coverage for the new, modified, or reconstructed potroom group must meet the criteria specified in the reference methods in §63.849. TF emissions shall be determined for the potline using the procedures, equations, and test methods in §§63.847, 63.848, and 63.849. Compliance is demonstrated when TF emissions for the potline meet the requirements in paragraph (e) of this section.

(h) *Opacity.* Except as provided in paragraph (i) of this section, the owner or operator shall not discharge or cause to be discharged into the atmosphere from the modified potroom group, reconstructed potroom group, or new potroom group any emissions of gases that exhibit 10 percent opacity or greater.

(i) *Alternative opacity limit.* An alternative opacity limit may be established in place of the opacity limit in paragraph (h) of this section using the following procedures:

(1) If the regulatory authority finds that a potline is in compliance with the applicable TF standard for which performance tests are conducted in accordance with the methods and procedures in §63.849 but during the time such performance tests are being conducted fails to meet any applicable opacity standard, the regulatory authority shall notify and advise the owner or operator that he/she may petition the regulatory authority within 10 days of receipt of notification to make appropriate adjustment to the opacity standard.

(2) The regulatory authority will grant such a petition upon a demonstration by the owner or operator that the potroom group and associated air pollution control equipment were operated and maintained in a manner to minimize the opacity of emissions during the performance tests; that the performance tests were performed under the conditions established by the regulatory authority; and that the potroom group and associated air pollution control equipment were incapable of being adjusted or operated to meet the applicable opacity standard.

(3) As indicated by the performance and opacity tests, the regulatory authority will establish an opacity standard for any potroom group meeting the requirements in paragraphs (i)(1) and (i)(2) of this section such that the opacity standard could be met by the potroom group at all times during which the potline is meeting the TF emission limit.

(4) The alternative opacity limit established in paragraph (i)(3) of this section shall not be greater than 20 percent opacity.

§ 63.846 Emission averaging.

(a) *General.* The owner or operator of an existing potline or anode bake furnace in a State that does not choose to exclude emission averaging in the approved operating permit program may demonstrate compliance by emission averaging according to the procedures in this section.

(b) *Potlines.* The owner or operator may average TF emissions from potlines and demonstrate compliance with the limits in Table 1 of this subpart using the procedures in paragraphs (b)(1) and (b)(2) of this section. The owner or operator also may average POM emissions from potlines and demonstrate compliance with the limits in Table 2 of this subpart using the procedures in paragraphs (b)(1) and (b)(3) of this section.

(1) Monthly average emissions of TF and/or quarterly average emissions of POM shall not exceed the applicable emission limit in Table 1 of this subpart (for TF emissions) and/or Table 2 of this subpart (for POM emissions). The emission rate shall be calculated based on the total emissions from all potlines over the period divided by the quantity of aluminum produced during the period, from all potlines comprising the averaging group.

(2) To determine compliance with the applicable emission limit in Table 1 of this subpart for TF emissions, the owner or operator shall determine the monthly average emissions (in lb/ton) from each potline from at least three runs per potline each month for TF secondary emissions using the procedures and methods in §§63.847 and 63.849. The owner or operator shall combine the results of secondary TF monthly average emissions with the TF results for the primary control system and divide total emissions by total aluminum production.

(3) To determine compliance with the applicable emission limit in Table 2 of this subpart for POM emissions, the owner or operator shall determine the quarterly average emissions (in lb/ton) from each potline from at least one run each month for POM emissions using the procedures and methods in §§63.847 and 63.849. The owner or operator shall combine the results of secondary POM quarterly average emissions with the POM results for the primary control system and divide total emissions by total aluminum production.

(c) *Anode bake furnaces.* The owner or operator may average TF emissions from anode bake furnaces and demonstrate compliance with the limits in Table 3 of this subpart using the procedures in paragraphs (c)(1) and (c)(2) of this section. The owner or operator also may average POM emissions from anode bake furnaces and demonstrate compliance with the limits in Table 3 of this subpart using the procedures in paragraphs (c)(1) and (c)(2) of this section.

(1) Annual emissions of TF and/or POM from a given number of anode bake furnaces making up each averaging group shall not exceed the applicable emission limit in Table 3 of this subpart in any one year; and

(2) To determine compliance with the applicable emission limit in Table 3 of this subpart for anode bake furnaces, the owner or operator shall determine TF and/or POM emissions from the control device for each furnace at least once a year using the procedures and methods in §§63.847 and 63.849.

(d) *Implementation plan.* The owner or operator shall develop and submit an implementation plan for emission averaging to the applicable regulatory authority for review and approval according to the following procedures and requirements:

(1) *Deadlines.* The owner or operator must submit the implementation plan no later than 6 months before the date that the facility intends to comply with the emission averaging limits.

(2) *Contents.* The owner or operator shall include the following information in the implementation plan or in the application for an operating permit for all emission sources to be included in an emissions average:

(i) The identification of all emission sources (potlines or anode bake furnaces) in the average;

(ii) The assigned TF or POM emission limit for each averaging group of potlines or anode bake furnaces;

(iii) The specific control technology or pollution prevention measure to be used for each emission source in the averaging group and the date of its installation or application. If the pollution prevention measure reduces or eliminates emissions from multiple sources, the owner or operator must identify each source;

(iv) The test plan for the measurement of TF or POM emissions in accordance with the requirements in §63.847(b);

(v) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;

(vi) If the owner or operator requests to monitor an alternative operating parameter pursuant to §63.848(l):

(A) A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

(B) A description of the methods and procedures that will be used to demonstrate that the parameter indicates proper operation of the control device; the frequency and content of monitoring, reporting, and recordkeeping requirements; and a demonstration, to the satisfaction of the applicable regulatory authority, that the proposed monitoring frequency is sufficient to represent control device operating conditions; and

(vii) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.

(3) *Approval criteria.* Upon receipt, the regulatory authority shall review and approve or disapprove the plan or permit application according to the following criteria:

(i) Whether the content of the plan includes all of the information specified in paragraph (d)(2) of this section; and

(ii) Whether the plan or permit application presents sufficient information to determine that compliance will be achieved and maintained.

(4) *Prohibitions.* The applicable regulatory authority shall not approve an implementation plan or permit application containing any of the following provisions:

(i) Any averaging between emissions of differing pollutants or between differing sources. Emission averaging shall not be allowed between TF and POM, and emission averaging shall not be allowed between potlines and bake furnaces;

(ii) The inclusion of any emission source other than an existing potline or existing anode bake furnace or the inclusion of any potline or anode bake plant not subject to the same operating permit;

(iii) The inclusion of any potline or anode bake furnace while it is shut down; or

(iv) The inclusion of any periods of startup, shutdown, or malfunction, as described in the startup, shutdown, and malfunction plan required by §63.850(c), in the emission calculations.

(5) *Term.* Following review, the applicable regulatory authority shall approve the plan or permit application, request changes, or request additional information. Once the applicable regulatory authority receives any additional information requested, the applicable regulatory authority shall approve or disapprove the plan or permit application within 120 days.

(i) The applicable regulatory authority shall approve the plan for the term of the operating permit;

(ii) To revise the plan prior to the end of the permit term, the owner or operator shall submit a request to the applicable regulatory authority; and

(iii) The owner or operator may submit a request to the applicable regulatory authority to implement emission averaging after the applicable compliance date.

(6) *Operation.* While operating under an approved implementation plan, the owner or operator shall monitor the operating parameters of each control system, keep records, and submit periodic reports as required for each source subject to this subpart.

§ 63.847 Compliance provisions.

(a) *Compliance dates* . The owner or operator of a primary aluminum plant must comply with the requirements of this subpart by:

(1) October 7, 1999, for an owner or operator of an existing plant or source;

(2) October 9, 2000, for an existing source, provided the owner or operator demonstrates to the satisfaction of the applicable regulatory authority that additional time is needed to install or modify the emission control equipment;

(3) October 8, 2001, for an existing source that is granted an extension by the regulatory authority under section 112(i)(3)(B) of the Act; or

(4) Upon startup, for an owner or operator of a new or reconstructed source.

(b) *Test plan.* The owner or operator shall prepare a site-specific test plan prior to the initial performance test according to the requirements of §63.7(c) of this part. The test plan must include procedures for conducting the initial performance test and for subsequent performance tests required in §63.848 for emission monitoring. In addition to the information required by §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 source;

(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 the applicable regulatory authority;

(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 the applicable regulatory authority;

(4) Procedures for sampling single stacks associated with multiple anode bake furnaces;

(5) For plants with roof scrubbers, procedures for rotating sampling among the scrubbers or other procedures to obtain representative samples as approved by the applicable regulatory authority;

(6) For a VSS1 potline, procedures to ensure that one fan (or one scrubber) per potline is sampled for each run;

(7) For a SWPB potline, procedures to ensure that the average of the sampling results for two fans (or two scrubbers) per potline is used for each run; and

(8) 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 the applicable regulatory authority.

(c) *Performance test dates* . Following approval of the site-specific test plan, the owner or operator must conduct a performance test to demonstrate initial compliance according to the procedures in paragraph (d) of this section. If a performance test has been conducted on the primary control system for potlines or for the anode bake furnace within the 12 months prior to the compliance date, the results of that performance test may be used to demonstrate initial compliance. The owner or operator must conduct the performance test:

(1) During the first month following the compliance date for an existing potline (or potroom group) or anode bake furnace;

(2) By the date determined according to the requirements in paragraph (c)(2)(i), (ii), or (iii) of this section for a new or reconstructed potline, anode bake furnace, or pitch storage tank (for which the owner or operator elects to conduct an initial performance test):

(i) By the 180th day following startup for a potline or potroom group. The 180-day period starts when the first pot in a potline or potroom group is energized.

(ii) By the 45th day from the start of the second anode bake cycle (but no later than the 180th day from the startup of the anode bake furnace).

(iii) By the 30th day following startup for a pitch storage tank. The 30-day period starts when the tank is first used to store pitch.

(3) By the date determined according to the requirements in paragraph (c)(3)(i) or (ii) of this section for an existing potline or anode bake furnace that was shut down at the time compliance would have otherwise been required and is subsequently restarted:

(i) By the 180th day following startup for a potline or potroom group. The 180-day period starts when the first pot in a potline or potroom group is energized.

(ii) By the 45th day from the start of the second anode bake cycle (but no later than the 180th day from the startup of the anode bake furnace).

(d) *Performance test requirements.* The initial performance test and all subsequent performance tests shall be conducted in accordance with the requirements of the general provisions in subpart A of this part, the approved test plan, and the procedures in this section.

(1) *TF emissions from potlines.* For each potline, the owner or operator 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, or for a plant with roof scrubbers, exiting through the scrubbers. Using the equation in paragraph (e)(1) of this section, the owner or operator 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 determine compliance with the applicable emission limit. Compliance is demonstrated when the emission rate of TF is equal to or less than the applicable emission limit in §63.843, §63.844, or §63.846.

(2) *POM emissions from Soderberg potlines.* For each Soderberg (HSS, VSS1, and VSS2) potline, the owner or operator shall measure and record the emission rate of POM exiting the primary emission control system and the rate of secondary emissions exiting through each roof monitor, or for a plant with roof scrubbers, exiting through the scrubbers. Using the equation in paragraph (e)(2) of this section, the owner or operator shall compute and record the average of at least three runs each quarter (one run per month) for secondary emissions and at least three runs each year for the primary control system to determine compliance with the applicable emission limit. Compliance is demonstrated when the emission rate of POM is equal to or less than the applicable emission limit in §63.843, §63.844, or §63.846.

(3) *Previous control device tests.* If the owner or operator has performed more than one test of primary emission control device(s) for a potline or for a bake furnace during the previous consecutive 12 months, 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.

(4) *TF and POM emissions from anode bake furnaces.* For each anode bake furnace, the owner or operator shall measure and record the emission rate of TF and POM exiting the exhaust stacks(s) of the primary emission control system for each anode bake furnace. Using the equations in paragraphs (e)(3) and (e)(4) of this section, the owner or operator shall compute and record the average of at least three runs each year to determine compliance with the applicable emission limits for TF and POM. Compliance is demonstrated when the emission rates of TF and POM are equal to or less than the applicable TF and POM emission limits in §63.843, §63.844, or §63.846.

(e) *Equations.* The owner or operator shall determine compliance with the applicable TF and POM emission limits using the following equations and procedures:

(1) Compute the emission rate (E_p) of TF from each potline using Equation 1:

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

Where:

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

C_{s1}=concentration of TF from the primary control system, mg/dscm (mg/dscf);

Q_{sd}=volumetric flow rate of effluent gas corresponding to the appropriate subscript location, dscm/hr (dscf/hr);

C_{s2}=concentration of TF as measured for roof monitor emissions, mg/dscm (mg/dscf);

P=aluminum production rate, Mg/hr (ton/hr);

K=conversion factor, 10^6 mg/kg (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) Compute the emission rate of POM from each potline using Equation 1,

Where:

E_p= emission rate of POM from the potline, kg/mg (lb/ton); and

C_s= concentration of POM, mg/dscm (mg/dscf). POM emission data collected during the installation and startup of a cathode shall not be included in C_s.

(3) Compute the emission rate (E_b) of TF from each anode bake furnace using Equation 2,

$$E_b = \frac{(C_s \times Q_{sd})}{(P_b \times K)} \qquad (Equation\ 2)$$

Where:

E_b= emission rate of TF, kg/mg (lb/ton) of green anodes produced;

C_s= concentration of TF, mg/dscm (mg/dscf);

Q_{sd}= volumetric flow rate of effluent gas, dscm/hr (dscf/hr);

P_b= quantity of green anode material placed in the furnace, mg/hr (ton/hr); and

K = conversion factor, 10^6 mg/kg (453,600 mg/lb).

(4) Compute the emission rate of POM from each anode bake furnace using Equation 2,

Where:

C_s= concentration of POM, mg/dscm (mg/dscf).

(5) Determine the weight of the aluminum tapped from the potline and the weight of the green anode material placed in the anode bake furnace using the monitoring devices required in §63.848(j).

(6) 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.

(7) 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.

(f) *Paste production plants.* Initial compliance with the standards for existing and new paste production plants in §§63.843(b) and 63.844(b) will be demonstrated through site inspection(s) and review of site records by the applicable regulatory authority.

(g) *Pitch storage tanks.* The owner or operator shall demonstrate initial compliance with the standard for pitch storage tanks in §63.844(d) by preparing a design evaluation or by conducting a performance test. The owner or operator shall submit for approval by the regulatory authority the information specified in paragraph (g)(1) of this section, along with the information specified in paragraph (g)(2) of this section where a design evaluation is performed or the information specified in paragraph (g)(3) of this section where a performance test is conducted.

(1) A description of the parameters to be monitored to ensure that the control device is being properly operated and maintained, an explanation of the criteria used for selection of that parameter (or parameters), and the frequency with which monitoring will be performed; and

(2) Where a design evaluation is performed, documentation demonstrating that the control device used achieves the required control efficiency during reasonably expected maximum filling rate. The documentation shall include a description of the gas stream that enters the control device, including flow and POM content under varying liquid level conditions, and the information specified in paragraphs (g)(2)(i) through (g)(2)(vi) of this section, as applicable.

(i) If the control device receives vapors, gases, or liquids, other than fuels, from emission points other than pitch storage tanks, the efficiency demonstration is to include consideration of all vapors, gases, and liquids, other than fuels, received by the control device;

(ii) If an enclosed combustion device with a minimum residence time of 0.5 seconds and a minimum temperature of 760 °C (1,400 °F) is used to meet the emission reduction requirement specified in §83.844(d), documentation that those conditions exist is sufficient to meet the requirements of §83.844(d);

(iii) Except as provided in paragraph (g)(2)(ii) of this section, for thermal incinerators, the design evaluation shall include the autoignition temperature of the organic HAP, the flow rate of the organic HAP emission stream, the combustion temperature, and the residence time at the combustion temperature;

(iv) If the pitch storage tank is vented to the emission control system installed for control of emissions from the paste production plant pursuant to §63.843(b), documentation of compliance with the requirements of §63.843(b) is sufficient to meet the requirements of §63.844(d);

(v) For carbon adsorbers, the design evaluation shall include the affinity of the organic vapors for carbon, the amount of carbon in each bed, the number of beds, the humidity of the feed gases, the temperature of the feed gases, the flow rate of the organic HAP emission stream, and if applicable, the desorption schedule, the regeneration stream pressure or temperature, and the flow rate of the regeneration stream. For vacuum desorption, the pressure drop shall be included; and

(vi) For condensers, the design evaluation shall include the final temperature of the organic HAP vapors, the type of condenser, and the design flow rate of the organic HAP emission stream.

(3) If a performance test is conducted, the owner or operator shall determine the control efficiency for POM during tank loading using Method 315 in appendix A to this part. The owner or operator shall include the following information:

(i) Identification of the pitch storage tank and control device for which the performance test will be submitted; and

(ii) Identification of the emission point(s) that share the control device with the pitch storage tank and for which the performance test will be conducted.

(h) *Selection of monitoring parameters.* The owner or operator shall determine the operating limits and monitoring frequency for each control device that is to be monitored as required in §63.848(f).

(1) For potlines and anode bake furnaces, the owner or operator shall determine upper and/or lower operating limits, as appropriate, for each monitoring device for the emission control system from the values recorded during each of the runs performed during the initial performance test and from historical data from previous performance tests conducted by the methods specified in this subpart.

(2) For a paste production plant, the owner or operator shall specify and provide the basis or rationale for selecting parameters to be monitored and the associated operating limits for the emission control device.

(3) The owner or operator may redetermine the upper and/or lower operating limits, as appropriate, based on historical data or other information and submit an application to the applicable regulatory authority to change the applicable limit(s). The redetermined limits shall become effective upon approval by the applicable regulatory authority.

[62 FR 52407, Oct. 7, 1997, as amended at 70 FR 66284, Nov. 2, 2005]

§ 63.848 Emission monitoring requirements.

(a) *TF emissions from potlines.* Using the procedures in §63.847 and in the approved test plan, the owner or operator shall monitor emissions of TF from each potline by conducting monthly performance tests. The owner or operator 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 applicable emission limit. The owner or operator must include all valid runs in the monthly average. The duration of each run for secondary emissions must represent a complete operating cycle.

(b) *POM emissions from Soderberg potlines.* Using the procedures in §63.847 and in the approved test plan, the owner or operator shall monitor emissions of POM from each Soderberg (HSS, VSS1, and VSS2) potline every three months. The owner or operator shall compute and record the quarterly (3-month) average from at least one run per month for secondary emissions and the previous 12-month average of all runs for the primary control systems to determine compliance with the applicable emission limit. The owner or operator must include all valid runs in the quarterly (3-month) average. The duration of each run for secondary emissions must represent a complete operating cycle. The primary control system must be sampled over an 8-hour period, unless site-specific factors dictate an alternative sampling time subject to the approval of the regulatory authority.

(c) *TF and POM emissions from anode bake furnaces.* Using the procedures in §63.847 and in the approved test plan, the owner or operator shall monitor TF and POM emissions from each anode bake furnace on an annual basis. The owner or operator shall compute and record the annual average of TF and POM emissions from at least three runs to determine compliance with the applicable emission limits. The owner or operator must include all valid runs in the annual average.

(d) *Similar potlines.* As an alternative to monthly monitoring of TF or POM secondary emissions from each potline using the test methods in §63.849, the owner or operator may perform monthly monitoring of TF or POM secondary emissions from one potline using the test methods in §§63.849 (a) or (b) to represent the performance of similar potline(s). The similar potline(s) shall be monitored using an alternative method that meets the requirements of paragraphs (d)(1) through (d)(7) of this section. Two or more potlines are similar if the owner or operator demonstrates that their structure, operability, type of emissions, volume of emissions, and concentration of emissions are substantially equivalent.

(1) To demonstrate (to the satisfaction of the regulatory authority) that the level of emission control performance is the same or better, the owner or operator shall perform an emission test using an alternative monitoring procedure for the similar potline simultaneously with an emission test using the applicable test methods. The results of the emission test using the applicable test methods must be in compliance with the applicable emission limit for existing or new potlines in §63.843 or §63.844. An alternative method:

(i) For TF emissions, must account for or include gaseous fluoride and cannot be based on measurement of particulate matter or particulate fluoride alone; and

(ii) For TF and POM emissions, must meet or exceed Method 14 criteria.

(2) An HF continuous emission monitoring system is an approved alternative for the monitoring of TF secondary emissions.

(3) An owner or operator electing to use an alternative monitoring procedure shall establish an alternative emission limit based on at least nine simultaneous runs using the applicable test methods and the alternative monitoring method. All runs must represent a full process cycle.

(4) The owner or operator shall derive an alternative emission limit for the HF continuous emission monitor or an alternative method using either of the following procedures:

(i) Use the highest value from the alternative method associated with a simultaneous run by the applicable test method that does not exceed the applicable emission limit; or

(ii) Correlate the results of the two methods (the applicable test method results and the alternative monitoring method results) and establish an emission limit for the alternative monitoring system that corresponds to the applicable emission limit.

(5) The owner or operator shall submit the results required in paragraph (d)(4) of this section and all supporting documentation to the applicable regulatory authority for review and approval.

(6) The regulatory authority shall review and approve or disapprove the request for an alternative method and alternative emission limit. The criterion for approval shall be a demonstration (to the satisfaction of the regulatory authority) that the alternative method and alternative emission limit achieve a level of emission control that is the

same as or better than the level that would have otherwise been achieved by the applicable method and emission limit.

(7) If the alternative method is approved by the applicable regulatory authority, the owner or operator shall perform monthly emission monitoring using the approved alternative monitoring procedure to demonstrate compliance with the alternative emission limit for each similar potline.

(e) *Reduced sampling frequency.* The owner or operator may submit a written request to the applicable regulatory authority to establish an alternative testing requirement to reduce the sampling of secondary TF emissions from potlines from monthly to quarterly.

(1) In the request, the owner or operator shall provide information and data demonstrating, to the satisfaction of the applicable regulatory authority, that secondary emissions of TF from potlines have low variability during normal operations using the procedures in paragraphs (e)(1)(i) or (e)(1)(ii) of this section.

(i) Submit data from 24 consecutive months of sampling that show the average TF emissions are less than 60 percent of the applicable limit and that no monthly performance test in the 24 months of sampling exceeds 75 percent of the applicable limit; or

(ii) Submit data and a statistical analysis that the regulatory authority may evaluate based on the approach used in "Primary Aluminum: Statistical Analysis of Potline Fluoride Emissions and Alternative Sampling Frequency" (EPA–450–86–012, October 1986), which is available from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161.

(2) An approved alternative requirement must include a test schedule and the method to be used to measure emissions for performance tests.

(3) The owner or operator of a plant that has received approval of an alternative sampling frequency under §60.194 of this chapter is deemed to have approval of the alternative sampling frequency under this subpart.

(4) If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (e)(1)(i) of this section, the owner or operator shall return to monthly sampling for at least 12 months and may reduce to quarterly sampling when:

(i) The average of all tests performed over the most recent 24-month period does not exceed 60 percent of the applicable limit, and

(ii) No more than one monthly performance test in the most recent 24-month period exceeds 75 percent of the applicable limit.

(5) If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (e)(1)(ii) of this section, the owner or operator shall immediately return to the monthly sampling schedule required by paragraph (a) of this section until another request for an alternative sampling frequency is approved by the applicable regulatory authority.

(f) *Monitoring parameters for emission control devices.* The owner or operator shall install, operate, calibrate, and maintain a continuous parameter monitoring system for each emission control device. The owner or operator shall submit for approval by the regulatory authority a description of the parameter(s) to be monitored, the operating limits, and the monitoring frequency to ensure that the control device is being properly operated and maintained. An explanation of the criteria used for selection of the parameter(s), the operating limits, and the monitoring frequency, including how these relate to emission control also shall be submitted to the regulatory authority. Except as provided in paragraph (l) of this section, the following monitoring devices shall be installed:

(1) For dry alumina scrubbers, devices for the measurement of alumina flow and air flow;

(2) For dry coke scrubbers, devices for the measurement of coke flow and air flow;

(3) For wet scrubbers as the primary control system, devices for the measurement of water flow and air flow;

(4) For electrostatic precipitators, devices for the measurement of voltage and secondary current; and

(5) For wet roof scrubbers for secondary emission control:

(i) A device for the measurement of total water flow; and

(ii) The owner or operator shall inspect each control device at least once each operating day to ensure the control device is operating properly and record the results of each inspection.

(g) *Visible emissions.* The owner or operator shall visually inspect the exhaust stack(s) of each control device on a daily basis for evidence of any visible emissions indicating abnormal operation.

(h) *Corrective action.* If a monitoring device for a primary control device measures an operating parameter outside the limit(s) established pursuant to §63.847(h), if visible emissions indicating abnormal operation are observed from the exhaust stack of a control device during a daily inspection, or if a problem is detected during the daily inspection of a wet roof scrubber for potline secondary emission control, the owner or operator shall initiate corrective action procedures within 1 hour. Failure to initiate the corrective action procedures within 1 hour or to take the necessary corrective actions to remedy the problem is a violation.

(i) *Exceedances.* If the limit for a given operating parameter associated with monitoring a specific control device 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 given 24-hour period.

(j) *Weight of aluminum and green anodes.* The owner or operator of a new or existing potline or anode bake furnace shall install, operate, and maintain a monitoring device to determine the daily weight of aluminum produced and the weight of green anode material placed in the anode bake furnace. The weight of green anode material may be determined by monitoring the weight of all anodes or by monitoring the number of anodes placed in the furnace and determining an average weight from measurements of a representative sample of anodes.

(k) *Accuracy and calibration.* The owner or operator shall submit recommended accuracy requirements to the regulatory authority for review and approval. All monitoring devices required by this section must be certified by the owner or operator to meet the accuracy requirements and must be calibrated in accordance with the manufacturer's instructions.

(l) *Alternative operating parameters.* The owner or operator may monitor alternative control device operating parameters subject to prior written approval by the applicable regulatory authority.

(m) *Other control systems.* An owner or operator using a control system not identified in this section shall request that the applicable regulatory authority include the recommended parameters for monitoring in the facility's part 70 permit.

[62 FR 52407, Oct. 7, 1997, as amended at 71 FR 20458, Apr. 20, 2006]

§ 63.849 Test methods and procedures.

(a) The owner or operator shall use the following reference methods to determine compliance with the applicable emission limits for TF and POM emissions:

(1) Method 1 in appendix A to part 60 of this chapter for sample and velocity traverses;

(2) Method 2 in appendix A to part 60 of this chapter for velocity and volumetric flow rate;

(3) Method 3 in appendix A to part 60 of this chapter for gas analysis;

(4) Method 13A or Method 13B in appendix A to part 60 of this chapter, or an approved alternative, for the concentration of TF where stack or duct emissions are sampled;

(5) 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;

(6) Method 315 in appendix A to this part or an approved alternative method for the concentration of POM where stack or duct emissions are sampled; and

(7) Method 315 in appendix A to this part and Method 14 in appendix A to part 60 of this chapter or an approved alternative method for the concentration of POM where emissions are sampled from roof monitors not employing wet roof scrubbers.

(b) The owner or operator of a VSS potline or a SWPB potline equipped with wet roof scrubbers for the control of secondary emissions shall use methods that meet the intent of the sampling requirements of Method 14 in appendix A to part 60 of this chapter and that are approved by the State. Sample analysis shall be performed using Method 13A or Method 13B in appendix A to part 60 of this chapter for TF, Method 315 in appendix A to this part for POM, or an approved alternative method.

(c) Except as provided in §63.845(g)(1), references to “potroom” or “potroom group” in Method 14 in appendix A to part 60 of this chapter shall be interpreted as “potline” for the purposes of this subpart.

(d) For sampling using Method 14 in appendix A to part 60 of this chapter, the owner or operator shall install one Method 14 manifold per potline in a potroom that is representative of the entire potline, and this manifold shall meet the installation requirements specified in section 2.2.1 of Method 14 in appendix A to part 60 of this chapter.

(e) The owner or operator may use an alternative test method for TF or POM emissions providing:

(1) The owner or operator has already demonstrated the equivalency of the alternative method for a specific plant and has received previous approval from the Administrator or the applicable regulatory authority for TF or POM measurements using the alternative method; or

(2) The owner or operator demonstrates to the satisfaction of the applicable regulatory authority that the results from the alternative method meet the criteria specified in §§63.848(d)(1) and (d)(3) through (d)(6). The results from the alternative method shall be based on simultaneous sampling using the alternative method and the following reference methods:

(i) For TF, Methods 13 and 14 or Method 14A in appendix A to part 60 of this chapter; or

(ii) For POM, Method 315 in appendix A to this part and Method 14 in appendix A to part 60 of this chapter.

§ 63.850 Notification, reporting, and recordkeeping requirements.

(a) *Notifications.* The owner or operator shall submit the following written notifications:

(1) Notification for an area source that subsequently increases its emissions such that the source is a major source subject to the standard;

(2) Notification that a source is subject to the standard, where the initial startup is before the effective date of the standard;

(3) Notification that a source is subject to the standard, where the source is new or has been reconstructed, the initial startup is after the effective date of the standard, and for which an application for approval of construction or reconstruction is not required;

(4) Notification of intention to construct a new major source or reconstruct a major source; of the date construction or reconstruction commenced; of the anticipated date of startup; of the actual date of startup, where the initial startup of a new or reconstructed source occurs after the effective date of the standard, and for which an application for approval of construction or reconstruction is required [see §§63.9(b)(4) and (b)(5)];

(5) Notification of initial performance test;

(6) Notification of initial compliance status;

(7) One-time notification for each affected source of the intent to use an HF continuous emission monitor;

(8) *Notification of compliance approach.* The owner or operator shall develop and submit to the applicable regulatory authority, if requested, an engineering plan that describes the techniques that will be used to address the capture efficiency of the reduction cells for gaseous hazardous air pollutants in compliance with the emission limits in §§63.843, 63.844, and 63.846; and

(9) One-time notification of startup of an existing potline or potroom group, anode bake furnace, or paste production plant that was shut down for a long period and subsequently restarted. The owner or operator must provide written notice to the Administrator at least 30 days before the startup.

(b) *Performance test reports.* The owner or operator shall report the results of the initial performance test as part of the notification of compliance status required in paragraph (a)(6) of this section. Except as provided in paragraph (d) of this section, the owner or operator shall submit a summary of all subsequent performance tests to the applicable regulatory authority on an annual basis.

(c) *Startup, shutdown, and malfunction plan and reports.* The owner or operator shall develop a written plan as described in §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 standards. The plan does not have to be submitted with the permit appplication or included in the operating permit. The permitting authority may review the plan upon request. In addition to the information required in §63.6(e)(3), the plan shall include:

(1) Procedures, including corrective actions, to be followed if a monitoring device measures an operating parameter outside the limit(s) established under §63.847(h), if visible emissions from an exhaust stack indicating abnormal operation of a control device are observed by the owner or operator during the daily inspection required in §63.848(g), or if a problem is detected during the daily inspection of a wet roof scrubber for potline secondary emission control required in §63.848(f)(5)(ii); and

(2) The owner or operator shall also keep records of each event as required by §63.10(b) and record and report if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the plan as described in §63.6(e)(3)(iv).

(d) *Excess emissions report.* As required by §63.10(e)(3), the owner or operator shall submit a report (or a summary report) if measured emissions are in excess of the applicable standard. The report shall contain the information specified in §63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions.

(e) *Recordkeeping.* The owner or operator shall maintain files of all information (including all reports and notifications) required by §63.10(b) and by this subpart.

(1) The owner or operator must retain each record for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records must be retained at the facility. The remaining 3 years of records may be retained offsite;

(2) The owner or operator may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche;

(3) The owner or operator may report required information on paper or on a labeled computer disc using commonly available and compatible computer software; and

(4) In addition to the general records required by §63.10(b), the owner or operator shall maintain records of the following information:

(i) Daily production rate of aluminum;

(ii) Daily production rate of green anode material placed in the anode bake furnace;

(iii) A copy of the startup, shutdown, and malfunction plan;

(iv) Records of design information for paste production plant capture systems;

(v) Records of design information for an alternative emission control device for a paste production plant;

(vi) Records supporting the monitoring of similar potlines demonstrating that the performance of similar potlines is the same as or better than that of potlines sampled by manual methods;

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

(viii) Records supporting the correlation of emissions measured by a continuous emission monitoring system to emissions measured by manual methods and the derivation of the alternative emission limit derived from the measurements;

(ix) The current implementation plan for emission averaging and any subsequent amendments;

(x) Records, such as a checklist or the equivalent, demonstrating that the daily inspection of a potline with wet roof scrubbers for secondary emission control has been performed as required in §63.848(f)(5)(ii), including the results of each inspection;

(xi) 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 §63.848(g), including the results of each inspection;

(xii) For a potline equipped with an HF continuous emission monitor, records of information and data required by §63.10(c);

(xiii) Records documenting the corrective actions taken when the limit(s) for an operating parameter established under §63.847(h) were exceeded, when visible emissions indicating abnormal operation were observed from a control device stack during a daily inspection required under §63.848(g), or when a problem was detected during the daily inspection of a wet roof scrubber for potline secondary control required in §63.848(f)(5)(ii);

(xiv) Records documenting any POM data that are invalidated due to the installation and startup of a cathode; and

(xv) Records documenting the portion of TF that is measured as particulate matter and the portion that is measured as gaseous when the particulate and gaseous fractions are quantified separately using an approved test method.

[62 FR 52407, Oct. 7, 1997, as amended at 70 FR 66285, Nov. 2, 2005; 71 FR 20458, Apr. 20, 2006]

§ 63.851 Regulatory authority review procedures.

(a) The applicable regulatory authority shall notify the owner or operator in writing of the need for additional time to review the submissions in paragraphs (a)(1) through (a)(5) of this section or of approval or intent to deny approval of the submissions in paragraphs (a)(1) through (a)(5) of this section within 60 calendar days after receipt of sufficient information to evaluate the submission. The 60-day period begins after the owner or operator has been notified that the submission is complete.

(1) The test plan in §63.847(b);

(2) Request to change limits for operating parameters in §63.847(h)(3);

(3) Request for similar potline monitoring in §63.848(d)(5);

(4) Request for reduced sampling frequency in §63.848(e); and

(5) Request for an alternative method in §63.849(e)(2).

(b) The applicable regulatory authority shall notify the owner or operator in writing whether the submission is complete within 30 calendar days of receipt of the original submission or within 30 days of receipt of any supplementary information that is submitted. When a submission is incomplete, the applicable regulatory authority shall specify the information needed to complete the submission and shall give the owner or operator 30 calendar days after receipt of the notification to provide the information.

§ 63.852 Applicability of general provisions.

The requirements of the general provisions in subpart A of this part that are not applicable to the owner or operator subject to the requirements of this subpart are shown in appendix A of this subpart.

§ 63.853 Implementation and enforcement.

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this regulation. Contact the applicable U.S. EPA Regional Office to find out if this subpart is delegated to a State, local, or Tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.

(c) The authorities that cannot be delegated to State, local, or Tribal agencies are as specified in paragraphs (c)(1) through (4) of this section.

(1) Approval of alternatives to the requirements in §§63.840, 63.843 (with the exception of 63.843(b)(3)), 63.844, 63.845(a) introductory text, (a)(1), (b) through (e), (h), 63.846(a) through (c), and 63.847(a)(1) and (4).

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart.

(3) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart.

(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

[68 FR 37354, June 23, 2003]

§§ 63.854-63.859 [Reserved]

Table 1 to Subpart LL of Part 63—Potline TF Limits for Emission Averaging

Type	Monthly TF limit (1b/ton) [for given number of potlines]						
	2 lines	3 lines	4 lines	5 lines	6 lines	7 lines	8 lines
CWPB1	1.7	1.6	1.5	1.5	1.4	1.4	1.4
CWPB2	2.9	2.8	2.7	2.7	2.6	2.6	2.6
CWPB3	2.3	2.2	2.2	2.1	2.1	2.1	2.1
VSS1	2	1.9	1.8	1.7	1.7	1.7	1.7
VSS2	2.6	2.5	2.5	2.4	2.4	2.4	2.4
HSS	2.5	2.4	2.4	2.3	2.3	2.3	2.3
SWPB	1.4	1.3	1.3	1.2	1.2	1.2	1.2

Table 2 to Subpart LL of Part 63—Potline POM Limits for Emission Averaging

Type	Quarterly POM limit (lb/ton) [for given number of potlines]						
	2 lines	3 lines	4 lines	5 lines	6 lines	7 lines	8 lines
HSS	4.1	3.8	3.7	3.5	3.5	3.4	3.3
VSS1	2.1	2.0	1.9	1.9	1.8	1.8	1.8
VSS2	5.0	4.7	4.5	4.4	4.3	4.2	4.1

[62 FR 52407, Oct. 7, 1997, as amended at 70 FR 66285, Nov. 2, 2005]

Table 3 to Subpart LL of Part 63—Anode Bake Furnace Limits for Emission Averaging

Number of furnaces	Emission limit (lb/ton of anode)	
	TF	POM
2	0.11	0.17
3	0.090	0.17
4	0.077	0.17
5	0.070	0.17

Appendix A to Subpart LL of Part 63—Applicability of General Provisions

[40 CFR part 63, subpart A]

General provisions citation	Requirement	Applies to subpart LL	Comment
63.1(c)(2)		No	All are major sources.
63.2 Definition of		No	Subpart LL defines “reconstruction.”

General provisions citation	Requirement	Applies to subpart LL	Comment
“reconstruction”			
63.6(c)(1)	Compliance date for existing sources	No	Subpart LL specifies compliance date for existing sources.
63.6(h)	Opacity/VE standards	Only in §63.845	Opacity standards applicable only when incorporating the NSPS requirements under §63.845.
63.7(a)(2)(ii) and (iii)	Performance testing requirements	No	Subpart LL specifies performance test dates.
63.8(c)(4)–(c)(8)	CMS operation and maintenance	No	Subpart LL does not require COMS/CMS or CMS performance specifications.
63.8(d)	Quality control	No	Subpart LL does not require CMS or CMS performance evaluation.
63.8(e)	Performance evaluation for CMS	No	
63.9(b)(1)–(5)	Initial notifications	Yes, except as noted in “comment” column	§63.850(a)(9) includes requirement for startup of an existing affected source that has been shut down.
63.9(e)	Notification of performance test	No	Subpart LL specifies notification of performance tests.
63.9(f)	Notification of VE or opacity test	Only in §63.845	Notification is required only when incorporating the NSPS requirements under §63.845.
63.9(g)	Additional CMS notification	No	
63.10(d)(2)	Performance test reports	No	Subpart LL specifies performance test reporting.
63.10(d)(3)	Reporting VE/opacity observations	Only in §63.845	Reporting is required only when incorporating the NSPS requirements under §63.845.
63.10(e)(2)	Reporting performance evaluations	No	Subpart LL does not require performance evaluation for CMS.
63.11(a)–(b)	Control device requirements	No	Flares not applicable.

[62 FR 52407, Oct. 7, 1997, as amended at 70 FR 66285, Nov. 2, 2005]

Attachment D – National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production [40 CFR Part 63, Subpart RRR] [326 IAC 20-70]

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.:	173-30774-00007
Significant Permit Modification No.:	173-30796-00007
Permit Reviewer:	Kimberly Cottrell

NESHAP [40 CFR Part 63, Subpart RRR]

Subpart RRR—National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production

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

General

§ 63.1500 Applicability.

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

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

(1) Each new and existing aluminum scrap shredder;

(2) Each new and existing thermal chip dryer;

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

(4) Each new and existing group 2 furnace;

(5) Each new and existing sweat furnace;

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

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

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

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

(1) Each new and existing thermal chip dryer;

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

(3) Each new and existing sweat furnace;

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

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

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

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

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

§ 63.1501 Dates.

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

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

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

[67 FR 59791, Sept. 24, 2002]

§ 63.1502 Incorporation by reference.

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

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

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

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

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

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

§ 63.1503 Definitions.

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

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

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

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

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

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

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

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

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

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

D/F means dioxins and furans.

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

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

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

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

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

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

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

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

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

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

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

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

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

Lime means calcium oxide or other alkaline reagent.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

TEQ means the international method of expressing toxicity equivalents for dioxins and furans as defined in "Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs) and 1989 Update" (EPA–625/3–89–016), available from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161, NTIS no. PB 90–145756.

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

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

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

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

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

§ 63.1504 [Reserved]

Emission Standards and Operating Requirements

§ 63.1505 Emission standards for affected sources and emission units.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(1) The owner or operator is not required to conduct a performance test to demonstrate compliance with the emission standard of paragraph (f)(2) of this section, provided that, on and after the compliance date of this rule, the owner or

operator operates and maintains an afterburner with a design residence time of 0.8 seconds or greater and an operating temperature of 1600 °F or greater.

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

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

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

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

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

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

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

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

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

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

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

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

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

(6) The owner or operator may determine the emission standards for a SAPU by applying the group 1 furnace limits on the basis of the aluminum production weight in each group 1 furnace, rather than on the basis of feed/charge.

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

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

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

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

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

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

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

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

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

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

Where,

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

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

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

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

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

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

Where,

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

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

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

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

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

Where,

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

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

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

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

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

(6) With the prior approval of the responsible permitting authority, an owner or operator may redesignate any existing group 1 furnace or in-line fluxer at a secondary aluminum production facility as a new emission unit. Any emission unit so redesignated may thereafter be included in a new SAPU at that facility. Any such redesignation will be solely for the purpose of this MACT standard and will be irreversible.

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

§ 63.1506 Operating requirements.

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

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

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

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

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

(1) The type of affected source or emission unit (*e.g.,* scrap dryer/delacquering kiln/decoating kiln, group 1 furnace, group 2 furnace, in-line fluxer).

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

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

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

(1) Design and install a system for the capture and collection of emissions to meet the engineering standards for minimum exhaust rates as published by the American Conference of Governmental Industrial Hygienists in chapters 3 and 5 of “Industrial Ventilation: A Manual of Recommended Practice” (incorporated by reference in §63.1502 of this subpart);

(2) Vent captured emissions through a closed system, except that dilution air may be added to emission streams for the purpose of controlling temperature at the inlet to a fabric filter; and

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

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

(1) Except as provided in paragraph (d)(3) of this section, install and operate a device that measures and records or otherwise determine the weight of feed/charge (or throughput) for each operating cycle or time period used in the performance test; and

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

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

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

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

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

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

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

(ii) Operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If the owner or operator takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the owner or operator to initiate corrective action.

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

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

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

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

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

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

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

(1) For each afterburner,

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

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

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

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

(ii) Operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If the owner or operator takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the owner or operator to initiate corrective action.

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

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

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

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

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

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

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

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

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

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

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

(ii) Operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If the owner or operator takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the owner or operator to initiate corrective action.

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

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

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

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

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

(ii) Operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If the owner or operator takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the owner or operator to initiate corrective action.

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

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

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

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

(ii) Operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If the owner or operator takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the owner or operator to initiate corrective action.

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

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

(4) Maintain the total reactive chlorine flux injection rate for each operating cycle or time period used in the performance test at or below the average rate established during the performance test.

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

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

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

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

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

(iii) Operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If the owner or operator takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the owner or operator to initiate corrective action.

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

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

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

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

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

(5) Maintain the total reactive chlorine flux injection rate for each operating cycle or time period used in the performance test at or below the average rate established during the performance test.

(6) Operate each sidewell furnace such that:

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

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

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

(1) Maintain the total reactive chlorine flux injection rate for each operating cycle or time period used in the performance test at or below the average rate established during the performance test.

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

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

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

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

(2) Operate each furnace using no reactive flux.

(p) *Corrective action.* When a process parameter or add-on air pollution control device operating parameter deviates from the value or range established during the performance test and incorporated in the OM&M plan, the owner or operator must initiate corrective action. Corrective action must restore operation of the affected source or emission unit (including the process or control device) to its normal or usual mode of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. Corrective actions taken must include follow-up actions necessary to return the process or control device parameter level(s) to the value or range of values established during the performance test and steps to prevent the likely recurrence of the cause of a deviation.

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

§§ 63.1507-63.1509 [Reserved]

Monitoring and Compliance Requirements

§ 63.1510 Monitoring requirements.

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

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

(1) Process and control device parameters to be monitored to determine compliance, along with established operating levels or ranges, as applicable, for each process and control device.

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

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

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

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

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

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

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

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

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

(7) A maintenance schedule for each process and control device that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance.

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

(c) *Labeling.* The owner or operator must inspect the labels for each group 1 furnace, group 2 furnace, in-line fluxer and scrap dryer/delacquering kiln/decoating kiln at least once per calendar month to confirm that posted labels as required by the operational standard in §63.1506(b) are intact and legible.

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

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

(2) Inspect each capture/collection and closed vent system at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in §63.1506(c) and record the results of each inspection.

(e) *Feed/charge weight.* The owner or operator of an affected source or emission unit subject to an emission limit in kg/Mg (lb/ton) or µg/Mg (gr/ton) of feed/charge must install, calibrate, operate, and maintain a device to measure and record the total weight of feed/charge to, or the aluminum production from, the affected source or emission unit over the same operating cycle or time period used in the performance test. Feed/charge or aluminum production within SAPUs must be measured and recorded on an emission unit-by-emission unit basis. As an alternative to a measurement device, the owner or operator may use a procedure acceptable to the applicable permitting authority to determine the total weight of feed/charge or aluminum production to the affected source or emission unit.

(1) The accuracy of the weight measurement device or procedure must be ±1 percent of the weight being measured. The owner or operator may apply to the permitting agency for approval to use a device of alternative accuracy if the required accuracy cannot be achieved as a result of equipment layout or charging practices. A device of alternative accuracy will not be approved unless the owner or operator provides assurance through data and information that the affected source will meet the relevant emission standard.

(2) The owner or operator must verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every 6 months.

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

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

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

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

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

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

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

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

(vii) For positive pressure fabric filter systems, a bag leak detection system must be installed in each baghouse compartment or cell. For negative pressure or induced air fabric filters, the bag leak detector must be installed downstream of the fabric filter.

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

(ix) The baseline output must be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time.

(x) Following initial adjustment of the system, the owner or operator must not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time except as detailed in the OM&M plan. In no case may the sensitivity be increased by more than 100 percent or decreased more than 50 percent over a 365-day period unless such adjustment follows a complete fabric filter inspection which demonstrates that the fabric filter is in good operating condition.

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

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

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

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

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

(ii) Record the results of each test.

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

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

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

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

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

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

(iv) The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Administrator.

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

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

(ii) Inspection for proper adjustment of combustion air;

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

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

(v) Inspection for proper sealing;

(vi) Inspection of motors for proper operation;

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

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

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

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

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

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

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

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

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

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

(iii) The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Administrator.

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

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

(i) Inspecting each feed hopper or silo at least once each 8-hour period and recording the results of each inspection. If lime is found not to be free-flowing during any of the 8-hour periods, the owner or operator must increase the frequency of inspections to at least once every 4-hour period for the next 3 days. The owner or operator may return to inspections at least once every 8 hour period if corrective action results in no further blockages of lime during the 3-day period; or

(ii) Subject to the approval of the permitting agency, installing, operating and maintaining a load cell, carrier gas/lime flow indicator, carrier gas pressure drop measurement system or other system to confirm that lime is free-flowing. If lime is found not to be free-flowing, the owner or operator must promptly initiate and complete corrective action, or

(iii) Subject to the approval of the permitting agency, installing, operating and maintaining a device to monitor the concentration of HCl at the outlet of the fabric filter. If an increase in the concentration of HCl indicates that the lime is not free-flowing, the owner or operator must promptly initiate and complete corrective action.

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

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

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

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

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

(ii) The accuracy of the weight measurement device must be ±1 percent of the weight of the reactive component of the flux being measured. The owner or operator may apply to the permitting authority for permission to use a weight measurement device of alternative accuracy in cases where the reactive flux flow rates are so low as to make the use of a weight measurement device of ±1 percent impracticable. A device of alternative accuracy will not be approved unless the owner or operator provides assurance through data and information that the affected source will meet the relevant emission standards.

(iii) The owner or operator must verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every 6 months.

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

(3) Record, for each 15-minute block period during each operating cycle or time period used in the performance test during which reactive fluxing occurs, the time, weight, and type of flux for each addition of:

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

(ii) Solid reactive flux.

(4) Calculate and record the total reactive flux injection rate for each operating cycle or time period used in the performance test using the procedure in §63.1512(o).

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

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

(1) Record the type of materials charged to the unit for each operating cycle or time period used in the performance test.

(2) Submit a certification of compliance with the applicable operational standard for charge materials in §63.1506(f)(3) for each 6-month reporting period. Each certification must contain the information in §63.1516(b)(2)(i).

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

(1) Record the materials charged to each unit for each operating cycle or time period used in the performance test.

(2) Submit a certification of compliance with the applicable operational standard for charge materials in §63.1506(i)(3) for each 6-month reporting period. Each certification must contain the information in §63.1516(b)(2)(ii).

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(1) A proven method for collecting representative samples and measuring the oil and coatings content of scrap samples;

(2) A scrap inspector training program;

(3) An established correlation between visual inspection and physical measurement of oil and coatings content of scrap samples;

(4) Periodic physical measurements of oil and coatings content of randomly-selected scrap samples and comparison with visual inspection results;

(5) A system for assuring that only acceptable scrap is charged to an affected group 1 furnace; and

(6) Recordkeeping requirements to document conformance with plan requirements.

(q) *Monitoring of scrap contamination level by calculation method for group 1 furnace without add-on air pollution control devices.* The owner or operator of a group 1 furnace dedicated to processing a distinct type of furnace feed/charge composed of scrap with a uniform composition (such as rejected product from a manufacturing process for which the coating-to-scrap ratio can be documented) may include a program in the site-specific monitoring plan for determining, monitoring, and certifying the scrap contaminant level using a calculation method rather than a scrap inspection program. A scrap contaminant monitoring program using a calculation method must include:

(1) Procedures for the characterization and documentation of the contaminant level of the scrap prior to the performance test.

(2) Limitations on the furnace feed/charge to scrap of the same composition as that used in the performance test. If the performance test was conducted with a mixture of scrap and clean charge, limitations on the proportion of scrap in the furnace feed/charge to no greater than the proportion used during the performance test.

(3) Operating, monitoring, recordkeeping, and reporting requirements to ensure that no scrap with a contaminant level higher than that used in the performance test is charged to the furnace.

(r) *Group 2 furnace.* These requirements apply to the owner or operator of a new or existing group 2 furnace. The owner or operator must:

(1) Record a description of the materials charged to each furnace, including any nonreactive, non-HAP-containing/non-HAP-generating fluxing materials or agents.

(2) Submit a certification of compliance with the applicable operational standard for charge materials in §63.1506(o) for each 6-month reporting period. Each certification must contain the information in §63.1516(b)(2)(v).

(s) *Site-specific requirements for secondary aluminum processing units.* (1) An owner or operator of a secondary aluminum processing unit at a facility must include, within the OM&M plan prepared in accordance with §63.1510(b), the following information:

(i) The identification of each emission unit in the secondary aluminum processing unit;

(ii) The specific control technology or pollution prevention measure to be used for each emission unit in the secondary aluminum processing unit and the date of its installation or application;

(iii) The emission limit calculated for each secondary aluminum processing unit and performance test results with supporting calculations demonstrating initial compliance with each applicable emission limit;

(iv) Information and data demonstrating compliance for each emission unit with all applicable design, equipment, work practice or operational standards of this subpart; and

(v) The monitoring requirements applicable to each emission unit in a secondary aluminum processing unit and the monitoring procedures for daily calculation of the 3-day, 24-hour rolling average using the procedure in §63.1510(t).

(2) The SAPU compliance procedures within the OM&M plan may not contain any of the following provisions:

(i) Any averaging among emissions of differing pollutants;

(ii) The inclusion of any affected sources other than emission units in a secondary aluminum processing unit;

(iii) The inclusion of any emission unit while it is shutdown; or

(iv) The inclusion of any periods of startup, shutdown, or malfunction in emission calculations.

(3) To revise the SAPU compliance provisions within the OM&M plan prior to the end of the permit term, the owner or operator must submit a request to the applicable permitting authority containing the information required by paragraph (s)(1) of this section and obtain approval of the applicable permitting authority prior to implementing any revisions.

(t) *Secondary aluminum processing unit.* Except as provided in paragraph (u) of this section, the owner or operator must calculate and record the 3-day, 24-hour rolling average emissions of PM, HCl, and D/F for each secondary aluminum processing unit on a daily basis. To calculate the 3-day, 24-hour rolling average, the owner or operator must:

(1) Calculate and record the total weight of material charged to each emission unit in the secondary aluminum processing unit for each 24-hour day of operation using the feed/charge weight information required in paragraph (e) of this section. If the owner or operator chooses to comply on the basis of weight of aluminum produced by the emission unit, rather than weight of material charged to the emission unit, all performance test emissions results and all calculations must be conducted on the aluminum production weight basis.

(2) Multiply the total feed/charge weight to the emission unit, or the weight of aluminum produced by the emission unit, for each emission unit for the 24-hour period by the emission rate (in lb/ton of feed/charge) for that emission unit (as determined during the performance test) to provide emissions for each emission unit for the 24-hour period, in pounds.

(3) Divide the total emissions for each SAPU for the 24-hour period by the total material charged to the SAPU, or the weight of aluminum produced by the SAPU over the 24-hour period to provide the daily emission rate for the SAPU.

(4) Compute the 24-hour daily emission rate using Equation 4:

$$E_{day} = \frac{\sum_{i=1}^{n}(T_i \times ER_i)}{\sum_{i=1}^{n} T_i} \qquad (Eq.\ 4)$$

Where,

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

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

ER_i= The measured emission rate for emission unit i as determined in the performance test (lb/ton or µg/Mg of feed/charge); and

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

(5) Calculate and record the 3-day, 24-hour rolling average for each pollutant each day by summing the daily emission rates for each pollutant over the 3 most recent consecutive days and dividing by 3.

(u) *Secondary aluminum processing unit compliance by individual emission unit demonstration.* As an alternative to the procedures of paragraph (t) of this section, an owner or operator may demonstrate, through performance tests, that each individual emission unit within the secondary aluminum production unit is in compliance with the applicable emission limits for the emission unit.

(v) *Alternative monitoring method for lime addition.* The owner or operator of a lime-coated fabric filter that employs intermittent or noncontinuous lime addition may apply to the Administrator for approval of an alternative method for monitoring the lime addition schedule and rate based on monitoring the weight of lime added per ton of feed/charge for each operating cycle or time period used in the performance test. An alternative monitoring method will not be approved unless the owner or operator provides assurance through data and information that the affected source will meet the relevant emission standards on a continuous basis.

(w) *Alternative monitoring methods.* If an owner or operator wishes to use an alternative monitoring method to demonstrate compliance with any emission standard in this subpart, other than those alternative monitoring methods which may be authorized pursuant to §63.1510(j)(5) and §63.1510(v), the owner or operator may submit an application to the Administrator. Any such application will be processed according to the criteria and procedures set forth in paragraphs (w)(1) through (6) of this section.

(1) The Administrator will not approve averaging periods other than those specified in this section.

(2) The owner or operator must continue to use the original monitoring requirement until necessary data are submitted and approval is received to use another monitoring procedure.

(3) The owner or operator shall submit the application for approval of alternate monitoring methods no later than the notification of the performance test. The application must contain the information specified in paragraphs (w)(3) (i) through (iii) of this section:

(i) Data or information justifying the request, such as the technical or economic infeasibility, or the impracticality of using the required approach;

(ii) A description of the proposed alternative monitoring requirements, including the operating parameters to be monitored, the monitoring approach and technique, and how the limit is to be calculated; and

(iii) Data and information documenting that the alternative monitoring requirement(s) would provide equivalent or better assurance of compliance with the relevant emission standard(s).

(4) The Administrator will not approve an alternate monitoring application unless it would provide equivalent or better assurance of compliance with the relevant emission standard(s). Before disapproving any alternate monitoring application, the Administrator will provide:

(i) Notice of the information and findings upon which the intended disapproval is based; and

(ii) Notice of opportunity for the owner or operator to present additional supporting information before final action is taken on the application. This notice will specify how much additional time is allowed for the owner or operator to provide additional supporting information.

(5) The owner or operator is responsible for submitting any supporting information in a timely manner to enable the Administrator to consider the application prior to the performance test. Neither submittal of an application nor the Administrator's failure to approve or disapprove the application relieves the owner or operator of the responsibility to comply with any provisions of this subpart.

(6) The Administrator may decide at any time, on a case-by-case basis, that additional or alternative operating limits, or alternative approaches to establishing operating limits, are necessary to demonstrate compliance with the emission standards of this subpart.

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

§ 63.1511 Performance test/compliance demonstration general requirements.

(a) *Site-specific test plan.* Prior to conducting any performance test required by this subpart, the owner or operator must prepare a site-specific test plan which satisfies all of the requirements, and must obtain approval of the plan pursuant to the procedures, set forth in §63.7(c).

(b) *Initial performance test.* Following approval of the site-specific test plan, the owner or operator must demonstrate initial compliance with each applicable emission, equipment, work practice, or operational standard for each affected source and emission unit, and report the results in the notification of compliance status report as described in §63.1515(b). The owner or operator of any existing affected source for which an initial performance test is required to demonstrate compliance must conduct this initial performance test no later than the date for compliance established by §63.1501(a). The owner or operator of any new affected source for which an initial performance test is required must conduct this initial performance test within 90 days after the date for compliance established by §63.1501(b). Except for the date by which the performance test must be conducted, the owner or operator must conduct each performance test in accordance with the requirements and procedures set forth in §63.7(c). Owners or operators of affected sources located at facilities which are area sources are subject only to those performance testing requirements pertaining to D/F. Owners or operators of sweat furnaces meeting the specifications of §63.1505(f)(1) are not required to conduct a performance test.

(1) The owner or operator must conduct each test while the affected source or emission unit is operating at the highest production level with charge materials representative of the range of materials processed by the unit and, if applicable, at the highest reactive fluxing rate.

(2) Each performance test for a continuous process must consist of 3 separate runs; pollutant sampling for each run must be conducted for the time period specified in the applicable method or, in the absence of a specific time period in the test method, for a minimum of 3 hours.

(3) Each performance test for a batch process must consist of three separate runs; pollutant sampling for each run must be conducted over the entire process operating cycle.

(4) Where multiple affected sources or emission units are exhausted through a common stack, pollutant sampling for each run must be conducted over a period of time during which all affected sources or emission units complete at least 1 entire process operating cycle or for 24 hours, whichever is shorter.

(5) Initial compliance with an applicable emission limit or standard is demonstrated if the average of three runs conducted during the performance test is less than or equal to the applicable emission limit or standard.

(c) *Test methods.* The owner or operator must use the following methods in appendix A to 40 CFR part 60 to determine compliance with the applicable emission limits or standards:

(1) Method 1 for sample and velocity traverses.

(2) Method 2 for velocity and volumetric flow rate.

(3) Method 3 for gas analysis.

(4) Method 4 for moisture content of the stack gas.

(5) Method 5 for the concentration of PM.

(6) Method 9 for visible emission observations.

(7) Method 23 for the concentration of D/F.

(8) Method 25A for the concentration of THC, as propane.

(9) Method 26A for the concentration of HCl. Where a lime-injected fabric filter is used as the control device to comply with the 90 percent reduction standard, the owner or operator must measure the fabric filter inlet concentration of HCl at a point before lime is introduced to the system.

(d) *Alternative methods.* The owner or operator may use an alternative test method, subject to approval by the Administrator.

(e) *Repeat tests.* The owner or operator of new or existing affected sources and emission units located at secondary aluminum production facilities that are major sources must conduct a performance test every 5 years following the initial performance test.

(f) *Testing of representative emission units.* With the prior approval of the permitting authority, an owner or operator may utilize emission rates obtained by testing a particular type of group 1 furnace which is not controlled by any add-on control device, or by testing an in-line flux box which is not controlled by any add-on control device, to determine the emission rate for other units of the same type at the same facility. Such emission test results may only be considered to be representative of other units if all of the following criteria are satisfied:

(1) The tested emission unit must use feed materials and charge rates which are comparable to the emission units that it represents;

(2) The tested emission unit must use the same type of flux materials in the same proportions as the emission units it represents;

(3) The tested emission unit must be operated utilizing the same work practices as the emission units that it represents;

(4) The tested emission unit must be of the same design as the emission units that it represents; and

(5) The tested emission unit must be tested under the highest load or capacity reasonably expected to occur for any of the emission units that it represents.

(g) *Establishment of monitoring and operating parameter values.* The owner or operator of new or existing affected sources and emission units must establish a minimum or maximum operating parameter value, or an operating parameter range for each parameter to be monitored as required by §63.1510 that ensures compliance with the applicable emission limit or standard. To establish the minimum or maximum value or range, the owner or operator must use the appropriate procedures in this section and submit the information required by §63.1515(b)(4) in the notification of compliance status report. The owner or operator may use existing data in addition to the results of performance tests to establish operating parameter values for compliance monitoring provided each of the following conditions are met to the satisfaction of the applicable permitting authority:

(1) The complete emission test report(s) used as the basis of the parameter(s) is submitted.

(2) The same test methods and procedures as required by this subpart were used in the test.

(3) The owner or operator certifies that no design or work practice changes have been made to the source, process, or emission control equipment since the time of the report.

(4) All process and control equipment operating parameters required to be monitored were monitored as required in this subpart and documented in the test report.

(h) *Testing of commonly-ducted units within a secondary aluminum processing unit.* When group 1 furnaces and/or in-line fluxers are included in a single existing SAPU or new SAPU, and the emissions from more than one emission unit within that existing SAPU or new SAPU are manifolded to a single control device, compliance for all units within the SAPU is demonstrated if the total measured emissions from all controlled and uncontrolled units in the SAPU do not exceed the emission limits calculated for that SAPU based on the applicable equation in §63.1505(k).

(i) *Testing of commonly-ducted units not within a secondary aluminum processing unit.* With the prior approval of the permitting authority, an owner or operator may do combined performance testing of two or more individual affected sources or emission units which are not included in a single existing SAPU or new SAPU, but whose emissions are manifolded to a single control device. Any such performance testing of commonly-ducted units must satisfy the following basic requirements:

(1) All testing must be designed to verify that each affected source or emission unit individually satisfies all emission requirements applicable to that affected source or emission unit;

(2) All emissions of pollutants subject to a standard must be tested at the outlet from each individual affected source or emission unit while operating under the highest load or capacity reasonably expected to occur, and prior to the point that the emissions are manifolded together with emissions from other affected sources or emission units;

(3) The combined emissions from all affected sources and emission units which are manifolded to a single emission control device must be tested at the outlet of the emission control device;

(4) All tests at the outlet of the emission control device must be conducted with all affected sources and emission units whose emissions are manifolded to the control device operating simultaneously under the highest load or capacity reasonably expected to occur; and

(5) For purposes of demonstrating compliance of a commonly-ducted unit with any emission limit for a particular type of pollutant, the emissions of that pollutant by the individual unit shall be presumed to be controlled by the same percentage as total emissions of that pollutant from all commonly-ducted units are controlled at the outlet of the emission control device.

[65 FR 15710, Mar. 23, 2000, as amended at 67 FR 59792, Sept. 24, 2002; 67 FR 79817, Dec. 30, 2002]

§ 63.1512 Performance test/compliance demonstration requirements and procedures.

(a) *Aluminum scrap shredder.* The owner or operator must conduct performance tests to measure PM emissions at the outlet of the control system. If visible emission observations is the selected monitoring option, the owner or operator must record visible emission observations from each exhaust stack for all consecutive 6-minute periods during the PM emission test according to the requirements of Method 9 in appendix A to 40 CFR part 60.

(b) *Thermal chip dryer.* The owner or operator must conduct a performance test to measure THC and D/F emissions at the outlet of the control device while the unit processes only unpainted aluminum chips.

(c) *Scrap dryer/delacquering kiln/decoating kiln.* The owner or operator must conduct performance tests to measure emissions of THC, D/F, HCl, and PM at the outlet of the control device.

(1) If the scrap dryer/delacquering kiln/decoating kiln is subject to the alternative emission limits in §63.1505(e), the average afterburner operating temperature in each 3-hour block period must be maintained at or above 760 °C (1400 °F) for the test.

(2) The owner or operator of a scrap dryer/delacquering kiln/decoating kiln subject to the alternative limits in §63.1505(e) must submit a written certification in the notification of compliance status report containing the information required by §63.1515(b)(7).

(d) *Group 1 furnace with add-on air pollution control devices.* (1) The owner or operator of a group 1 furnace that processes scrap other than clean charge materials with emissions controlled by a lime-injected fabric filter must conduct performance tests to measure emissions of PM and D/F at the outlet of the control device and emissions of HCl at the outlet (for the emission limit) or the inlet and the outlet (for the percent reduction standard).

(2) The owner or operator of a group 1 furnace that processes only clean charge materials with emissions controlled by a lime-injected fabric filter must conduct performance tests to measure emissions of PM at the outlet of the control device and emissions of HCl at the outlet (for the emission limit) or the inlet and the outlet (for the percent reduction standard).

(3) The owner or operator may choose to determine the rate of reactive flux addition to the group 1 furnace and assume, for the purposes of demonstrating compliance with the SAPU emission limit, that all reactive flux added to the group 1 furnace is emitted. Under these circumstances, the owner or operator is not required to conduct an emission test for HCl.

(4) The owner or operator of a sidewell group 1 furnace that conducts reactive fluxing (except for cover flux) in the hearth, or that conducts reactive fluxing in the sidewell at times when the level of molten metal falls below the top of the passage between the sidewell and the hearth, must conduct the performance tests required by paragraph (d)(1) or (d)(2) of this section, to measure emissions from both the sidewell and the hearth.

(e) *Group 1 furnace (including melting holding furnaces) without add-on air pollution control devices.* In the site-specific monitoring plan required by §63.1510(o), the owner or operator of a group 1 furnace (including a melting/holding furnaces) without add-on air pollution control devices must include data and information demonstrating compliance with the applicable emission limits.

(1) If the group 1 furnace processes other than clean charge material, the owner or operator must conduct emission tests to measure emissions of PM, HCl, and D/F at the furnace exhaust outlet.

(2) If the group 1 furnace processes only clean charge, the owner or operator must conduct emission tests to simultaneously measure emissions of PM and HCl at the furnace exhaust outlet. A D/F test is not required. Each test must be conducted while the group 1 furnace (including a melting/holding furnace) processes only clean charge.

(3) The owner or operator may choose to determine the rate of reactive flux addition to the group 1 furnace and assume, for the purposes of demonstrating compliance with the SAPU emission limit, that all reactive flux added to the group 1 furnace is emitted. Under these circumstances, the owner or operator is not required to conduct an emission test for HCl.

(f) *Sweat furnace.* Except as provided in §63.1505(f)(1), the owner or operator must measure emissions of D/F from each sweat furnace at the outlet of the control device.

(g) *Dross-only furnace.* The owner or operator must conduct a performance test to measure emissions of PM from each dross-only furnace at the outlet of each control device while the unit processes only dross and salt flux as the sole feedstock.

(h) *In-line fluxer.* (1) The owner or operator of an in-line fluxer that uses reactive flux materials must conduct a performance test to measure emissions of HCl and PM or otherwise demonstrate compliance in accordance with paragraph (h)(2) of this section. If the in-line fluxer is equipped with an add-on control device, the emissions must be measured at the outlet of the control device.

(2) The owner or operator may choose to limit the rate at which reactive chlorine flux is added to an in-line fluxer and assume, for the purposes of demonstrating compliance with the SAPU emission limit, that all chlorine in the reactive flux added to the in-line fluxer is emitted as HCl. Under these circumstances, the owner or operator is not required to conduct an emission test for HCl. If the owner or operator of any in-line flux box which has no ventilation ductwork manifolded to any outlet or emission control device chooses to demonstrate compliance with the emission limit for HCl by limiting use of reactive chlorine flux and assuming that all chlorine in the flux is emitted as HCl, compliance with the HCl limit shall also constitute compliance with the emission limit for PM, and no separate emission test for PM is required. In this case, the owner or operator of the unvented in-line flux box must utilize the maximum permissible PM emission rate for the in-line flux boxes when determining the total emissions for any SAPU which includes the flux box.

(i) *Rotary dross cooler.* The owner or operator must conduct a performance test to measure PM emissions at the outlet of the control device.

(j) *Secondary aluminum processing unit.* The owner or operator must conduct performance tests as described in paragraphs (j)(1) through (3) of this section. The results of the performance tests are used to establish emission rates in lb/ton of feed/charge for PM and HCl and µg TEQ/Mg of feed/charge for D/F emissions from each emission unit. These emission rates are used for compliance monitoring in the calculation of the 3-day, 24-hour rolling average emission rates using the equation in §63.1510(t). A performance test is required for:

(1) Each group 1 furnace processing only clean charge to measure emissions of PM and either:

(i) Emissions of HCl (for the emission limit); or

(ii) The mass flow rate of HCl at the inlet to and outlet from the control device (for the percent reduction standard).

(2) Each group 1 furnace that processes scrap other than clean charge to measure emissions of PM and D/F and either:

(i) Emissions of HCl (for the emission limit); or

(ii) The mass flow rate of HCl at the inlet to and outlet from the control device (for the percent reduction standard).

(3) Each in-line fluxer to measure emissions of PM and HCl.

(k) *Feed/charge weight measurement.* During the emission test(s) conducted to determine compliance with emission limits in a kg/Mg (lb/ton) format, the owner or operator of an affected source or emission unit, subject to an emission limit in a kg/Mg (lb/ton) of feed/charge format, must measure (or otherwise determine) and record the total weight of feed/charge to the affected source or emission unit for each of the three test runs and calculate and record the total weight. An owner or operator that chooses to demonstrate compliance on the basis of the aluminum production weight must measure the weight of aluminum produced by the emission unit or affected source instead of the feed/charge weight.

(l) *Continuous opacity monitoring system.* The owner or operator of an affected source or emission unit using a continuous opacity monitoring system must conduct a performance evaluation to demonstrate compliance with Performance Specification 1 in appendix B to 40 CFR part 60. Following the performance evaluation, the owner or operator must measure and record the opacity of emissions from each exhaust stack for all consecutive 6-minute periods during the PM emission test.

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

(1) Prior to the initial performance test, the owner or operator must conduct a performance evaluation for the temperature monitoring device according to the requirements of §63.8.

(2) The owner or operator must use these procedures to establish an operating parameter value or range for the afterburner operating temperature.

(i) Continuously measure and record the operating temperature of each afterburner every 15 minutes during the THC and D/F performance tests;

(ii) Determine and record the 15-minute block average temperatures for the three test runs; and

(iii) Determine and record the 3-hour block average temperature measurements for the 3 test runs.

(n) *Inlet gas temperature.* The owner or operator of a scrap dryer/delacquering kiln/decoating kiln or a group 1 furnace using a lime-injected fabric filter must use these procedures to establish an operating parameter value or range for the inlet gas temperature.

(1) Continuously measure and record the temperature at the inlet to the lime-injected fabric filter every 15 minutes during the HCl and D/F performance tests;

(2) Determine and record the 15-minute block average temperatures for the 3 test runs; and

(3) Determine and record the 3-hour block average of the recorded temperature measurements for the 3 test runs.

(o) *Flux injection rate.* The owner or operator must use these procedures to establish an operating parameter value or range for the total reactive chlorine flux injection rate.

(1) Continuously measure and record the weight of gaseous or liquid reactive flux injected for each 15 minute period during the HCl and D/F tests, determine and record the 15-minute block average weights, and calculate and record the total weight of the gaseous or liquid reactive flux for the 3 test runs;

(2) Record the identity, composition, and total weight of each addition of solid reactive flux for the 3 test runs;

(3) Determine the total reactive chlorine flux injection rate by adding the recorded measurement of the total weight of chlorine in the gaseous or liquid reactive flux injected and the total weight of chlorine in the solid reactive flux using Equation 5:

$$W_t = F_1 W_1 + F_2 W_2 \qquad (Eq.\ 5)$$

Where,

W_t= Total chlorine usage, by weight;

F_1= Fraction of gaseous or liquid flux that is chlorine;

W_1= Weight of reactive flux gas injected;

F_2= Fraction of solid reactive chloride flux that is chlorine (*e.g.,* F = 0.75 for magnesium chloride; and

W_2= Weight of solid reactive flux;

(4) Divide the weight of total chlorine usage (W_t) for the 3 test runs by the recorded measurement of the total weight of feed for the 3 test runs; and

(5) If a solid reactive flux other than magnesium chloride is used, the owner or operator must derive the appropriate proportion factor subject to approval by the applicable permitting authority.

(p) *Lime injection.* The owner or operator of an affected source or emission unit using a lime-injected fabric filter system must use these procedures during the HCl and D/F tests to establish an operating parameter value for the feeder setting for each operating cycle or time period used in the performance test.

(1) For continuous lime injection systems, ensure that lime in the feed hopper or silo is free-flowing at all times; and

(2) Record the feeder setting for the 3 test runs. If the feed rate setting varies during the runs, determine and record the average feed rate from the 3 runs.

(q) *Bag leak detection system.* The owner or operator of an affected source or emission unit using a bag leak detection system must submit the information described in §63.1515(b)(6) as part of the notification of compliance status report to document conformance with the specifications and requirements in §63.1510(f).

(r) *Labeling.* The owner or operator of each scrap dryer/delacquering kiln/decoating kiln, group 1 furnace, group 2 furnace and in-line fluxer must submit the information described in §63.1515(b)(3) as part of the notification of compliance status report to document conformance with the operational standard in §63.1506(b).

(s) *Capture/collection system.* The owner or operator of a new or existing affected source or emission unit with an add-on control device must submit the information described in §63.1515(b)(2) as part of the notification of compliance status report to document conformance with the operational standard in §63.1506(c).

[65 FR 15710, Mar. 23, 2000, as amended at 67 FR 79817, Dec. 30, 2002; 69 FR 53984, Sept. 3, 2004]

§ 63.1513 Equations for determining compliance.

(a) *THC emission limit.* Use Equation 6 to determine compliance with an emission limit for THC:

$$E = \frac{C \times MW \times Q \times K_1 \times K_2}{M_V \times P \times 10^6} \qquad (Eq.\ 6)$$

Where,

E = Emission rate of measured pollutant, kg/Mg (lb/ton) of feed;

C = Measured volume fraction of pollutant, ppmv;

MW = Molecular weight of measured pollutant, g/g-mole (lb/lb-mole): THC (as propane) = 44.11;

Q = Volumetric flow rate of exhaust gases, dscm/hr (dscf/hr);

K_1= Conversion factor, 1 kg/1,000 g (1 lb/lb);

K_2= Conversion factor, 1,000 L/m^3 (1 ft^3 /ft^3);

M_v= Molar volume, 24.45 L/g-mole (385.3 ft^3 /lb-mole); and

P = Production rate, Mg/hr (ton/hr).

(b) *PM, HCl and D/F emission limits.* (1) Use Equation 7 of this section to determine compliance with an emission limit for PM or HCl:

$$\mathrm{E} = \frac{C \times Q \times K_1}{P} \qquad (\mathrm{Eq.}\ 7)$$

Where:

E = Emission rate of PM or HCl, kg/Mg (lb/ton) of feed;

C = Concentration of PM or HCl, g/dscm (gr/dscf);

Q = Volumetric flow rate of exhaust gases, dscm/hr (dscf/hr);

K_1= Conversion factor, 1 kg/1,000 g (1 lb/7,000 gr); and

P = Production rate, Mg/hr (ton/hr).

(2) Use Equation 7A of this section to determine compliance with an emission limit for D/F:

$$\mathrm{E} = \frac{C \times Q}{P} \qquad (\mathrm{Eq.}\ 7\mathrm{A})$$

Where:

E = Emission rate of D/F, µg/Mg (gr/ton) of feed;

C = Concentration of D/F, µg/dscm (gr/dscf);

Q = Volumetric flow rate of exhaust gases, dscm/hr (dscf/hr); and

P = Production rate, Mg/hr (ton/hr).

(c) *HCl percent reduction standard.* Use Equation 8 to determine compliance with an HCl percent reduction standard:

$$\%R = \frac{L_i - L_o}{L_i} \times 100 \qquad (Eq.\ 8)$$

Where,

%R = Percent reduction of the control device;

L_i= Inlet loading of pollutant, kg/Mg (lb/ton); and

L_o= Outlet loading of pollutant, kg/Mg (lb/ton).

(d) *Conversion of D/F measurements to TEQ units.* To convert D/F measurements to TEQ units, the owner or operator must use the procedures and equations in "Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs) and 1989 Update" (EPA–625/3–89–016), incorporated by reference in §63.1502 of this subpart, available from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia, NTIS no. PB 90–145756.

(e) *Secondary aluminum processing unit.* Use the procedures in paragraphs (e)(1), (2), and (3) or the procedure in paragraph (e)(4) of this section to determine compliance with emission limits for a secondary aluminum processing unit.

(1) Use Equation 9 to compute the mass-weighted PM emissions for a secondary aluminum processing unit. Compliance is achieved if the mass-weighted emissions for the secondary aluminum processing unit (E_{cPM}) is less than or equal to the emission limit for the secondary aluminum processing unit (L_{cPM}) calculated using Equation 1 in §63.1505(k).

$$E_{C_{PM}} = \frac{\sum_{i=1}^{n}\left(E_{ti_{PM}} \times T_{ti}\right)}{\sum_{i=1}^{n}\left(T_{ti}\right)} \qquad (Eq.\ 9)$$

Where,

E_{cPM}= The mass-weighted PM emissions for the secondary aluminum processing unit;

E_{tiPM}= Measured PM emissions for individual emission unit i;

T_{ti}= The average feed rate for individual emission unit i during the operating cycle or performance test period; and n=The number of emission units in the secondary aluminum processing unit.

(2) Use Equation 10 to compute the aluminum mass-weighted HCl emissions for the secondary aluminum processing unit. Compliance is achieved if the mass-weighted emissions for the secondary aluminum processing unit (E_{cHCl}) is less than or equal to the emission limit for the secondary aluminum processing unit (L_{cHCl}) calculated using Equation 2 in §63.1505(k).

$$E_{C_{HCl}} = \frac{\sum_{i=1}^{n}\left(E_{ti_{HCl}} \times T_{ti}\right)}{\sum_{i=1}^{n}\left(T_{ti}\right)} \qquad (Eq.\ 10)$$

Where,

E_{cHCl}= The mass-weighted HCl emissions for the secondary aluminum processing unit; and

E_{tiHCl}= Measured HCl emissions for individual emission unit i.

(3) Use Equation 11 to compute the aluminum mass-weighted D/F emissions for the secondary aluminum processing unit. Compliance is achieved if the mass-weighted emissions for the secondary aluminum processing unit is less than or equal to the emission limit for the secondary aluminum processing unit ($L_{cD/F}$) calculated using Equation 3 in §63.1505(k).

$$E_{C_{D/F}} = \frac{\sum_{i=1}^{n}\left(E_{ti_{D/F}} \times T_{ti}\right)}{\sum_{i=1}^{n}\left(T_{ti}\right)} \qquad (Eq.\ 11)$$

Where,

$E_{cD/F}$= The mass-weighted D/F emissions for the secondary aluminum processing unit; and

$E_{tiD/F}$= Measured D/F emissions for individual emission unit i.

(4) As an alternative to using the equations in paragraphs (e)(1), (2), and (3) of this section, the owner or operator may demonstrate compliance for a secondary aluminum processing unit by demonstrating that each existing group 1 furnace is in compliance with the emission limits for a new group 1 furnace in §63.1505(i) and that each existing in-line fluxer is in compliance with the emission limits for a new in-line fluxer in §63.1505(j).

[65 FR 15710, Mar. 23, 2000, as amended at 69 FR 53984, Sept. 3, 2004]

§ 63.1514 [Reserved]

Notifications, Reports, And Records

§ 63.1515 Notifications.

(a) *Initial notifications.* The owner or operator must submit initial notifications to the applicable permitting authority as described in paragraphs (a)(1) through (7) of this section.

(1) As required by §63.9(b)(1), the owner or operator must provide notification for an area source that subsequently increases its emissions such that the source is a major source subject to the standard.

(2) As required by §63.9(b)(3), the owner or operator of a new or reconstructed affected source, or a source that has been reconstructed such that it is an affected source, that has an initial startup after the effective date of this subpart and for which an application for approval of construction or reconstruction is not required under §63.5(d), must provide notification that the source is subject to the standard.

(3) As required by §63.9(b)(4), the owner or operator of a new or reconstructed major affected source that has an initial startup after the effective date of this subpart and for which an application for approval of construction or reconstruction is required by §63.5(d) must provide the following notifications:

(i) Intention to construct a new major affected source, reconstruct a major source, or reconstruct a major source such that the source becomes a major affected source;

(ii) Date when construction or reconstruction was commenced (submitted simultaneously with the application for approval of construction or reconstruction if construction or reconstruction was commenced before the effective date of this subpart, or no later than 30 days after the date construction or reconstruction commenced if construction or reconstruction commenced after the effective date of this subpart);

(iii) Anticipated date of startup; and

(iv) Actual date of startup.

(4) As required by §63.9(b)(5), after the effective date of this subpart, an owner or operator who intends to construct a new affected source or reconstruct an affected source subject to this subpart, or reconstruct a source such that it becomes an affected source subject to this subpart, must provide notification of the intended construction or reconstruction. The notification must include all the information required for an application for approval of construction or reconstruction as required by §63.5(d). For major sources, the application for approval of construction or reconstruction may be used to fulfill these requirements.

(i) The application must be submitted as soon as practicable before the construction or reconstruction is planned to commence (but no sooner than the effective date) if the construction or reconstruction commences after the effective date of this subpart; or

(ii) The application must be submitted as soon as practicable before startup but no later than 90 days after the effective date of this subpart if the construction or reconstruction had commenced and initial startup had not occurred before the effective date.

(5) As required by §63.9(d), the owner or operator must provide notification of any special compliance obligations for a new source.

(6) As required by §63.9(e) and (f), the owner or operator must provide notification of the anticipated date for conducting performance tests and visible emission observations. The owner or operator must notify the Administrator of the intent to conduct a performance test at least 60 days before the performance test is scheduled; notification of opacity or visible emission observations for a performance test must be provided at least 30 days before the observations are scheduled to take place.

(7) As required by §63.9(g), the owner or operator must provide additional notifications for sources with continuous emission monitoring systems or continuous opacity monitoring systems.

(b) *Notification of compliance status report.* Each owner or operator of an existing affected source must submit a notification of compliance status report within 60 days after the compliance date established by §63.1501(a). Each owner or operator of a new affected source must submit a notification of compliance status report within 90 days after conducting the initial performance test required by §63.1511(b), or within 90 days after the compliance date established by §63.1501(b) if no initial performance test is required. The notification must be signed by the responsible official who must certify its accuracy. A complete notification of compliance status report must include the information specified in paragraphs (a)(1) through (10) of this section. The required information may be submitted in an operating permit application, in an amendment to an operating permit application, in a separate submittal, or in any combination. In a State with an approved operating permit program where delegation of authority under section 112(l) of the CAA has not been requested or approved, the owner or operator must provide duplicate notification to the applicable Regional Administrator. If an owner or operator submits the information specified in this section at different times or in different submittals, later submittals may refer to earlier submittals instead of duplicating and resubmitting the information previously submitted. A complete notification of compliance status report must include:

(1) All information required in §63.9(h). The owner or operator must provide a complete performance test report for each affected source and emission unit for which a performance test is required. A complete performance test report includes all data, associated measurements, and calculations (including visible emission and opacity tests).

(2) The approved site-specific test plan and performance evaluation test results for each continuous monitoring system (including a continuous emission or opacity monitoring system).

(3) Unit labeling as described in §63.1506(b), including process type or furnace classification and operating requirements.

(4) The compliant operating parameter value or range established for each affected source or emission unit with supporting documentation and a description of the procedure used to establish the value (*e.g.,* lime injection rate, total reactive chlorine flux injection rate, afterburner operating temperature, fabric filter inlet temperature), including the operating cycle or time period used in the performance test.

(5) Design information and analysis, with supporting documentation, demonstrating conformance with the requirements for capture/collection systems in §63.1506(c).

(6) If applicable, analysis and supporting documentation demonstrating conformance with EPA guidance and specifications for bag leak detection systems in §63.1510(f).

(7) Manufacturer's specification or analysis documenting the design residence time of no less than 1 second for each afterburner used to control emissions from a scrap dryer/delacquering kiln/decoating kiln subject to alternative emission standards in §63.1505(e).

(8) Manufacturer's specification or analysis documenting the design residence time of no less than 0.8 seconds and design operating temperature of no less than 1,600 °F for each afterburner used to control emissions from a sweat furnace that is not subject to a performance test.

(9) The OM&M plan (including site-specific monitoring plan for each group 1 furnace with no add-on air pollution control device).

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

[65 FR 15710, Mar. 23, 2000, as amended at 67 FR 59793, Sept. 24, 2002; 67 FR 79818, Dec. 30, 2002]

§ 63.1516 Reports.

(a) *Startup, shutdown, and malfunction plan/reports.* The owner or operator must develop a written plan as described in §63.6(e)(3) that contains specific procedures to be followed for operating and maintaining the source during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the standard. The owner or operator shall also keep records of each event as required by §63.10(b) and record and report if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the plan as described in §63.6(e)(3). In addition to the information required in §63.6(e)(3), the plan must include:

(1) Procedures to determine and record the cause of the malfunction and the time the malfunction began and ended; and

(2) Corrective actions to be taken in the event of a malfunction of a process or control device, including procedures for recording the actions taken to correct the malfunction or minimize emissions.

(b) *Excess emissions/summary report.* The owner or operator must submit semiannual reports according to the requirements in §63.10(e)(3). Except, the owner or operator must submit the semiannual reports within 60 days after the end of each 6-month period instead of within 30 days after the calendar half as specified in §63.10(e)(3)(v). When no deviations of parameters have occurred, the owner or operator must submit a report stating that no excess emissions occurred during the reporting period.

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

(i) The corrective action specified in the OM&M plan for a bag leak detection system alarm was not initiated within 1 hour.

(ii) The corrective action specified in the OM&M plan for a continuous opacity monitoring deviation was not initiated within 1 hour.

(iii) The corrective action specified in the OM&M plan for visible emissions from an aluminum scrap shredder was not initiated within 1 hour.

(iv) An excursion of a compliant process or operating parameter value or range (*e.g.,* lime injection rate or screw feeder setting, total reactive chlorine flux injection rate, afterburner operating temperature, fabric filter inlet temperature, definition of acceptable scrap, or other approved operating parameter).

(v) An action taken during a startup, shutdown, or malfunction was not consistent with the procedures in the plan as described in §63.6(e)(3).

(vi) An affected source (including an emission unit in a secondary aluminum processing unit) was not operated according to the requirements of this subpart.

(vii) A deviation from the 3-day, 24-hour rolling average emission limit for a secondary aluminum processing unit.

(2) Each report must include each of these certifications, as applicable:

(i) For each thermal chip dryer: “Only unpainted aluminum chips were used as feedstock in any thermal chip dryer during this reporting period.”

(ii) For each dross-only furnace: “Only dross and salt flux were used as the charge materials in any dross-only furnace during this reporting period.”

(iii) For each sidewell group 1 furnace with add-on air pollution control devices: “Each furnace was operated such that the level of molten metal remained above the top of the passage between the sidewell and hearth during reactive fluxing, and reactive flux, except for cover flux, was added only to the sidewell or to a furnace hearth equipped with an add-on air pollution control device for PM, HCl, and D/F emissions during this reporting period.”

(iv) For each group 1 melting/holding furnace without add-on air pollution control devices and using pollution prevention measures that processes only clean charge material: “Each group 1 furnace without add-on air pollution control devices subject to emission limits in §63.1505(i)(2) processed only clean charge during this reporting period.”

(v) For each group 2 furnace: “Only clean charge materials were processed in any group 2 furnace during this reporting period, and no fluxing was performed or all fluxing performed was conducted using only nonreactive, non-HAP-containing/non-HAP-generating fluxing gases or agents, except for cover fluxes, during this reporting period.”

(vi) For each in-line fluxer using no reactive flux: “Only nonreactive, non-HAP-containing, non-HAP-generating flux gases, agents, or materials were used at any time during this reporting period.”

(3) The owner or operator must submit the results of any performance test conducted during the reporting period, including one complete report documenting test methods and procedures, process operation, and monitoring parameter ranges or values for each test method used for a particular type of emission point tested.

(c) *Annual compliance certifications.* For the purpose of annual certifications of compliance required by 40 CFR part 70 or 71, the owner or operator must certify continuing compliance based upon, but not limited to, the following conditions:

(1) Any period of excess emissions, as defined in paragraph (b)(1) of this section, that occurred during the year were reported as required by this subpart; and

(2) All monitoring, recordkeeping, and reporting requirements were met during the year.

[65 FR 15710, Mar. 23, 2000, as amended at 69 FR 53984, Sept. 3, 2004; 71 FR 20461, Apr. 20, 2006]

§ 63.1517 Records

(a) As required by §63.10(b), the owner or operator shall maintain files of all information (including all reports and notifications) required by the general provisions and this subpart.

(1) The owner or operator must retain each record for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records must be retained at the facility. The remaining 3 years of records may be retained off site.

(2) The owner or operator may retain records on microfilm, computer disks, magnetic tape, or microfiche; and

(3) The owner or operator may report required information on paper or on a labeled computer disk using commonly available and EPA-compatible computer software.

(b) In addition to the general records required by §63.10(b), the owner or operator of a new or existing affected source (including an emission unit in a secondary aluminum processing unit) must maintain records of:

(1) For each affected source and emission unit with emissions controlled by a fabric filter or a lime-injected fabric filter:

(i) If a bag leak detection system is used, the number of total operating hours for the affected source or emission unit during each 6-month reporting period, records of each alarm, the time of the alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action(s) taken.

(ii) If a continuous opacity monitoring system is used, records of opacity measurement data, including records where the average opacity of any 6-minute period exceeds 5 percent, with a brief explanation of the cause of the emissions, the time the emissions occurred, the time corrective action was initiated and completed, and the corrective action taken.

(iii) If an aluminum scrap shredder is subject to visible emission observation requirements, records of all Method 9 observations, including records of any visible emissions during a 30-minute daily test, with a brief explanation of the cause of the emissions, the time the emissions occurred, the time corrective action was initiated and completed, and the corrective action taken.

(2) For each affected source with emissions controlled by an afterburner:

(i) Records of 15-minute block average afterburner operating temperature, including any period when the average temperature in any 3-hour block period falls below the compliant operating parameter value with a brief explanation of the cause of the excursion and the corrective action taken; and

(ii) Records of annual afterburner inspections.

(3) For each scrap dryer/delacquering kiln/decoating kiln and group 1 furnace, subject to D/F and HCl emission standards with emissions controlled by a lime-injected fabric filter, records of 15-minute block average inlet temperatures for each lime-injected fabric filter, including any period when the 3-hour block average temperature exceeds the compliant operating parameter value +14 °C (+25 °F), with a brief explanation of the cause of the excursion and the corrective action taken.

(4) For each affected source and emission unit with emissions controlled by a lime-injected fabric filter:

(i) Records of inspections at least once every 8-hour period verifying that lime is present in the feeder hopper or silo and flowing, including any inspection where blockage is found, with a brief explanation of the cause of the blockage and the corrective action taken, and records of inspections at least once every 4-hour period for the subsequent 3 days. If flow monitors, pressure drop sensors or load cells are used to verify that lime is present in the hopper and flowing, records of all monitor or sensor output including any event where blockage was found, with a brief explanation of the cause of the blockage and the corrective action taken;

(ii) If lime feeder setting is monitored, records of daily inspections of feeder setting, including records of any deviation of the feeder setting from the setting used in the performance test, with a brief explanation of the cause of the deviation and the corrective action taken.

(iii) If lime addition rate for a noncontinuous lime injection system is monitored pursuant to the approved alternative monitoring requirements in §63.1510(v), records of the time and mass of each lime addition during each operating cycle or time period used in the performance test and calculations of the average lime addition rate (lb/ton of feed/charge).

(5) For each group 1 furnace (with or without add-on air pollution control devices) or in-line fluxer, records of 15-minute block average weights of gaseous or liquid reactive flux injection, total reactive flux injection rate and calculations (including records of the identity, composition, and weight of each addition of gaseous, liquid or solid reactive flux), including records of any period the rate exceeds the compliant operating parameter value and corrective action taken.

(6) For each continuous monitoring system, records required by §63.10(c).

(7) For each affected source and emission unit subject to an emission standard in kg/Mg (lb/ton) of feed/charge, records of feed/charge (or throughput) weights for each operating cycle or time period used in the performance test.

(8) Approved site-specific monitoring plan for a group 1 furnace without add-on air pollution control devices with records documenting conformance with the plan.

(9) Records of all charge materials for each thermal chip dryer, dross-only furnace, and group 1 melting/holding furnaces without air pollution control devices processing only clean charge.

(10) Operating logs for each group 1 sidewell furnace with add-on air pollution control devices documenting conformance with operating standards for maintaining the level of molten metal above the top of the passage between the sidewell and hearth during reactive flux injection and for adding reactive flux only to the sidewell or a furnace hearth equipped with a control device for PM, HCl, and D/F emissions.

(11) For each in-line fluxer for which the owner or operator has certified that no reactive flux was used:

(i) Operating logs which establish that no source of reactive flux was present at the in-line fluxer;

(ii) Labels required pursuant to §63.1506(b) which establish that no reactive flux may be used at the in-line fluxer; or

(iii) Operating logs which document each flux gas, agent, or material used during each operating cycle.

(12) Records of all charge materials and fluxing materials or agents for a group 2 furnace.

(13) Records of monthly inspections for proper unit labeling for each affected source and emission unit subject to labeling requirements.

(14) Records of annual inspections of emission capture/collection and closed vent systems.

(15) Records for any approved alternative monitoring or test procedure.

(16) Current copy of all required plans, including any revisions, with records documenting conformance with the applicable plan, including:

(i) Startup, shutdown, and malfunction plan;

(ii) OM&M plan; and

(iii) Site-specific secondary aluminum processing unit emission plan (if applicable).

(17) For each secondary aluminum processing unit, records of total charge weight, or if the owner or operator chooses to comply on the basis of aluminum production, total aluminum produced for each 24-hour period and calculations of 3-day, 24-hour rolling average emissions.

[65 FR 15710, Mar. 23, 2000, as amended at 67 FR 79818, Dec. 30, 2002]

Other

§ 63.1518 Applicability of general provisions.

The requirements of the general provisions in subpart A of this part that are applicable to the owner or operator subject to the requirements of this subpart are shown in appendix A to this subpart.

§ 63.1519 Implementation and enforcement.

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this regulation. Contact the applicable U.S. EPA Regional Office to find out if this subpart is delegated to a State, local, or Tribal agency.

(b) In delegating implementation and enforcement authority of this regulation to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.

(c) The authorities that cannot be delegated to State, local, or Tribal agencies are as specified in paragraphs (c)(1) through (4) of this section.

(1) Approval of alternatives to the requirements in §§63.1500 through 63.1501 and 63.1505 through 63.1506.

(2) Approval of major alternatives to test methods for under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart.

(3) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart.

(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

[68 FR 37359, June 23, 2003]

§ 63.1520 [Reserved]

Table 1 to Subpart RRR of Part 63—Emission Standards for New and Existing Affected Sources

Table 1 to Subpart RRR--Emission Standards for New and Existing Affected Sources

Affected source/ Emission unit	Pollutant	Limit	Units
All new and existing affected sources and emission units that are controlled with a PM add-on control device and that choose to monitor with a COM; and all new and existing aluminum scrap shredders that choose to monitor with a COM or to monitor visible emissions	Opacity	10	percent
New and existing aluminum scrap shredder	PM	0.01	gr/dscf
New and existing thermal chip dryer	THC D/F[a]	0.80 2.50	lb/ton of feed µg TEQ/Mg of feed
New and existing scrap dryer/delacquering kiln/decoating kiln	PM HCl THC D/F[a]	0.08 0.80 0.06 0.25	lb/ton of feed lb/ton of feed lb/ton of feed µg TEQ/Mg of feed
Or Alternative limits if afterburner has a design residence time of at least 1 second and operates at a temperature of at least 1400 °F	PM HCl THC D/F[a]	0.30 1.50 0.20 5.0	lb/ton of feed lb/ton of feed lb/ton of feed µg TEQ/Mg of feed
New and existing sweat furnace	D/F[a]	0.80	ng TEQ/dscm @ 11% O_2[b]
New and existing dross-only furnace	PM	0.30	lb/ton of feed

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New and existing in-line fluxer[e]	HCl PM	0.04 0.01	lb/ton of feed lb/ton of feed
New and existing in-line fluxer with no reactive fluxing		No limit	Work practice: no reactive fluxing
New and existing rotary dross cooler	PM	0.04	gr/dscf
New and existing clean furnace (Group 2)		No limit	Work practices: clean charge only and no reactive fluxing
New and existing group 1 melting/holding furnace (processing only clean charge)[e]	PM HCl	0.80 0.40 or 10	lb/ton of feed lb/ton of feed percent of the HCl upstream of an add-on control device
New and existing group 1 furnace[e]	PM HCl	0.40 0.40 or 10	lb/ton of feed lb/ton of feed percent of the HCl upstream of an add-on control device
	D/F[d]	15.0	µg TEQ/Mg of feed
New and existing group 1 furnace[e] with clean charge only	PM HCl	0.40 0.40 Or 10	lb/ton of feed lb/ton of feed percent of the HCl upstream of an add-on control device
	D/F[d]	No Limit	Clean charge only

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New and existing secondary aluminum processing unit[a,d] (consists of all existing group 1 furnaces and existing in-line flux boxes at the facility, or all simultaneously constructed new group 1 furnaces and new in-line fluxers)	PM[e]	$L_{t_{PM}} = \frac{\sum_{i=1}^{n}(L_{i_{PM}} \times T_i)}{\sum_{i=1}^{n}(T_i)}$
	HCl[f]	$L_{t_{HCl}} = \frac{\sum_{i=1}^{n}(L_{i_{HCl}} \times T_i)}{\sum_{i=1}^{n}(T_i)}$
	D/F[g]	$L_{t_{D/F}} = \frac{\sum_{i=1}^{n}(L_{i_{D/F}} \times T_i)}{\sum_{i=1}^{n}(T_i)}$

[a] D/F limit applies to a unit at a major or area source.
[b] Sweat furnaces equipped with afterburners meeting the specifications of §63.1505(f)(1) are not required to conduct a performance test.
[c] These limits are also used to calculate the limits applicable to secondary aluminum processing units.
[d] Equation definitions: L_{iPM} = the PM emission limit for individual emission unit i in the secondary aluminum processing unit [kg/Mg (lb/ton) of feed]; T_i = the feed rate for individual emission unit i in the secondary aluminum processing unit; L_{tPM} = the overall PM emission limit for the secondary aluminum processing unit [kg/Mg (lb/ton) of feed]; L_{iHCl} = the HCl emission limit for individual emission unit i in the secondary aluminum processing unit [kg/Mg (lb/ton) of feed]; L_{tHCl} = the overall HCl emission limit for the secondary aluminum processing unit [kg/Mg (lb/ton) of feed]; $L_{iD/F}$ = the D/F emission limit for individual emission unit i [µg TEQ/Mg (gr TEQ/ton) of feed]; $L_{tD/F}$ = the overall D/F emission limit for the secondary aluminum processing unit [µg TEQ/Mg (gr TEQ/ton) of feed]; n = the number of units in the secondary aluminum processing unit.
[e] In-line fluxers using no reactive flux materials cannot be included in this calculation since they are not subject to the PM limit.
[f] In-line fluxers using no reactive flux materials cannot be included in this calculation since they are not subject to the HCl limit.
[g] Clean charge furnaces cannot be included in this calculation since they are not subject to the D/F limit.

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Table 2 to Subpart RRR of Part 63—Summary of Operating Requirements for New and Existing Affected Sources and Emission Units

Affected source/emission unit	Monitor type/operation/process	Operating requirements
All affected sources and emission units with an add-on air pollution control device	Emission capture and collection system	Design and install in accordance with Industrial Ventilation: A Handbook of Recommended Practice; operate in accordance with OM&M plan.[b]
All affected sources and emission units subject to production-based (lb/ton of feed) emission limits[a]	Charge/feed weight or Production weight	Operate a device that records the weight of each charge; Operate in accordance with OM&M plan.[b]
Group 1 furnace, group 2 furnace, in-line fluxer and scrap dryer/delacquering kiln/decoating kiln	Labeling	Identification, operating parameter ranges and operating requirements posted at affected sources and emission units; control device temperature and residence time requirements posted at scrap dryer/delacquering kiln/decoating kiln.
Aluminum scrap shredder with fabric filter	Bag leak detector or	Initiate corrective action within 1-hr of alarm and complete in accordance with OM&M plan[b]; operate such that alarm does not sound more than 5% of operating time in 6-month period.
	COM or	Initiate corrective action within 1-hr of a 6-minute average opacity reading of 5% or more and complete in accordance with OM&M plan.[b]
	VE	Initiate corrective action within 1-hr of any observed VE and complete in accordance with the OM&M plan.[b]
Thermal chip dryer with afterburner	Afterburner operating temperature	Maintain average temperature for each 3-hr period at or above average operating temperature during the performance test.
	Afterburner operation	Operate in accordance with OM&M plan.[b]
	Feed material	Operate using only unpainted aluminum chips.
Scrap dryer/delacquering kiln/decoating kiln with afterburner and lime-injected fabric filter	Afterburner operating temperature	Maintain average temperature for each 3-hr period at or above average operating temperature during the performance test.
	Afterburner operation	Operate in accordance with OM&M plan.[b]
	Bag leak detector or	Initiate corrective action within 1-hr of alarm and complete in accordance with the OM&M plan;[b]operate such that alarm does not sound more than 5% of operating time in 6-month period.
	COM	Initiate corrective action within 1-hr of a 6-minute average opacity reading of 5% or more and

Affected source/emission unit	Monitor type/operation/process	Operating requirements
		complete in accordance with the OM&M plan.[b]
	Fabric filter inlet temperature	Maintain average fabric filter inlet temperature for each 3-hr period at or below average temperature during the performance test +14 °C (+25 °F).
	Lime injection rate	Maintain free-flowing lime in the feed hopper or silo at all times for continuous injection systems; maintain feeder setting at level established during the performance test for continuous injection systems.
Sweat furnace with afterburner	Afterburner operating temperature	If a performance test was conducted, maintain average temperature for each 3-hr period at or above average operating temperature during the performance test; if a performance test was not conducted, and afterburner meets specifications of §63.1505(f)(1), maintain average temperature for each 3-hr period at or above 1600 °F.
	Afterburner operation	Operate in accordance with OM&M plan.[b]
Dross-only furnace with fabric filter	Bag leak detector or	Initiate corrective action within 1-hr of alarm and complete in accordance with the OM&M plan;[b]operate such that alarm does not sound more than 5% of operating time in 6-month period.
	COM	Initiate corrective action within 1-hr of a 6-minute average opacity reading of 5% or more and complete in accordance with the OM&M plan.[b]
	Feed/charge material	Operate using only dross as the feed material.
Rotary dross cooler with fabric filter	Bag leak detector or	Initiate corrective action within 1-hr of alarm and complete in accordance with the OM&M plan;[b]operate such that alarm does not sound more than 5% of operating time in 6-month period.
	COM	Initiate corrective action within 1-hr of a 6-minute average opacity reading of 5% or more and complete in accordance with the OM&M plan.[b]
In-line fluxer with lime-injected fabric filter (including those that are part of a secondary aluminum processing unit)	Bag leak detector or	Initiate corrective action within 1-hr of alarm and complete in accordance with the OM&M plan;[b]operate such that alarm does not sound more than 5% of operating time in 6-month period.
	COM	Initiate corrective action within 1-hr of a 6-minute average opacity reading of 5% or more and complete in accordance with the OM&M plan.[b]
	Lime injection rate	Maintain free-flowing lime in the feed hopper or silo at all times for continuous injection systems; maintain feeder setting at level established during

Affected source/emission unit	Monitor type/operation/process	Operating requirements
		performance test for continuous injection systems.
	Reactive flux injection rate	Maintain reactive flux injection rate at or below rate used during the performance test for each operating cycle or time period used in the performance test.
In-line fluxer (using no reactive flux material)	Flux materials	Use no reactive flux.
Group 1 furnace with lime-injected fabric filter (including those that are part of a secondary of aluminum processing unit).	Bag leak detector or	Initiate corrective action within 1-hr of alarm; operate such that alarm does not sound more than 5% of operating time in 6-month period; complete corrective action in accordance with the OM&M plan.[b]
	COM	Initiate corrective action within 1-hr of a 6-minute average opacity reading of 5% or more; complete corrective action in accordance with the OM&M plan.[b]
	Fabric filter inlet temperature	Maintain average fabric filter inlet temperature for each 3-hour period at or below average temperature during the performance test +14 °C (+25 °F).
	Reactive flux injection rate	Maintain reactive flux injection rate (kg/Mg) (lb/ton) at or below rate used during the performance test for each furnace cycle.
	Lime injection rate	Maintain free-flowing lime in the feed hopper or silo at all times for continuous injection systems; maintain feeder setting at level established at performance test for continuous injection systems.
	Maintain molten aluminum level	Operate sidewell furnaces such that the level of molten metal is above the top of the passage between sidewell and hearth during reactive flux injection, unless the hearth is also controlled.
	Fluxing in sidewell furnace hearth	Add reactive flux only to the sidewell of the furnace unless the hearth is also controlled.
Group 1 furnace without add-on controls (including those that are part of a secondary aluminum processing unit)	Reactive flux injection rate	Maintain reactive flux injection rate (kg/Mg) (lb/ton) at or below rate used during the performance test for each operating cycle or time period used in the performance test.
	Site-specific monitoring plan[c]	Operate furnace within the range of charge materials, contaminant levels, and parameter values established in the site-specific monitoring plan.
	Feed material	Use only clean charge.

Affected source/emission unit	Monitor type/operation/process	Operating requirements
	(melting/holding furnace)	
Clean (group 2) furnace	Charge and flux materials	Use only clean charge. Use no reactive flux.

[a]Thermal chip dryers, scrap dryers/delacquering kilns/decoating kilns, dross-only furnaces, in-line fluxers and group 1 furnaces including melting/holding furnaces.

[b]OM&M plan—Operation, maintenance, and monitoring plan.

[c]Site-specific monitoring plan. Owner/operators of group 1 furnaces without control devices must include a section in their OM&M plan that documents work practice and pollution prevention measures, including procedures for scrap inspection, by which compliance is achieved with emission limits and process or feed parameter-based operating requirements. This plan and the testing to demonstrate adequacy of the monitoring plan must be developed in coordination with and approved by the permitting authority.

[65 FR 15710, Mar. 23, 2000, as amended at 67 FR 79818, Dec. 30, 2002; 69 FR 53984, Sept. 3, 2004]

Table 3 to Subpart RRR of Part 63—Summary of Monitoring Requirements for New and Existing Affected Sources and Emission Units

Affected source/Emission unit	Monitor type/Operation/Process	Monitoring requirements
All affected sources and emission units with an add-on air pollution control device	Emission capture and collection system	Annual inspection of all emission capture, collection, and transport systems to ensure that systems continue to operate in accordance with ACGIH standards.
All affected sources and emission units subject to production-based (lb/ton of feed/charge) emission limits[a]	Feed/charge weight	Record weight of each feed/charge, weight measurement device or other procedure accuracy of ±1%[b]; calibrate according to manufacturers specifications, or at least once every 6 months.
Group 1 furnace, group 2 furnace, in-line fluxer, and scrap dryer/delacquering kiln/decoating kiln	Labeling	Check monthly to confirm that labels are intact and legible.
Aluminum scrap shredder with fabric filter	Bag leak detector or	Install and operate in accordance with “Fabric Filter Bag Leak Detection Guidance”[c]; record voltage output from bag leak detector.
	COM or	Design and install in accordance with PS–1; collect data in accordance with subpart A of 40 CFR part 63; determine and record 6-minute block averages.
	VE	Conduct and record results of 30-minute daily test in accordance with Method 9.
Thermal chip dryer with afterburner	Afterburner operating temperature	Continuous measurement device to meet specifications in §63.1510(g)(1); record average temperature for each 15-minute block; determine

Affected source/Emission unit	Monitor type/Operation/Process	Monitoring requirements
		and record 3-hr block averages.
	Afterburner operation	Annual inspection of afterburner internal parts; complete repairs in accordance with the OM&M plan.
	Feed/charge material	Record identity of each feed/charge; certify feed/charge materials every 6 months.
Scrap dryer/delacquering kiln/decoating kiln with afterburner and lime-injected fabric filter	Afterburner operating temperature.	Continuous measurement device to meet specifications in §63.1510(g)(1); record temperature for each 15-minute block; determine and record 3-hr block averages.
	Afterburner operation	Annual inspection of afterburner internal parts; complete repairs in accordance with the OM&M plan.
	Bag leak detector or	Install and operate in accordance with “Fabric Filter Bag Leak Detection Guidance[c]; record voltage output from bag leak detector.
	COM	Design and Install in accordance with PS–1; collect data in accordance with subpart A of 40 CFR part 63; determine and record 6-minute block averages.
	Lime injection rate	For continuous injection systems, inspect each feed hooper or silo every 8 hours to verify that lime is free flowing; record results of each inspection. If blockage occurs, inspect every 4 hours for 3 days; return to 8-hour inspections if corrective action results in no further blockage during 3-day period, record feeder setting daily.
	Fabric filter inlet temperature.	Continous measurement device to meet specifications in §63.1510(h)(2); record temperatures in 15-minute block averages; determine and record 3-hr block averages.
Sweat furnace with afterburner	Afterburner operating temperature	Continuous measurement device to meet specifications in §63.1510(g)(1); record temperatures in 15-minute block averages; determine and record 3-hr block averages.
	Afterburner operation	Annual inspection of afterburner internal parts; complete repairs in accordance with the OM&M plan.
Dross-only furnace with fabric filter	Bag leak detector or	Install and operate in accordance with “Fabric Filter Bag Leak Detection Guidance”[c]; record output voltage from bag leak detector.
	COM	Design and install in accordance with PS–1; collect data in accordance with subpart A of 40 CFR part 63; determine and record 6-minute block averages.

Affected source/Emission unit	Monitor type/Operation/Process	Monitoring requirements
	Feed/charge material	Record identity of each feed/charge; certify charge materials every 6 months.
Rotary dross cooler with fabric filter	Bag leak detector or	Install and operate in accordance with "Fabric Filter Bag Leak Detection Guidance"[c]; record output voltage from bag leak detector.
	COM	Design and install in accordance with PS–1; collect data in accordance with subpart A of 40 CFR part 63; determine and record 6-minute block averages.
In-line fluxer with lime-injected fabric filter	Bag leak detector or	Install and operate in accordance with "Fabric Filter Bag Leak Detection Guidance"[c]; record output voltage from bag leak detector.
	COM	Design and install in accordance with PS–1; collect data in accordance with subpart A of 40 CFR part 63; determine and record 6-minute block averages
	Reactive flux injection rate	Weight measurement device accuracy of ±1%[b]; calibrate according to manufacturer's specifications or at least once every 6 months; record time, weight and type of reactive flux added or injected for each 15-minute block period while reactive fluxing occurs; calculate and record total reactive flux injection rate for each operating cycle or time period used in performance test; or Alternative flux injection rate determination procedure per §63.1510(j)(5).
	Lime injection rate	For continuous injection systems, record feeder setting daily and inspect each feed hopper or silo every 8 hrs to verify that lime is free-flowing; record results of each inspection. If blockage occurs, inspect every 4 hrs for 3 days; return to 8-hour inspections if corrective action results in no further blockage during 3-day period.[d]
In-line fluxer using no reactive flux	Flux materials	Record flux materials; certify every 6 months for no reactive flux.
Group 1 furnace with lime-injected fabric filter	Bag leak detector or	Install and operate in accordance with "Fabric Filter Bag Leak Detection Guidance"[c]; record output voltage from bag leak detector.
	COM	Design and install in accordance with PS–1; collect data in accordance with subpart A of 40 part CFR 63; determine and record 6-minute block averages.
	Lime injection rate	For continuous injection systems, record feeder setting daily and inspect each feed hopper or silo every 8 hours to verify that lime is free-flowing;

Affected source/Emission unit	Monitor type/Operation/Process	Monitoring requirements
		record results of each inspection. If blockage occurs, inspect every 4 hours for 3 days; return to 8-hour inspections if corrective action results in no further blockage during 3-day period.[d]
	Reactive flux injection rate	Weight measurement device accuracy of ±1%[b]; calibrate every 3 months; record weight and type of reactive flux added or injected for each 15-minute block period while reactive fluxing occurs; calculate and record total reactive flux injection rate for each operating cycle or time period used in performance test; or Alternative flux injection rate determination procedure per §63.1510(j)(5).
	Fabric filter inlet temperature	Continuous measurement device to meet specifications in §63.1510(h)(2); record temperatures in 15-minute block averages; determine and record 3-hour block averages.
	Maintain molten aluminum level in sidewell furnace	Maintain aluminum level operating log; certify every 6 months.
Group 1 furnace without add-on controls	Fluxing in sidewell furnace hearth	Maintain flux addition operating log; certify every 6 months.
	Reactive flux injection rate	Weight measurement device accuracy of +1%[b]; calibrate according to manufacturers specifications or at least once every six months; record weight and type of reactive flux added or injected for each 15-minute block period while reactive fluxing occurs; calculate and record total reactive flux injection rate for each operating cycle or time period used in performance test.
	OM&M plan (approved by permitting agency)	Demonstration of site-specific monitoring procedures to provide data and show correlation of emissions across the range of charge and flux materials and furnace operating parameters.
	Feed material (melting/holding furnace)	Record type of permissible feed/charge material; certify charge materials every 6 months.
Clean (group 2) furnace	Charge and flux materials	Record charge and flux materials; certify every 6 months for clean charge and no reactive flux.

[a]Thermal chip dryers, scrap dryers/delacquering kilns/decoating kilns, dross-only furnaces, in-line fluxers and group 1 furnaces or melting/holding furnaces.

[b]Permitting agency may approve measurement devices of alternative accuracy, for example in cases where flux rates are very low and costs of meters of specified accuracy are prohibitive; or where feed/charge weighing devices of specified accuracy are not practicable due to equipment layout or charging practices.

[c]Non-triboelectric bag leak detectors must be installed and operated in accordance with manufacturers' specifications.

[d]Permitting agency may approve other alternatives including load cells for lime hopper weight, sensors for carrier gas pressure, or HCl monitoring devices at fabric filter outlet.

[65 FR 15710, Mar. 23, 2000, as amended at 69 FR 53985, Sept. 3, 2004]

Appendix A to Subpart RRR of Part 63—General Provisions Applicability to Subpart RRR

Citation	Requirement	Applies to RRR	Comment
§63.1(a)(1)–(4)	General Applicability	Yes.	
§63.1(a)(5)		No	[Reserved].
§63.1(a)(6)–(8)		Yes.	
§63.1(a)(9)		No	[Reserved].
§63.1(a) (10)–(14)		Yes.	
§63.1(b)	Initial Applicability Determination	Yes	EPA retains approval authority.
§63.1(c)(1)	Applicability After Standard Established	Yes.	
§63.1(c)(2)		Yes	§63.1500(e) exempts area sources subject to this subpart from the obligation to obtain Title V operating permits.
§63.1(c)(3)		No	[Reserved].
§63.1(c)(4)–(5)		Yes.	
§63.1(d)		No	[Reserved].
§63.1(e)	Applicability of Permit Program	Yes.	
§63.2	Definitions	Yes	Additional definitions in §63.1503.
§63.3	Units and Abbreviations	Yes	
§63.4(a)(1)–(3)	Prohibited Activities	Yes.	
§63.4(a)(4)		No	[Reserved]
§63.4(a)(5)		Yes.	
§63.4(b)–(c)	Circumvention/ Severability	Yes.	
§63.5(a)	Construction and Reconstruction—Applicability	Yes.	
§63.5(b)(1)	Existing, New, Reconstructed Sources—Requirements	Yes.	
§63.5(b)(2)		No	[Reserved].
§63.5(b)(3)–(6)		Yes.	
§63.5(c)		No	[Reserved].
§63.5(d)	Application for Approval of	Yes.	

Citation	Requirement	Applies to RRR	Comment
	Construction/ Reconstruction		
§63.5(e)	Approval of Construction/ Reconstruction	Yes.	
§63.5(f)	Approval of Construction/Reconstruction Based on State Review	Yes.	
§63.6(a)	Compliance with Standards and Maintenance—Applicability	Yes.	
§63.6(b)(1)–(5)	New and Reconstructed Sources—Dates	Yes.	
§63.6(b)(6)		No	[Reserved].
§63.6(b)(7)		Yes.	
§63.6(c)(1)	Existing Sources Dates	Yes	§63.1501 specifies dates.
§63.6(c)(2)		Yes.	
§63.6(c)(3)–(4)		No	[Reserved].
§63.6(c)(5)		Yes.	
§63.6(d)		No	[Reserved].
§63.6(e)(1)–(2)	Operation & Maintenance Requirements	Yes	§63.1510 requires plan.
§63.6(e)(3)	Startup, Shutdown, and Malfunction Plan	Yes.	
§63.6(f)	Compliance with Emission Standards	Yes.	
§63.6(g)	Alternative Standard	No	
§63.6(h)	Compliance with Opacity/VE Standards	Yes.	
§63.6(i)(1)–(14)	Extension of Compliance	Yes.	
§63.6(i)(15)		No	[Reserved].
§63.6(i)(16)		Yes.	
§63.6(j)	Exemption from Compliance	Yes.	
§63.7(a)–(h)	Performance Test Requirements-Applicability and Dates	Yes	Except §63.1511 establishes dates for initial performance tests.
§63.7(b)	Notification	Yes.	
§63.7(c)	Quality Assurance/Test Plan	Yes.	
§63.7(d)	Testing Facilities	Yes.	

Citation	Requirement	Applies to RRR	Comment
§63.7(e)	Conduct of Tests	Yes.	
§63.7(f)	Alternative Test Method	Yes.	
§63.7(g)	Data Analysis	Yes.	
§63.7(h)	Waiver of Tests	Yes.	
§63.8(a)(1)	Monitoring Requirements—Applicability	Yes.	
§63.8(a)(2)		Yes.	
§63.8(a)(3)		No	[Reserved]
§63.8(a)(4)		Yes	
§63.8(b)	Conduct of Monitoring	Yes.	
§63.8(c)(1)–(3)	CMS Operation and Maintenance	Yes.	
§63.8(c)(4)–(8)		Yes.	
§63.8(d)	Quality Control	Yes.	
§63.8(e)	CMS Performance Evaluation	Yes.	
§63.8(f)(1)–(5)	Alternative Monitoring Method	No	§63.1510(w) includes provisions for monitoring alternatives.
§63.8(f)(6)	Alternative to RATA Test	Yes.	
§63.8(g)(1)	Data Reduction	Yes.	
§63.8(g)(2)		No	§63.1512 requires five 6-minute averages for an aluminum scrap shredder.
§63.8(g)(3)–(5)		Yes.	
§63.9(a)	Notification Requirements—Applicability	Yes.	
§63.9(b)	Initial Notifications	Yes.	
§63.9(c)	Request for Compliance Extension	Yes.	
§63.9(d)	New Source Notification for Special Compliance Requirements	Yes.	
63.9(e)	Notification of Performance Test	Yes.	
§63.9(f)	Notification of VE/Opacity Test	Yes.	
§63.9(g)	Additional CMS Notifications	Yes.	
§63.9(h)(1)–(3)	Notification of Compliance Status	Yes	Except §63.1515 establishes dates for notification of compliance status reports.
§63.9(h)(4)		No	[Reserved].

Citation	Requirement	Applies to RRR	Comment
§63.9(h)(5)–(6)		Yes.	
§63.9(i)	Adjustment of Deadlines	Yes.	
§63.9(j)	Change in Previous Information	Yes.	
§63.10(a)	Recordkeeping/Reporting—Applicability	Yes.	
§63.10(b)	General Requirements	Yes	§63.1517 includes additional requirements.
§63.10(c)(1)	Additional CMS Recordkeeping	Yes.	
§63.10(c)(2)–(4)		No	[Reserved].
§63.10(c)(5)		Yes.	
§63.10(c)(6)		Yes.	
§63.10(c)(7)–(8)		Yes.	
§63.10(c)(9)		No	[Reserved].
§63.10(c)(10)–(13)		Yes.	
§63.10(c)(14)		Yes.	
§63.10(d)(1)	General Reporting Requirements	Yes.	
§63.10(d)(2)	Performance Test Results	Yes.	
§63.10(d)(3)	Opacity or VE Observations	Yes.	
§63.10(d)(4)–(5)	Progress Reports/Startup, Shutdown, and Malfunction Reports	Yes.	
§63.10(e)(1)–(2)	Additional CMS Reports	Yes.	
§63.10(e)(3)	Excess Emissions/CMS Performance Reports	Yes	Reporting deadline given in §63.1516.
§63.10(e)(4)	COMS Data Reports	Yes.	
§63.10(f)	Recordkeeping/Reporting Waiver	Yes.	
§63.11(a)–(b)	Control Device Requirements	No	Flares not applicable.
§63.12(a)–(c)	State Authority and Delegations	Yes.	EPA retains authority for applicability determinations.
§63.13	Addresses	Yes.	
§63.14	Incorporation by Reference	Yes	Chapters 3 and 5 of ACGIH Industrial Ventilation Manual for capture/collection

Citation	Requirement	Applies to RRR	Comment
			systems; and Interim Procedures for Estimating Risk Associated with Exposure to Mixtures of Chlorinated Dibenzofurans (CDDs and CDFs) and 1989 Update (incorporated by reference in §63.1502).
§63.15	Availability of Information/Confidentiality	Yes.	

[65 FR 15710, Mar. 23, 2000, as amended at 67 FR 59793, Sept. 24, 2002; 67 FR 79818, Dec. 30, 2002; 69 FR 53986, Sept. 3, 2004; 70 FR 75346, Dec. 19, 2005]

Attachment E –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.:	173-30774-00007
Significant Permit Modification No.:	173-30796-00007
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

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]
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
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

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]
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
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

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]
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
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	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

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...
	<76.6 kilopascals (11.1 psia).	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.
	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	a. The stored organic liquid	i. See the requirement in item 1.a.i or 1.a.ii

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...
reconstructed or new affected source with a capacity ≥189.3 cubic meters (50,000 gallons).	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).	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 existing, reconstructed, or new affected source meeting the capacity criteria specified in table 2 of this subpart, items 1 through 5.	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. 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, 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	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.

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...
transfer racks is ≥10 million gallons.		
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.
	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
	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

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...
	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
	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
	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, 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	a. A performance test to determine the organic HAP (or, upon approval, TOC) control efficiency of each nonflare control device, OR the exhaust concentration of each combustion device; OR	i. §63.985(b)(1)(ii), §63.988(b), §63.990(b), or §63.995(b)	(1) EPA Method 1 or 1A in appendix A of 40 CFR part 60, as appropriate	(A) Sampling port locations and the required number of traverse points	(i) Sampling sites must be located at the inlet and outlet 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	(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

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...
			40 CFR part 63 for measuring formaldehyde		largest percent by volume of emissions; AND (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	A performance test to determine the vapor tightness		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

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...
vapor collection equipment and 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, at an existing, reconstructed, or new affected source	of the tank and then repair as needed until it passes the test.				(1 inch of water) in 5 minutes after it is pressurized to 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

Table 7 to Subpart EEEE of Part 63—Initial Compliance With Work Practice Standards		
For each…	**If you…**	**You have demonstrated initial compliance if…**
		from 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. 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

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.
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	i. Continuously monitoring the organic 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

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...
		demonstrated compliance with the emission limit; AND 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	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

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...
	with the emission limit; OR	ii. Keeping the applicable records required in §63.998.
	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.

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...
	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 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.

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...
3. IFR or EFR 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. Repair the conditions causing storage tank inspection failures (§63.1063(e)).	i. Repairing conditions causing inspection failures: before refilling the storage tank with 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	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

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...
	system.	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.

[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

Technical Support Document (TSD)
for a Part 70 Significant Source Modification and
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.:	173-30774-00007
Significant Permit Modification No.:	173-30796-00007
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 on 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) First Significant Source Modification No.: 173-24020-00007, issued on September 24, 2007,

(b) First Significant Permit Modification No.: 173-24585-00007, issued on October 30, 2007,

(c) Exemption No.: 173-25797-00007, issued on January 11, 2008,

(d) Second Significant Source Modification No.: 173-26029-00007, issued on July 8, 2008,

(e) Second Significant Permit Modification No.: 173-26037-00007, issued on July 25, 2008,

(f) Third Significant Source Modification No.: 173-26942-00007, issued on December 10, 2008,

(g) Third Significant Permit Modification No.: 173-27019-00007, issued on December 30, 2008,

(h) First Minor Source Modification No.: 173-27188-00007, issued on March 31, 2009,

(i) Second Minor Source Modification No.: 173-27716-00007, issued on April 20, 2009,

(j) Fourth Significant Permit Modification N: 173-27454-00007, issued on June 16, 2009,

(k) First Minor Permit Modification No.: 173-27764-00007, issued on June 18, 2009,

(l) Administrative Amendment No.: 173-27723-00007, issued on April 8, 2009,

(m) Fifth Significant Permit Modification No.: 173-28362-00007, issued on November 13, 2009.

(n) Fourth Significant Source Modification No.: 173-29096-00007, issued on August 26, 2010.

(o) Sixth Significant Permit Modification No.: 173-29035-00007, issued on September 14, 2010.

(p) Temporary Operation No.: 173-30487-00007, issued on May 2, 2011, and

(q) Temporary Operation No.: 173-30556-00007, issued on June 9, 2011,

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.
Unclassifiable or attainment effective November 2, 2011, for $PM_{2.5}$.

(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) $PM_{2.5}$
Warrick County has been classified as attainment for $PM_{2.5}$. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for $PM_{2.5}$ emissions. These rules became effective on July 15, 2008. On May 4, 2011 the air pollution control board issued an emergency rule establishing the direct $PM_{2.5}$ significant level at ten (10) tons per year. This rule became effective, June 28, 2011. Therefore, direct $PM_{2.5}$ and SO_2 emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section. On November 2, 2011 the air pollution control board issued an emergency rule designating Warrick County as attainment or unclassifiable for $PM_{2.5}$.

(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).

Fugitive Emissions

Since this type of operation is in one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, and 326 IAC 2-7, fugitive emissions are counted toward the determination of PSD, Emission Offset, and Part 70 Permit 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
$PM_{2.5}$	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 not a major stationary source under Emission Offset (326 IAC 2-3) because no nonattainment regulated pollutant is emitted at a rate of 100 tons per year or more.

(c) These emissions are based upon Significant Permit Modification No. 173-29035-00007, issued on September 14, 2010.

(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).

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by Alcoa, Inc. on August 8, 2011, relating to adding a railcar unloading system that will serve as a backup system for receiving alumina whenever the barge unloading operations are unavailable or unable to provide an adequate supply. The following is a list of the modified emission unit and pollution control device:

One (1) railcar unloading operation supporting Tank 62, permitted in 2011, with a maximum unloading capacity of 16 railcars per day, and a maximum railcar capacity of 90 tons of alumina per railcar. Particulate emissions are controlled by plastic enclosure during unloading of alumina.

Enforcement Issues

There are no pending enforcement actions.

Stack Summary

There are no new or modified stacks due to this modification.

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 3: PTE Before Controls of the Modification

Pollutant	**Potential To Emit** (ton/yr)
CO	0
NO_X	0
PM	852.19
PM_{10}	289.08
$PM_{2.5}$	289.08
SO_2	0
VOC	0
HAPs	0

This source modification is subject to 326 IAC 2-7-10.5(f)(4) because the potential to emit PM and PM_{10} is greater than twenty-five (25) tons per year, each. 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 it involves case-by-case determination of emission limitations and standards and involves significant changes to existing monitoring, record keeping and reporting requirements.

Permit Level Determination – PSD

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 source modification, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Table 4: Potential **to Emit** (ton/yr)

Process / Emission Unit	**CO**	**NO_X**	**PM**	**PM_{10}**	**$PM_{2.5}$**	**SO_2**	**VOC**
Railcar Unloading Operation	0	0	24.96	14.95	9.94	0	0
Total for Modification	0	0	24.96	14.95	9.94	0	0
PSD Significant Level	100	40	25	15	NA	40	40

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

Federal Rule Applicability Determination

Compliance Assurance Monitoring (CAM)
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.

The potential to emit before controls for the proposed modification are less than the major source thresholds for PM_{10} and $PM_{2.5}$, and the proposed modification will not add any additional control devices for the proposed railcar unloading operation; therefore, the requirements of 40 CFR Part 64, CAM, are not applicable to the proposed railcar unloading operation.

There are no other changes to Federal Rule Applicability as a result of this modification.

State Rule Applicability Determination

The following state rules are applicable to the source due to the modification:

326 IAC 2-2 (PSD)
Since the unrestricted potential to emit of this modification is greater than twenty-five (25) tons of PM per year, and greater than fifteen (15) tons of PM_{10} per year, this source has elected to limit the potential to emit of this modification as follows:

(a) PM emissions from the railcar unloading operation supporting Tank 62 shall not exceed 3.14 lb/ton alumina.

(b) PM_{10} emissions from the railcar unloading operation supporting Tank 62 shall not exceed 1.88 lb/ton alumina.

(c) $PM_{2.5}$ emissions from the railcar unloading operation supporting Tank 62 shall not exceed 1.25 lb/ton alumina.

(d) The amount of Alumina unloaded by railcar for Tank 62 shall not exceed 15,900 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with these emission limits will limit the potential to emit from the railcar unloading operation supporting Tank 62 to less than twenty-five (25) tons of PM per year, less than fifteen (15) tons of PM_{10} per year, and less than ten (10) tons of $PM_{2.5}$ per year. Therefore the requirements of 326 IAC 2-2 (PSD) are not applicable to the railcar unloading operation supporting Tank 62 approved under Significant Source Modification No.: 173-30774-00007.

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

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

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

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the railcar unloading operation supporting Tank 62 shall not exceed 46.86 pounds per hour when operating at a process weight rate of 60 tons per hour. The pound per hour limitation was calculated with the following equation:

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

326 IAC 6-4 (Fugitive Dust Emissions)
Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions), the Permittee shall be in violation of 326 IAC 6-4 (Fugitive Dust Emissions) if any of the criteria specified in 326 IAC 6-4-2(1) though (4) are violated pursuant to 326 IAC 6-4-5(c). Observations of visible emissions crossing the property line of the source at or near ground level must be made by a qualified representative of IDEM.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source’s failure to take the appropriate corrective actions within a specific time period.

Compliance Determination Requirements
The Compliance Determination Requirements applicable to this modification are as follows:

Summary of Testing Requirements					
Emission Unit	**Control Device**	**Timeframe for Testing**	**Pollutant**	**Frequency of Testing**	**Limit or Requirement**
Railcar unloading Operation for Tank 62	plastic enclosure during	within 180 days of operation	PM = 3.14 lb/ton	one time	326 IAC 2-2
			PM_{10} = 1.88 lb/ton	one time	326 IAC 2-2
			$PM_{2.5}$ = 1.25 lb/ton	one time	326 IAC 2-2

	unloading				

Compliance Monitoring Requirements
The compliance monitoring requirements applicable to this modification are as follows:

Table 5: Summary of Compliance Monitoring Requirements				
Emission Unit	**Parameter**	**Frequency**	**Range**	**Excursions and Exceedances**
railcar unloading for Tank 62 (plastic enclosure during unloading)	Visible emission notations	Daily, when unit is operating	Normal-Abnormal	Response steps

This monitoring is necessary because abnormal visible emissions is an indication of excess PM, PM_{10}, or $PM_{2.5}$ emissions and may reflect an exceedance of an emission limitation established pursuant to 326 IAC 2-2 (PSD Minor Limit), 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), and 326 IAC 2-7 (Part 70).

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 updated the Section D.1 to include the applicable requirements for the railcar unloading operation as follows:

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.)

...

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

...

(54) One (1) railcar unloading operation supporting Tank 62, permitted in 2011, with a maximum unloading capacity of 16 railcars per day, and a maximum railcar capacity of 9.0 tons of alumina per railcar. Particulate emissions are controlled by plastic enclosure during unloading of alumina.

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)
...	...	...	...
Tank 62 unloading	Baghouse BC-24 (Tank 62 baghouse, ground level)	275	62.02
Railcar unloading for Tank 62	**none**	**60**	**46.86**
Transfer Tower 61B	Transfer Tower 61B Baghouse	275	62.02
...	...	...	...

...

D.1.3 PSD Minor Limit [326 IAC 2-2]

(a) PM emissions from the railcar unloading operation supporting Tank 62 shall not exceed 3.14 lb/ton alumina.

(b) PM_{10} emissions from the railcar unloading operation supporting Tank 62 shall not exceed 1.88 lb/ton alumina.

(c) $PM_{2.5}$ emissions from the railcar unloading operation supporting Tank 62 shall not exceed 1.25 lb/ton alumina.

(d) The amount of Alumina unloaded by railcar for Tank 62 shall not exceed 15,900 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with these emission limits will limit the potential to emit from the railcar unloading operation supporting Tank 62 to less than twenty-five (25) tons of PM per year, less than fifteen (15) tons of PM_{10} per year, and less than ten (10) tons of $PM_{2.5}$ per year. Therefore the requirements of 326 IAC 2-2 (PSD) are not applicable to the railcar unloading operation supporting Tank 62 approved under Significant Source Modification No.: 173-30774-00007.

D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan is required for the railcar unloading operation supporting Tank 62. Section B - Preventive Maintenance Plan contains the Permittee's obligations with regard to the preventive maintenance plan required by this condition.

~~D.1.3~~**D.1.5** Particulate Control [326 IAC 2-7-6(6)]

(a) - (b) ...

(c) **In order to comply with Condition D.1.3, the PM, PM_{10}, and $PM_{2.5}$ emissions from the Railcar unloading for Tank 62 shall be controlled by minimizing the freefall distance of the alumina and utilizing plastic to enclose the bottom of the railcar during unloading.**

(d) ...

~~D.1.4~~**D.1.6** Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]

In order to **demonstrate compliance** ~~comply~~ with Conditions D.1.1 and D.1.2, and no later than January 5, 2010 or no later than 5 years from the date of the last valid compliance test, whichever is later, the Permittee shall perform PM, and PM_{10} testing for Baghouse 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. **Section C – Performance Testing contains the Permittee's obligations with regard to the testing required by this condition.** PM_{10} includes filterable and condensable PM_{10}. ~~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.

D.1.10 Visible Emissions Notations

(a) **Daily visible emission notations of the Railcar Unloading Operations supporting Tank 62 shall be performed during normal daylight operations whenever alumina is unloaded by railcar. 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) **If abnormal emissions are observed, the Permittee shall take reasonable response steps. Observation of abnormal emissions that do not violate an applicable opacity limit is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit. Section C – Response to Excursions or Exceedances contains the Permittee's obligations with regard to the reasonable response steps required by this condition.**

~~D.1.8~~ **D.1.11** Record Keeping Requirements

(a) To document **the** compliance **status** with Condition ~~D.1.5 (a)~~ **D.1.7a)**, the Permittee shall keep a log of the calibration test results for Baghouse 112A and Baghouse 166 leak detectors.

(b) To document **the** compliance **status** with Condition ~~D.1.5 (k)~~ **D.1.7(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 **the** compliance **status** with Condition ~~D.1.6 (a)~~ **D.1.8(a)**, the Permittee shall maintain records of each bag leak detection alarm activation for Baghouse 112A and Baghouse 166.

(d) To document **the** compliance **status** with Condition ~~D.1.6(b)~~ **D.1.8(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 **the** compliance **status** with ~~Condition D.1.7~~ **Conditions D.1.9 and D.1.10**, 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 **the** compliance **status** with Condition ~~D.1.7~~ **D.1.9**, the Permittee shall maintain records of the Method 9 readings.

(g) The Permittee shall maintain **documentation of all response steps implemented per event** ~~the following~~ as required under Conditions **D.1.5, D.1.7, D.1.8, and D.1.9**~~D.1.3, D.1.5, D.1.6, and D.1.7:~~

~~(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 C - General Record Keeping Requirements contains the Permittee's obligations with regard to the record keeping required by this condition.**

D.1.12 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.1.3(d) shall be submitted using the reporting forms located at the end of this permit, or their equivalent, no later than thirty (30) days following the end of each quarter. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34). Section C - General Reporting Requirements contains the Permittee's obligations with regard to the reporting required by this condition.

Part 70 Quarterly Report

Facility:	**Railcar Unloading for Tank 62**
Parameter:	**Alumina Unloaded**
Limit:	**The amount of Alumina unloaded by railcar for Tank 62 shall not exceed 15,900 tons per twelve (12) consecutive month period with compliance determined at the end of each month.**

Conclusion and Recommendation

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 173-30774-00007 and Significant Permit Modification No. 173-30796-00007. The staff recommend to the Commissioner that this Part 70 Significant Source and 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
Fax: (317) 232-6749 attn: Kimberly Cottrell
kcottrel@idem.in.gov

Please refer to Significant Source Modification No. 173-30774-00007 and Significant Permit Modification No. 173-30796-00007 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 a Part 70 Source
Significant Permit Modification (SPM) of Part 70 Operating Permit

Source Description and Location

Company Name:	Alcoa, Inc. - Warrick Operations
Address City IN Zip:	Jct. IN Highways 66 and 61, Newburgh, Indiana 47629-0010
County:	Warrick
SIC Code:	3334 and 3352
Part 70 Operating Permit No.:	173-6627-00007
Issuance Date:	January 5, 2007
Significant Source Modification No.:	173-30774-00007
Significant Permit Modification No.:	173-30796-00007
Permit Reviewer:	Kimberly Cottrell
Date:	October 27, 2011

Summary of Potential to Emit from Temporary Operations

The tables below summarize the potential to emit calculations for the proposed railcar unloading operation supporting Tank 62 at Alcoa, Inc. - Warrick Operations. The subsequent pages of this document contain the detailed calculations for this process.

	Unrestricted Potential To Emit (ton/yr)						
Emission Unit	**CO**	**NO_X**	**PM**	**PM_{10}**	**$PM_{2.5}$**	**SO_2**	**VOC**
Railcar Unloading Operation for Tank 62	0	0	825.19	289.08	289.08	0	0
Total	0	0	825.19	289.08	289.08	0	0

	Limited Potential To Emit (ton/yr)						
Emission Unit	**CO**	**NO_X**	**PM**	**PM_{10}**	**$PM_{2.5}$**	**SO_2**	**VOC**
Railcar Unloading Operation for Tank 62	0	0	24.96	14.95	9.94	0	0
Total	0	0	24.96	14.95	9.94	0	0

Railcar Unloading Operation for Tank 62

Unloading Capacity:	16	cars/day
Weight of Railcars:	90	ton alumina/car
Process Throughput:	1,440	ton alumina/day
	90	ton alumina/car
	525,600	ton alumina/yr
	1,440	ton alumina/day

Limited Throughput: 15,900 ton alumina/12 months 11 day supply

Process	Throughput	Uncontrolled Emission Factor			Uncontrolled Emissions		
		PM	**PM_{10}**	**$PM_{2.5}$**	**PM**	**PM_{10}**	**$PM_{2.5}$**
	tons/yr	*lb/ton*	*lb/ton*	*lb/ton*	*tons*	*tons*	*tons*
pneumatic conveying drop point to Tank 62 alumina storage	525,600	3.14	1.10	1.10	825.19	289.08	289.08
Total Point					825.19	289.08	289.08

Process	Limited Throughput	Limited Emission Factor			Limited Emissions		
		PM	**PM_{10}**	**$PM_{2.5}$**	**PM**	**PM_{10}**	**$PM_{2.5}$**
	tons/yr	*lb/ton*	*lb/ton*	*lb/ton*	*tons*	*tons*	*tons*
pneumatic conveying drop point to Tank 62 alumina storage	15,900	3.14	1.88	1.25	24.96	14.95	9.94
Total Point					24.96	14.95	9.94

Notes:
Since alumina has properties similar to cement, uncontrolled emission factors for are from AP-42 11.12-2.

Methodology:
Uncontrolled Emissions (tpy) = EF (lb/ton alumina) / 2000 lb/ton x Throughput (ton alumina/yr)
Limited Emissions (tpy) = EF (lb/ton alumina) / 2000 lb/ton x Limited Throughput (ton alumina/yr)

326 IAC 6-3-2 Particulate Emission Rate Limitations

PM Control Device	Stack/Vent	Process	Process Weight, P each unit		P>60,000 lb/hr $E = 55 P^{0.11} - 40$
			P (lb/hr)	P (ton/hr)	E (lb/hr)
none	NA	Railcar Unloading Operation for Tank 62	120,000	60.0	46.86

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

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Chris Allen
ALCOA Inc. – Warrick Operations
Bldg 860 E, PO Box 10
Newburgh, IN 47629

DATE: December 30, 2011

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

SUBJECT: Final Decision
Significant Permit Modification
173-30796-00007

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:
Ed Hemmersbach – Operations Manager
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Final Applicant Cover letter.dot 11/30/07

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

December 30, 2011

TO: Ohio Township Public Library System

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

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: ALCOA Inc. – Warrick Operations
Permit Number: 173-30796-00007

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures
Final Library.dot 11/30/07

Mail Code 61-53

IDEM Staff	GHOTOPP 12/30/2011 ALCOA - Warrick Operations 173-30796-00007 Final			AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender	▶	Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: **CERTIFICATE OF MAILING ONLY**	

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1		Chris Allen ALCOA - Warrick Operations Bldg 860 E, PO Box 10 Newburgh IN 47629-0010 (Source CAATS) via confirmed delivery									
2		Ed Hemmersbach Ops Mgr, Rigid Products Div ALCOA - Warrick Operations Bldg 1, PO Box 10 Newburgh IN 47629-0010 *(RO CAATS)*									
3		Warrick County Board of Commissioners 107 W. Locust Street Suite # 301 Boonville IN 47601-0585 *(Local Official)*									
4		Warrick County Health Department 107 W Locust, Suite 204 Boonville IN 47601-1701 *(Health Department)*									
5		Mr. Charles L. Berger Berger & Berger, Attorneys at Law 313 Main Street Evansville IN 47700 *(Affected Party)*									
6		Mr. Wendell Hibdon Plumbers & Steam Fitters Union, Local 136 2300 St. Joe Industrial Park Dr Evansville IN 47720 *(Affected Party)*									
7		Dr. Jeff Seyler Univ. of So Ind., 8600 Univ. Blvd. Evansville IN 47712 *(Affected Party)*									
8		Mr. Don Mottley Save Our Rivers 6222 Yankeetown Hwy Boonville IN 47601 *(Affected Party)*									
9		Newburgh Town Council and Town Manager P.O Box 6 Newburgh IN 47630 *(Local Official)*									
10		Kim Sherman 3355 Woodview Drive Newburgh IN 47630 *(Affected Party)*									
11		Mr. Mark Wilson Evansville Courier Press - News Desk P.O. Box 268 Evansville IN 47702 *(Affected Party)*									
12		Joanne Alexandrovich Vanderburgh County Health Dept. 420 Mulberry ST. Evansville IN 47713 *(Affected Party)*									
13		Mr. Bill Musgrove PO Box 565 Boonville IN 47601 (Affected Party)									
14		Mr. Bil Musgrove PO Box 520 Chandler IN 47610 *(Affected Party)*									
15		Mr. John Blair 800 Adams Ave Evansville IN 47713 *(Affected Party)*									

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1		Elizabeth Joshi 2377 Lakeridge Dr Newburgh IN 47630 (Affected Party)									
2		Ohio Township Public Library System IN Hwy. 66 & Bell Oaks Rd Newburgh IN 46730 *(Library)*									
3											
4											
5											
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