State of Ohio Environmental Protection Agency

Street Address:
Lazarus Gov. Center
122 S. Front Street
Columbus, OH 43215

**TELE:** (614) 644-3020 **FAX:** (614) 644-2329

Mailing Address:
Lazarus Gov. Center
P.O. Box 1049
Columbus, OH 43216-1049

07/17/03

**CERTIFIED MAIL**

**RE: Draft Title V Chapter 3745-77 permit**

06-56-00-0001
Ormet Primary Aluminum Corp.
John Reggi
43840 State Route 7
Hannibal, OH 43931

Dear John Reggi:

You are hereby notified that the Ohio Environmental Protection Agency has prepared the enclosed draft of the Title V permit for the facility referenced above. The purpose of this draft is to solicit public comments. A public notice concerning the draft will appear in the Ohio EPA Weekly Review and the major newspaper in the county where the facility is located. Comments and/or a request for a public hearing from the public and any affected parties will be accepted by Southeast District Office within 30 days of the date of publication in the newspaper. You will be notified in writing if a public hearing is scheduled.

A decision on processing the Title V permit will be made after consideration of written public comments and oral testimony (if a public hearing is conducted). After the comment period, you will be provided with a Preliminary Proposed Title V permit and an opportunity to comment prior to the Proposed Title V permit submittal to USEPA.

**If you have any questions or comments concerning this draft Title V permit, please contact Southeast District Office.**

Very truly yours,

Michael W. Ahern

Michael W. Ahern, Supervisor
Field Operations and Permit Section
Division of Air Pollution Control

cc: USEPA (electronically submitted)
File, DAPC PMU
Southeast District Office
Pennsylvania
West Virginia

State of Ohio Environmental Protection Agency

# DRAFT TITLE V PERMIT

| Issue Date: 07/17/03 | Effective Date: To be entered upon final issuance | Expiration Date: To be entered upon final issuance |
|---|---|---|

This document constitutes issuance of a Title V permit for Facility ID: 06-56-00-0001 to:

Ormet Primary Aluminum Corp.
43840 State Route 7
Hannibal, OH 43931

## Emissions Unit ID (Company ID)/Emissions Unit Activity Description

B004 (Gas or Oil Field Boiler-36.4 MMBTU/hr.-291-1)
Boiler-36.4 MMBTU/hr.

B005 (Gas or Oil Field Boiler-36.4 MMBTU/hr.-292-2)
Boiler-36.4 MMBTU/hr.-292-2

B006 (Preheater (Glass Plant))
Glass Plant Preheater

F002 (Roads and Parking)
Roads and Parking

F003 (Dross Handling)
Dross Handling

P022 (Rod Cleaner)
Rod Cleaner

P035 (Anode Cleaner)
Anode Cleaner

P036 (Butt/Coke Class. K-640-37)
Butt/Coke Class. K-640-37

P072 (1-640-339 North System)
Belt Elevator

P080 (Thixo Casting)
Billet Casting facility

P101 (Coke Belt Conveyor)
Coke Belt Conveyor

P102 (Belt Elevator)
Belt Evelator

P103 (Butt/Fractions Blend)
Butt/Fractions Blend

P134 (K-640-325/329)
K-640-325/329

P203 (Tumbling Mill)
Tumbling Mill

P213 (Hartman System Coke Fines-K661)
Hartman System Coke Fines

P214 (Hartman System Coke Fines-K662)
Hartman System Coke Fines

P215 (Hartman System Coke Fines-K663)
Hartman System Coke Fines-K663

P216 (Hartman System Coke Fines-K664)
Hartman System Coke Fines-K664

P217 (Hartman System Coke Fines-K665)
Hartman System Coke Fines-K665

P230 (Electromelt Furnace F-670-1)
Electromelt Furnace F-670-1

P231 (Electromelt Furnace F-670-2)
Electromelt Furnace F-670-2

P232 (Electromelt Furnace F-670-3)
Electromelt Furnace F-670-3

P233 (Direct Chill Casting Pit No. 3)
Direct Chill Casting Pit No. 3

P235 (Direct Chill Casting Pit No. 1)
Direct Chill Casting Pit No. 1

P236 (SPL Vitrification #1)
Spent Potliner vitrification (permit 2 of 2)

P900 (Anode Baking Furnace-665)
Anode Baking Furnace-665

P901 (Alumina Ore Handling)
Conveyor Alumina Ore Handling System

P902 (Hartman Unloader #1)
Hartman Unloader #1

P903 (Hartman Unloader #2)
Hartman Unloader #2

P904 (Hartman Unloader #3)
Hartman Unloader #3

P905 (Hartman Unloader #4)
Hartman Unloader #4

P919 (Bath Screen Feeder)
Bath Screen Feeder

P920 (Bath Crusher)
Bath Crusher Hammer Mill

P923 (Scrap Carbon Crusher)
Carbon Crusher

P955 (Pots 0-42, 1-A)
Pots 0-42, 1-A

P956 (Pots 43-85, 1A)
Pots 43-85, 1A

P957 (Pots 0-42, 1-B)
Pots 0-42, 1-B

P958 (Pots 43-85, 1B)
Pots 43-85, 1B

P959 (Pots 0-42, 2A)
Pots 0-42, 2A

P960 (Pots 43-85, 2A)
Pots 43-85, 2A

P961 (Pots 0-42, 2B)
Pots 0-42, 2B

P962 (Pots 43-85, 2B)
Pots 43-85, 2B

P963 (Pots 0-42, 3A)
Pots 0-42, 3A

P964 (Pots 43-85, 3A)
Pots 43-85, 3A

P965 (Pots 0-42, 3B)
Pots 0-42, 3B

P966 (Pots 43-85, 3B)
Pots 43-85, 3B

P967 (Pots 0-42, 4A)
Pots 0-42, 4A

P968 (Pots 43-85, 4A)
Pots 43-85, 4A

P969 (Pots 0-42, 4B)
Pots 0-42, 4B

P970 (Pots 43-85, 4B)
Pots 43-85, 4B

P971 (Pots 0-42, 5A)
Pots 0-42, 5A

P972 (Pots 43-85, 5A)
Pots 43-85, 5A

P973 (Pots 0-42, 5B)
Pots 0-42, 5B

P974 (Pots 43-85, 5B)
Pots 43-85, 5B

P975 (Pots 0-42, 6A)
Pots 0-42, 6A

P976 (Pots 43-85, 6A)
Pots 43-85, 6A

P977 (Pots 0-42, 6B)
Pots 0-42, 6B

P978 (Pots 43-85, 6B)
Pots 43-85, 6B

P979 (SPL Vitrification #2)
Spent Potliner vitrification (permit 1 of 2)

P996 (Anode Baking Furnace-661)
Anode Baking Furnace-661

P997 (Anode Baking Furnace-662)
Anode Baking Furnace-662

P998 (Anode Baking Furnace-663)
Anode Baking Furnace-663

P999 (Anode Baking Furnace-664)
Anode Baking Furnace-664

Z014 (Paint Booth Bld 212)
Paint Shop (Building 212) Paint Booth

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, provided that a complete renewal application is submitted no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

Described below is the current Ohio EPA District Office or local air agency that is responsible for processing and administering your Title V permit:

Southeast District Office
2195 Front Street
Logan, OH 43138
(740) 385-8501

OHIO ENVIRONMENTAL PROTECTION AGENCY

Christopher Jones
Director

# PART I - GENERAL TERMS AND CONDITIONS

## *A. State and Federally Enforceable Section*

### 1. Monitoring and Related Record Keeping and Reporting Requirements

a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

i. The date, place (as defined in the permit), and time of sampling or measurements.
ii. The date(s) analyses were performed.
iii. The company or entity that performed the analyses.
iv. The analytical techniques or methods used.
v. The results of such analyses.
vi. The operating conditions existing at the time of sampling or measurement.
*(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))*

b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
*(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))*

c. The permittee shall submit required reports in the following manner:

i. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
*(Authority for term: OAC rule 3745-77-07(A)(3)(c))*

ii. **All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) with respect to emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:**

(a) Written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations ; (ii) the probable cause of such deviations; and (iii) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Part III of this Title V permit, the written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year, and shall cover the previous calendar quarters. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. These written reports shall satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the submission of monitoring reports every six months and the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(iii)

pertaining to the prompt reporting of all deviations. See B.6 below if no deviations occurred during the quarter.
*(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) ,(ii) and (iii))*

(b) Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the deviation reporting requirements for this Title V permit, written reports that identify each malfunction that occurred during each calendar quarter shall be submitted, at a minimum, quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year, and shall cover the previous calendar quarters.

In identifying each deviation caused by a malfunction, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Also, if a deviation caused by a malfunction is identified in a written report submitted pursuant to paragraph (a) above, a separate report is not required for that malfunction pursuant to this paragraph. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing, at a minimum, on a quarterly basis.

Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation, operational restriction, and control device operating parameter limitation shall be reported in the same manner as described above for malfunctions. These written reports for malfunctions (and scheduled maintenance projects, if appropriate) shall satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations.
*(Authority for term: OAC rules 3745-77-07(A)(3)(c)(iii))*

iii. **For monitoring, record keeping, and reporting requirements:**
Written reports that identify any deviations from the federally enforceable monitoring, record keeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year, for the previous six calendar months. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. These semi-annual written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the reporting of any deviations related to the monitoring, record keeping, and reporting requirements. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no deviations occurred during that period.
*(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii))*

iv. Each written report shall be signed by a responsible official certifying that, "based on information and belief formed after reasonable inquiry, the statements and information in

the report (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete."
*(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))*

**2. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions unit(s) or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).
*(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iii))*

**3. Risk Management Plans**

If applicable, the permittee shall develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq. ("Act"); and, pursuant to 40 C.F.R. 68.215(a), the permittee shall submit either of the following:

1. a compliance plan for meeting the requirements of 40 C.F.R. Part 68 by the date specified in 40 C.F.R. 68.10(a) and OAC 3745-104-05(A); or

2. as part of the compliance certification submitted under 40 C.F.R. 70.6(c)(5), a certification statement that the source is in compliance with all requirements of 40 C.F.R. Part 68 and OAC Chapter 3745-104, including the registration and submission of the risk management plan.

*(Authority for term: OAC rule 3745-77-07(A)(4))*

**4. Title IV Provisions**

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.
*(Authority for term: OAC rule 3745-77-07(A)(5))*

**5. Severability Clause**

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.
*(Authority for term: OAC rule 3745-77-07(A)(6))*

**6. General Requirements**

a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.

b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.

c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with A.10 below. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

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

e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

*(Authority for term: OAC rule 3745-77-07(A)(7))*

**7. Fees**

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78.

*(Authority for term: OAC rule 3745-77-07(A)(8))*

**8. Marketable Permit Programs**

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

*(Authority for term: OAC rule 3745-77-07(A)(9))*

**9. Reasonably Anticipated Operating Scenarios**

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these general terms and conditions shall apply to all operating scenarios authorized in this permit.

*(Authority for term: OAC rule 3745-77-07(A)(10))*

**10. Reopening for Cause**

This Title V permit will be reopened prior to its expiration date under the following conditions:

a. Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is

later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.

b. This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.

c. The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.

d. The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

*(Authority for term: OAC rules 3745-77-07(A)(12) and 3745-77-08(D))*

**11. Federal and State Enforceability**

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

*(Authority for term: OAC rule 3745-77-07(B))*

**12. Compliance Requirements**

a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.

iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:

i. Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.
ii. Compliance certifications shall include the following:
(a) An identification of each term or condition of this permit that is the basis of the certification.
(b) The permittee's current compliance status.
(c) Whether compliance was continuous or intermittent.
(d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.
(e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

*(Authority for term: OAC rules 3745-77-07(C)(1),(2),(4) and (5) and ORC section 3704.03(L))*

**13. Permit Shield**

a. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.

b. This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

*(Authority for term: OAC rule 3745-77-07(F))*

**14. Operational Flexibility**

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is

not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).
*(Authority for term: OAC rules 3745-77-07(H)(1) and (2))*

**15. Emergencies**

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.
*(Authority for term: OAC rule 3745-77-07(G))*

**16. Off-Permit Changes**

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

a. The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.

b. The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that qualify as insignificant emission levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.

c. The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).

d. The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

e. The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit to install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that

Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

(For purposes of clarification, the permittee can refer to Engineering Guide #63 that is available in the STARSHIP software package.)
*(Authority for term: OAC rule 3745-77-07(I))*

**17. Compliance Method Requirements**

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding.
*(This term is provided for informational purposes only.)*

**18. Insignificant Activities**

Each insignificant activity that has one or more applicable requirements shall comply with those applicable requirements.
*(Authority for term: OAC rule 3745-77-07(A)(1))*

**19. Permit to Install Requirement**

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.
*(Authority for term: OAC rule 3745-77-07(A)(1))*

**20. Air Pollution Nuisance**

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.
*(Authority for term: OAC rule 3745-77-07(A)(1))*

## B. *State Only Enforceable Section*

### 1. Reporting Requirements Related to Monitoring and Record Keeping Requirements

The permittee shall submit required reports in the following manner:

a. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

### 2. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

### 3. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

### 4. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any

scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

**5. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

**6. Additional Reporting Requirements When There Are No Deviations of <u>Federally Enforceable</u> Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)**

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

# Part II - Specific Facility Terms and Conditions

## A. State and Federally Enforcable Section

**None**

## B. State Only Enforceable Section

**1.** The following insignificant emissions units are located at this facility:

P018 - Jeffrey dryer;
P083 - anode mixer L-640-1;
P084 - anode mixer L-640-2;
P085 - anode mixer L-640-3;
P086 - anode mixer L-640-4;
P087 - anode mixer L-640-5;
P088 - anode mixer L-640-6;
P089 - anode mixer L-640-7;
P090 - anode mixer L-640-8;
P091 - anode mixer L-640-9;
P092 - anode mixer L-640-10;
P093 - anode mixer L-640-11;
P234 - superstructure cleaning facility;
P237 - aluminum flouride tank;
Z001 - anode pressing & handling;
Z002 - 1,500,000-gallon fuel tank;
Z003 - 500,000-gallon fuel tank;
Z004 - pitch handling;
Z005 - Spenser 101 system;
Z009 - billet saws (3);
Z010 - parts washer tanks (17);
Z011 - GW treatment plant bulk storage tanks;
Z012 - lab hoods;
Z013 - gasoline dispensing facility;
Z016 - paint booth; and
Z018 - saw furnace #4.

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, as well as any emission limitations and/or control requirements contained within a Permit to Install for the emissions unit.

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Gas or Oil Field Boiler-36.4 MMBTU/hr.-291-1 (B004)

**Activity Description:** Boiler-36.4 MMBTU/hr.

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| 36.4 million Btu/hr natural gas and/or #2 fuel oil-fired boiler | OAC rule 3745-17-10(B)(1) | Particulate emissions shall not exceed 0.020 pound per million Btu of actual heat input. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-18-06(D) | When burning #2 fuel oil, sulfur dioxide emissions shall not exceed 1.6 pounds per million Btu of actual heat input. |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**1.** The permittee shall burn only natural gas and/or #2 fuel oil in this emissions unit.

### III. Monitoring and/or Record Keeping Requirements

**1.** For each day during which the permittee burns a fuel other than natural gas and/or #2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

## III. Monitoring and/or Record Keeping Requirements (continued)

**2.** The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.

a. Alternative 1:

For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).) A shipment may be comprised of multiple tank truck loads from the same supplier's batch, and the quality of the oil for those loads may be represented by a single batch analysis from the supplier.

b. Alternative 2:

The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/million Btu).

**3.** The permittee shall perform, or require the supplier to perform, the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as, ASTM methods D240, D4294, or D6010), or equivalent methods as approved by the Director.

## IV. Reporting Requirements

**1.** The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or #2 fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

**2.** The permittee shall submit quarterly deviation (excursion) reports that identify any day during which the SO2 emission rate exceeded 1.6 pounds per million Btu of actual heat input, and the actual SO2 emission rate for each such day.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

**1.a** Emission Limitation:

0.020 pound of particulates per million Btu of actual heat input

Applicable Compliance Method:

When burning natural gas, compliance shall be demonstrated by dividing the applicable AP-42, 5th Edition (supplement B) emission factor for filterable particulate matter from table 1.4-1 (for units between 10 and 100 million Btu/hr) by the assumed heat content of natural gas (1000 Btu/cubic foot):

(1.9 lbs of particulates/million cubic feet) X (cubic foot/1000 Btu) = 0.0019 lb of particulates/million Btu

When burning #2 fuel oil, compliance shall be demonstrated by multiplying an emission factor of 2.0 lbs of particulate per 1000 gallons of oil combusted by the heat content of the oil as determined through the fuel analyses required in section A.III.1 above. This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.3, Table 1.3-2.

If required, compliance shall be demonstrated based upon the emission testing procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(9). No emission testing is specifically required to demonstrate compliance with this limit but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).

**1.b** Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

Compliance shall be demonstrated through visible particulate emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1). No visible emission testing is specifically required to demonstrate compliance with this limit but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).

**1.c** Emission Limitation:

1.6 lbs/million Btu of sulfur dioxide when burning #2 fuel oil

Applicable Compliance Method:

Compliance may be demonstrated based upon the record keeping requirements specified in section A.III.2.

If required, compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 6.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Gas or Oil Field Boiler-36.4 MMBTU/hr.-292-2 (B005)

**Activity Description:** Boiler-36.4 MMBTU/hr.-292-2

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| 36.4 million Btu/hr natural gas and/or #2 fuel oil-fired boiler | OAC rule 3745-17-10(B)(1) | Particulate emissions shall not exceed 0.020 pound per million Btu of actual heat input. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-18-06(D) | When burning #2 fuel oil, sulfur dioxide emissions shall not exceed 1.6 pounds per million Btu of actual heat input. |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**1.** The permittee shall burn only natural gas and/or #2 fuel oil in this emissions unit.

### III. Monitoring and/or Record Keeping Requirements

**1.** For each day during which the permittee burns a fuel other than natural gas and/or #2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

## III. Monitoring and/or Record Keeping Requirements (continued)

**2.** The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.

a. Alternative 1:

For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).) A shipment may be comprised of multiple tank truck loads from the same supplier's batch, and the quality of the oil for those loads may be represented by a single batch analysis from the supplier.

b. Alternative 2:

The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/million Btu).

**3.** The permittee shall perform, or require the supplier to perform, the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as, ASTM methods D240, D4294, or D6010), or equivalent methods as approved by the Director.

## IV. Reporting Requirements

**1.** The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or #2 fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

**2.** The permittee shall submit quarterly deviation (excursion) reports that identify any day during which the SO2 emission rate exceeded 1.6 pounds per million Btu of actual heat input, and the actual SO2 emission rate for each such day.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

**1.a** Emission Limitation:

0.020 pound of particulates per million Btu of actual heat input

Applicable Compliance Method:

When burning natural gas, compliance shall be demonstrated by dividing the applicable AP-42, 5th Edition (supplement B) emission factor for filterable particulate matter from table 1.4-1 (for units between 10 and 100 million Btu/hr) by the assumed heat content of natural gas (1000 Btu/cubic foot):

(1.9 lbs of particulates/million cubic feet) X (cubic foot/1000 Btu) = 0.0019 lb of particulates/million Btu

When burning #2 fuel oil, compliance shall be demonstrated by multiplying an emission factor of 2.0 lbs of particulate per 1000 gallons of oil combusted by the heat content of the oil as determined through the fuel analyses required in section A.III.1 above. This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.3, Table 1.3-2.

If required, compliance shall be demonstrated based upon the emission testing procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(9). No emission testing is specifically required to demonstrate compliance with this limit but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).

**1.b** Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

Compliance shall be demonstrated through visible particulate emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1). No visible emission testing is specifically required to demonstrate compliance with this limit but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).

**1.c** Emission Limitation:

1.6 lbs/million Btu of sulfur dioxide when burning #2 fuel oil

Applicable Compliance Method:

Compliance may be demonstrated based upon the record keeping requirements specified in section A.III.2.

If required, compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 6.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Preheater (Glass Plant) (B006)

**Activity Description:** Glass Plant Preheater

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| 12 million Btu/hr natural gas-fired air preheater | OAC rule 3745-31-05(A)(3) (PTI 17-1657) | Particulate emissions shall not exceed 0.24 pound per hour and 1.05 tons per year.<br><br>Nitrogen oxide emissions shall not exceed 1.68 pounds per hour and 7.36 tons per year.<br><br>The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-10(B)(1)and 3745-17-07(A). |
| | OAC rule 3745-17-10(B)(1) | Particulate emissions from the air preheater shall not exceed 0.020 pound per million Btu of actual heat input. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**1.** The permittee shall burn only natural gas as fuel in this emissions unit.

### III. Monitoring and/or Record Keeping Requirements

**1.** For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

## IV. Reporting Requirements

**1.** The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**1.a** Emission Limitation:

Particulate emissions from the air preheater shall not exceed 0.020 pound per million Btu of actual heat input.

Applicable Compliance Method:

Compliance shall be demonstrated by dividing the applicable emission factor for filterable particulate matter (for units between 10 and 100 million Btu/hr) from AP-42 table 1.4-2 (7/98) (1.9 lbs/million cubic feet) by the assumed heat content of natural gas (1000 Btu/cubic foot):

(1.9 lbs of particulates/million cubic feet) / (1000 Btu/cubic foot) = 0.0019 lb of particulates/million Btu

If required, compliance shall be demonstrated based upon the emission testing procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(9). No emission testing is specifically required to demonstrate compliance with this limit but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A). Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

**1.b** Emission Limitation:

Particulate emissions shall not exceed 0.24 pound per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by dividing the applicable emission factor for filterable particulate matter (for units between 10 and 100 million Btu/hr) from AP-42 table 1.4-2 (7/98) (1.9 lbs/million cubic feet) by the assumed heat content of natural gas (1000 Btu/cubic foot), and then multiplying by the rated heat input capacity of 12 million Btu/hr:

[(1.9 lbs of particulates/million cubic feet) X (12 million Btu/hr)] / 1000 Btu/cubic foot = 0.0228 lbs/hr

If required, compliance shall be demonstrated based upon the emission testing procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(9). No emission testing is specifically required to demonstrate compliance with this limit but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A). Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

**1.c** Emission Limitation:

Particulate emissions shall not exceed 1.05 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 0.24 pound per hour by the maximum annual hours of operation, 8760 hours per year, and then dividing by 2000 pounds per ton.

## V. Testing Requirements (continued)

**1.d** Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

Compliance shall be demonstrated through visible particulate emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9. No visible emission testing is specifically required to demonstrate compliance with this limit but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).

**1.e** Emission Limitation:

Nitrogen oxide emissions shall not exceed 1.68 pounds per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by dividing the applicable emission factor for NOx (for units between 10 and 100 million Btu/hr) from AP-42 table 1.4-1 (7/98) (140 lbs/million cubic feet) by the assumed heat content of natural gas (1000 Btu/cubic foot), and then multiplying by the rated heat input capacity of 12 million Btu/hr:

[(140 lbs of NOx/million cubic feet) X (12 million Btu/hr)] / 1000 Btu/cubic foot = 1.68 lbs/hr

If required, compliance shall be demonstrated based upon the emission testing procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 7. No emission testing is specifically required to demonstrate compliance with this limit but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A). Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

**1.f** Emission Limitation:

Nitrogen oxides emissions shall not 7.36 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the allowable hourly emission limitation of 1.68 pounds per hour by the maximum annual hours of operation, 8760 hours per year, and then dividing by 2000 pounds per ton.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Roads and Parking (F002)

**Activity Description:** Roads and Parking

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| paved roadways and parking areas | OAC rule 3745-17-07(B)(4) | no visible particulate emissions except for 6 minutes during any 60-minute period |
| | OAC rule 3745-17-08(B), (B)(8), (B)(9) | reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust<br><br>See sections A.I.2.b through A.I.2.f. |

**2. Additional Terms and Conditions**

**2.a** The paved roadways and parking areas that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:

paved roadways:

entrance road
main road
carbon plant road
casting road
north potroom road
south potroom road
west road
DSS/ore dock road

paved parking area:

entrance parking area

**2.b** The permittee shall employ reasonably available control measures on all paved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the paved roadways and parking areas by sweeping and vacuuming at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other equally effective control measures to ensure compliance.

**2. Additional Terms and Conditions (continued)**

**2.c** The needed frequencies of implementation of the control measures shall be determined by the permittee's inspections pursuant to the monitoring section of this permit. Implementation of the control measures shall not be necessary for a paved roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.

**2.d** The permittee shall promptly remove, in such a manner as to minimize or prevent resuspension, earth and/or other material from paved streets onto which such material has been deposited by trucking or earth moving equipment or erosion by water or other means.

**2.e** Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times if the control measure is necessary for the materials being transported.

**2.f** Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

## II. Operational Restrictions

**None**

## III. Monitoring and/or Record Keeping Requirements

**1.** Except as otherwise provided in this section, the permittee shall perform inspections of each of the paved roadway segments and parking areas in accordance with the following frequencies:

| paved roadways | minimum inspection frequency |
|---|---|
| all | weekly |

| paved parking areas | minimum inspection frequency |
|---|---|
| all | weekly |

**2.** The purpose of the inspections is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic conditions. No inspection shall be necessary for a roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above-identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.

## III. Monitoring and/or Record Keeping Requirements (continued)

**3.** The permittee shall maintain records of the following information:

a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;

b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;

c. the dates the control measures were implemented; and

d. on a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

The information required in A.III.4.d shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

## IV. Reporting Requirements

**1.** The permittee shall submit deviation reports that identify any of the following occurrences:

a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and

b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.

**2.** The deviation reports shall be submitted in accordance with the reporting requirements specified in Part I - General Term and Condition A.1.c of this permit.

## V. Testing Requirements

**1.** Compliance with the emission limitation for the paved roadways and parking areas identified above shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources," as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Dross Handling (F003)

**Activity Description:** Dross Handling

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| aluminum dross handling (cooling, dumping, storage, and load out) | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B) | reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust<br><br>See sections A.I.2.b and A.I.2.c. |

**2. Additional Terms and Conditions**

**2.a** The material handling operations that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:

aluminum dross handling (cooling, dumping, storage, and load out)

**2.b** The permittee shall employ reasonably available control measures for the above-identified material handling operations for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to perform the following control measures to ensure compliance:

Material Handling Operations

aluminum dross handling

Control Measures

a. Maintain the aluminum dross within a 3-sided enclosure to keep it dry.
b. Load out only cool, dry dross within the 3-sided enclosure.
c. Minimize the drop height and tarp all transporting trucks.

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

**2. Additional Terms and Conditions (continued)**

**2.c** Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

## II. Operational Restrictions

**None**

## III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

## IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the visible emission limitation for the material handling operation(s) identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Rod Cleaner (P022)

**Activity Description:** Rod Cleaner

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| rod cleaner vented to a baghouse. | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See sections A.I.2.a through A.I.2.b. |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions (PE) from any baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule. |
| | OAC rule 3745-17-11(B) | Particulate emissions (PE) from the baghouse stacks shall not exceed 6.85 pounds per hour, as calculated from Figure II, curve P-1. |

**2. Additional Terms and Conditions**

**2.a** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of reasonably available control measures(RACM). These measures shall include, but not be limited to, the following:

All equipment associated with this emissions unit which generates fugitive dust shall be vented to the baghouse, which shall achieve an outlet emission rate of not greater than 6.85 pound of particulate emissions per hour from the baghouse exhaust stack.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this equipment, including, but not limited to: doorways, windows and roof openings.

**2.b** Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

## II. Operational Restrictions

**None**

## III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse stack serving this emissions unit and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.). The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**2.** The above-mentioned daily checks shall be performed during representative, normal operating conditions.

## IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit or any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**1.a** Emission Limitation:

20% opacity as a 3-minute average

Applicable Compliance Method:

Compliance with the visible emission limitation for fugitive emissions from the material handling operation(s) identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

## V. Testing Requirements (continued)

**1.b** Emission Limitation:
Visible PE from the baghouse stacks shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR, Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**1.c** Emission Limitation:
PE from the baghouse stack shall not exceed 6.85 lbs/hr.

Applicable Compliance Method:
If required, compliance shall be demonstrated based upon emission testing conducted in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(7). Emission testing is not specifically required to demonstrate compliance with this emission limitation, but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Anode Cleaner (P035)

**Activity Description:** Anode Cleaner

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| anode cleaner vented to a baghouse | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B)(3) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See sections A.I.2.a through A.I.2.b. |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions (PE) from any baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule. |
| | OAC rule 3745-17-11(B) | Particulate emissions (PE) from the baghouse stacks shall not exceed 39.7 pounds per hour, as calculated from Figure II, curve P-1. |

**2. Additional Terms and Conditions**

**2.a** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of reasonably available control measures(RACM). These measures shall include, but not be limited to, the following:

All equipment associated with this emissions unit which generates fugitive dust shall be vented to the baghouse, which shall achieve an outlet emission rate of not greater than 39.7 pound of particulate emissions per hour from the baghouse exhaust stack.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this equipment, including, but not limited to: doorways, windows and roof openings.

**2.b** Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

## II. Operational Restrictions

**None**

## III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse stack serving this emissions unit and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.). The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**2.** The above-mentioned daily checks shall be performed during representative, normal operating conditions.

## IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit or any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**1.a** Emission Limitation:

20% opacity as a 3-minute average

Applicable Compliance Method:

Compliance with the visible emission limitation for fugitive emissions from the material handling operation(s) identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

## V. Testing Requirements (continued)

**1.b** Emission Limitation:
Visible PE from the baghouse stacks shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR, Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**1.c** Emission Limitation:
PE from the baghouse stack shall not exceed 39.7 lbs/hr.

Applicable Compliance Method:
If required, compliance shall be demonstrated based upon emission testing conducted in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(7). Emission testing is not specifically required to demonstrate compliance with this emission limitation, but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Butt/Coke Class. K-640-37 (P036)

**Activity Description:** Butt/Coke Class. K-640-37

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| butt/coke classification system vented to a baghouse | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B)(3) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See sections A.I.2.a through A.I.2.b. |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions (PE) from any baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule. |
| | OAC rule 3745-17-11(B) | Particulate emissions (PE) from the baghouse stacks shall not exceed 22.4 pounds per hour, as calculated from Figure II, curve P-1. |

**2. Additional Terms and Conditions**

**2.a** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of reasonably available control measures(RACM). These measures shall include, but not be limited to, the following:

All equipment associated with this emissions unit which generates fugitive dust shall be vented to the baghouse, which shall achieve an outlet emission rate of not greater than 22.4 pound of particulate emissions per hour from the baghouse exhaust stack.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this equipment, including, but not limited to: doorways, windows and roof openings.

**2.b** Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

## II. Operational Restrictions

**None**

## III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse stack serving this emissions unit and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.). The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**2.** The above-mentioned daily checks shall be performed during representative, normal operating conditions.

## IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit or any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**1.a** Emission Limitation:

20% opacity as a 3-minute average

Applicable Compliance Method:

Compliance with the visible emission limitation for fugitive emissions from the material handling operation(s) identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

## V. Testing Requirements (continued)

**1.b** Emission Limitation:
Visible PE from the baghouse stacks shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR, Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**1.c** Emission Limitation:
PE from the baghouse stack shall not exceed 22.4 lbs/hr.

Applicable Compliance Method:
If required, compliance shall be demonstrated based upon emission testing conducted in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(7). Emission testing is not specifically required to demonstrate compliance with this emission limitation, but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** 1-640-339 North System (P072)

**Activity Description:** Belt Elevator

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| 1-640-339 north system operation vented to two baghouses | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B)(3) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See sections A.I.2.a through A.I.2.b. |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions (PE) from any baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule. |
| | OAC rule 3745-17-11(B) | Particulate emissions (PE) from the baghouse stacks shall not exceed 28.0 pounds per hour, as calculated from Figure II, curve P-1. |

**2. Additional Terms and Conditions**

**2.a** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of reasonably available control measures(RACM). These measures shall include, but not be limited to, the following:

All equipment associated with this emissions unit which generates fugitive dust shall be vented to the baghouse, which shall achieve an outlet emission rate of not greater than 28.0 pound of particulate emissions per hour from the baghouse exhaust stack.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this equipment, including, but not limited to: doorways, windows and roof openings.

**2.b** Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

## II. Operational Restrictions

**None**

## III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse stack serving this emissions unit and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.). The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**2.** The above-mentioned daily checks shall be performed during representative, normal operating conditions.

## IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit or any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**1.a** Emission Limitation:

20% opacity as a 3-minute average

Applicable Compliance Method:

Compliance with the visible emission limitation for fugitive emissions from the material handling operation(s) identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

## V. Testing Requirements (continued)

**1.b** Emission Limitation:
Visible PE from the baghouse stacks shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR, Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**1.c** Emission Limitation:
PE from the baghouse stack shall not exceed 28.0 lbs/hr.

Applicable Compliance Method:
If required, compliance shall be demonstrated based upon emission testing conducted in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(7). Emission testing is not specifically required to demonstrate compliance with this emission limitation, but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Thixo Casting (P080)

**Activity Description:** Billet Casting facility

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| thixo casting | OAC rule 3745-31-05(A)(3) (PTI 17-1606) issued 4/8/98 | Emissions from the melt stack shall not exceed the following:<br><br>0.09 pound/hour and 0.39 tpy of particulate emissions<br><br>0.18 pound/hour and 0.08 tpy of sulfur dioxide<br><br>0.84 pound/hour and 0.37 tpy of volatile organic compounds<br><br>1.05 pounds/hour and 4.60 tpy of carbon monoxide<br><br>1.80 pounds/hour and 7.88 tpy of nitrogen oxides<br><br>Emissions from the hold stack shall not exceed the following:<br><br>1.836 pounds/hour and 8.04 tpy of particulate emissions<br><br>0.007 pound/hour and 0.032 tpy of sulfur dioxide<br><br>0.034 pound/hour and 0.15 tpy of volatile organic compounds<br><br>0.42 pound/hour and 1.84 tpy of carbon monoxide<br><br>0.72 pound/hour and 3.15 tpy of nitrogen oxides |

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| | | Emissions from casting activities shall not exceed the following:<br><br>0.15 pound/hour and 0.66 tpy of sulfur dioxide<br><br>0.08 pound/hour and 0.35 tpy of nitrogen oxides<br><br>1.05 pounds/hour and 4.60 tpy of volatile organic compounds<br><br>Visible particulate emissions from the melt stack, hold stack, and casting activities shall not exceed 5% opacity as a 6-minute average. |
| | OAC rule 3745-17-07(A) | The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| | 40 CFR 63.1505 (Subpart RRR) | See A.I.2.c through A.I.2.e below. |

**2. Additional Terms and Conditions**

**2.a** The maximum hourly aluminum production rate for this emissions unit shall not exceed 15,000 pounds per hour.

**2.b** The maximum chlorine consumption rate shall not exceed 1.63 cubic feet of chlorine per ton of aluminum produced.

**2.c** [40 CFR 63.1505(i)]
The owner or operator of a group 1 furnace must use the limits in this paragraph to determine the emission standards for a SAPU.

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; and

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.

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.

## 2. Additional Terms and Conditions (continued)

**2.d** [40 CFR 63.1505(j)]
Except as provided in paragraph (j)(3) of 63.1505 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.

0.02 kg of HCl per Mg (0.04 lb of HCl per ton) of feed/charge; and

0.005 kg of PM per Mg (0.01 lb of PM per ton) of feed/charge.

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.

**2.e** [40 CFR 63.1505(k)(1) through (3)]
On and after the date of approval of the operation, maintenance and monitoring (OM&M) plan, the owner or operator must comply with the emission limits calculated using the equations for PM and HCl in paragraphs (k)(1) and (k)(2) of 63.1505 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 63.1505 for each secondary aluminum processing unit at a secondary aluminum production facility that is a major or area source.

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:
LcPM = {sum from {i=1} to n (LtiPM times Tti)} over {sum from {i=1} to n (Tti)}
Where,
LtiPM = The PM emission limit for individual emission unit i in paragraph (i)(1) and (2) of 63.1505 for a group 1 furnace or in paragraph (j)(2) of 63.1505 for an in-line fluxer;
Tti = The feed/charge rate for individual emission unit I; and
LcPM = The PM emission limit for the secondary aluminum processing unit.
NOTE: In-line fluxers using no reactive flux materials cannot be included in this calculation since they are not subject to the PM limit.

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:
LcHCl = {sum from {i=1} to n (LtiHCl times Tti)} over {sum from {i=1} to n ( Tti)}
Where,
LtiHCl = The HCl emission limit for individual emission unit i in paragraph (i)(4) of 63.1505 for a group 1 furnace or in paragraph (j)(1) of 63.1505 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.

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 63.1505 by demonstrating that each emission unit within the SAPU is in compliance with the applicable emission limits of paragraphs (i) and (j) of 63.1505.

## II. Operational Restrictions

**1.** [40 CFR 63.1506(a)(1) and (2)]
On and after the date on which the initial performance test is conducted or required to be conducted, whichever date is earlier, the owner or operator must operate all new and existing affected sources and control equipment according to the requirements in this section.

The completion of the initial performance tests for SAPUs shall be considered to be the date of approval of the OM&M plan by the permitting authority.

## II. Operational Restrictions (continued)

**2.** [40 CFR 63.1506(b)(1) and (2)]
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:

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).

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.** [40 CFR 63.1506(d)(1) through (3)]
The owner or operator of each affected source or emission unit subject to an emission limit in kg/Mg (lb/ton) of feed/charge must:

Except as provided in paragraph (d)(3) of 63.1506, 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

Operate each weight measurement system or other weight determination procedure in accordance with the OM&M plan.

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.

**4.** [40 CFR 63.1506(n)(1) through (3)]
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:

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.

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.

Operate each group 1 melting/holding furnace subject to the emission standards in 63.1505(i)(2) using only clean charge as the feedstock.

**5.** [40 CFR 63.1506(p)]
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.

## III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall maintain daily records of the following information for this emissions unit:

a. the tons of aluminum produced;
b. the hours of operation;
c. the total cubic feet of chlorine employed; and
d. the average daily cubic feet of chlorine per ton of aluminum employed.

**2.** [40 CFR 63.1510(a)]
On and after the date the initial performance test is completed or required to be completed, whichever date is earlier, 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 Subpart RRR.

**3.** [40 CFR 63.1510(b)(1) through (8)]
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 must submit the plan to the applicable permitting authority for review and approval as part of the application for a part 70 or part 71 permit. Any subsequent changes to the plan must be submitted to the applicable permitting authority for review and approval. Pending approval by the applicable permitting authority of an initial or amended plan, the owner or operator must comply with the provisions of the submitted plan. Each plan must contain the following information:

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.

A monitoring schedule for each affected source and emission unit.

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.

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.

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.

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 63.1510, 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 was completed.

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.

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 63.1510 for each group 1 furnace not equipped with an add-on air pollution control device.

## III. Monitoring and/or Record Keeping Requirements (continued)

**4.** [40 CFR 63.1510(c)]
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.

**5.** [40 CFR 63.1510(e)(1) and (2)]
The owner or operator of an affected source or emission unit subject to an emission limit in kg/Mg (lb/ton) or g/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.

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.

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.

**6.** [40 CFR 63.1510(j)(1) through (5)]
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:

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.

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).

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.

## III. Monitoring and/or Record Keeping Requirements (continued)

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).

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.

**7.** [40 CFR 63.1510(o)(1) through (8)]
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.

The owner or operator must develop, in consultation with the applicable permitting authority, a written site-specific monitoring plan. The site-specific monitoring plan must be part of the OM&M plan that addresses monitoring and compliance requirements for PM, HCl, and D/F emissions.
(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.

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.

Each site-specific monitoring plan must include provisions for unit labeling as required in paragraph (c) of 63.1510, feed/charge weight measurement (or production weight measurement) as required in paragraph (e) of this section and flux weight measurement as required in paragraph

## III. Monitoring and/or Record Keeping Requirements (continued)

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).

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.

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.

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 63.1510.

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.

**8.** [40 CFR 63.1510(p)(1) through (6)]
A scrap inspection program must include:

A proven method for collecting representative samples and measuring the oil and coatings content of scrap samples;

A scrap inspector training program;

An established correlation between visual inspection and physical measurement of oil and coatings content of scrap samples;

Periodic physical measurements of oil and coatings content of randomly-selected scrap samples and comparison with visual inspection results;

A system for assuring that only acceptable scrap is charged to an affected group 1 furnace; and

Recordkeeping requirements to document conformance with plan requirements.

## III. Monitoring and/or Record Keeping Requirements (continued)

**9.** [40 CFR 63.1510(q)(1) through (3)]
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:

Procedures for the characterization and documentation of the contaminant level of the scrap prior to the performance test.

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.

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.

**10.** [40 CFR 63.1510(s)(1) through (3)]
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).

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.

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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**11.** [40 CFR 63.1510(t)(1) through (5)]
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:

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.

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.

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.

Compute the 24-hour daily emission rate using Equation 4:
Eday~=~{sum from {i=1} to n (Ti x ERi)} OVER {sum from {i=1} to n Ti}
Where,
Eday = The daily PM, HCl, or D/F emission rate for the secondary aluminum processing unit for the 24-hour period;
Ti = The total amount of feed, or aluminum produced, for emission unit i for the 24-hour period (tons);
ERi = The measured emission rate for emission unit i as determined in the performance test (lb/ton or g/Mg of feed/charge); and
n = The number of emission units in the secondary aluminum processing unit.

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.

**12.** [40 CFR 63.1510(u)]
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.

**13.** [40 CFR 63.1517(a)(1) through (3)]
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.

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.

The owner or operator may retain records on microfilm, computer disks, magnetic tape, or microfiche; and

The owner or operator may report required information on paper or on a labeled computer disk using commonly available and EPA-compatible computer software.

## III. Monitoring and/or Record Keeping Requirements (continued)

**14.** [40 CFR 63.1517(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:

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.

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.

Approved site-specific monitoring plan for a group 1 furnace without add-on air pollution control devices with records documenting conformance with the plan.

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.

Records of monthly inspections for proper unit labeling for each affected source and emission unit subject to labeling requirements.

Records for any approved alternative monitoring or test procedure.

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) For major sources, OM&M plan; and
(iii) Site-specific secondary aluminum processing unit emission plan (if applicable).

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.

## IV. Reporting Requirements

**1.** The permittee shall submit annual reports which identify any exceedances of the aluminum production rate limitation and the chlorine gas consumption limitation as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 of each year.

## IV. Reporting Requirements (continued)

**2.** [40 CFR 63.1515(b)(1) through (4), (9) and (10)]
Each owner or operator must submit a notification of compliance status report within 60 days after the compliance dates specified in 63.1501. 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 63.1515. 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:

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).

The approved site-specific test plan and performance evaluation test results for each continuous monitoring system (including a continuous emission or opacity monitoring system).

Unit labeling as described in 63.1506(b), including process type or furnace classification and operating requirements.

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.

Approved OM&M plan (including site-specific monitoring plan for each group 1 furnace with no add-on air pollution control device).

Startup, shutdown, and malfunction plan, with revisions.

**3.** [40 CFR 63.1516(a)(1) through (3)]
The owner or operator must develop and implement a written plan as described in 63.6(e)(3) that contains specific procedures to be followed for operating and maintaining the source during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the standard. The owner or operator shall also keep records of each event as required by 63.10(b) and record and report if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the plan as described in 63.6(e)(3). In addition to the information required in 63.6(e)(3), the plan must include:

Procedures to determine and record the cause of the malfunction and the time the malfunction began and ended; and

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.

## IV. Reporting Requirements (continued)

As required by 63.10(e)(3), the owner or operator must submit semiannual reports within 60 days after the end of each 6-month period. Each report must contain the information specified in 63.10(c). 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.

A report must be submitted if any of these conditions occur during a 6-month reporting period:
(i) 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).
(ii) 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).
(iii) An affected source (including an emission unit in a secondary aluminum processing unit) was not operated according to the requirements of this subpart.
(iv) A deviation from the 3-day, 24-hour rolling average emission limit for a secondary aluminum processing unit.

Each report must include this certification: 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."

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.

**4.** [40 CFR 63.1516(c)]
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:

Any period of excess emissions, as defined in paragraph (b)(1) of 63.1516, that occurred during the year were reported as required by this subpart; and

All monitoring, recordkeeping, and reporting requirements were met during the year.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section A.I.1 of these terms and conditions for the hold stack for this emissions unit shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

**1.a** Emission Limitation:

1.836 pounds per hour of particulate emissions (hold stack)

Applicable Compliance Method:

The particulate emission factor for fluxing is derived from the chemical formulation of chlorine reacting with aluminum to form dross AlCl3 and the chlorine usage rate of 1.63 cubic feet per ton of aluminum produced. This analysis results in an emission factor (conservatively assumes that all of the dross is emitted as particulate matter) of 0.24 pound of dross per ton of aluminum produced. Multiply the emission factor times the hourly production rate of aluminum to determine the pounds of particulate matter emitted. 0.24 pound of particulates/ton of aluminum times 15,000 pounds of aluminum per hour divide by 2,000 pounds/ton equals 1.8 pound/hour particulate emission rate from the fluxing activity.

The particulate emission factor for natural gas firing is from AP-42 Compilation of Air Pollutant Emission Factors of 3 pounds/million cubic feet of gas fired. The hold furnace has two 6 million Btu/hour burners. Multiply the number of burners (2) by the maximum rating (6 million Btu/hour) and divide by the heat content of one cubic foot of natural gas (1,000 Btu/cubic foot) divide by one million to match emission factor units and multiply by the emission factor 3 pounds/million cubic feet equal the maximum particulate emission rate of 0.036 pound/hour.

The total potential hold furnace stack particulate emission rate is the sum of the fluxing emission rate and gas combustion emission rate (1.8 + 0.036 = 1.836 pounds/hour).

**1.b** Emission Limitation:

8.04 tpy of particulate emissions (hold stack)

Applicable Compliance Method:

Compliance shall be demonstrated by the following:

i. Multiply the fluxing particulate emission factor of 0.24 pound of particulates/ton of aluminum times the annual tons of aluminum produced and divide by 2,000 pounds/ton to determine the annual tons of particulate emissions per year.

ii. Multiply the natural gas maximum hourly emission rate (0.036 pound/hour) by the annual hours of operation and divide by 2,000 pounds/ton to determine the annual particulate emission rate, in tons per year.

The total hold furnace stack particulate emission rate is the sum of the fluxing emission rate and gas combustion emission rate.

**1.c** Emission Limitation:

0.007 pound per hour of sulfur dioxide (hold stack)

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the sulfur dioxide emission factor of 0.6 pound of sulfur dioxide/million cubic feet of natural gas usage by the maximum hourly natural gas consumption rate, in million cubic feet/hour. The sulfur dioxide emission factor was obtained from USEPA, AP-42, Section 1.4, 5th edition published in January, 1995.

## V. Testing Requirements (continued)

**1.d** Emission Limitation:

0.032 tpy of sulfur dioxide (hold stack)

Applicable Emission Limitation:

Compliance shall be determined by multiplying the hourly emissions rate of 0.007 pound per hour by the maximum annual hours of operation (8,760 hrs), and then dividing by 2,000 pounds/ton. Compliance with the tpy limit shall be assumed provided compliance with the hourly limit has been maintained.

**1.e** Emission Limitation:

0.034 pound VOC/hour (hold stack)

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the VOC emission factor of 2.8 pounds of VOC/million cubic feet of natural gas usage by the maximum hourly natural gas consumption rate, in million cubic feet/hour. The VOC emission factor was obtained from USEPA, AP-42, Section 1.4, 5th edition published in January, 1995.

**1.f** Emission Limitation:

0.15 TPY VOC (hold stack)

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly emissions rate of 0.034 pound per hour by the maximum annual hours of operation (8,760 hrs), and then dividing by 2,000 pounds/ton. Compliance with the tpy limit shall be assumed provided compliance with the hourly limit has been maintained.

**1.g** Emission Limitation:

0.42 pound CO/hour (hold stack)

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the CO emission factor of 35 pounds of CO/106 cubic feet of natural gas usage by the maximum hourly natural gas consumption rate, in million cubic feet/hour. The CO emission factor was obtained from USEPA, AP-42, Section 1.4, 5th edition published in January, 1995.

**1.h** Emission Limitation:

1.84 TPY CO (hold stack)

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly emissions rate of 0.42 pound per hour by the maximum annual hours of operation (8,760 hrs), and then dividing by 2,000 pounds/ton. Compliance with the tpy limit shall be assumed provided compliance with the hourly limit has been maintained.

## V. Testing Requirements (continued)

**1.i** Emission Limitation:

0.72 pound NOx/hour (hold stack)

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the NOx emission factor of 0.06 pound of NOx/million Btu by the maximum burner capacity, in million Btu/hour. The NOx emission factor was provided by the burner manufacturer.

**1.j** Emission Limitation:

3.15 TPY NOx (hold stack)

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly emissions rate of 0.72 pound per hour by the maximum annual hours of operation (8,760 hrs), and then dividing by 2,000 pounds/ton. Compliance with the tpy limit shall be assumed provided compliance with the hourly limit has been maintained.

**2.** Compliance with the emission limitations in section A.I.1 of these terms and conditions for the melt stack for this emissions unit shall be determined in accordance with the following methods:

**2.a** Emission Limitation:

0.09 pound PM/hour (melt stack)

Applicable Compliance Method:

Compliance shall be determined by multiplying the particulate emission factor of 3.0 pounds of particulates/million cubic feet of natural gas by the maximum hourly natural gas consumption rate, in million cubic feet/hour. The particulate emission factor was obtained from USEPA, AP-42, Section 1.4, 5th edition published in January, 1995.

**2.b** Emission Limitation:

0.39 pound TPY PM (melt stack)

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly emissions rate of 0.09 pound per hour by the maximum annual hours of operation (8,760 hrs), and then dividing by 2,000 pounds/ton. Compliance with the tpy limit shall be assumed provided compliance with the hourly limit has been maintained.

**2.c** Emission Limitation:

0.18 pound SO2/hour (melt stack)

Applicable Compliance Method:

Compliance shall be determined by multiplying the SO2 emission factor of 0.6 pound of SO2/million cubic feet of natural gas by the maximum hourly natural gas consumption rate, in million cubic feet/hour. The SO2 emission factor was obtained from USEPA, AP-42, Section 1.4, 5th edition published in January, 1995.

## V. Testing Requirements (continued)

**2.d** Emission Limitation:

0.8 TPY SO2 (melt stack)

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly emissions rate of 0.18 pound per hour by the maximum annual hours of operation (8,760 hrs), and then dividing by 2,000 pounds/ton. Compliance with the tpy limit shall be assumed provided compliance with the hourly limit has been maintained.

**2.e** Emission Limitation:

0.84 pound VOC/hour (melt stack)

Applicable Compliance Method:

Compliance shall be determined by multiplying the VOC emission factor of 2.8 pounds of VOC/million cubic feet of natural gas by the maximum hourly natural gas consumption rate, in million cubic feet/hour. The SO2 emission factor was obtained from USEPA, AP-42, Section 1.4, 5th edition published in January, 1995.

**2.f** Emission Limitation:

3.7 TPY VOC (melt stack)

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly emissions rate of 0.84 pound per hour by the maximum annual hours of operation (8,760 hrs), and then dividing by 2,000 pounds/ton. Compliance with the tpy limit shall be assumed provided compliance with the hourly limit has been maintained.

**2.g** Emission Limitation:

1.05 pounds CO/hour (melt stack)

Applicable Compliance Method:

Compliance shall be determined by multiplying the CO emission factor of 35 pounds of CO/million cubic feet of natural gas by the maximum hourly natural gas consumption rate, in million cubic feet/hour. The CO emission factor was obtained from USEPA, AP-42, Section 1.4, 5th edition published in January, 1995.

**2.h** Emission Limitation:

4.60 TPY CO (melt stack)

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly emissions rate of 1.05 pounds per hour by the maximum annual hours of operation (8,760 hrs), and then dividing by 2,000 pounds/ton. Compliance with the tpy limit shall be assumed provided compliance with the hourly limit has been maintained.

## V. Testing Requirements (continued)

**2.i** Emission Limitation:

1.80 pound NOx/hour (melt stack)

Applicable Compliance Method:

Compliance shall be determined by multiplying the NOx emission factor of 0.06 pound of NOx/million Btu by the maximum hourly heat input, in million Btu/hour. The NOx emission factor was provided by the burner manufacturer.

**2.j** Emission Limitation:

7.88 TPY NOx (melt stack)

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly emissions rate of 1.80 pounds per hour by the maximum annual hours of operation (8,760 hrs), and then dividing by 2,000 pounds/ton. Compliance with the tpy limit shall be assumed provided compliance with the hourly limit has been maintained.

**3.** Compliance with the emission limitations in section A.I.1 of these terms and conditions for the casting activities for this emissions unit shall be determined in accordance with the following methods:

**3.a** Emission Limitation:

0.15 pound SO2/hour (casting fugitive)

Applicable Compliance Method:

Compliance shall be determined by multiplying the SO2 emission factor of 0.02 pound of SO2/ton produced by the maximum hourly aluminum production rate. The SO2 emission factor was obtained from USEPA, AIRS.

**3.b** Emission Limitation:

0.66 TPY SO2 (casting fugitive)

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly emissions rate of 0.15 pound per hour by the maximum annual hours of operation (8,760 hrs), and then dividing by 2,000 pounds/ton. Compliance with the tpy limit shall be assumed provided compliance with the hourly limit has been maintained.

**3.c** Emission Limitation:

0.08 pound NOx/hour (casting fugitive)

Applicable Compliance Method:

Compliance shall be determined by multiplying the NOx emission factor of 0.01 pound of NOx/ton produced by the maximum hourly aluminum production rate. The NOx emission factor was obtained from USEPA, AIRS.

## V. Testing Requirements (continued)

**3.d** Emission Limitation:

0.35 TPY NOx (casting fugitive)

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly emissions rate of 0.08 pound per hour by the maximum annual hours of operation (8,760 hrs), and then dividing by 2,000 pounds/ton. Compliance with the tpy limit shall be assumed provided compliance with the hourly limit has been maintained.

**3.e** Emission Limitation:

1.05 pounds VOC/hour (casting fugitive)

Applicable Compliance Method:

Compliance shall be determined by multiplying the VOC emission factor of 0.14 pound of VOC/ton produced by the maximum hourly aluminum production rate. The VOC emission factor was obtained from USEPA, AIRS.

**3.f** Emission Limitation:

4.60 TPY VOC (casting fugitive)

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly emissions rate of 1.05 pounds per hour by the maximum annual hours of operation (8,760 hrs), and then dividing by 2,000 pounds/ton. Compliance with the tpy limit shall be assumed provided compliance with the hourly limit has been maintained.

**4.** Compliance with the visible emission limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:

Emission Limitation:

Visible particulate emissions from the melt stack, hold stack, and casting activities shall not exceed 5% opacity as a 6-minute average.

Applicable Compliance Method:

Compliance shall be determined by performing visible particulate emission observations in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

**5.** Compliance with the operational restrictions in sections A.II.1 and A.II.2 of these terms and conditions shall be determined in accordance with the following method:

Operational Restrictions:

The maximum hourly aluminum production rate for this emissions unit shall not exceed 15,000 pounds per hour.

The maximum chlorine consumption rate shall not exceed 1.63 cubic feet of chlorine per ton of aluminum produced.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring and record keeping requirements specified in section A.III.1.

## V. Testing Requirements (continued)

**6.** [40 CFR 63.1511(a)]
Prior to conducting a performance test required by this subpart, the owner or operator must prepare and submit a site-specific test plan meeting the requirements in 63.7(c).

**7.** [40 CFR 63.1511(b)]
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 must conduct each performance test according to the requirements of the general provisions in subpart A of this part and this subpart. 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.

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.

**8.** [40 CFR 63.1511(c)]
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:

Method 1 for sample and velocity traverses.

Method 2 for velocity and volumetric flow rate.

Method 3 for gas analysis.

Method 4 for moisture content of the stack gas.

Method 5 for the concentration of PM.

Method 9 for visible emission observations.

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.

**9.** [40 CFR 63.1511(d)]
The owner or operator may use an alternative test method, subject to approval by the Administrator.

**10.** [40 CFR 63.1511(e)]
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.

## V. Testing Requirements (continued)

**11.** [40 CFR 63.1511(f)(1) through (6)]
With the approval of the permitting authority, a single representative or similar group 1 furnace or in-line fluxer which is not controlled by an add-on control device may be tested to determine the emission rate of all like affected sources at a facility provided that:

The tested emission unit must use identical feed/charge and flux materials in the same proportions as the emission units that it represents;

The tested emission unit is subject to the same work practices and the emission units that it represents;

The tested emission unit is of the same design as the emission units that it represents;

The tested emission unit is tested under the highest load or capacity reasonably expected to occur for any of the emission units that it represents;

At least one of each different style of emission unit at the facility is tested; and

All add-on control devices are tested.

**12.** [40 CFR 63.1511(g)(1) through (4)]
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:

The complete emission test report(s) used as the basis of the parameter(s) is submitted.

The same test methods and procedures as required by Subpart RRR were used in the test.

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.

All process and control equipment operating parameters required to be monitored were monitored as required in this subpart and documented in the test report.

**13.** [40 CFR 63.1512(e)(2) and (3)]
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.

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.

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.

## V. Testing Requirements (continued)

**14.** [40 CFR 63.1512(h)(1) and (2)]
The owner or operator must conduct a performance test to measure emissions of HCl and PM. 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. If the in-line fluxer uses no reactive flux materials, emission tests for PM and HCl are not required.

The owner or operator may choose to determine the rate of reactive flux addition to the in-line fluxer and assume, for the purposes of demonstrating compliance with the SAPU emission limit, that all reactive flux added to the in-line fluxer is emitted. Under these circumstances, the owner or operator is not required to conduct an emission test for HCl.

**15.** [40 CFR 63.1512(j)(1) and (3)]
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 g TEQ/Mg of feed/charge for D/F emissions from each emission unit. These emission rates are used for compliance monitoring in the calculation of the 3-day, 24-hour rolling average emission rates using the equation in 63.1510(t). A performance test is required for:

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).

Each in-line fluxer to measure emissions of PM and HCl.

**16.** [40 CFR 63.1512(k)]
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.

## V. Testing Requirements (continued)

**17.** [40 CFR 63.1512(o)(1) through (3)]
The owner or operator must use these procedures to establish an operating parameter value or range for the total reactive chlorine flux injection rate.

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;

Record the identity, composition, and total weight of each addition of solid reactive flux for the 3 test runs;

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 this equation:
$Wt = F1W1 + F2W2$
Where,

Wt = Total chlorine usage, by weight;
F1 = Fraction of gaseous or liquid flux that is chlorine;
W1 = Weight of reactive flux gas injected;
F2 = Fraction of solid reactive chloride flux that is chlorine (e.g., F = 0.75 for magnesium chloride; and
W2 = Weight of solid reactive flux;

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

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.

**18.** [40 CFR 63.1513(b)]
Use this equation to determine compliance with an emission limit for PM, HCl, and D/F:
$E = \{C \times Q \times K1\} / P$

Where,
E = Emission rate of PM, HCl, or D/F, kg/Mg (lb/ton) of feed;
C = Concentration of PM, HCl, or D/F, g/dscm (gr/dscf);
Q = Volumetric flow rate of exhaust gases, dscm/hr (dscf/hr);
K1 = Conversion factor, 1 kg/1,000 g (1 lb/7,000 gr); and
P = Production rate, Mg/hr (ton/hr).

## V. Testing Requirements (continued)

**19.** [40 CFR 63.1513(e)(1) and (2)]
Use the procedures in paragraphs (e)(1) and (2) to determine compliance with emission limits for a secondary aluminum processing unit.

Use this equation to compute the mass-weighted PM emissions for a secondary aluminum processing unit. Compliance is achieved if the mass-weighted emissions for the secondary aluminum processing unit (EcPM) is less than or equal to the emission limit for the secondary aluminum processing unit (LcPM) calculated using Equation 1 in 63.1505(k).
EcPM = {sum from {i=1} to n (EtiPM times Tti)} over {sum from {i=1} to n (Tti)}
Where,
EcPM = The mass-weighted PM emissions for the secondary aluminum processing unit;
EtiPM = Measured PM emissions for individual emission unit i;
Tti = The average feed rate for individual emission unit i during the operating cycle or performance test period; an
n = The number of emission units in the secondary aluminum processing unit.

Use this equation to compute the aluminum mass-weighted HCl emissions for the secondary aluminum processing unit. Compliance is achieved if the mass-weighted emissions for the secondary aluminum processing unit (EcHCl) is less than or equal to the emission limit for the secondary aluminum processing unit (LcHCl) calculated using Equation 2 in 63.1505(k).
EcHCl = {sum from {i=1} to n (EtiHCl times Tti)} over {sum from {i=1} to n ( Tti)}
Where,
EcHCl = The mass-weighted HCl emissions for the secondary aluminum processing unit; and
EtiHCl = Measured HCl emissions for individual emission unit i.

As an alternative to using the equations in paragraphs (e)(1) and (2) 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).

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Coke Belt Conveyor (P101)

**Activity Description:** Coke Belt Conveyor

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| coke belt conveyor vented to a baghouse | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B)(3) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See sections A.I.2.a through A.I.2.b. |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions (PE) from any baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule. |
| | OAC rule 3745-17-11(B) | Particulate emissions (PE) from the baghouse stacks shall not exceed 12.3 pounds per hour, as calculated from Figure II, curve P-1. |

**2. Additional Terms and Conditions**

**2.a** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of reasonably available control measures(RACM). These measures shall include, but not be limited to, the following:

All equipment associated with this emissions unit which generates fugitive dust shall be vented to the baghouse, which shall achieve an outlet emission rate of not greater than 12.3 pound of particulate emissions per hour from the baghouse exhaust stack.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this equipment, including, but not limited to: doorways, windows and roof openings.

**2.b** Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

## II. Operational Restrictions

**None**

## III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse stack serving this emissions unit and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.). The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**2.** The above-mentioned daily checks shall be performed during representative, normal operating conditions.

## IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit or any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**1.a** Emission Limitation:

20% opacity as a 3-minute average

Applicable Compliance Method:

Compliance with the visible emission limitation for fugitive emissions from the material handling operation(s) identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

## V. Testing Requirements (continued)

**1.b** Emission Limitation:
Visible PE from the baghouse stacks shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR, Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**1.c** Emission Limitation:
PE from the baghouse stack shall not exceed 12.3 lbs/hr.

Applicable Compliance Method:
If required, compliance shall be demonstrated based upon emission testing conducted in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(7). Emission testing is not specifically required to demonstrate compliance with this emission limitation, but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Belt Elevator (P102)

**Activity Description:** Belt Evelator

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| belt elevator | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B)(3) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See sections A.I.2.a through A.I.2.b. |

**2. Additional Terms and Conditions**

**2.a** The material handling operation(s) that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:

belt elevator

**2.b** The permittee shall employ reasonably available control measures for the belt elevator for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to use a partial enclosure to minimize or eliminate visible emissions of fugitive dust.

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

**2.c** Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

### II. Operational Restrictions

**None**

## III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident; and
c. any corrective actions taken to eliminate the visible emissions.

**2.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**3.** The above-mentioned daily checks shall be performed during representative, normal operating conditions.

## IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

**2.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

**1.a** Emission Limitation:

20% opacity as a 3-minute average

Applicable Compliance Method:

Compliance with the visible emission limitation for fugitive emissions from the material handling operation(s) identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Butt/Fractions Blend (P103)

**Activity Description:** Butt/Fractions Blend

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| butt/fractions blend operation vented to a baghouse | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B)(3) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See sections A.I.2.a through A.I.2.b. |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions (PE) from any baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule. |
| | OAC rule 3745-17-11(B) | Particulate emissions (PE) from the baghouse stacks shall not exceed 22.4 pounds per hour, as calculated from Figure II, curve P-1. |

**2. Additional Terms and Conditions**

**2.a** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of reasonably available control measures(RACM). These measures shall include, but not be limited to, the following:

All equipment associated with this emissions unit which generates fugitive dust shall be vented to the baghouse, which shall achieve an outlet emission rate of not greater than 22.4 pound of particulate emissions per hour from the baghouse exhaust stack.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this equipment, including, but not limited to: doorways, windows and roof openings.

**2.b** Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

## II. Operational Restrictions

**None**

## III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse stack serving this emissions unit and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.). The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**2.** The above-mentioned daily checks shall be performed during representative, normal operating conditions.

## IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit or any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**1.a** Emission Limitation:

20% opacity as a 3-minute average

Applicable Compliance Method:

Compliance with the visible emission limitation for fugitive emissions from the material handling operation(s) identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

## V. Testing Requirements (continued)

**1.b** Emission Limitation:
Visible PE from the baghouse stacks shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR, Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**1.c** Emission Limitation:
PE from the baghouse stack shall not exceed 22.4 lbs/hr.

Applicable Compliance Method:
If required, compliance shall be demonstrated based upon emission testing conducted in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(7). Emission testing is not specifically required to demonstrate compliance with this emission limitation, but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** K-640-325/329 (P134)

**Activity Description:** K-640-325/329

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| K-640-325/329 system operation | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B)(3) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See sections A.I.2.a through A.I.2.b. |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions (PE) from any baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule. |
| | OAC rule 3745-17-11(B) | Particulate emissions (PE) from the baghouse stacks shall not exceed 28.0 pounds per hour, as calculated from Figure II, curve P-1. |

**2. Additional Terms and Conditions**

**2.a** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of reasonably available control measures(RACM). These measures shall include, but not be limited to, the following:

All equipment associated with this emissions unit which generates fugitive dust shall be vented to the baghouse, which shall achieve an outlet emission rate of not greater than 28.0 pound of particulate emissions per hour from the baghouse exhaust stack.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this equipment, including, but not limited to: doorways, windows and roof openings.

**2.b** Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

## II. Operational Restrictions

**None**

## III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse stack serving this emissions unit and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.). The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**2.** The above-mentioned daily checks shall be performed during representative, normal operating conditions.

## IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit or any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**1.a** Emission Limitation:

20% opacity as a 3-minute average

Applicable Compliance Method:

Compliance with the visible emission limitation for fugitive emissions from the material handling operation(s) identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

## V. Testing Requirements (continued)

**1.b** Emission Limitation:
Visible PE from the baghouse stacks shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR, Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**1.c** Emission Limitation:
PE from the baghouse stack shall not exceed 28.0 lbs/hr.

Applicable Compliance Method:
If required, compliance shall be demonstrated based upon emission testing conducted in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(7). Emission testing is not specifically required to demonstrate compliance with this emission limitation, but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Tumbling Mill (P203)

**Activity Description:** Tumbling Mill

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| tumbling mill operation vented to a baghouse | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B)(3) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See sections A.I.2.a through A.I.2.b. |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions (PE) from any baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule. |
| | OAC rule 3745-17-11(B) | Particulate emissions (PE) from the baghouse stacks shall not exceed 17.7 pounds per hour, as calculated from Figure II, curve P-1. |

**2. Additional Terms and Conditions**

**2.a** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of reasonably available control measures(RACM). These measures shall include, but not be limited to, the following:

All equipment associated with this emissions unit which generates fugitive dust shall be vented to the baghouse, which shall achieve an outlet emission rate of not greater than 17.7 pound of particulate emissions per hour from the baghouse exhaust stack.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this equipment, including, but not limited to: doorways, windows and roof openings.

**2.b** Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

## II. Operational Restrictions

**None**

## III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse stack serving this emissions unit and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.). The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**2.** The above-mentioned daily checks shall be performed during representative, normal operating conditions.

## IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit or any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**1.a** Emission Limitation:

20% opacity as a 3-minute average

Applicable Compliance Method:

Compliance with the visible emission limitation for fugitive emissions from the material handling operation(s) identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

## V. Testing Requirements (continued)

**1.b** Emission Limitation:
Visible PE from the baghouse stacks shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR, Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**1.c** Emission Limitation:
PE from the baghouse stack shall not exceed 17.7 lbs/hr.

Applicable Compliance Method:
If required, compliance shall be demonstrated based upon emission testing conducted in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(7). Emission testing is not specifically required to demonstrate compliance with this emission limitation, but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Hartman System Coke Fines-K661 (P213)

**Activity Description:** Hartman System Coke Fines

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Hartman system coke fines - K661 vented to a baghouse | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B)(3) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See sections A.I.2.a and A.I.2.b. |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions (PE) from any baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule. |
| | OAC rule 3745-17-11(B) | Particulate emissions (PE) from the baghouse stacks shall not exceed 50.0 pounds per hour for emissions units P213, P214, P215, P216 and P217 combined. |

**2. Additional Terms and Conditions**

**2.a** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of reasonably available control measures(RACM). These measures shall include, but not be limited to, the following:

All equipment associated with this emissions unit which generates fugitive dust shall be vented to the baghouse, which shall achieve an outlet emission rate of not greater than 50.0 pound of particulate emissions per hour from the baghouse exhaust stacks serving emissions units P213, P214, P215, P216 and P217 combined.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this equipment, including, but not limited to: doorways, windows and roof openings.

**2. Additional Terms and Conditions (continued)**

**2.b** Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

## II. Operational Restrictions

**None**

## III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse stack serving this emissions unit and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.). The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**2.** The above-mentioned daily checks shall be performed during representative, normal operating conditions.

## IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit or any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

**1.a** Emission Limitation:

20% opacity as a 3-minute average

Applicable Compliance Method:

Compliance with the visible emission limitation for fugitive emissions from the material handling operation(s) identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

**1.b** Emission Limitation:
Visible PE from the baghouse stacks shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR, Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**1.c** Emission Limitation:
PE from the baghouse stacks shall not exceed 50.0 pounds per hour for emissions units P213, P214, P215, P216 and P217 combined.

Applicable Compliance Method:
If required, compliance shall be demonstrated based upon emission testing conducted in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(7). Emission testing is not specifically required to demonstrate compliance with this emission limitation, but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Hartman System Coke Fines-K662 (P214)

**Activity Description:** Hartman System Coke Fines

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Hartman system coke fines - K662 vented to a baghouse | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B)(3) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See sections A.I.2.a and A.I.2.b. |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions (PE) from any baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule. |
| | OAC rule 3745-17-11(B) | Particulate emissions (PE) from the baghouse stacks shall not exceed 50.0 pounds per hour for emissions units P213, P214, P215, P216 and P217 combined. |

**2. Additional Terms and Conditions**

**2.a** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of reasonably available control measures(RACM). These measures shall include, but not be limited to, the following:

All equipment associated with this emissions unit which generates fugitive dust shall be vented to the baghouse, which shall achieve an outlet emission rate of not greater than 50.0 pound of particulate emissions per hour from the baghouse exhaust stacks serving emissions units P213, P214, P215, P216 and P217 combined.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this equipment, including, but not limited to: doorways, windows and roof openings.

**2. Additional Terms and Conditions (continued)**

**2.b** Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

## II. Operational Restrictions

**None**

## III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse stack serving this emissions unit and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.). The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**2.** The above-mentioned daily checks shall be performed during representative, normal operating conditions.

## IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit or any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

**1.a** Emission Limitation:

20% opacity as a 3-minute average

Applicable Compliance Method:

Compliance with the visible emission limitation for fugitive emissions from the material handling operation(s) identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

**1.b** Emission Limitation:
Visible PE from the baghouse stacks shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR, Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**1.c** Emission Limitation:
PE from the baghouse stacks shall not exceed 50.0 pounds per hour for emissions units P213, P214, P215, P216 and P217 combined.

Applicable Compliance Method:
If required, compliance shall be demonstrated based upon emission testing conducted in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(7). Emission testing is not specifically required to demonstrate compliance with this emission limitation, but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Hartman System Coke Fines-K663 (P215)

**Activity Description:** Hartman System Coke Fines-K663

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Hartman system coke fines - K663 vented to a baghouse | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B)(3) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See sections A.I.2.a and A.I.2.b. |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions (PE) from any baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule. |
| | OAC rule 3745-17-11(B) | Particulate emissions (PE) from the baghouse stacks shall not exceed 50.0 pounds per hour for emissions units P213, P214, P215, P216 and P217 combined. |

**2. Additional Terms and Conditions**

**2.a** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of reasonably available control measures(RACM). These measures shall include, but not be limited to, the following:

All equipment associated with this emissions unit which generates fugitive dust shall be vented to the baghouse, which shall achieve an outlet emission rate of not greater than 50.0 pound of particulate emissions per hour from the baghouse exhaust stacks serving emissions units P213, P214, P215, P216 and P217 combined.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this equipment, including, but not limited to: doorways, windows and roof openings.

**2. Additional Terms and Conditions (continued)**

**2.b** Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

## II. Operational Restrictions

**None**

## III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse stack serving this emissions unit and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.). The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**2.** The above-mentioned daily checks shall be performed during representative, normal operating conditions.

## IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit or any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

**1.a** Emission Limitation:

20% opacity as a 3-minute average

Applicable Compliance Method:

Compliance with the visible emission limitation for fugitive emissions from the material handling operation(s) identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

**1.b** Emission Limitation:
Visible PE from the baghouse stacks shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR, Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**1.c** Emission Limitation:
PE from the baghouse stacks shall not exceed 50.0 pounds per hour for emissions units P213, P214, P215, P216 and P217 combined.

Applicable Compliance Method:
If required, compliance shall be demonstrated based upon emission testing conducted in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(7). Emission testing is not specifically required to demonstrate compliance with this emission limitation, but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Hartman System Coke Fines-K664 (P216)

**Activity Description:** Hartman System Coke Fines-K664

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Hartman system coke fines - K664 vented to a baghouse | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B)(3) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See sections A.I.2.a and A.I.2.b. |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions (PE) from any baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule. |
| | OAC rule 3745-17-11(B) | Particulate emissions (PE) from the baghouse stacks shall not exceed 50.0 pounds per hour for emissions units P213, P214, P215, P216 and P217 combined. |

**2. Additional Terms and Conditions**

**2.a** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of reasonably available control measures(RACM). These measures shall include, but not be limited to, the following:

All equipment associated with this emissions unit which generates fugitive dust shall be vented to the baghouse, which shall achieve an outlet emission rate of not greater than 50.0 pound of particulate emissions per hour from the baghouse exhaust stacks serving emissions units P213, P214, P215, P216 and P217 combined.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this equipment, including, but not limited to: doorways, windows and roof openings.

**2. Additional Terms and Conditions (continued)**

**2.b** Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

## II. Operational Restrictions

**None**

## III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse stack serving this emissions unit and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.). The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**2.** The above-mentioned daily checks shall be performed during representative, normal operating conditions.

## IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit or any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

**1.a** Emission Limitation:

20% opacity as a 3-minute average

Applicable Compliance Method:

Compliance with the visible emission limitation for fugitive emissions from the material handling operation(s) identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

**1.b** Emission Limitation:
Visible PE from the baghouse stacks shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR, Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**1.c** Emission Limitation:
PE from the baghouse stacks shall not exceed 50.0 pounds per hour for emissions units P213, P214, P215, P216 and P217 combined.

Applicable Compliance Method:
If required, compliance shall be demonstrated based upon emission testing conducted in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(7). Emission testing is not specifically required to demonstrate compliance with this emission limitation, but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Hartman System Coke Fines-K665 (P217)

**Activity Description:** Hartman System Coke Fines-K665

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Hartman system coke fines - K665 vented to a baghouse | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B)(3) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See sections A.I.2.a and A.I.2.b. |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions (PE) from any baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule. |
| | OAC rule 3745-17-11(B) | Particulate emissions (PE) from the baghouse stacks shall not exceed 50.0 pounds per hour for emissions units P213, P214, P215, P216 and P217 combined. |

**2. Additional Terms and Conditions**

**2.a** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of reasonably available control measures(RACM). These measures shall include, but not be limited to, the following:

All equipment associated with this emissions unit which generates fugitive dust shall be vented to the baghouse, which shall achieve an outlet emission rate of not greater than 50.0 pound of particulate emissions per hour from the baghouse exhaust stacks serving emissions units P213, P214, P215, P216 and P217 combined.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this equipment, including, but not limited to: doorways, windows and roof openings.

**2. Additional Terms and Conditions (continued)**

**2.b** Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

## II. Operational Restrictions

**None**

## III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse stack serving this emissions unit and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.). The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**2.** The above-mentioned daily checks shall be performed during representative, normal operating conditions.

## IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit or any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

**1.a** Emission Limitation:

20% opacity as a 3-minute average

Applicable Compliance Method:

Compliance with the visible emission limitation for fugitive emissions from the material handling operation(s) identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

**1.b** Emission Limitation:
Visible PE from the baghouse stacks shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR, Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**1.c** Emission Limitation:
PE from the baghouse stacks shall not exceed 50.0 pounds per hour for emissions units P213, P214, P215, P216 and P217 combined.

Applicable Compliance Method:
If required, compliance shall be demonstrated based upon emission testing conducted in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(7). Emission testing is not specifically required to demonstrate compliance with this emission limitation, but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Electromelt Furnace F-670-1 (P230)

**Activity Description:** Electromelt Furnace F-670-1

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| electromelt furnace F-670-1 vented to a baghouse | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-17-11(B)(1) | Particulate emissions shall not exceed 4.76 pounds per hour. |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

### IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**1.a** Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996. No visible emission testing is specifically required to demonstrate compliance with this limit but, if appropriate, may be requested pursuant to OAC rule 3745-15-04 (A).

**1.b** Emission Limitation:

4.76 pounds per hour of particulate emissions

Applicable Compliance Method:

Compliance shall be determined by multiplying the maximum hourly production rate of 1.25 tons of metal per hour by the particulate emission factor of 0.9 pound of particulate per ton of metal produced per hour. This emission factor is contained in AP-42 Table 12.10-3, dated 1/95.
If required, compliance shall be demonstrated based upon the emission testing procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10). No emission testing is specifically required to demonstrate compliance with this limit but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Electromelt Furnace F-670-2 (P231)

**Activity Description:** Electromelt Furnace F-670-2

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| electromelt furnace F-670-2 vented to a baghouse | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-17-11(B)(1) | Particulate emissions shall not exceed 4.76 pounds per hour. |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

### IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**1.a** Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996. No visible emission testing is specifically required to demonstrate compliance with this limit but, if appropriate, may be requested pursuant to OAC rule 3745-15-04 (A).

**1.b** Emission Limitation:

4.76 pounds per hour of particulate emissions

Applicable Compliance Method:

Compliance shall be determined by multiplying the maximum hourly production rate of 1.25 tons of metal per hour by the particulate emission factor of 0.9 pound of particulate per ton of metal produced per hour. This emission factor is contained in AP-42 Table 12.10-3, dated 1/95.
If required, compliance shall be demonstrated based upon the emission testing procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10). No emission testing is specifically required to demonstrate compliance with this limit but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Electromelt Furnace F-670-3 (P232)

**Activity Description:** Electromelt Furnace F-670-3

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| electromelt furnace F-670-3 vented to a baghouse | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-17-11(B)(1) | Particulate emissions shall not exceed 4.76 pounds per hour. |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

### IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**1.a** Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996. No visible emission testing is specifically required to demonstrate compliance with this limit but, if appropriate, may be requested pursuant to OAC rule 3745-15-04 (A).

**1.b** Emission Limitation:

4.76 pounds per hour of particulate emissions

Applicable Compliance Method:

Compliance shall be determined by multiplying the maximum hourly production rate of 1.25 tons of metal per hour by the particulate emission factor of 0.9 pound of particulate per ton of metal produced per hour. This emission factor is contained in AP-42 Table 12.10-3, dated 1/95.
If required, compliance shall be demonstrated based upon the emission testing procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10). No emission testing is specifically required to demonstrate compliance with this limit but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Direct Chill Casting Pit No. 3 (P233)

**Activity Description:** Direct Chill Casting Pit No. 3

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| direct chill casting pit no. 3 | OAC rule 3745-31-05(A)(3) (PTI 17-609) | This emissions unit is limited to:<br><br>1.0 pound per hour of particulate emissions<br><br>0.05 pound per hour of sulfur dioxide emissions<br><br>0.24 pound per hour of organic compound emissions<br><br>11.13 pounds per hour of nitrogen oxides emissions<br><br>2.75 pounds per hour of carbon monoxide emissions<br><br>0.33 mg per cubic meter of hydrogen chloride emissions |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-17-11 | The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| | OAC rule 3745-18-06 | The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| | 40 CFR 63.1505 (Subpart RRR) | See A.I.2.a through A.I.2.c below. |

**2. Additional Terms and Conditions**

**2.a** [40 CFR 63.1505(i)]
The owner or operator of a group 1 furnace must use the limits in this paragraph to determine the emission standards for a SAPU.

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; and

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.

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.

**2.b** [40 CFR 63.1505(j)]
Except as provided in paragraph (j)(3) of 63.1505 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.

0.02 kg of HCl per Mg (0.04 lb of HCl per ton) of feed/charge; and

0.005 kg of PM per Mg (0.01 lb of PM per ton) of feed/charge.

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.

**2.c** [40 CFR 63.1505(k)(1) through (3)]
On and after the date of approval of the operation, maintenance and monitoring (OM&M) plan, the owner or operator must comply with the emission limits calculated using the equations for PM and HCl in paragraphs (k)(1) and (k)(2) of 63.1505 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 63.1505 for each secondary aluminum processing unit at a secondary aluminum production facility that is a major or area source.

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:
LcPM = {sum from {i=1} to n (LtiPM times Tti)} over {sum from {i=1} to n (Tti)}
Where,
LtiPM = The PM emission limit for individual emission unit i in paragraph (i)(1) and (2) of 63.1505 for a group 1 furnace or in paragraph (j)(2) of 63.1505 for an in-line fluxer;
Tti = The feed/charge rate for individual emission unit I; and
LcPM = The PM emission limit for the secondary aluminum processing unit.
NOTE: In-line fluxers using no reactive flux materials cannot be included in this calculation since they are not subject to the PM limit.

**2. Additional Terms and Conditions (continued)**

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:
LcHCl = {sum from {i=1} to n (LtiHCl times Tti)} over {sum from {i=1} to n ( Tti)}
Where,
LtiHCl = The HCl emission limit for individual emission unit i in paragraph (i)(4) of 63.1505 for a group 1 furnace or in paragraph (j)(1) of 63.1505 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.

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 63.1505 by demonstrating that each emission unit within the SAPU is in compliance with the applicable emission limits of paragraphs (i) and (j) of 63.1505.

## II. Operational Restrictions

**1.** [40 CFR 63.1506(a)(1) and (2)]
On and after the date on which the initial performance test is conducted or required to be conducted, whichever date is earlier, the owner or operator must operate all new and existing affected sources and control equipment according to the requirements in this section.

The completion of the initial performance tests for SAPUs shall be considered to be the date of approval of the OM&M plan by the permitting authority.

**2.** [40 CFR 63.1506(b)(1) and (2)]
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:

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).

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.

## II. Operational Restrictions (continued)

**3.** [40 CFR 63.1506(d)(1) through (3)]
The owner or operator of each affected source or emission unit subject to an emission limit in kg/Mg (lb/ton) of feed/charge must:

Except as provided in paragraph (d)(3) of 63.1506, 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

Operate each weight measurement system or other weight determination procedure in accordance with the OM&M plan.

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.

**4.** [40 CFR 63.1506(n)(1) through (3)]
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:

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.

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.

Operate each group 1 melting/holding furnace subject to the emission standards in 63.1505(i)(2) using only clean charge as the feedstock.

**5.** [40 CFR 63.1506(p)]
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.

## III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

## III. Monitoring and/or Record Keeping Requirements (continued)

**2.** The permittee shall maintain records of the following information:

a. the natural gas usage for each day;

b. the production rate, in pounds of aluminum per day; and

c. the hours of operation.

**3.** [40 CFR 63.1510(a)]
On and after the date the initial performance test is completed or required to be completed, whichever date is earlier, 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 Subpart RRR.

**4.** [40 CFR 63.1510(b)(1) through (8)]
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 must submit the plan to the applicable permitting authority for review and approval as part of the application for a part 70 or part 71 permit. Any subsequent changes to the plan must be submitted to the applicable permitting authority for review and approval. Pending approval by the applicable permitting authority of an initial or amended plan, the owner or operator must comply with the provisions of the submitted plan. Each plan must contain the following information:

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.

A monitoring schedule for each affected source and emission unit.

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.

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.

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.

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 63.1510, 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 was completed.

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.

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 63.1510 for each group 1 furnace not equipped with an add-on air pollution control device.

## III. Monitoring and/or Record Keeping Requirements (continued)

**5.** [40 CFR 63.1510(c)]
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.

**6.** [40 CFR 63.1510(e)(1) and (2)]
The owner or operator of an affected source or emission unit subject to an emission limit in kg/Mg (lb/ton) or g/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.

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.

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.

**7.** [40 CFR 63.1510(j)(1) through (5)]
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:

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.

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).

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.

## III. Monitoring and/or Record Keeping Requirements (continued)

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).

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.

**8.** [40 CFR 63.1510(o)(1) through (8)]
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.

The owner or operator must develop, in consultation with the applicable permitting authority, a written site-specific monitoring plan. The site-specific monitoring plan must be part of the OM&M plan that addresses monitoring and compliance requirements for PM, HCl, and D/F emissions.
(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.

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.

Each site-specific monitoring plan must include provisions for unit labeling as required in paragraph (c) of 63.1510, feed/charge weight measurement (or production weight measurement) as required in paragraph (e) of this section and flux weight measurement as required in paragraph

## III. Monitoring and/or Record Keeping Requirements (continued)

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).

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.

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.

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 63.1510.

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.

**9.** [40 CFR 63.1510(p)(1) through (6)]
A scrap inspection program must include:

A proven method for collecting representative samples and measuring the oil and coatings content of scrap samples;

A scrap inspector training program;

An established correlation between visual inspection and physical measurement of oil and coatings content of scrap samples;

Periodic physical measurements of oil and coatings content of randomly-selected scrap samples and comparison with visual inspection results;

A system for assuring that only acceptable scrap is charged to an affected group 1 furnace; and

Recordkeeping requirements to document conformance with plan requirements.

## III. Monitoring and/or Record Keeping Requirements (continued)

**10.** [40 CFR 63.1510(q)(1) through (3)]
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:

Procedures for the characterization and documentation of the contaminant level of the scrap prior to the performance test.

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.

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.

**11.** [40 CFR 63.1510(s)(1) through (3)]
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).

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.

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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**12.** [40 CFR 63.1510(t)(1) through (5)]
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:

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.

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.

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.

Compute the 24-hour daily emission rate using Equation 4:
Eday~=~{sum from {i=1} to n (Ti x ERi)} OVER {sum from {i=1} to n Ti}
Where,
Eday = The daily PM, HCl, or D/F emission rate for the secondary aluminum processing unit for the 24-hour period;
Ti = The total amount of feed, or aluminum produced, for emission unit i for the 24-hour period (tons);
ERi = The measured emission rate for emission unit i as determined in the performance test (lb/ton or g/Mg of feed/charge); and
n = The number of emission units in the secondary aluminum processing unit.

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.

**13.** [40 CFR 63.1510(u)]
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.

**14.** [40 CFR 63.1517(a)(1) through (3)]
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.

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.

The owner or operator may retain records on microfilm, computer disks, magnetic tape, or microfiche; and

The owner or operator may report required information on paper or on a labeled computer disk using commonly available and EPA-compatible computer software.

## III. Monitoring and/or Record Keeping Requirements (continued)

**15.** [40 CFR 63.1517(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:

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.

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.

Approved site-specific monitoring plan for a group 1 furnace without add-on air pollution control devices with records documenting conformance with the plan.

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.

Records of monthly inspections for proper unit labeling for each affected source and emission unit subject to labeling requirements.

Records for any approved alternative monitoring or test procedure.

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) For major sources, OM&M plan; and
(iii) Site-specific secondary aluminum processing unit emission plan (if applicable).

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.

## IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## IV. Reporting Requirements (continued)

**2.** [40 CFR 63.1515(b)(1) through (4), (9) and (10)]
Each owner or operator must submit a notification of compliance status report within 60 days after the compliance dates specified in 63.1501. 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 63.1515. 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:

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).

The approved site-specific test plan and performance evaluation test results for each continuous monitoring system (including a continuous emission or opacity monitoring system).

Unit labeling as described in 63.1506(b), including process type or furnace classification and operating requirements.

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.

Approved OM&M plan (including site-specific monitoring plan for each group 1 furnace with no add-on air pollution control device).

Startup, shutdown, and malfunction plan, with revisions.

**3.** [40 CFR 63.1516(a)(1) through (3)]
The owner or operator must develop and implement a written plan as described in 63.6(e)(3) that contains specific procedures to be followed for operating and maintaining the source during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the standard. The owner or operator shall also keep records of each event as required by 63.10(b) and record and report if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the plan as described in 63.6(e)(3). In addition to the information required in 63.6(e)(3), the plan must include:

Procedures to determine and record the cause of the malfunction and the time the malfunction began and ended; and

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.

## IV. Reporting Requirements (continued)

As required by 63.10(e)(3), the owner or operator must submit semiannual reports within 60 days after the end of each 6-month period. Each report must contain the information specified in 63.10(c). 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.

A report must be submitted if any of these conditions occur during a 6-month reporting period:
(i) 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).
(ii) 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).
(iii) An affected source (including an emission unit in a secondary aluminum processing unit) was not operated according to the requirements of this subpart.
(iv) A deviation from the 3-day, 24-hour rolling average emission limit for a secondary aluminum processing unit.

Each report must include this certification: 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."

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.

**4.** [40 CFR 63.1516(c)]
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:

Any period of excess emissions, as defined in paragraph (b)(1) of 63.1516, that occurred during the year were reported as required by this subpart; and

All monitoring, recordkeeping, and reporting requirements were met during the year.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**1.a** Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996. No visible emission testing is specifically required to demonstrate compliance with this limit but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).

## V. Testing Requirements (continued)

**1.b** Emission Limitation:

1.0 pound per hour of particulate emissions

Applicable Compliance Method:

There are two possible sources of particulate emissions from this emissions unit: (1) combustion products from natural gas firing, and (2) particulate emissions from the degassing operation, in relation to the chlorine component.

Particulate emissions from gas firing is calculated by using the emission factor of 1.9 lbs of particulate/mmcf of natural gas from AP-42 Table 1.4-2, Supplement D, Fifth Edition, dated 7/98, and the monitoring and record keeping requirements specified in section A.III.2 above as follows:

mmcf gas/day x 1.9 lbs/mmcf = (lb/day)/24 = lb/hr particulate emissions.

Particulate emissions from the degassing operation will be generated only during the production of alloy products containing little or no magnesium. These alloys comprise no more than 10% of the maximum production rate of 540,000 lbs/day or 54,000 lbs/day.

The purpose for the chlorine component in the degassing process is to remove hydrogen from the metal. Chlorine will chemically combine with hydrogen, and with magnesium and aluminum to form dross. The amount of chloride components in the dross depends on the total volume of chlorine available less that amount which combines with hydrogen. At the maximum production rates mentioned above, the chlorine component of the degassing agent will be 72.4 lbs/day. As is shown in section A.V.7 below, 1.6 lbs/day of chlorine will be used to form HCl leaving 70.8 lbs/day available for chloride components of dross. During the production of alloyed aluminum products with little or no magnesium alloy, some percentage of the AlCl3 can be emitted as particulates with the balance forming the chloride components of dross.

If we assume, however, that all of the AlCl3 generated in this case would be emitted as particulates and the alloyed aluminum products with little or no magnesium comprise a maximum of 10% of the metal production, the particulate emission rate at maximum production would be:

2 Al + 3 Cl2 --- 2 AlCl3

3 (35.5 x 2)/ 70.8 lbs/day x 10% = ( 2 (26) + 2 (3 x 35.5))/x
x = 8.8 lbs/day of AlCl3 particulate

or 0.37 lb/hr particulate emissions from the degassing operation.

Thus, the total particulate emission rate from this emissions unit is shown as follows:

lb/hr particulate emissions from gas firing + 0.37 lb/hr particulate emissions from degassing = total lb/hr particulate emissions from this emissions unit.

If required, compliance with the above emission limit shall be determined in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

## V. Testing Requirements (continued)

**1.c** Emission Limitation:

0.05 pound per hour of sulfur dioxide emissions

Applicable Compliance Method:

Sulfur dioxide emissions from gas firing may be calculated by using the emission factor of 0.6 lb of sulfur dioxide/mmcf of natural gas from AP-42 Table 1.4-2, Supplement D, Fifth Edition, dated 7/98, and the monitoring and record keeping requirements specified in section A.III.2 above as follows:

(mmcf gas/day x 0.6 lb/mmcf) / (hours of operation/day) = lb/hr of sulfur dioxide emissions.

If required, compliance with the above emission limit shall be determined in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

**1.d** Emission Limitation:

0.24 pound per hour of organic compound emissions

Applicable Compliance Method:

Organic compound emissions from gas firing may be calculated by using the emission factor of 5.5 lbs of organic compounds/mmcf of natural gas from AP-42 Table 1.4-2, Supplement D, Fifth Edition, dated 7/98, and the monitoring and record keeping requirements specified in section A.III.2 above as follows:

(mmcf gas/day x 5.5 lb/mmcf) / (hours of operation/day) = lb/hr of organic compound emissions.

If required, compliance with the above emission limit shall be determined in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18, 25, or 25A, as appropriate.

**1.e** Emission Limitation:

11.13 pounds per hour of nitrogen oxides emissions

Applicable Compliance Method:

Nitrogen oxides emissions from this emissions unit may be calculated by using the emission factor of 100 lbs of nitrogen oxides/mmcf of natural gas from AP-42 Table 1.4-1, Supplement D, Fifth Edition, dated 7/98, and the monitoring and record keeping requirements specified in section A.III.2 above as follows:

(mmcf gas/day x 100 lb/mmcf) / (hours of operation/day) = lb/hr NOx emissions.

If required, compliance with the above emission limit shall be determined in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7.

## V. Testing Requirements (continued)

**1.f** Emission Limitation:

2.75 pounds per hour of carbon monoxide

Applicable Compliance Method:

Carbon monoxide emissions from this emissions unit may be calculated by using the emission factor of 84 lbs of carbon monoxde/mmcf of natural gas from AP-42 Table 1.4-1, Supplement D, Fifth Edition, dated 7/98, and the monitoring and record keeping requirements specified in section A.III.2 above as follows:

(mmcf gas/day x 84 lb/mmcf) / (hours of operation/day) = lb/hr CO emissions.

If required, compliance with the above emission limit shall be determined in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

**1.g** Emission Limitation:

0.33 mg per cubic meter of hydrogen emissions

Applicable Compliance Method:

As stated in section A.V.2.b, the addition of chlorine as a component of the degassing agent is for the removal of hydrogen from the molten aluminum. The inert argon component helps to extend the active agent chlorine through the molten metal to improve the efficacy of the chlorine addition. Molten aluminum normally contains 0.25cc of hydrogen per 100 grams of aluminum. Chlorine is added to reduce the ratio to 0.15cc per 100 grams of metal. This reduction generates HCl emissions as described below:

At the maximum production rate, the following amount of hydrogen is removed:

540,000 lbs/day x 453.7 gm/lb x 0.10cc H2/100 gms Al = 244,998 cc/day or 245 liters H2/day. This removal results in the following maximum HCl emission rate:

H2 + Cl2 --- 2HCl
245 liters/day of H2 will stoichiometrically form
490 liters/day of HCl, and
490 liters/day x 1.64 g/liter (density HCl)= 803.6 gm/day = 1.77 lbs/day

NOTE: Based on the above, 245 liters/day Cl, or 1.62 lbs/day Cl, is used to remove the hydrogen from the metal as follows: 245 liters/day Cl / 28.32 liters/cf = 8.65 cf/day x 0.183 lb/cf = 1.6 lbs/day. The remaining Cl combines to form dross components or potential AlCl3 particulate as described in section A.V.2.b above.

Per Ohio EPA's policy for the control of toxic air emissions during new source review, the maximum acceptable ground level concentration (MAGLC) is calculated as follows:

The threshold limit value (TLV) for HCl has been determined to be 7 mg/cm.

This unit is a batch type operation with 4 hours per batch and 6 batches/day, therefore, degassing requirements are 2 hours per batch x 6 batches/day = 12 hours/day.

MAGLC = 4 TLV/x y (x = hrs/day, y = days/wk)

MAGLC = 4 (7 mg/cm)/(12 x 7) = 0.33 mg/cm

If required, compliance with the above emission limit may also be determined in accordance with 40 CFR Part 60, Appendix A, Method 26.

## V. Testing Requirements (continued)

**2.** [40 CFR 63.1511(a)]
Prior to conducting a performance test required by this subpart, the owner or operator must prepare and submit a site-specific test plan meeting the requirements in 63.7(c).

**3.** [40 CFR 63.1511(b)]
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 must conduct each performance test according to the requirements of the general provisions in subpart A of this part and this subpart. 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.

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.

**4.** [40 CFR 63.1511(c)]
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:

Method 1 for sample and velocity traverses.

Method 2 for velocity and volumetric flow rate.

Method 3 for gas analysis.

Method 4 for moisture content of the stack gas.

Method 5 for the concentration of PM.

Method 9 for visible emission observations.

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.

**5.** [40 CFR 63.1511(d)]
The owner or operator may use an alternative test method, subject to approval by the Administrator.

**6.** [40 CFR 63.1511(e)]
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.

## V. Testing Requirements (continued)

**7.** [40 CFR 63.1511(f)(1) through (6)]
With the approval of the permitting authority, a single representative or similar group 1 furnace or in-line fluxer which is not controlled by an add-on control device may be tested to determine the emission rate of all like affected sources at a facility provided that:

The tested emission unit must use identical feed/charge and flux materials in the same proportions as the emission units that it represents;

The tested emission unit is subject to the same work practices and the emission units that it represents;

The tested emission unit is of the same design as the emission units that it represents;

The tested emission unit is tested under the highest load or capacity reasonably expected to occur for any of the emission units that it represents;

At least one of each different style of emission unit at the facility is tested; and

All add-on control devices are tested.

**8.** [40 CFR 63.1511(g)(1) through (4)]
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:

The complete emission test report(s) used as the basis of the parameter(s) is submitted.

The same test methods and procedures as required by Subpart RRR were used in the test.

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.

All process and control equipment operating parameters required to be monitored were monitored as required in this subpart and documented in the test report.

**9.** [40 CFR 63.1512(e)(2) and (3)]
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.

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.

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.

## V. Testing Requirements (continued)

**10.** [40 CFR 63.1512(h)(1) and (2)]
The owner or operator must conduct a performance test to measure emissions of HCl and PM. 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. If the in-line fluxer uses no reactive flux materials, emission tests for PM and HCl are not required.

The owner or operator may choose to determine the rate of reactive flux addition to the in-line fluxer and assume, for the purposes of demonstrating compliance with the SAPU emission limit, that all reactive flux added to the in-line fluxer is emitted. Under these circumstances, the owner or operator is not required to conduct an emission test for HCl.

**11.** [40 CFR 63.1512(j)(1) and (3)]
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 g TEQ/Mg of feed/charge for D/F emissions from each emission unit. These emission rates are used for compliance monitoring in the calculation of the 3-day, 24-hour rolling average emission rates using the equation in 63.1510(t). A performance test is required for:

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).

Each in-line fluxer to measure emissions of PM and HCl.

**12.** [40 CFR 63.1512(k)]
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.

## V. Testing Requirements (continued)

**13.** [40 CFR 63.1512(o)(1) through (3)]
The owner or operator must use these procedures to establish an operating parameter value or range for the total reactive chlorine flux injection rate.

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;

Record the identity, composition, and total weight of each addition of solid reactive flux for the 3 test runs;

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 this equation:
$Wt = F1W1 + F2W2$
Where,

Wt = Total chlorine usage, by weight;
F1 = Fraction of gaseous or liquid flux that is chlorine;
W1 = Weight of reactive flux gas injected;
F2 = Fraction of solid reactive chloride flux that is chlorine (e.g., F = 0.75 for magnesium chloride; and
W2 = Weight of solid reactive flux;

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

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.

**14.** [40 CFR 63.1513(b)]
Use this equation to determine compliance with an emission limit for PM, HCl, and D/F:
$E = \{C \times Q \times K1\} / P$

Where,
E = Emission rate of PM, HCl, or D/F, kg/Mg (lb/ton) of feed;
C = Concentration of PM, HCl, or D/F, g/dscm (gr/dscf);
Q = Volumetric flow rate of exhaust gases, dscm/hr (dscf/hr);
K1 = Conversion factor, 1 kg/1,000 g (1 lb/7,000 gr); and
P = Production rate, Mg/hr (ton/hr).

## V. Testing Requirements (continued)

**15.** [40 CFR 63.1513(e)(1) and (2)]
Use the procedures in paragraphs (e)(1) and (2) to determine compliance with emission limits for a secondary aluminum processing unit.

Use this equation to compute the mass-weighted PM emissions for a secondary aluminum processing unit. Compliance is achieved if the mass-weighted emissions for the secondary aluminum processing unit (EcPM) is less than or equal to the emission limit for the secondary aluminum processing unit (LcPM) calculated using Equation 1 in 63.1505(k).
EcPM = {sum from {i=1} to n (EtiPM times Tti)} over {sum from {i=1} to n (Tti)}
Where,
EcPM = The mass-weighted PM emissions for the secondary aluminum processing unit;
EtiPM = Measured PM emissions for individual emission unit i;
Tti = The average feed rate for individual emission unit i during the operating cycle or performance test period; an
n = The number of emission units in the secondary aluminum processing unit.

Use this equation to compute the aluminum mass-weighted HCl emissions for the secondary aluminum processing unit. Compliance is achieved if the mass-weighted emissions for the secondary aluminum processing unit (EcHCl) is less than or equal to the emission limit for the secondary aluminum processing unit (LcHCl) calculated using Equation 2 in 63.1505(k).
EcHCl = {sum from {i=1} to n (EtiHCl times Tti)} over {sum from {i=1} to n ( Tti)}
Where,
EcHCl = The mass-weighted HCl emissions for the secondary aluminum processing unit; and
EtiHCl = Measured HCl emissions for individual emission unit i.

As an alternative to using the equations in paragraphs (e)(1) and (2) 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).

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Direct Chill Casting Pit No. 1 (P235)

**Activity Description:** Direct Chill Casting Pit No. 1

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| direct chill casting pit no. 1 | OAC rule 3745-31-05(A)(3) (PTI 17-838) | This emissions unit is limited to:<br><br>1.5 pounds per hour of particulate emissions<br><br>0.05 pound per hour of sulfur dixoide emissions<br><br>0.24 pound per hour of organic compound emissions<br><br>11.13 pounds per hour of nitrogen oxides emissions<br><br>2.75 pounds per hour of carbon monoxide emissions<br><br>0.33 mg per cubic meter of hydrogen chloride emissions<br><br>See section A.I.2.a. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-17-11 | The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| | OAC rule 3745-18-06 | The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| | 40 CFR 63.1505 (Subpart RRR) | See A.I.2.b through A.I.2.d below. |

**2. Additional Terms and Conditions**

**2.a** There shall be no visible emissions during charging, slagging, and pouring activities.
There shall be no visible emissions from the melting, holding, and homogenizing stacks.

**2.b** [40 CFR 63.1505(i)]
The owner or operator of a group 1 furnace must use the limits in this paragraph to determine the emission standards for a SAPU.

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; and

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.

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.

**2.c** [40 CFR 63.1505(j)]
Except as provided in paragraph (j)(3) of 63.1505 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.

0.02 kg of HCl per Mg (0.04 lb of HCl per ton) of feed/charge; and

0.005 kg of PM per Mg (0.01 lb of PM per ton) of feed/charge.

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.

**2.d** [40 CFR 63.1505(k)(1) through (3)]
On and after the date of approval of the operation, maintenance and monitoring (OM&M) plan, the owner or operator must comply with the emission limits calculated using the equations for PM and HCl in paragraphs (k)(1) and (k)(2) of 63.1505 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 63.1505 for each secondary aluminum processing unit at a secondary aluminum production facility that is a major or area source.

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:
LcPM = {sum from {i=1} to n (LtiPM times Tti)} over {sum from {i=1} to n (Tti)}
Where,
LtiPM = The PM emission limit for individual emission unit i in paragraph (i)(1) and (2) of 63.1505 for a group 1 furnace or in paragraph (j)(2) of 63.1505 for an in-line fluxer;
Tti = The feed/charge rate for individual emission unit I; and
LcPM = The PM emission limit for the secondary aluminum processing unit.
NOTE: In-line fluxers using no reactive flux materials cannot be included in this calculation since they are not subject to the PM limit.

**2. Additional Terms and Conditions (continued)**

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:
LcHCl = {sum from {i=1} to n (LtiHCl times Tti)} over {sum from {i=1} to n ( Tti)}
Where,
LtiHCl = The HCl emission limit for individual emission unit i in paragraph (i)(4) of 63.1505 for a group 1 furnace or in paragraph (j)(1) of 63.1505 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.

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 63.1505 by demonstrating that each emission unit within the SAPU is in compliance with the applicable emission limits of paragraphs (i) and (j) of 63.1505.

## II. Operational Restrictions

**1.** [40 CFR 63.1506(a)(1) and (2)]
On and after the date on which the initial performance test is conducted or required to be conducted, whichever date is earlier, the owner or operator must operate all new and existing affected sources and control equipment according to the requirements in this section.

The completion of the initial performance tests for SAPUs shall be considered to be the date of approval of the OM&M plan by the permitting authority.

**2.** [40 CFR 63.1506(b)(1) and (2)]
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:

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).

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.

## II. Operational Restrictions (continued)

**3.** [40 CFR 63.1506(d)(1) through (3)]
The owner or operator of each affected source or emission unit subject to an emission limit in kg/Mg (lb/ton) of feed/charge must:

Except as provided in paragraph (d)(3) of 63.1506, 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

Operate each weight measurement system or other weight determination procedure in accordance with the OM&M plan.

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.

**4.** [40 CFR 63.1506(n)(1) through (3)]
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:

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.

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.

Operate each group 1 melting/holding furnace subject to the emission standards in 63.1505(i)(2) using only clean charge as the feedstock.

**5.** [40 CFR 63.1506(p)]
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.

## III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

## III. Monitoring and/or Record Keeping Requirements (continued)

**2.** The permittee shall maintain records of the following information:

a. the natural gas usage for each day;

b. the production rate, in pounds of aluminum per day; and

c. the hours of operation.

**3.** [40 CFR 63.1510(a)]
On and after the date the initial performance test is completed or required to be completed, whichever date is earlier, 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 Subpart RRR.

**4.** [40 CFR 63.1510(b)(1) through (8)]
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 must submit the plan to the applicable permitting authority for review and approval as part of the application for a part 70 or part 71 permit. Any subsequent changes to the plan must be submitted to the applicable permitting authority for review and approval. Pending approval by the applicable permitting authority of an initial or amended plan, the owner or operator must comply with the provisions of the submitted plan. Each plan must contain the following information:

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.

A monitoring schedule for each affected source and emission unit.

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.

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.

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.

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 63.1510, 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 was completed.

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.

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 63.1510 for each group 1 furnace not equipped with an add-on air pollution control device.

## III. Monitoring and/or Record Keeping Requirements (continued)

**5.** [40 CFR 63.1510(c)]
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.

**6.** [40 CFR 63.1510(e)(1) and (2)]
The owner or operator of an affected source or emission unit subject to an emission limit in kg/Mg (lb/ton) or g/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.

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.

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.

**7.** [40 CFR 63.1510(j)(1) through (5)]
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:

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.

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).

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.

## III. Monitoring and/or Record Keeping Requirements (continued)

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).

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.

**8.** [40 CFR 63.1510(o)(1) through (8)]
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.

The owner or operator must develop, in consultation with the applicable permitting authority, a written site-specific monitoring plan. The site-specific monitoring plan must be part of the OM&M plan that addresses monitoring and compliance requirements for PM, HCl, and D/F emissions.
(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.

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.

Each site-specific monitoring plan must include provisions for unit labeling as required in paragraph (c) of 63.1510, feed/charge weight measurement (or production weight measurement) as required in paragraph (e) of this section and flux weight measurement as required in paragraph

## III. Monitoring and/or Record Keeping Requirements (continued)

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).

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.

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.

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 63.1510.

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.

**9.** [40 CFR 63.1510(p)(1) through (6)]
A scrap inspection program must include:

A proven method for collecting representative samples and measuring the oil and coatings content of scrap samples;

A scrap inspector training program;

An established correlation between visual inspection and physical measurement of oil and coatings content of scrap samples;

Periodic physical measurements of oil and coatings content of randomly-selected scrap samples and comparison with visual inspection results;

A system for assuring that only acceptable scrap is charged to an affected group 1 furnace; and

Recordkeeping requirements to document conformance with plan requirements.

## III. Monitoring and/or Record Keeping Requirements (continued)

**10.** [40 CFR 63.1510(q)(1) through (3)]
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:

Procedures for the characterization and documentation of the contaminant level of the scrap prior to the performance test.

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.

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.

**11.** [40 CFR 63.1510(s)(1) through (3)]
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).

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.

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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**12.** [40 CFR 63.1510(t)(1) through (5)]
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:

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.

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.

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.

Compute the 24-hour daily emission rate using Equation 4:
Eday~=~{sum from {i=1} to n (Ti x ERi)} OVER {sum from {i=1} to n Ti}
Where,
Eday = The daily PM, HCl, or D/F emission rate for the secondary aluminum processing unit for the 24-hour period;
Ti = The total amount of feed, or aluminum produced, for emission unit i for the 24-hour period (tons);
ERi = The measured emission rate for emission unit i as determined in the performance test (lb/ton or g/Mg of feed/charge); and
n = The number of emission units in the secondary aluminum processing unit.

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.

**13.** [40 CFR 63.1510(u)]
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.

**14.** [40 CFR 63.1517(a)(1) through (3)]
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.

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.

The owner or operator may retain records on microfilm, computer disks, magnetic tape, or microfiche; and

The owner or operator may report required information on paper or on a labeled computer disk using commonly available and EPA-compatible computer software.

## III. Monitoring and/or Record Keeping Requirements (continued)

**15.** [40 CFR 63.1517(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:

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.

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.

Approved site-specific monitoring plan for a group 1 furnace without add-on air pollution control devices with records documenting conformance with the plan.

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.

Records of monthly inspections for proper unit labeling for each affected source and emission unit subject to labeling requirements.

Records for any approved alternative monitoring or test procedure.

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) For major sources, OM&M plan; and
(iii) Site-specific secondary aluminum processing unit emission plan (if applicable).

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.

## IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## IV. Reporting Requirements (continued)

**2.** [40 CFR 63.1515(b)(1) through (4), (9) and (10)]
Each owner or operator must submit a notification of compliance status report within 60 days after the compliance dates specified in 63.1501. 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 63.1515. 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:

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).

The approved site-specific test plan and performance evaluation test results for each continuous monitoring system (including a continuous emission or opacity monitoring system).

Unit labeling as described in 63.1506(b), including process type or furnace classification and operating requirements.

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.

Approved OM&M plan (including site-specific monitoring plan for each group 1 furnace with no add-on air pollution control device).

Startup, shutdown, and malfunction plan, with revisions.

**3.** [40 CFR 63.1516(a)(1) through (3)]
The owner or operator must develop and implement a written plan as described in 63.6(e)(3) that contains specific procedures to be followed for operating and maintaining the source during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the standard. The owner or operator shall also keep records of each event as required by 63.10(b) and record and report if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the plan as described in 63.6(e)(3). In addition to the information required in 63.6(e)(3), the plan must include:

Procedures to determine and record the cause of the malfunction and the time the malfunction began and ended; and

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.

## IV. Reporting Requirements (continued)

As required by 63.10(e)(3), the owner or operator must submit semiannual reports within 60 days after the end of each 6-month period. Each report must contain the information specified in 63.10(c). 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.

A report must be submitted if any of these conditions occur during a 6-month reporting period:
(i) 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).
(ii) 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).
(iii) An affected source (including an emission unit in a secondary aluminum processing unit) was not operated according to the requirements of this subpart.
(iv) A deviation from the 3-day, 24-hour rolling average emission limit for a secondary aluminum processing unit.

Each report must include this certification: 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."

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.

**4.** [40 CFR 63.1516(c)]
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:

Any period of excess emissions, as defined in paragraph (b)(1) of 63.1516, that occurred during the year were reported as required by this subpart; and

All monitoring, recordkeeping, and reporting requirements were met during the year.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**1.a** Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996. No visible emission testing is specifically required to demonstrate compliance with this limit but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).

## V. Testing Requirements (continued)

**1.b** Emission Limitation:

1.5 pounds per hour of particulate emissions

Applicable Compliance Method:

There are two possible sources of particulate emissions from this emissions unit: (1) combustion products from natural gas firing, and (2) particulate emissions from the degassing operation, in relation to the chlorine component.

Particulate emissions from gas firing is calculated by using the emission factor of 1.9 lbs of particulate/mmcf of natural gas from AP-42 Table 1.4-2, Supplement D, Fifth Edition, dated 7/98, and the monitoring and record keeping requirements specified in section A.III.2 above as follows:

mmcf gas/day x 1.9 lbs/mmcf = (lb/day)/24 = lb/hr particulate emissions.

Particulate emissions from the degassing operation will be generated only during the production of alloy products containing little or no magnesium. These alloys comprise no more than 10% of the maximum production rate of 780,000 lbs/day or 78,000 lbs/day.

The purpose for the chlorine component in the degassing process is to remove hydrogen from the metal. Chlorine will chemically combine with hydrogen, and with magnesium and aluminum to form dross. The amount of chloride components in the dross depends on the total volume of chlorine available less that amount which combines with hydrogen. At the maximum production rates mentioned above, the chlorine component of the degassing agent will be 352.6 lbs/day. As is shown in section A.V.7 below, 3.4 lbs/day of chlorine will be used to form HCl leaving 349.2 lbs/day available for chloride components of dross. During the production of alloyed aluminum products with little or no magnesium alloy, some percentage of the AlCl3 can be emitted as particulates with the balance forming the chloride components of dross.

If we assume, however, that all of the AlCl3 generated in this case would be emitted as particulates and the alloyed aluminum products with little or no magnesium comprise a maximum of 10% of the metal production, the particulate emission rate at maximum production would be:

2 Al + 3 Cl2 --- 2 AlCl3

3 (35.5 x 2)/ 349.2 lbs/day x 10% = ( 2 (26) + 2 (3 x 35.5))/x
x = 27.4 lbs/day of AlCl3 particulate

or 1.14 lbs/hr particulate emissions from the degassing operation.

Thus, the total particulate emission rate from this emissions unit is shown as follows:

lb/hr particulate emissions from gas firing + 1.14 lbs/hr particulate emissions from degassing = total lb/hr particulate emissions from this emissions unit.

If required, compliance with the above emission limit shall be determined in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

## V. Testing Requirements (continued)

**1.c** Emission Limitation:

0.05 pound per hour of sulfur dioxide emissions

Applicable Compliance Method:

Sulfur dioxide emissions from gas firing may be calculated by using the emission factor of 0.6 lb of sulfur dioxide/mmcf of natural gas from AP-42 Table 1.4-2, Supplement D, Fifth Edition, dated 7/98, and the monitoring and record keeping requirements specified in section A.III.2 above as follows:

(mmcf gas/day x 0.6 lb/mmcf) / (hours of operation/day) = lb/hr of sulfur dioxide emissions.

If required, compliance with the above emission limit shall be determined in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

**1.d** Emission Limitation:

0.24 pound per hour of organic compound emissions

Applicable Compliance Method:

Organic compound emissions from gas firing may be calculated by using the emission factor of 5.5 lbs of organic compounds/mmcf of natural gas from AP-42 Table 1.4-2, Supplement D, Fifth Edition, dated 7/98, and the monitoring and record keeping requirements specified in section A.III.2 above as follows:

(mmcf gas/day x 5.5 lb/mmcf) / (hours of operation/day) = lb/hr of organic compound emissions.

If required, compliance with the above emission limit shall be determined in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18, 25, or 25A, as appropriate.

**1.e** Emission Limitation:

11.13 pounds per hour of nitrogen oxides emissions

Applicable Compliance Method:

Nitrogen oxides emissions from this emissions unit may be calculated by using the emission factor of 100 lbs of nitrogen oxides/mmcf of natural gas from AP-42 Table 1.4-1, Supplement D, Fifth Edition, dated 7/98, and the monitoring and record keeping requirements specified in section A.III.2 above as follows:

(mmcf gas/day x 100 lb/mmcf) / (hours of operation/day) = lb/hr NOx emissions.

If required, compliance with the above emission limit shall be determined in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7.

## V. Testing Requirements (continued)

**1.f** Emission Limitation:

2.75 pounds per hour of carbon monoxide

Applicable Compliance Method:

Carbon monoxide emissions from this emissions unit may be calculated by using the emission factor of 84 lbs of carbon monoxde/mmcf of natural gas from AP-42 Table 1.4-1, Supplement D, Fifth Edition, dated 7/98, and the monitoring and record keeping requirements specified in section A.III.2 above as follows:

(mmcf gas/day x 84 lb/mmcf) / (hours of operation/day) = lb/hr CO emissions.

If required, compliance with the above emission limit shall be determined in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

**1.g** Emission Limitation:

0.33 mg per cubic meter of hydrogen emissions

Applicable Compliance Method:

As stated in section A.V.2.b, the addition of chlorine as a component of the degassing agent is for the removal of hydrogen from the molten aluminum. The inert argon component helps to extend the active agent chlorine through the molten metal to improve the efficacy of the chlorine addition. Molten aluminum normally contains 0.25cc of hydrogen per 100 grams of aluminum. Chlorine is added to reduce the ratio to 0.15cc per 100 grams of metal. This reduction generates HCl emissions as described below:

At the maximum production rate, the following amount of hydrogen is removed:

780,000 lbs/day x 453.7 gm/lb x 0.15cc H2/100 gms Al = 530,829 cc/day or 530 liters H2/day. This removal results in the following maximum HCl emission rate:

H2 + Cl2 --- 2HCl
530 liters/day of H2 will stoichiometrically form
1060 liters/day of HCl, and
1060 liters/day x 1.64 g/liter (density HCl)= 1741.1 gm/day = 3.83 lbs/day

NOTE: Based on the above, 530 liters/day Cl, or 1.62 lbs/day Cl, is used to remove the hydrogen from the metal as follows: 530 liters/day Cl / 28.32 liters/cf = 18.71 cf/day x 0.183 lb/cf = 3.4 lbs/day. The remaining Cl combines to form dross components or potential AlCl3 particulate as described in section A.V.2.b above.

Per Ohio EPA's policy for the control of toxic air emissions during new source review, the maximum acceptable ground level concentration (MAGLC) is calculated as follows:

The threshold limit value (TLV) for HCl has been determined to be 7 mg/cm.

This unit is a batch type operation with 4 hours per batch and 6 batches/day, therefore, degassing requirements are 2 hours per batch x 6 batches/day = 12 hours/day.

MAGLC = 4 TLV/x y (x = hrs/day, y = days/wk)

MAGLC = 4 (7 mg/cm)/(12 x 7) = 0.33 mg/cm

If required, compliance with the above emission limit may also be determined in accordance with 40 CFR Part 60, Appendix A, Method 26.

## V. Testing Requirements (continued)

**2.** [40 CFR 63.1511(a)]
Prior to conducting a performance test required by this subpart, the owner or operator must prepare and submit a site-specific test plan meeting the requirements in 63.7(c).

**3.** [40 CFR 63.1511(b)]
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 must conduct each performance test according to the requirements of the general provisions in subpart A of this part and this subpart. 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.

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.

**4.** [40 CFR 63.1511(c)]
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:

Method 1 for sample and velocity traverses.

Method 2 for velocity and volumetric flow rate.

Method 3 for gas analysis.

Method 4 for moisture content of the stack gas.

Method 5 for the concentration of PM.

Method 9 for visible emission observations.

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.

**5.** [40 CFR 63.1511(d)]
The owner or operator may use an alternative test method, subject to approval by the Administrator.

**6.** [40 CFR 63.1511(e)]
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.

## V. Testing Requirements (continued)

**7.** [40 CFR 63.1511(f)(1) through (6)]
With the approval of the permitting authority, a single representative or similar group 1 furnace or in-line fluxer which is not controlled by an add-on control device may be tested to determine the emission rate of all like affected sources at a facility provided that:

The tested emission unit must use identical feed/charge and flux materials in the same proportions as the emission units that it represents;

The tested emission unit is subject to the same work practices and the emission units that it represents;

The tested emission unit is of the same design as the emission units that it represents;

The tested emission unit is tested under the highest load or capacity reasonably expected to occur for any of the emission units that it represents;

At least one of each different style of emission unit at the facility is tested; and

All add-on control devices are tested.

**8.** [40 CFR 63.1511(g)(1) through (4)]
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:

The complete emission test report(s) used as the basis of the parameter(s) is submitted.

The same test methods and procedures as required by Subpart RRR were used in the test.

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.

All process and control equipment operating parameters required to be monitored were monitored as required in this subpart and documented in the test report.

**9.** [40 CFR 63.1512(e)(2) and (3)]
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.

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.

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.

## V. Testing Requirements (continued)

**10.** [40 CFR 63.1512(h)(1) and (2)]
The owner or operator must conduct a performance test to measure emissions of HCl and PM. 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. If the in-line fluxer uses no reactive flux materials, emission tests for PM and HCl are not required.

The owner or operator may choose to determine the rate of reactive flux addition to the in-line fluxer and assume, for the purposes of demonstrating compliance with the SAPU emission limit, that all reactive flux added to the in-line fluxer is emitted. Under these circumstances, the owner or operator is not required to conduct an emission test for HCl.

**11.** [40 CFR 63.1512(j)(1) and (3)]
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 g TEQ/Mg of feed/charge for D/F emissions from each emission unit. These emission rates are used for compliance monitoring in the calculation of the 3-day, 24-hour rolling average emission rates using the equation in 63.1510(t). A performance test is required for:

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).

Each in-line fluxer to measure emissions of PM and HCl.

**12.** [40 CFR 63.1512(k)]
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.

## V. Testing Requirements (continued)

**13.** [40 CFR 63.1512(o)(1) through (3)]
The owner or operator must use these procedures to establish an operating parameter value or range for the total reactive chlorine flux injection rate.

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;

Record the identity, composition, and total weight of each addition of solid reactive flux for the 3 test runs;

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 this equation:
$Wt = F1W1 + F2W2$
Where,

Wt = Total chlorine usage, by weight;
F1 = Fraction of gaseous or liquid flux that is chlorine;
W1 = Weight of reactive flux gas injected;
F2 = Fraction of solid reactive chloride flux that is chlorine (e.g., F = 0.75 for magnesium chloride; and
W2 = Weight of solid reactive flux;

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

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.

**14.** [40 CFR 63.1513(b)]
Use this equation to determine compliance with an emission limit for PM, HCl, and D/F:
$E = \{C \times Q \times K1\} / P$

Where,
E = Emission rate of PM, HCl, or D/F, kg/Mg (lb/ton) of feed;
C = Concentration of PM, HCl, or D/F, g/dscm (gr/dscf);
Q = Volumetric flow rate of exhaust gases, dscm/hr (dscf/hr);
K1 = Conversion factor, 1 kg/1,000 g (1 lb/7,000 gr); and
P = Production rate, Mg/hr (ton/hr).

## V. Testing Requirements (continued)

**15.** [40 CFR 63.1513(e)(1) and (2)]
Use the procedures in paragraphs (e)(1) and (2) to determine compliance with emission limits for a secondary aluminum processing unit.

Use this equation to compute the mass-weighted PM emissions for a secondary aluminum processing unit. Compliance is achieved if the mass-weighted emissions for the secondary aluminum processing unit (EcPM) is less than or equal to the emission limit for the secondary aluminum processing unit (LcPM) calculated using Equation 1 in 63.1505(k).
EcPM = {sum from {i=1} to n (EtiPM times Tti)} over {sum from {i=1} to n (Tti)}
Where,
EcPM = The mass-weighted PM emissions for the secondary aluminum processing unit;
EtiPM = Measured PM emissions for individual emission unit i;
Tti = The average feed rate for individual emission unit i during the operating cycle or performance test period; an
n = The number of emission units in the secondary aluminum processing unit.

Use this equation to compute the aluminum mass-weighted HCl emissions for the secondary aluminum processing unit. Compliance is achieved if the mass-weighted emissions for the secondary aluminum processing unit (EcHCl) is less than or equal to the emission limit for the secondary aluminum processing unit (LcHCl) calculated using Equation 2 in 63.1505(k).
EcHCl = {sum from {i=1} to n (EtiHCl times Tti)} over {sum from {i=1} to n ( Tti)}
Where,
EcHCl = The mass-weighted HCl emissions for the secondary aluminum processing unit; and
EtiHCl = Measured HCl emissions for individual emission unit i.

As an alternative to using the equations in paragraphs (e)(1) and (2) 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).

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** SPL Vitrification #1 (P236)

**Activity Description:** Spent Potliner vitrification (permit 2 of 2)

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| spent potliner vitrification process vented to the dry scrubber system through the vitrification baghouse | OAC rule 3745-31-05(A)(3) (PTI 17-1400 and 17-1588) | This emissions unit is limited to:<br><br>Particulate emissions shall not exceed 0.0151 lb/hr and 0.066 ton/year.<br><br>Sulfur dioxide (SO2) emissions shall not exceed 0.0073 lb/hr and 0.032 ton/year.<br><br>Volatile organic compound (VOC) emissions shall not exceed 0.0641 lb/hr and 0.2808 ton/year.<br><br>Nitrogen oxides (NOx) emissions shall not exceed 1.2098 lbs/hr and 5.2989 tons/year.<br><br>Carbon monoxide (CO) emissions shall not exceed 0.2420 lb/hr and 1.06 tons/year.<br><br>Gaseous fluoride emissions shall not exceed 0.2539 lb/hr and 1.11 tons/year. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-17-11(B) | The emission limitation specified by this rule is less stringent than the emission limit established pursuant to OAC rule 3745-31-05(A)(3). |

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| | OAC rule 3745-18-06(E)(2) | The emission limitation specified by this rule is less stringent than the emission limit established pursuant to OAC rule 3745-31-05(A)(3). |

**2. Additional Terms and Conditions**

**2.a** All air pollutant emissions shall be vented to the control system for this emissions unit.

## II. Operational Restrictions

**1.** The pressure drop across the vitrification baghouse shall be maintained within the range of 2 to 8 inches of water while the emissions unit is in operation.

**2.** The pressure drop across the dry scrubber shall be maintained within the range of 4 to 18 inches of water while the emissions unit is in operation. The pressure drop range was determined from actual data and varies due to ambient and flue gas temperatures.

## III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall properly operate and maintain equipment to monitor the pressure drop across the vitrification baghouse and the dry scrubber system while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse and the dry scrubber system on a once-per-shift basis.

**2.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

## IV. Reporting Requirements

**1.** The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the vitrification baghouse and the dry scrubber did not comply with the allowable range specified in sections A.II.1 and A.II.2 above. These reports shall be submitted to the Ohio EPA, Southeast District Office within 30 days of the end of the calendar quarter.

**2.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

**1.a** Emission Limitation:

Particulate emissions shall not exceed 0.0151 lb/hr and 0.066 ton/year.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be demonstrated based upon the methods and procedures specified in section A.V.2.

The annual allowable was developed by multiplying the maximum hourly allowable particulate emission rate (0.0151 lbs/hr) by the maximum annual hours of operation (8760 hours), and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

**1.b** Emission Limitation:

Sulfur dioxide emissions shall not exceed 0.0073 lb/hr and 0.032 ton/year.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be demonstrated based upon the methods and procedures specified in section A.V.2.

The annual allowable was developed by multiplying the maximum hourly allowable particulate emission rate (0.0073 lbs/hr) by the maximum annual hours of operation (8760 hours), and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

**1.c** Emission Limitation:

Volatile organic compound emissions shall not exceed 0.0641 lb/hr and 0.2808 ton/year.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be demonstrated based upon the methods and procedures specified in section A.V.2.

The annual allowable was developed by multiplying the maximum hourly allowable particulate emission rate (0.0641 lbs/hr) by the maximum annual hours of operation (8760 hours), and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

**1.d** Emission Limitation:

Nitrogen oxides emissions shall not exceed 1.2098 lbs/hr and 5.2989 tons/year.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be demonstrated based upon the methods and procedures specified in section A.V.2.

The annual allowable was developed by multiplying the maximum hourly allowable particulate emission rate (1.2098 lbs/hr) by the maximum annual hours of operation (8760 hours), and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

## V. Testing Requirements (continued)

**1.e** Emission Limitation:

Carbon monoxide emissions shall not exceed 0.2420 lb/hr and 1.06 tons/year.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be demonstrated based upon the methods and procedures specified in section A.V.2.

The annual allowable was developed by multiplying the maximum hourly allowable particulate emission rate (0.2420 lbs/hr) by the maximum annual hours of operation (8760 hours), and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

**1.f** Emission Limitation:

Gaseous flouride emissions shall not exceed 0.2539 lb/hr and 1.11 tons/year.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be demonstrated based upon the methods and procedures specified in section A.V.2.

The annual allowable was developed by multiplying the maximum hourly allowable particulate emission rate (0.2539 lbs/hr) by the maximum annual hours of operation (8760 hours), and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

**1.g** Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996. The emissions testing, as described in section 2, shall include a demonstration of compliance with this limit.

**1.h** Operational Restriction:

The pressure drop across the vitrification baghouse shall be maintained within the range of 2 to 8 inches of water while the emissions unit is in operation.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring and record keeping requirements specified in section A.III.1.

## V. Testing Requirements (continued)

**1.i** Operational Restriction:

The pressure drop across the dry scrubber shall be maintained within the range of 4 to 18 inches of water while the emissions unit is in operation.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monitoring and record keeping requirements specified in section A.III.1.

**2.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 60 days after the restart of this emissions unit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulates, SO2, NOx, visible emissions, CO, VOC, and gaseous fluorides.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates:

for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A;
for SO2, Methods 1 through 4 and 6 of 40 CFR Part 60, Appendix A;
for NOx, Methods 1 through 4 and 7 of 40 CFR Part 60, Appendix A;
for visible emissions, Method 9 of 40 CFR Part 60, Appendix A;
for CO, Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A;
for VOC, Methods 1 through 4 and 18 or 25, as appropriate, of 40 CFR Part 60, Appendix A; and
for gaseous fluorides, Methods 1 through 4 and 13B of 40 CFR Part 60, Appendix A.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Anode Baking Furnace-665 (P900)

**Activity Description:** Anode Baking Furnace-665

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| anode baking furnace 665 | OAC rule 3745-17-11(B)(1) | Particulate emissions shall not exceed 19.3 pounds per hour. |
| | 40 CFR Part 63, Subpart LL | [63.843(c)]<br>The owner or operator shall not discharge or cause to be discharged into the atmosphere any emissions of total flouride (TF) or polycyclic organic matter (POM) in excess of the limits specified below from emissions units P999 and P900, combined:<br><br>Emissions of TF shall not exceed 0.20 lb/ton of green anode.<br><br>Emissions of POM shall not exceed 0.18 lb/ton of green anode. |
| | OAC rule 3745-18-06(D)(2) | Sulfur dioxide emissions shall not exceed 141 pounds per hour. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |

## 2. Additional Terms and Conditions

**2.a** [63.846(a),(c)]
The owner or operator of an existing anode bake furnace may demonstrate compliance by emission averaging according to the procedures in this section. The owner or operator may average TF and/or POM emissions from anode bake furnaces and demonstrate compliance with the limits in Table 3 of 40 CFR Part 63, Subpart LL using the procedures described below:

(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 40 CFR Part 63, Subpart LL in any one year; and

(2) To determine compliance with the applicable emission limit in Table 3 of 40 CFR Part 63, Subpart LL 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 40 CFR Part 63, Subpart LL, Secs. 63.847 and 63.849.

**2.b** [63.846(d)]
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 Sec. 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 Sec. 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

**2. Additional Terms and Conditions (continued)**

(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 record keeping 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 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 section A.IV.1.a.(2), 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 40 CFR Part 63, Subpart LL and this permit.

## II. Operational Restrictions

**None**

## III. Monitoring and/or Record Keeping Requirements

**1.** [63.848(c)]
TF and POM emissions from anode bake furnaces. Using the procedures in 40 CFR Part 63.847, section A.V of this permit, and 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.

**2.** [63.848(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 section A.III.8, 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.

**3.** [63.848(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.

**4.** [63.848(h)]
Corrective action. If a monitoring device for a primary control device measures an operating parameter outside the limit(s) established pursuant to Sec. 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 the corrective action procedures identified in the startup, shutdown, and malfunction plan 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.

**5.** [63.848(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.

**6.** [63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**7.** [63.848(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.

**8.** [63.848(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.

**9.** [63.850(e)(4)]
In addition to the general records required by Sec. 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; and

(iii) a copy of the startup, shutdown, and malfunction plan.

## IV. Reporting Requirements

**1.** [63.850(b), (c), (d)]
Notifications. The owner or operator shall submit the following written notifications:

(1) Performance test reports. The owner or operator shall report the results of the initial performance test. Except as provided in paragraph (3) 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.

(2) Startup, shutdown, and malfunction plan and reports. The owner or operator shall develop and implement a written plan as described in Sec. 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 permitting authority may review the plan upon request. In addition to the information required in Sec. 63.6(e)(3), the plan shall include:

(i) Procedures, including corrective actions, to be followed if a monitoring device measures an operating parameter outside the limit(s) established under Sec. 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 Sec. 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 Sec. 63.848(f)(5)(ii); and

(ii) The owner or operator shall also keep records of each event as required by Sec. 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 Sec. 63.6(e)(3)(iv).

(3) Excess emissions report. As required by Sec. 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 Sec. 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions.

## V. Testing Requirements

**1.** [63.847(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 Sec. 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 Sec. 63.848 for emission monitoring. In addition to the information required by Sec. 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) 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.

**2.** [63.847(c)]
Initial performance test. Following approval of the site-specific test plan, the owner or operator shall conduct an initial performance test during the first month following the compliance date in accordance with the procedures in this section. If a performance test has been conducted on the primary control system for the anode bake furnace within the 12 months prior to the compliance date, the results of that performance test may be used to determine initial compliance.

[63.847(d)(4)]
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 40 CFR Part 63 Subpart LL Section 63.847, 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 Secs. 63.843, 63.844, or 63.846 and this permit.

## V. Testing Requirements (continued)

**3.** [63.847(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 Sec. 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 40 CFR Part 63, Subpart LL and this permit.

(2) 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.

**4.** [63.849(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 40 CFR Part 60 for sample and velocity traverses;

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

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

(4) 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;

(5) Method 13A or Method 13B and Method 14 or Method 14A in appendix A to 40 CFR Part 60 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 40 CFR Part 63 Subpart LL 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 40 CFR Part 63 Subpart LL and Method 14 in appendix A to 40 CFR Part 60 or an approved alternative method for the concentration of POM where emissions are sampled from roof monitors not employing wet roof scrubbers.

**5.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**5.a** Emission Limitation:

19.3 pounds per hour of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the methods and procedures specified in section A.V.6.

## V. Testing Requirements (continued)

**5.b** Emission Limitation:

0.20 lb of TF per ton of green anode from emissions units P999 and P900, combined
0.18 lb of POM per ton of green anode from emissions units P999 and P900, combined

Applicable Compliance Method:

Compliance shall be demonstrated based upon the methods and procedures specified in sections A.V.1 through A.V.4.

**5.c** Emission Limitation:

141 pounds per hour of sulfur dioxide

Applicable Compliance Method:

Compliance shall be demonstrated based upon the methods and procedures specified in section A.V.6.

**5.d** Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996. No visible emission testing is specifically required to demonstrate compliance with this limit but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).

**6.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted approximately 1.5 years after permit issuance and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulates and sulfur dioxide.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A and for sulfur dioxide, Methods 1 through 4 and 6 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

## V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Alumina Ore Handling (P901)

**Activity Description:** Conveyor Alumina Ore Handling System

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| alumina ore handling | OAC rule 3745-17-08(B)(3) | Particulate emissions shall not exceed 0.030 grain per dry standard cubic foot of exhaust gases or there shall be no visible particulate emissions, whichever is less stringent. |
| | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |

**2. Additional Terms and Conditions**

**2.a** The permittee shall employ reasonably available control measures on the alumina ore handling system for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee shall maintain enclosures around the emissions unit and vent emissions to 5 baghouses installed in parallel to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing additional control measures to ensure compliance.

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouses serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

## III. Monitoring and/or Record Keeping Requirements (continued)

**2.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

## IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouses serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

**2.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**1.a** Emission Limitation:

0.030 grain per dry standard cubic foot of exhaust gases

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the method and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

## V. Testing Requirements (continued)

**1.b** Emission Limitation:

no visible emissions

Applicable Compliance Method:

Compliance shall be demonstrated using Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

**1.c** Emission Limitation:

20% opacity as a 3-minute average

Applicable Compliance Method:

Compliance with the visible emission limitation for fugitive emissions from the material handling operation(s) identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Hartman Unloader #1 (P902)

**Activity Description:** Hartman Unloader #1

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Hartman barge unloader #1 | OAC rule 3745-17-08(B)(3) | Particulate emissions shall not exceed 0.030 grain per dry standard cubic foot of exhaust gases or there shall be no visible particulate emissions, whichever is less stringent. |
| | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |

**2. Additional Terms and Conditions**

**2.a** The permittee shall employ reasonably available control measures on the Hartman barge unloader #1 for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee shall maintain enclosures around the emissions unit and vent emissions to a fabric filter baghouse to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing additional control measures to ensure compliance.

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

## III. Monitoring and/or Record Keeping Requirements (continued)

**2.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

## IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

**2.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**1.a** Emission Limitation:

0.030 grain per dry standard cubic foot of exhaust gases

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the method and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

## V. Testing Requirements (continued)

**1.b** Emission Limitation:

no visible emissions

Applicable Compliance Method:

Compliance shall be demonstrated using Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

**1.c** Emission Limitation:

20% opacity as a 3-minute average

Applicable Compliance Method:

Compliance with the visible emission limitation for fugitive emissions from the material handling operation(s) identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Hartman Unloader #2 (P903)

**Activity Description:** Hartman Unloader #2

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Hartman barge unloader #2 | OAC rule 3745-17-08(B)(3) | Particulate emissions shall not exceed 0.030 grain per dry standard cubic foot of exhaust gases or there shall be no visible particulate emissions, whichever is less stringent. |
| | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |

**2. Additional Terms and Conditions**

**2.a** The permittee shall employ reasonably available control measures on the Hartman barge unloader #2 for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee shall maintain enclosures around the emissions unit and vent emissions to a fabric filter baghouse to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing additional control measures to ensure compliance.

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

## III. Monitoring and/or Record Keeping Requirements (continued)

**2.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

## IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

**2.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**1.a** Emission Limitation:

0.030 grain per dry standard cubic foot of exhaust gases

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the method and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

## V. Testing Requirements (continued)

**1.b** Emission Limitation:

no visible emissions

Applicable Compliance Method:

Compliance shall be demonstrated using Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

**1.c** Emission Limitation:

20% opacity as a 3-minute average

Applicable Compliance Method:

Compliance with the visible emission limitation for fugitive emissions from the material handling operation(s) identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Hartman Unloader #3 (P904)

**Activity Description:** Hartman Unloader #3

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Hartman barge unloader #3 | OAC rule 3745-17-08(B)(3) | Particulate emissions shall not exceed 0.030 grain per dry standard cubic foot of exhaust gases or there shall be no visible particulate emissions, whichever is less stringent. |
| | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |

**2. Additional Terms and Conditions**

**2.a** The permittee shall employ reasonably available control measures on the Hartman barge unloader #3 for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee shall maintain enclosures around the emissions unit and vent emissions to a fabric filter baghouse to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing additional control measures to ensure compliance.

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

## III. Monitoring and/or Record Keeping Requirements (continued)

**2.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

## IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

**2.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**1.a** Emission Limitation:

0.030 grain per dry standard cubic foot of exhaust gases

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the method and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

## V. Testing Requirements (continued)

**1.b** Emission Limitation:

no visible emissions

Applicable Compliance Method:

Compliance shall be demonstrated using Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

**1.c** Emission Limitation:

20% opacity as a 3-minute average

Applicable Compliance Method:

Compliance with the visible emission limitation for fugitive emissions from the material handling operation(s) identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Hartman Unloader #4 (P905)

**Activity Description:** Hartman Unloader #4

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Hartman barge unloader #4 | OAC rule 3745-17-08(B)(3) | Particulate emissions shall not exceed 0.030 grain per dry standard cubic foot of exhaust gases or there shall be no visible particulate emissions, whichever is less stringent. |
| | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |

**2. Additional Terms and Conditions**

**2.a** The permittee shall employ reasonably available control measures on the Hartman barge unloader #4 for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee shall maintain enclosures around the emissions unit and vent emissions to a fabric filter baghouse to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing additional control measures to ensure compliance.

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

## III. Monitoring and/or Record Keeping Requirements (continued)

**2.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

## IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

**2.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**1.a** Emission Limitation:

0.030 grain per dry standard cubic foot of exhaust gases

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the method and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

## V. Testing Requirements (continued)

**1.b** Emission Limitation:

no visible emissions

Applicable Compliance Method:

Compliance shall be demonstrated using Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

**1.c** Emission Limitation:

20% opacity as a 3-minute average

Applicable Compliance Method:

Compliance with the visible emission limitation for fugitive emissions from the material handling operation(s) identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Bath Screen Feeder (P919)

**Activity Description:** Bath Screen Feeder

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Bath Screen Feeder vented to a baghouse. | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See sections A.I.2.a and A.I.2.b. |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-17-11(B) | Particulate emissions shall not exceed 13.6 pounds per hour, as calculated from Table 1. |

**2. Additional Terms and Conditions**

**2.a** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of reasonably available control measures(RACM). These measures shall include, but not be limited to, the following:

All equipment associated with this emissions unit which generates fugitive dust shall be vented to the baghouse, which shall achieve an outlet emission rate of not greater than 13.6 pounds of particulate emissions per hour from the baghouse exhaust stack.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this equipment, including, but not limited to: doorways, windows, and roof openings.

**2.b** Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

## II. Operational Restrictions

**None**

## III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**2.** The above-mentioned daily checks shall be performed during representative, normal operating conditions.

## IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and (c) describe any corrective actions taken to minimize or eliminate the visible particulate and/or visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**1.a** Emission Limitation:

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance with the visible emission limitation for fugitive emissions from the material handling operation(s) identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 2002, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

## V. Testing Requirements (continued)

**1.b** Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**1.c** Emission Limitation:

Particulate emissions shall not exceed 13.6 pounds per hour.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon emission testing conducted in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10). Emission testing is not specifically required to demonstrate compliance with this emission limitation, but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Bath Crusher (P920)

**Activity Description:** Bath Crusher Hammer Mill

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Bath Crusher Hammer Mill vented to a baghouse. | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See sections A.I.2.a and A.I.2.b. |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-17-11(B) | Particulate emissions shall not exceed 9.79 pounds per hour, as calculated from Figure II, curve P-1. |

**2. Additional Terms and Conditions**

**2.a** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of reasonably available control measures(RACM). These measures shall include, but not be limited to, the following:

All equipment associated with this emissions unit which generates fugitive dust shall be vented to the baghouse, which shall achieve an outlet emission rate of not greater than 9.79 pounds of particulate emissions per hour from the baghouse exhaust stack.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this equipment, including, but not limited to: doorways, windows, and roof openings.

**2.b** Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

## II. Operational Restrictions

**None**

## III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**2.** The above-mentioned daily checks shall be performed during representative, normal operating conditions.

## IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and (c) describe any corrective actions taken to minimize or eliminate the visible particulate and/or visible fugitive particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**1.a** Emission Limitation:

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance with the visible emission limitation for fugitive emissions from the material handling operation(s) identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 2002, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

## V. Testing Requirements (continued)

**1.b** Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**1.c** Emission Limitation:

Particulate emissions shall not exceed 9.79 pounds per hour.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon emission testing conducted in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10). Emission testing is not specifically required to demonstrate compliance with this emission limitation, but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Scrap Carbon Crusher (P923)

**Activity Description:** Carbon Crusher

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Spent carbon anode crushing operation (tumbler vibrator feeder, Didon tumbler, vibrator bin, jaw crusher, belt conveyor, cone crusher, bucket elevator, covered chute to conveyor or storage bin) with two three-module baghouses. (formerly P023) | OAC rule 3745-31-05(A)(3) (PTI 06-06859 issued 11/5/2002) | The fabric filters shall achieve an outlet emission rate of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases and no visible particulate emissions from the exhaust stack.<br><br>Particulate emissions shall not exceed 60.51 tons per year.<br><br>See sections A.I.2.a through A.I.2.e.<br><br>The requirements of this rule also includes compliance with the requirements of OAC rule 3745-17-07(B)(1). |
| | OAC rule 3745-17-07(B)(1) | Fugitive visible particulate emissions shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-07(A) | The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| | OAC rule 3745-17-08(B) | The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| | OAC rule 3745-17-11(B) | The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |

**2. Additional Terms and Conditions**

**2.a** The material handling operation(s) that are covered by this permit and subject to the above-mentioned requirements are listed below:

i. Load-in of spent anodes to tumbler feeder;
ii. Transfer to vibrator bin;
iii. Transfer jaw crusher to belt conveyor;
iv. Transfer belt conveyor to cone crusher;
v. Transfer to bucket elevator;
vi. Bucket elevator to chute; and
vii. Transfer to storage bin or covered belt conveyor.

**2.b** The permittee shall employ best available control measures for the above-identified material handling opertion(s) for the purpose of ensuring compliance with the applicable emission limitations. In accordance with the permit application, the following control measure(s) shall be performed in order to ensure compliance:

Material Handling Operations:

i. Load-in of spent anodes to tumbler feeder;
ii. Transfer to vibrator bin;
iii. Transfer jaw crusher to belt conveyor;
iv. Transfer belt conveyor to cone crusher;
v. Transfer to bucket elevator;
vi. Bucket elevator to chute; and
vii. Transfer to storage bin or covered belt conveyor.

Control Measures:

Use of baghouse dust collection systems with collection points located at each transfer point; and

Maintenance of full enclosure to prevent the escape of fugitive dust.

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

**2.c** The permittee shall employ the dust collection system and associated baghouses whenever emissions unit P023 is in operation.

**2.d** The permittee shall employ and properly maintain the lids and connecting piping or other comparable equivalent control measures on the receiving bins at the baghouse hoppers, and the collected dust shall be treated with a dust suppressant in sufficient quantities to minimize or eliminate any visible emissions of fugitive dust during the handling of the collected material, if required.

**2.e** Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rules 3745-17-08 and 3745-31-05.

## II. Operational Restrictions

**1.** Particulate emissions from this emissions unit shall be captured and vented to the baghouses at a rate sufficient to minimize or eliminate fugitive emissions inside the building.

**2.** The pressure drop across each baghouse shall be maintained within the manufacturer's recommended range, while the emissions unit is in operation, until a pressure drop range that is more representative of actual operating conditions can be established during the emission testing required in section A.V.2. The appropriate pressure drop range shall be determined and submitted in writing to the Ohio EPA, Southeast District Office within one month after completion of the emission tests.

The permittee may petition the Ohio EPA, Southeast District Office for reestablishment of the pressure drop range provided the permittee can demonstrate to the Ohio EPA, Southeast District Office's satisfaction that the operating conditions upon which the pressure drop range was previously established are no longer applicable.

## III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

**2.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**3.** The permittee shall properly operate and maintain equipment to monitor the pressure drop across each baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a once-per-shift basis.

## IV. Reporting Requirements

**1.** The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across each baghouse did not comply with the allowable range specified in section A.II.2.

## IV. Reporting Requirements (continued)

**2.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.

**3.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**1.a** Emission Limitation:

The fabric filters shall achieve an outlet emission rate of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases and no visible particulate emissions from the exhaust stack

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission test methods and procedures specified in section A.V.2.

## V. Testing Requirements (continued)

**1.b** Emission Limitation:

Particulate emissions shall not exceed 60.51 tons per year.

Applicable Compliance Method:

Compliance with the tons/yr emission limitation shall be demonstrated by the following one-time calculations using emission factors from AP 42, section 13.2.4.3 (01/95) and allowable grain loading of 0.030 gr/dscf:

Stack Emissions:

(0.030 gr particulate emissions/dscf) (22,000 acf/min) (60 min/hr) (8760 hr/yr) (1 lb/7000.0 gr) (1 ton/2000 lb) (2 baghouses) = 49.56 tons particulate emissions/yr

Fugitive Emissions:

From AP-42, 13.2.4.3 Equation 1:

E = k (0.0032) [((U/5)^1.3)/((M/2)^1.4)] lb particulate emissions/ton

k = particle size multiplier (0.74)
U = mean wind speed (4.4 mph)
M = material moisture content (0.025)

E = 1.02 lb particulate emissions/ton

Maximum throughput = 61,320 tons/yr

With 95% baghouse capture efficiency, fugitive particulate emissions =

(7 transfer points) (61,320 tons/yr) (1.02 lb particulate emissions/ton) (1 ton/2000 lb) (1 - 0.95) = 10.95 tons particulate emissions/yr

Total particulate emissions = 49.56 tons particulate emissions/yr + 10.95 tons particulate emissions/yr = 60.51 tons particulate emissions/yr

**1.c** Emission Limitation:

Fugitive visible particulate emissions shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance with the fugitive visible particulate emission limitation identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 2002, and the modifications listed in paragraph (B)(3) of OAC rule 3745-17-03.

## V. Testing Requirements (continued)

**2.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 3 months of permit issuance and every 2.5 years thereafter.

b. The emission testing shall be conducted to demonstrate compliance with the particulate emission limitation.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate and the visible particulate emission rate for stack emissions: Methods 1 through 5 and Method 22 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity.

e. The pressure drop across each baghouse shall be monitored during each run of this emissions test to establish the pressure drop range as specified in section A.II.2.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Pots 0-42, 1-A (P955)

**Activity Description:** Pots 0-42, 1-A

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| alumina reduction potline 1A - consisting of pots 0-42 vented through dry scrubber reactor #3 to the baghouses and then exhausting through a single stack | 40 CFR Part 63, Subpart LL [40 CFR 63.843(a)] | The permittee shall not discharge or cause to be discharged into the atmosphere any emissions of total flouride (TF) in excess of 1.5 kg/Mg (3.0 lbs/ton) of aluminum produced for each CWPB2 potline.<br><br>Any potline, other than a reconstructed potline, that is changed such that its applicable subcategory also changes shall meet the applicable emission limit in 40 CFR Part 63, Subpart LL for the original subcategory or the new subcategory, whichever is more stringent. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-17-11(A)(3) | Particulate emissions shall not exceed 12.6 pounds per hour. |
| | OAC rule 3745-18-06(E)(2) | Sulfur dioxide emissions shall not exceed 240 pounds per hour. |
| | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See section A.I.2.c. |

## 2. Additional Terms and Conditions

**2.a** [40 CFR 63.846(b)]
The permittee of an existing potline or anode bake furnace may demonstrate compliance by emission averaging according to the procedures in this section.

The permittee may average TF emissions from potlines and demonstrate compliance with the limits in Table 1 of 40 CFR Part 63 Subpart LL using the following procedures:

i. Monthly average emissions of TF shall not exceed the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL (for TF 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.

ii. To determine compliance with the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL 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 Secs. 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.

**2.b** [40 CFR 63.846(d)]
Implementation plan. The permittee 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:

i. The permittee must submit the implementation plan no later than 6 months before the date that the facility intends to comply with the emission averaging limits.

ii. The permittee 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:

(a) The identification of all emission sources (potlines or anode bake furnaces) in the average;

(b) The assigned TF emission limit for each averaging group of potlines or anode bake furnaces;

(c) 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;

(d) The test plan for the measurement of TF emissions in accordance with the requirements in Sec. 63.847(b);

(e) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;

(f) If the owner or operator requests to monitor an alternative operating parameter pursuant to Sec. 63.848(l):

**2. Additional Terms and Conditions (continued)**

1. A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

2. 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

(g) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.

iii. Approval criteria. Upon receipt, the regulatory authority shall review and approve or disapprove the plan or permit application according to the following criteria:

(a) Whether the content of the plan includes all of the information specified in this section; and

(b) Whether the plan or permit application presents sufficient information to determine that compliance will be achieved and maintained.

iv. Prohibitions. The applicable regulatory authority shall not approve an implementation plan or permit application containing any of the following provisions:

(a) 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;

(b) 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;

(c) The inclusion of any potline or anode bake furnace while it is shut down; or

(d) The inclusion of any periods of startup, shutdown, or malfunction, as described in the startup, shutdown, and malfunction plan required by Sec. 63.850(c), in the emission calculations.

v. 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.

(a) The applicable regulatory authority shall approve the plan for the term of the operating permit;

(b) To revise the plan prior to the end of the permit term, the permittee shall submit a request to the applicable regulatory authority; and

(c) The permittee may submit a request to the applicable regulatory authority to implement emission averaging after the applicable compliance date.

vi. Operation. While operating under an approved implementation plan, the permittee shall monitor the operating parameters of each control system, keep records, and submit periodic reports as required for each source subject to this permit.

**2. Additional Terms and Conditions (continued)**

**2.c** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of RACM. These measures shall include, but not be limited to, the following:

i. the use of the individual cells' moveable hoods, skirts, and doors in a manner that contains and captures, to the extent possible with good engineering design and operation, the fumes released from tapping, charging, carbon setting, and all other electrolytic reduction activities; and

ii. all fugitive dust captured within the RACM area shall be vented to the dry scrubber reactor #3 and the baghouses associated, in series, with this emissions unit.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this emissions unit, including, but not limited to: doorways, windows, and roof openings.

## II. Operational Restrictions

**1.** [40 CFR 63.847(e)(5)]
The permittee shall 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 section A.III.5.

**2.** [40 CFR 63.847(e)(6)]
The permittee shall 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.

## III. Monitoring and/or Record Keeping Requirements

**1.** [40 CFR 63.848(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 (7) of this section, the following monitoring devices shall be installed:

a. For dry alumina scrubbers, devices for the measurement of alumina flow and air flow;

b. For dry coke scrubbers, devices for the measurement of coke flow and air flow;

c. For wet scrubbers as the primary control system, devices for the measurement of water flow and air flow;

d. For electrostatic precipitators, devices for the measurement of voltage and secondary current; and

e. 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.

**2.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**3.** [40 CFR 63.848(h)]
Corrective action. If a monitoring device for a primary control device measures an operating parameter outside the limit(s) established pursuant to Sec. 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 the corrective action procedures identified in the startup, shutdown, and malfunction plan 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.

**4.** [40 CFR 63.848(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.

**5.** [40 CFR 63.848(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.

**6.** [40 CFR 63.848(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.

**7.** [40 CFR 63.848(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.

**8.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**9.** [40 CFR 63.850(e)]
Recordkeeping. The owner or operator shall maintain files of all information (including all reports and notifications) required by Sec. 63.10(b) and by this subpart.

a. 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;

b. The owner or operator may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche;

c. The owner or operator may report required information on paper or on a labeled computer disc using commonly available and compatible computer software; and

d. In addition to the general records required by Sec. 63.10(b), the owner or operator shall maintain records of the following information:

i. Daily production rate of aluminum;

ii. A copy of the startup, shutdown, and malfunction plan;

iii. Records of design information for paste production plant capture systems;

iv. 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;

v. Records supporting a request for reduced sampling of potlines;

vi. 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;

vii. The current implementation plan for emission averaging and any subsequent amendments;

viii. 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 Sec. 63.848(f)(5)(ii), including the results of each inspection;

ix. 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 Sec. 63.848(g), including the results of each inspection;

x. For a potline equipped with an HF continuous emission monitor, records of information and data required by Sec. 63.10(c);

xi. Records documenting the corrective actions taken when the limit(s) for an operating parameter established under Sec. 63.847(h) were exceeded, when visible emissions indicating abnormal operation were observed from a control device stack during a daily inspection required under Sec. 63.848(g), or when a problem was detected during the daily inspection of a wet roof scrubber for potline secondary control required in Sec. 63.848(f)(5)(ii);

xii. 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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**10.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the dry scrubber reactor/baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

**11.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**12.** The permittee shall maintain records of the following information for each month:

a. the average SO2 content (in percent sulfur) of the anodes for each shipment of anodes received;

b. the consumption rate of the anodes, in pounds of anodes consumed per pound of aluminum produced;

c. the amount of aluminum produced, in pounds;

d. the total hours of operation; and

e. the average hourly SO2 emission rate, i.e., (a X b X c) / d.

## IV. Reporting Requirements

**1.** [40 CFR 63.850(a)]
Notifications. The owner or operator shall submit the following written notifications:

a. Notification for an area source that subsequently increases its emissions such that the source is a major source subject to the standard;

b. Notification that a source is subject to the standard, where the initial startup is before the effective date of the standard;

c. 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;

d. 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;

e. Notification of initial performance test;

f. Notification of initial compliance status;

g. One-time notification for each affected source of the intent to use an HF continuous emission monitor; and

h. 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 Secs. 63.843, 63.844, and 63.846.

**2.** [40 CFR 63.850(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 section A.IV.1.f. Except as provided in paragraph 4. 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.

**3.** [40 CFR 63.850(c)]
Startup, shutdown, and malfunction plan and reports. The owner or operator shall develop and implement a written plan as described in Sec. 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 appplication or included in the operating permit. The permitting authority may review the plan upon request. In addition to the information required in Sec. 63.6(e)(3), the plan shall include:

a. Procedures, including corrective actions, to be followed if a monitoring device measures an operating parameter outside the limit(s) established under Sec. 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 Sec. 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 Sec. 63.848(f)(5)(ii); and

b. The owner or operator shall also keep records of each event as required by Sec. 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 Sec. 63.6(e)(3)(iv).

## IV. Reporting Requirements (continued)

**4.** [40 CFR 63.850(d)]
Excess emissions report. As required by Sec. 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 Sec. 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions.

**5.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the dry scrubber reactor/baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

**6.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** [40 CFR 63.847(b)]
a. Test plan. The owner or operator shall prepare a site-specific test plan prior to the initial performance test according to the requirements of Sec. 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 Sec. 63.848 for emission monitoring. In addition to the information required by Sec. 63.7, the test plan shall include:

i. Procedures to ensure a minimum of three runs are performed annually for the primary control system for each source;

ii. 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;

iii. 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;

iv. 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.

**2.** [40 CFR 63.847(c)]
Initial performance test. Following approval of the site- specific test plan, the owner or operator shall conduct an initial performance test during the first month following the compliance date in accordance with the procedures in this section. If a performance test has been conducted on the primary control system for potlines within the 12 months prior to the compliance date, the results of that performance test may be used to determine initial compliance.

## V. Testing Requirements (continued)

**3.** [40 CFR 63.847(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 40 CFR Part 63, Subpart A, the approved test plan, and the procedures in this section.

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 40 CFR 63.847(e)(1), 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 Secs. 63.843, 63.844, or 63.846.

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.** [40 CFR 63.847(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 Sec. 63.848(f).

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.

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.

**5.** [40 CFR 63.848(a)]
TF emissions from potlines. Using the procedures in Sec. 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.

## V. Testing Requirements (continued)

**6.** [40 CFR 63.848(d)]
Similar potlines. As an alternative to monthly monitoring of TF or POM secondary emissions from each potline using the test methods in Sec. 63.849, the owner or operator may perform monthly monitoring of TF or POM secondary emissions from one potline using the test methods in Secs. 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 (a.) through (g.) 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.

a. 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 Secs. 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.

b. An HF continuous emission monitoring system is an approved alternative for the monitoring of TF secondary emissions.

c. 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.

d. 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.

e. The owner or operator shall submit the results required in paragraph (d.) of this section and all supporting documentation to the applicable regulatory authority for review and approval.

f. 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.

g. 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.

## V. Testing Requirements (continued)

**7.** [40 CFR 63.848(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.

a. 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 (7)(a)(i) or (7)(a)(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.

b. An approved alternative requirement must include a test schedule and the method to be used to measure emissions for performance tests.

c. The owner or operator of a plant that has received approval of an alternative sampling frequency under Sec. 60.194 of this chapter is deemed to have approval of the alternative sampling frequency under this subpart.

d. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(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.

e. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(ii) of this section, the owner or operator shall immediately return to the monthly sampling schedule required by section A.V.5 until another request for an alternative sampling frequency is approved by the applicable regulatory authority.

**8.** [40 CFR 63.849(a)]
The owner or operator shall use the following reference methods to determine compliance with the applicable emission limits for TF and POM emissions:

a. Method 1 in appendix A to part 60 of this chapter for sample and velocity traverses;

b. Method 2 in appendix A to part 60 of this chapter for velocity and volumetric flow rate;

c. Method 3 in appendix A to part 60 of this chapter for gas analysis;

d. 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; 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.

## V. Testing Requirements (continued)

**9.** [40 CFR 63.849(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.

**10.** [40 CFR 63.849(e)]
The owner or operator may use an alternative test method for TF emissions providing:

a. 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 measurements using the alternative method; or

b. 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 Section A.V.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.

**11.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**11.a** Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

**11.b** Emission Limitation:

12.6 pounds per hour of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission test methods and procedures specified in section A.V.12.

**11.c** Emission Limitation:

240 pounds per hour of sulfur dioxide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monitoring and record keeping requirements specified in section A.III.12. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

## V. Testing Requirements (continued)

**11.d** Emission Limitation:

total flouride in excess of 1.5 kg/Mg (3.0 lb/ton) of aluminum produced for each CWPB2 potline

Applicable Compliance Method:

Compliance shall be demonstrated based upon the requirements specified in sections A.V.1 through A.V.10.

**12.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 12 to 24 months after issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

e. The permittee shall perform visible particulate emission observations in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9 during each emission test run.

Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office as required by 40 CFR 63.1515(a)(6). The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**1.** [40 CFR 63.851(a), 40 CFR 63.851(b)]

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)(i) through (a)(v) of this section or of approval or intent to deny approval of the submissions in paragraphs (a)(i) through (a)(v) 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.

i. The test plan in Sec. 63.847(b);

ii. Request to change limits for operating parameters in Sec. 63.847(h)(3);

iii. Request for similar potline monitoring in Sec. 63.848(d)(5);

iv. Request for reduced sampling frequency in Sec. 63.848(e); and

v. Request for an alternative method in Sec. 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.

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Pots 43-85, 1A (P956)

**Activity Description:** Pots 43-85, 1A

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| alumina reduction potline 1A - consisting of pots 43-85 vented through dry scrubber reactor #4 to the baghouses and then exhausting through a single stack | 40 CFR Part 63, Subpart LL [40 CFR 63.843(a)] | The permittee shall not discharge or cause to be discharged into the atmosphere any emissions of total flouride (TF) in excess of 1.5 kg/Mg (3.0 lbs/ton) of aluminum produced for each CWPB2 potline.<br><br>Any potline, other than a reconstructed potline, that is changed such that its applicable subcategory also changes shall meet the applicable emission limit in 40 CFR Part 63, Subpart LL for the original subcategory or the new subcategory, whichever is more stringent. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-17-11(A)(3) | Particulate emissions shall not exceed 12.6 pounds per hour. |
| | OAC rule 3745-18-06(E)(2) | Sulfur dioxide emissions shall not exceed 240 pounds per hour. |
| | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See section A.I.2.c. |

## 2. Additional Terms and Conditions

**2.a** [40 CFR 63.846(b)]
The permittee of an existing potline or anode bake furnace may demonstrate compliance by emission averaging according to the procedures in this section.

The permittee may average TF emissions from potlines and demonstrate compliance with the limits in Table 1 of 40 CFR Part 63 Subpart LL using the following procedures:

i. Monthly average emissions of TF shall not exceed the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL (for TF 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.

ii. To determine compliance with the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL 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 Secs. 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.

**2.b** [40 CFR 63.846(d)]
Implementation plan. The permittee 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:

i. The permittee must submit the implementation plan no later than 6 months before the date that the facility intends to comply with the emission averaging limits.

ii. The permittee 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:

(a) The identification of all emission sources (potlines or anode bake furnaces) in the average;

(b) The assigned TF emission limit for each averaging group of potlines or anode bake furnaces;

(c) 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;

(d) The test plan for the measurement of TF emissions in accordance with the requirements in Sec. 63.847(b);

(e) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;

(f) If the owner or operator requests to monitor an alternative operating parameter pursuant to Sec. 63.848(l):

**2. Additional Terms and Conditions (continued)**

1. A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

2. 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

(g) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.

iii. Approval criteria. Upon receipt, the regulatory authority shall review and approve or disapprove the plan or permit application according to the following criteria:

(a) Whether the content of the plan includes all of the information specified in this section; and

(b) Whether the plan or permit application presents sufficient information to determine that compliance will be achieved and maintained.

iv. Prohibitions. The applicable regulatory authority shall not approve an implementation plan or permit application containing any of the following provisions:

(a) 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;

(b) 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;

(c) The inclusion of any potline or anode bake furnace while it is shut down; or

(d) The inclusion of any periods of startup, shutdown, or malfunction, as described in the startup, shutdown, and malfunction plan required by Sec. 63.850(c), in the emission calculations.

v. 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.

(a) The applicable regulatory authority shall approve the plan for the term of the operating permit;

(b) To revise the plan prior to the end of the permit term, the permittee shall submit a request to the applicable regulatory authority; and

(c) The permittee may submit a request to the applicable regulatory authority to implement emission averaging after the applicable compliance date.

vi. Operation. While operating under an approved implementation plan, the permittee shall monitor the operating parameters of each control system, keep records, and submit periodic reports as required for each source subject to this permit.

**2. Additional Terms and Conditions (continued)**

**2.c** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of RACM. These measures shall include, but not be limited to, the following:

i. the use of the individual cells' moveable hoods, skirts, and doors in a manner that contains and captures, to the extent possible with good engineering design and operation, the fumes released from tapping, charging, carbon setting, and all other electrolytic reduction activities; and

ii. all fugitive dust captured within the RACM area shall be vented to the dry scrubber reactor #3 and the baghouses associated, in series, with this emissions unit.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this emissions unit, including, but not limited to: doorways, windows, and roof openings.

## II. Operational Restrictions

**1.** [40 CFR 63.847(e)(5)]
The permittee shall 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 section A.III.5.

**2.** [40 CFR 63.847(e)(6)]
The permittee shall 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.

## III. Monitoring and/or Record Keeping Requirements

**1.** [40 CFR 63.848(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 (7) of this section, the following monitoring devices shall be installed:

a. For dry alumina scrubbers, devices for the measurement of alumina flow and air flow;

b. For dry coke scrubbers, devices for the measurement of coke flow and air flow;

c. For wet scrubbers as the primary control system, devices for the measurement of water flow and air flow;

d. For electrostatic precipitators, devices for the measurement of voltage and secondary current; and

e. 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.

**2.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**3.** [40 CFR 63.848(h)]
Corrective action. If a monitoring device for a primary control device measures an operating parameter outside the limit(s) established pursuant to Sec. 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 the corrective action procedures identified in the startup, shutdown, and malfunction plan 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.

**4.** [40 CFR 63.848(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.

**5.** [40 CFR 63.848(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.

**6.** [40 CFR 63.848(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.

**7.** [40 CFR 63.848(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.

**8.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**9.** [40 CFR 63.850(e)]
Recordkeeping. The owner or operator shall maintain files of all information (including all reports and notifications) required by Sec. 63.10(b) and by this subpart.

a. 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;

b. The owner or operator may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche;

c. The owner or operator may report required information on paper or on a labeled computer disc using commonly available and compatible computer software; and

d. In addition to the general records required by Sec. 63.10(b), the owner or operator shall maintain records of the following information:

i. Daily production rate of aluminum;

ii. A copy of the startup, shutdown, and malfunction plan;

iii. Records of design information for paste production plant capture systems;

iv. 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;

v. Records supporting a request for reduced sampling of potlines;

vi. 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;

vii. The current implementation plan for emission averaging and any subsequent amendments;

viii. 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 Sec. 63.848(f)(5)(ii), including the results of each inspection;

ix. 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 Sec. 63.848(g), including the results of each inspection;

x. For a potline equipped with an HF continuous emission monitor, records of information and data required by Sec. 63.10(c);

xi. Records documenting the corrective actions taken when the limit(s) for an operating parameter established under Sec. 63.847(h) were exceeded, when visible emissions indicating abnormal operation were observed from a control device stack during a daily inspection required under Sec. 63.848(g), or when a problem was detected during the daily inspection of a wet roof scrubber for potline secondary control required in Sec. 63.848(f)(5)(ii);

xii. 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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**10.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the dry scrubber reactor/baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

**11.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**12.** The permittee shall maintain records of the following information for each month:

a. the average SO2 content (in percent sulfur) of the anodes for each shipment of anodes received;

b. the consumption rate of the anodes, in pounds of anodes consumed per pound of aluminum produced;

c. the amount of aluminum produced, in pounds;

d. the total hours of operation; and

e. the average hourly SO2 emission rate, i.e., (a X b X c) / d.

## IV. Reporting Requirements

**1.** [40 CFR 63.850(a)]
Notifications. The owner or operator shall submit the following written notifications:

a. Notification for an area source that subsequently increases its emissions such that the source is a major source subject to the standard;

b. Notification that a source is subject to the standard, where the initial startup is before the effective date of the standard;

c. 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;

d. 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;

e. Notification of initial performance test;

f. Notification of initial compliance status;

g. One-time notification for each affected source of the intent to use an HF continuous emission monitor; and

h. 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 Secs. 63.843, 63.844, and 63.846.

**2.** [40 CFR 63.850(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 section A.IV.1.f. Except as provided in paragraph 4. 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.

**3.** [40 CFR 63.850(c)]
Startup, shutdown, and malfunction plan and reports. The owner or operator shall develop and implement a written plan as described in Sec. 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 appplication or included in the operating permit. The permitting authority may review the plan upon request. In addition to the information required in Sec. 63.6(e)(3), the plan shall include:

a. Procedures, including corrective actions, to be followed if a monitoring device measures an operating parameter outside the limit(s) established under Sec. 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 Sec. 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 Sec. 63.848(f)(5)(ii); and

b. The owner or operator shall also keep records of each event as required by Sec. 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 Sec. 63.6(e)(3)(iv).

## IV. Reporting Requirements (continued)

**4.** [40 CFR 63.850(d)]
Excess emissions report. As required by Sec. 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 Sec. 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions.

**5.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the dry scrubber reactor/baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

**6.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** [40 CFR 63.847(b)]
a. Test plan. The owner or operator shall prepare a site-specific test plan prior to the initial performance test according to the requirements of Sec. 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 Sec. 63.848 for emission monitoring. In addition to the information required by Sec. 63.7, the test plan shall include:

i. Procedures to ensure a minimum of three runs are performed annually for the primary control system for each source;

ii. 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;

iii. 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;

iv. 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.

**2.** [40 CFR 63.847(c)]
Initial performance test. Following approval of the site- specific test plan, the owner or operator shall conduct an initial performance test during the first month following the compliance date in accordance with the procedures in this section. If a performance test has been conducted on the primary control system for potlines within the 12 months prior to the compliance date, the results of that performance test may be used to determine initial compliance.

## V. Testing Requirements (continued)

**3.** [40 CFR 63.847(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 40 CFR Part 63, Subpart A, the approved test plan, and the procedures in this section.

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 40 CFR 63.847(e)(1), 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 Secs. 63.843, 63.844, or 63.846.

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.** [40 CFR 63.847(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 Sec. 63.848(f).

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.

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.

**5.** [40 CFR 63.848(a)]
TF emissions from potlines. Using the procedures in Sec. 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.

## V. Testing Requirements (continued)

**6.** [40 CFR 63.848(d)]
Similar potlines. As an alternative to monthly monitoring of TF or POM secondary emissions from each potline using the test methods in Sec. 63.849, the owner or operator may perform monthly monitoring of TF or POM secondary emissions from one potline using the test methods in Secs. 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 (a.) through (g.) 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.

a. 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 Secs. 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.

b. An HF continuous emission monitoring system is an approved alternative for the monitoring of TF secondary emissions.

c. 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.

d. 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.

e. The owner or operator shall submit the results required in paragraph (d.) of this section and all supporting documentation to the applicable regulatory authority for review and approval.

f. 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.

g. 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.

## V. Testing Requirements (continued)

**7.** [40 CFR 63.848(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.

a. 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 (7)(a)(i) or (7)(a)(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.

b. An approved alternative requirement must include a test schedule and the method to be used to measure emissions for performance tests.

c. The owner or operator of a plant that has received approval of an alternative sampling frequency under Sec. 60.194 of this chapter is deemed to have approval of the alternative sampling frequency under this subpart.

d. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(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.

e. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(ii) of this section, the owner or operator shall immediately return to the monthly sampling schedule required by section A.V.5 until another request for an alternative sampling frequency is approved by the applicable regulatory authority.

**8.** [40 CFR 63.849(a)]
The owner or operator shall use the following reference methods to determine compliance with the applicable emission limits for TF and POM emissions:

a. Method 1 in appendix A to part 60 of this chapter for sample and velocity traverses;

b. Method 2 in appendix A to part 60 of this chapter for velocity and volumetric flow rate;

c. Method 3 in appendix A to part 60 of this chapter for gas analysis;

d. 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; 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.

## V. Testing Requirements (continued)

**9.** [40 CFR 63.849(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.

**10.** [40 CFR 63.849(e)]
The owner or operator may use an alternative test method for TF emissions providing:

a. 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 measurements using the alternative method; or

b. 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 Section A.V.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.

**11.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**11.a** Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

**11.b** Emission Limitation:

12.6 pounds per hour of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission test methods and procedures specified in section A.V.12.

**11.c** Emission Limitation:

240 pounds per hour of sulfur dioxide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monitoring and record keeping requirements specified in section A.III.12. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

## V. Testing Requirements (continued)

**11.d** Emission Limitation:

total flouride in excess of 1.5 kg/Mg (3.0 lb/ton) of aluminum produced for each CWPB2 potline

Applicable Compliance Method:

Compliance shall be demonstrated based upon the requirements specified in sections A.V.1 through A.V.10.

**12.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 12 to 24 months after issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

e. The permittee shall perform visible particulate emission observations in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9 during each emission test run.

Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office as required by 40 CFR 63.1515(a)(6). The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**1.** [40 CFR 63.851(a), 40 CFR 63.851(b)]

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)(i) through (a)(v) of this section or of approval or intent to deny approval of the submissions in paragraphs (a)(i) through (a)(v) 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.

i. The test plan in Sec. 63.847(b);

ii. Request to change limits for operating parameters in Sec. 63.847(h)(3);

iii. Request for similar potline monitoring in Sec. 63.848(d)(5);

iv. Request for reduced sampling frequency in Sec. 63.848(e); and

v. Request for an alternative method in Sec. 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.

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Pots 0-42, 1-B (P957)

**Activity Description:** Pots 0-42, 1-B

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| alumina reduction potline 1B - consisting of pots 0-42 vented through dry scrubber reactor #3 to the baghouses and then exhausting through a single stack | 40 CFR Part 63, Subpart LL [40 CFR 63.843(a)] | The permittee shall not discharge or cause to be discharged into the atmosphere any emissions of total flouride (TF) in excess of 1.5 kg/Mg (3.0 lbs/ton) of aluminum produced for each CWPB2 potline.<br><br>Any potline, other than a reconstructed potline, that is changed such that its applicable subcategory also changes shall meet the applicable emission limit in 40 CFR Part 63, Subpart LL for the original subcategory or the new subcategory, whichever is more stringent. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-17-11(A)(3) | Particulate emissions shall not exceed 12.6 pounds per hour. |
| | OAC rule 3745-18-06(E)(2) | Sulfur dioxide emissions shall not exceed 240 pounds per hour. |
| | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See section A.I.2.c. |

## 2. Additional Terms and Conditions

**2.a** [40 CFR 63.846(b)]
The permittee of an existing potline or anode bake furnace may demonstrate compliance by emission averaging according to the procedures in this section.

The permittee may average TF emissions from potlines and demonstrate compliance with the limits in Table 1 of 40 CFR Part 63 Subpart LL using the following procedures:

i. Monthly average emissions of TF shall not exceed the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL (for TF 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.

ii. To determine compliance with the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL 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 Secs. 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.

**2.b** [40 CFR 63.846(d)]
Implementation plan. The permittee 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:

i. The permittee must submit the implementation plan no later than 6 months before the date that the facility intends to comply with the emission averaging limits.

ii. The permittee 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:

(a) The identification of all emission sources (potlines or anode bake furnaces) in the average;

(b) The assigned TF emission limit for each averaging group of potlines or anode bake furnaces;

(c) 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;

(d) The test plan for the measurement of TF emissions in accordance with the requirements in Sec. 63.847(b);

(e) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;

(f) If the owner or operator requests to monitor an alternative operating parameter pursuant to Sec. 63.848(l):

**2. Additional Terms and Conditions (continued)**

1. A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

2. 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

(g) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.

iii. Approval criteria. Upon receipt, the regulatory authority shall review and approve or disapprove the plan or permit application according to the following criteria:

(a) Whether the content of the plan includes all of the information specified in this section; and

(b) Whether the plan or permit application presents sufficient information to determine that compliance will be achieved and maintained.

iv. Prohibitions. The applicable regulatory authority shall not approve an implementation plan or permit application containing any of the following provisions:

(a) 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;

(b) 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;

(c) The inclusion of any potline or anode bake furnace while it is shut down; or

(d) The inclusion of any periods of startup, shutdown, or malfunction, as described in the startup, shutdown, and malfunction plan required by Sec. 63.850(c), in the emission calculations.

v. 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.

(a) The applicable regulatory authority shall approve the plan for the term of the operating permit;

(b) To revise the plan prior to the end of the permit term, the permittee shall submit a request to the applicable regulatory authority; and

(c) The permittee may submit a request to the applicable regulatory authority to implement emission averaging after the applicable compliance date.

vi. Operation. While operating under an approved implementation plan, the permittee shall monitor the operating parameters of each control system, keep records, and submit periodic reports as required for each source subject to this permit.

**2. Additional Terms and Conditions (continued)**

**2.c** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of RACM. These measures shall include, but not be limited to, the following:

i. the use of the individual cells' moveable hoods, skirts, and doors in a manner that contains and captures, to the extent possible with good engineering design and operation, the fumes released from tapping, charging, carbon setting, and all other electrolytic reduction activities; and

ii. all fugitive dust captured within the RACM area shall be vented to the dry scrubber reactor #3 and the baghouses associated, in series, with this emissions unit.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this emissions unit, including, but not limited to: doorways, windows, and roof openings.

## II. Operational Restrictions

**1.** [40 CFR 63.847(e)(5)]
The permittee shall 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 section A.III.5.

**2.** [40 CFR 63.847(e)(6)]
The permittee shall 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.

## III. Monitoring and/or Record Keeping Requirements

**1.** [40 CFR 63.848(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 (7) of this section, the following monitoring devices shall be installed:

a. For dry alumina scrubbers, devices for the measurement of alumina flow and air flow;

b. For dry coke scrubbers, devices for the measurement of coke flow and air flow;

c. For wet scrubbers as the primary control system, devices for the measurement of water flow and air flow;

d. For electrostatic precipitators, devices for the measurement of voltage and secondary current; and

e. 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.

**2.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**3.** [40 CFR 63.848(h)]
Corrective action. If a monitoring device for a primary control device measures an operating parameter outside the limit(s) established pursuant to Sec. 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 the corrective action procedures identified in the startup, shutdown, and malfunction plan 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.

**4.** [40 CFR 63.848(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.

**5.** [40 CFR 63.848(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.

**6.** [40 CFR 63.848(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.

**7.** [40 CFR 63.848(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.

**8.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**9.** [40 CFR 63.850(e)]
Recordkeeping. The owner or operator shall maintain files of all information (including all reports and notifications) required by Sec. 63.10(b) and by this subpart.

a. 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;

b. The owner or operator may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche;

c. The owner or operator may report required information on paper or on a labeled computer disc using commonly available and compatible computer software; and

d. In addition to the general records required by Sec. 63.10(b), the owner or operator shall maintain records of the following information:

i. Daily production rate of aluminum;

ii. A copy of the startup, shutdown, and malfunction plan;

iii. Records of design information for paste production plant capture systems;

iv. 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;

v. Records supporting a request for reduced sampling of potlines;

vi. 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;

vii. The current implementation plan for emission averaging and any subsequent amendments;

viii. 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 Sec. 63.848(f)(5)(ii), including the results of each inspection;

ix. 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 Sec. 63.848(g), including the results of each inspection;

x. For a potline equipped with an HF continuous emission monitor, records of information and data required by Sec. 63.10(c);

xi. Records documenting the corrective actions taken when the limit(s) for an operating parameter established under Sec. 63.847(h) were exceeded, when visible emissions indicating abnormal operation were observed from a control device stack during a daily inspection required under Sec. 63.848(g), or when a problem was detected during the daily inspection of a wet roof scrubber for potline secondary control required in Sec. 63.848(f)(5)(ii);

xii. 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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**10.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the dry scrubber reactor/baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

**11.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**12.** The permittee shall maintain records of the following information for each month:

a. the average SO2 content (in percent sulfur) of the anodes for each shipment of anodes received;

b. the consumption rate of the anodes, in pounds of anodes consumed per pound of aluminum produced;

c. the amount of aluminum produced, in pounds;

d. the total hours of operation; and

e. the average hourly SO2 emission rate, i.e., (a X b X c) / d.

## IV. Reporting Requirements

**1.** [40 CFR 63.850(a)]
Notifications. The owner or operator shall submit the following written notifications:

a. Notification for an area source that subsequently increases its emissions such that the source is a major source subject to the standard;

b. Notification that a source is subject to the standard, where the initial startup is before the effective date of the standard;

c. 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;

d. 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;

e. Notification of initial performance test;

f. Notification of initial compliance status;

g. One-time notification for each affected source of the intent to use an HF continuous emission monitor; and

h. 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 Secs. 63.843, 63.844, and 63.846.

**2.** [40 CFR 63.850(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 section A.IV.1.f. Except as provided in paragraph 4. 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.

**3.** [40 CFR 63.850(c)]
Startup, shutdown, and malfunction plan and reports. The owner or operator shall develop and implement a written plan as described in Sec. 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 appplication or included in the operating permit. The permitting authority may review the plan upon request. In addition to the information required in Sec. 63.6(e)(3), the plan shall include:

a. Procedures, including corrective actions, to be followed if a monitoring device measures an operating parameter outside the limit(s) established under Sec. 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 Sec. 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 Sec. 63.848(f)(5)(ii); and

b. The owner or operator shall also keep records of each event as required by Sec. 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 Sec. 63.6(e)(3)(iv).

## IV. Reporting Requirements (continued)

**4.** [40 CFR 63.850(d)]
Excess emissions report. As required by Sec. 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 Sec. 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions.

**5.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the dry scrubber reactor/baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

**6.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** [40 CFR 63.847(b)]
a. Test plan. The owner or operator shall prepare a site-specific test plan prior to the initial performance test according to the requirements of Sec. 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 Sec. 63.848 for emission monitoring. In addition to the information required by Sec. 63.7, the test plan shall include:

i. Procedures to ensure a minimum of three runs are performed annually for the primary control system for each source;

ii. 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;

iii. 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;

iv. 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.

**2.** [40 CFR 63.847(c)]
Initial performance test. Following approval of the site- specific test plan, the owner or operator shall conduct an initial performance test during the first month following the compliance date in accordance with the procedures in this section. If a performance test has been conducted on the primary control system for potlines within the 12 months prior to the compliance date, the results of that performance test may be used to determine initial compliance.

## V. Testing Requirements (continued)

**3.** [40 CFR 63.847(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 40 CFR Part 63, Subpart A, the approved test plan, and the procedures in this section.

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 40 CFR 63.847(e)(1), 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 Secs. 63.843, 63.844, or 63.846.

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.** [40 CFR 63.847(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 Sec. 63.848(f).

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.

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.

**5.** [40 CFR 63.848(a)]
TF emissions from potlines. Using the procedures in Sec. 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.

## V. Testing Requirements (continued)

**6.** [40 CFR 63.848(d)]
Similar potlines. As an alternative to monthly monitoring of TF or POM secondary emissions from each potline using the test methods in Sec. 63.849, the owner or operator may perform monthly monitoring of TF or POM secondary emissions from one potline using the test methods in Secs. 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 (a.) through (g.) 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.

a. 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 Secs. 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.

b. An HF continuous emission monitoring system is an approved alternative for the monitoring of TF secondary emissions.

c. 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.

d. 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.

e. The owner or operator shall submit the results required in paragraph (d.) of this section and all supporting documentation to the applicable regulatory authority for review and approval.

f. 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.

g. 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.

## V. Testing Requirements (continued)

**7.** [40 CFR 63.848(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.

a. 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 (7)(a)(i) or (7)(a)(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.

b. An approved alternative requirement must include a test schedule and the method to be used to measure emissions for performance tests.

c. The owner or operator of a plant that has received approval of an alternative sampling frequency under Sec. 60.194 of this chapter is deemed to have approval of the alternative sampling frequency under this subpart.

d. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(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.

e. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(ii) of this section, the owner or operator shall immediately return to the monthly sampling schedule required by section A.V.5 until another request for an alternative sampling frequency is approved by the applicable regulatory authority.

**8.** [40 CFR 63.849(a)]
The owner or operator shall use the following reference methods to determine compliance with the applicable emission limits for TF and POM emissions:

a. Method 1 in appendix A to part 60 of this chapter for sample and velocity traverses;

b. Method 2 in appendix A to part 60 of this chapter for velocity and volumetric flow rate;

c. Method 3 in appendix A to part 60 of this chapter for gas analysis;

d. 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; 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.

## V. Testing Requirements (continued)

**9.** [40 CFR 63.849(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.

**10.** [40 CFR 63.849(e)]
The owner or operator may use an alternative test method for TF emissions providing:

a. 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 measurements using the alternative method; or

b. 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 Section A.V.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.

**11.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**11.a** Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

**11.b** Emission Limitation:

12.6 pounds per hour of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission test methods and procedures specified in section A.V.12.

**11.c** Emission Limitation:

240 pounds per hour of sulfur dioxide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monitoring and record keeping requirements specified in section A.III.12. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

## V. Testing Requirements (continued)

**11.d** Emission Limitation:

total flouride in excess of 1.5 kg/Mg (3.0 lb/ton) of aluminum produced for each CWPB2 potline

Applicable Compliance Method:

Compliance shall be demonstrated based upon the requirements specified in sections A.V.1 through A.V.10.

**12.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 12 to 24 months after issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

e. The permittee shall perform visible particulate emission observations in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9 during each emission test run.

Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office as required by 40 CFR 63.1515(a)(6). The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**1.** [40 CFR 63.851(a), 40 CFR 63.851(b)]

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)(i) through (a)(v) of this section or of approval or intent to deny approval of the submissions in paragraphs (a)(i) through (a)(v) 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.

i. The test plan in Sec. 63.847(b);

ii. Request to change limits for operating parameters in Sec. 63.847(h)(3);

iii. Request for similar potline monitoring in Sec. 63.848(d)(5);

iv. Request for reduced sampling frequency in Sec. 63.848(e); and

v. Request for an alternative method in Sec. 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.

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Pots 43-85, 1B (P958)

**Activity Description:** Pots 43-85, 1B

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| alumina reduction potline 1B - consisting of pots 43-85 vented through dry scrubber reactor #4 to the baghouses and then exhausting through a single stack | 40 CFR Part 63, Subpart LL [40 CFR 63.843(a)] | The permittee shall not discharge or cause to be discharged into the atmosphere any emissions of total flouride (TF) in excess of 1.5 kg/Mg (3.0 lbs/ton) of aluminum produced for each CWPB2 potline.<br><br>Any potline, other than a reconstructed potline, that is changed such that its applicable subcategory also changes shall meet the applicable emission limit in 40 CFR Part 63, Subpart LL for the original subcategory or the new subcategory, whichever is more stringent. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-17-11(A)(3) | Particulate emissions shall not exceed 12.6 pounds per hour. |
| | OAC rule 3745-18-06(E)(2) | Sulfur dioxide emissions shall not exceed 240 pounds per hour. |
| | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See section A.I.2.c. |

## 2. Additional Terms and Conditions

**2.a** [40 CFR 63.846(b)]
The permittee of an existing potline or anode bake furnace may demonstrate compliance by emission averaging according to the procedures in this section.

The permittee may average TF emissions from potlines and demonstrate compliance with the limits in Table 1 of 40 CFR Part 63 Subpart LL using the following procedures:

i. Monthly average emissions of TF shall not exceed the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL (for TF 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.

ii. To determine compliance with the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL 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 Secs. 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.

**2.b** [40 CFR 63.846(d)]
Implementation plan. The permittee 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:

i. The permittee must submit the implementation plan no later than 6 months before the date that the facility intends to comply with the emission averaging limits.

ii. The permittee 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:

(a) The identification of all emission sources (potlines or anode bake furnaces) in the average;

(b) The assigned TF emission limit for each averaging group of potlines or anode bake furnaces;

(c) 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;

(d) The test plan for the measurement of TF emissions in accordance with the requirements in Sec. 63.847(b);

(e) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;

(f) If the owner or operator requests to monitor an alternative operating parameter pursuant to Sec. 63.848(l):

**2. Additional Terms and Conditions (continued)**

1. A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

2. 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

(g) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.

iii. Approval criteria. Upon receipt, the regulatory authority shall review and approve or disapprove the plan or permit application according to the following criteria:

(a) Whether the content of the plan includes all of the information specified in this section; and

(b) Whether the plan or permit application presents sufficient information to determine that compliance will be achieved and maintained.

iv. Prohibitions. The applicable regulatory authority shall not approve an implementation plan or permit application containing any of the following provisions:

(a) 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;

(b) 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;

(c) The inclusion of any potline or anode bake furnace while it is shut down; or

(d) The inclusion of any periods of startup, shutdown, or malfunction, as described in the startup, shutdown, and malfunction plan required by Sec. 63.850(c), in the emission calculations.

v. 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.

(a) The applicable regulatory authority shall approve the plan for the term of the operating permit;

(b) To revise the plan prior to the end of the permit term, the permittee shall submit a request to the applicable regulatory authority; and

(c) The permittee may submit a request to the applicable regulatory authority to implement emission averaging after the applicable compliance date.

vi. Operation. While operating under an approved implementation plan, the permittee shall monitor the operating parameters of each control system, keep records, and submit periodic reports as required for each source subject to this permit.

**2. Additional Terms and Conditions (continued)**

**2.c** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of RACM. These measures shall include, but not be limited to, the following:

i. the use of the individual cells' moveable hoods, skirts, and doors in a manner that contains and captures, to the extent possible with good engineering design and operation, the fumes released from tapping, charging, carbon setting, and all other electrolytic reduction activities; and

ii. all fugitive dust captured within the RACM area shall be vented to the dry scrubber reactor #3 and the baghouses associated, in series, with this emissions unit.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this emissions unit, including, but not limited to: doorways, windows, and roof openings.

## II. Operational Restrictions

**1.** [40 CFR 63.847(e)(5)]
The permittee shall 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 section A.III.5.

**2.** [40 CFR 63.847(e)(6)]
The permittee shall 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.

## III. Monitoring and/or Record Keeping Requirements

**1.** [40 CFR 63.848(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 (7) of this section, the following monitoring devices shall be installed:

a. For dry alumina scrubbers, devices for the measurement of alumina flow and air flow;

b. For dry coke scrubbers, devices for the measurement of coke flow and air flow;

c. For wet scrubbers as the primary control system, devices for the measurement of water flow and air flow;

d. For electrostatic precipitators, devices for the measurement of voltage and secondary current; and

e. 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.

**2.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**3.** [40 CFR 63.848(h)]
Corrective action. If a monitoring device for a primary control device measures an operating parameter outside the limit(s) established pursuant to Sec. 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 the corrective action procedures identified in the startup, shutdown, and malfunction plan 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.

**4.** [40 CFR 63.848(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.

**5.** [40 CFR 63.848(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.

**6.** [40 CFR 63.848(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.

**7.** [40 CFR 63.848(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.

**8.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**9.** [40 CFR 63.850(e)]
Recordkeeping. The owner or operator shall maintain files of all information (including all reports and notifications) required by Sec. 63.10(b) and by this subpart.

a. 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;

b. The owner or operator may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche;

c. The owner or operator may report required information on paper or on a labeled computer disc using commonly available and compatible computer software; and

d. In addition to the general records required by Sec. 63.10(b), the owner or operator shall maintain records of the following information:

i. Daily production rate of aluminum;

ii. A copy of the startup, shutdown, and malfunction plan;

iii. Records of design information for paste production plant capture systems;

iv. 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;

v. Records supporting a request for reduced sampling of potlines;

vi. 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;

vii. The current implementation plan for emission averaging and any subsequent amendments;

viii. 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 Sec. 63.848(f)(5)(ii), including the results of each inspection;

ix. 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 Sec. 63.848(g), including the results of each inspection;

x. For a potline equipped with an HF continuous emission monitor, records of information and data required by Sec. 63.10(c);

xi. Records documenting the corrective actions taken when the limit(s) for an operating parameter established under Sec. 63.847(h) were exceeded, when visible emissions indicating abnormal operation were observed from a control device stack during a daily inspection required under Sec. 63.848(g), or when a problem was detected during the daily inspection of a wet roof scrubber for potline secondary control required in Sec. 63.848(f)(5)(ii);

xii. 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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**10.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the dry scrubber reactor/baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

**11.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**12.** The permittee shall maintain records of the following information for each month:

a. the average SO2 content (in percent sulfur) of the anodes for each shipment of anodes received;

b. the consumption rate of the anodes, in pounds of anodes consumed per pound of aluminum produced;

c. the amount of aluminum produced, in pounds;

d. the total hours of operation; and

e. the average hourly SO2 emission rate, i.e., (a X b X c) / d.

## IV. Reporting Requirements

**1.** [40 CFR 63.850(a)]
Notifications. The owner or operator shall submit the following written notifications:

a. Notification for an area source that subsequently increases its emissions such that the source is a major source subject to the standard;

b. Notification that a source is subject to the standard, where the initial startup is before the effective date of the standard;

c. 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;

d. 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;

e. Notification of initial performance test;

f. Notification of initial compliance status;

g. One-time notification for each affected source of the intent to use an HF continuous emission monitor; and

h. 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 Secs. 63.843, 63.844, and 63.846.

**2.** [40 CFR 63.850(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 section A.IV.1.f. Except as provided in paragraph 4. 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.

**3.** [40 CFR 63.850(c)]
Startup, shutdown, and malfunction plan and reports. The owner or operator shall develop and implement a written plan as described in Sec. 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 appplication or included in the operating permit. The permitting authority may review the plan upon request. In addition to the information required in Sec. 63.6(e)(3), the plan shall include:

a. Procedures, including corrective actions, to be followed if a monitoring device measures an operating parameter outside the limit(s) established under Sec. 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 Sec. 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 Sec. 63.848(f)(5)(ii); and

b. The owner or operator shall also keep records of each event as required by Sec. 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 Sec. 63.6(e)(3)(iv).

## IV. Reporting Requirements (continued)

**4.** [40 CFR 63.850(d)]
Excess emissions report. As required by Sec. 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 Sec. 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions.

**5.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the dry scrubber reactor/baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

**6.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** [40 CFR 63.847(b)]
a. Test plan. The owner or operator shall prepare a site-specific test plan prior to the initial performance test according to the requirements of Sec. 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 Sec. 63.848 for emission monitoring. In addition to the information required by Sec. 63.7, the test plan shall include:

i. Procedures to ensure a minimum of three runs are performed annually for the primary control system for each source;

ii. 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;

iii. 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;

iv. 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.

**2.** [40 CFR 63.847(c)]
Initial performance test. Following approval of the site- specific test plan, the owner or operator shall conduct an initial performance test during the first month following the compliance date in accordance with the procedures in this section. If a performance test has been conducted on the primary control system for potlines within the 12 months prior to the compliance date, the results of that performance test may be used to determine initial compliance.

## V. Testing Requirements (continued)

**3.** [40 CFR 63.847(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 40 CFR Part 63, Subpart A, the approved test plan, and the procedures in this section.

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 40 CFR 63.847(e)(1), 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 Secs. 63.843, 63.844, or 63.846.

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.** [40 CFR 63.847(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 Sec. 63.848(f).

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.

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.

**5.** [40 CFR 63.848(a)]
TF emissions from potlines. Using the procedures in Sec. 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.

## V. Testing Requirements (continued)

**6.** [40 CFR 63.848(d)]
Similar potlines. As an alternative to monthly monitoring of TF or POM secondary emissions from each potline using the test methods in Sec. 63.849, the owner or operator may perform monthly monitoring of TF or POM secondary emissions from one potline using the test methods in Secs. 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 (a.) through (g.) 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.

a. 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 Secs. 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.

b. An HF continuous emission monitoring system is an approved alternative for the monitoring of TF secondary emissions.

c. 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.

d. 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.

e. The owner or operator shall submit the results required in paragraph (d.) of this section and all supporting documentation to the applicable regulatory authority for review and approval.

f. 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.

g. 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.

## V. Testing Requirements (continued)

**7.** [40 CFR 63.848(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.

a. 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 (7)(a)(i) or (7)(a)(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.

b. An approved alternative requirement must include a test schedule and the method to be used to measure emissions for performance tests.

c. The owner or operator of a plant that has received approval of an alternative sampling frequency under Sec. 60.194 of this chapter is deemed to have approval of the alternative sampling frequency under this subpart.

d. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(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.

e. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(ii) of this section, the owner or operator shall immediately return to the monthly sampling schedule required by section A.V.5 until another request for an alternative sampling frequency is approved by the applicable regulatory authority.

**8.** [40 CFR 63.849(a)]
The owner or operator shall use the following reference methods to determine compliance with the applicable emission limits for TF and POM emissions:

a. Method 1 in appendix A to part 60 of this chapter for sample and velocity traverses;

b. Method 2 in appendix A to part 60 of this chapter for velocity and volumetric flow rate;

c. Method 3 in appendix A to part 60 of this chapter for gas analysis;

d. 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; 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.

## V. Testing Requirements (continued)

**9.** [40 CFR 63.849(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.

**10.** [40 CFR 63.849(e)]
The owner or operator may use an alternative test method for TF emissions providing:

a. 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 measurements using the alternative method; or

b. 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 Section A.V.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.

**11.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**11.a** Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

**11.b** Emission Limitation:

12.6 pounds per hour of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission test methods and procedures specified in section A.V.12.

**11.c** Emission Limitation:

240 pounds per hour of sulfur dioxide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monitoring and record keeping requirements specified in section A.III.12. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

## V. Testing Requirements (continued)

**11.d** Emission Limitation:

total flouride in excess of 1.5 kg/Mg (3.0 lb/ton) of aluminum produced for each CWPB2 potline

Applicable Compliance Method:

Compliance shall be demonstrated based upon the requirements specified in sections A.V.1 through A.V.10.

**12.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 12 to 24 months after issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

e. The permittee shall perform visible particulate emission observations in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9 during each emission test run.

Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office as required by 40 CFR 63.1515(a)(6). The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**1.** [40 CFR 63.851(a), 40 CFR 63.851(b)]

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)(i) through (a)(v) of this section or of approval or intent to deny approval of the submissions in paragraphs (a)(i) through (a)(v) 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.

i. The test plan in Sec. 63.847(b);

ii. Request to change limits for operating parameters in Sec. 63.847(h)(3);

iii. Request for similar potline monitoring in Sec. 63.848(d)(5);

iv. Request for reduced sampling frequency in Sec. 63.848(e); and

v. Request for an alternative method in Sec. 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.

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Pots 0-42, 2A (P959)

**Activity Description:** Pots 0-42, 2A

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| alumina reduction potline 1B - consisting of pots 0-42 vented through dry scrubber reactor #3 to the baghouses and then exhausting through a single stack | 40 CFR Part 63, Subpart LL [40 CFR 63.843(a)] | The permittee shall not discharge or cause to be discharged into the atmosphere any emissions of total flouride (TF) in excess of 1.5 kg/Mg (3.0 lbs/ton) of aluminum produced for each CWPB2 potline.<br><br>Any potline, other than a reconstructed potline, that is changed such that its applicable subcategory also changes shall meet the applicable emission limit in 40 CFR Part 63, Subpart LL for the original subcategory or the new subcategory, whichever is more stringent. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-17-11(A)(3) | Particulate emissions shall not exceed 12.6 pounds per hour. |
| | OAC rule 3745-18-06(E)(2) | Sulfur dioxide emissions shall not exceed 240 pounds per hour. |
| | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See section A.I.2.c. |

## 2. Additional Terms and Conditions

**2.a** [40 CFR 63.846(b)]
The permittee of an existing potline or anode bake furnace may demonstrate compliance by emission averaging according to the procedures in this section.

The permittee may average TF emissions from potlines and demonstrate compliance with the limits in Table 1 of 40 CFR Part 63 Subpart LL using the following procedures:

i. Monthly average emissions of TF shall not exceed the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL (for TF 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.

ii. To determine compliance with the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL 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 Secs. 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.

**2.b** [40 CFR 63.846(d)]
Implementation plan. The permittee 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:

i. The permittee must submit the implementation plan no later than 6 months before the date that the facility intends to comply with the emission averaging limits.

ii. The permittee 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:

(a) The identification of all emission sources (potlines or anode bake furnaces) in the average;

(b) The assigned TF emission limit for each averaging group of potlines or anode bake furnaces;

(c) 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;

(d) The test plan for the measurement of TF emissions in accordance with the requirements in Sec. 63.847(b);

(e) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;

(f) If the owner or operator requests to monitor an alternative operating parameter pursuant to Sec. 63.848(l):

**2. Additional Terms and Conditions (continued)**

1. A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

2. 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

(g) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.

iii. Approval criteria. Upon receipt, the regulatory authority shall review and approve or disapprove the plan or permit application according to the following criteria:

(a) Whether the content of the plan includes all of the information specified in this section; and

(b) Whether the plan or permit application presents sufficient information to determine that compliance will be achieved and maintained.

iv. Prohibitions. The applicable regulatory authority shall not approve an implementation plan or permit application containing any of the following provisions:

(a) 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;

(b) 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;

(c) The inclusion of any potline or anode bake furnace while it is shut down; or

(d) The inclusion of any periods of startup, shutdown, or malfunction, as described in the startup, shutdown, and malfunction plan required by Sec. 63.850(c), in the emission calculations.

v. 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.

(a) The applicable regulatory authority shall approve the plan for the term of the operating permit;

(b) To revise the plan prior to the end of the permit term, the permittee shall submit a request to the applicable regulatory authority; and

(c) The permittee may submit a request to the applicable regulatory authority to implement emission averaging after the applicable compliance date.

vi. Operation. While operating under an approved implementation plan, the permittee shall monitor the operating parameters of each control system, keep records, and submit periodic reports as required for each source subject to this permit.

**2. Additional Terms and Conditions (continued)**

**2.c** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of RACM. These measures shall include, but not be limited to, the following:

i. the use of the individual cells' moveable hoods, skirts, and doors in a manner that contains and captures, to the extent possible with good engineering design and operation, the fumes released from tapping, charging, carbon setting, and all other electrolytic reduction activities; and

ii. all fugitive dust captured within the RACM area shall be vented to the dry scrubber reactor #3 and the baghouses associated, in series, with this emissions unit.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this emissions unit, including, but not limited to: doorways, windows, and roof openings.

## II. Operational Restrictions

**1.** [40 CFR 63.847(e)(5)]
The permittee shall 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 section A.III.5.

**2.** [40 CFR 63.847(e)(6)]
The permittee shall 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.

## III. Monitoring and/or Record Keeping Requirements

**1.** [40 CFR 63.848(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 (7) of this section, the following monitoring devices shall be installed:

a. For dry alumina scrubbers, devices for the measurement of alumina flow and air flow;

b. For dry coke scrubbers, devices for the measurement of coke flow and air flow;

c. For wet scrubbers as the primary control system, devices for the measurement of water flow and air flow;

d. For electrostatic precipitators, devices for the measurement of voltage and secondary current; and

e. 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.

**2.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**3.** [40 CFR 63.848(h)]
Corrective action. If a monitoring device for a primary control device measures an operating parameter outside the limit(s) established pursuant to Sec. 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 the corrective action procedures identified in the startup, shutdown, and malfunction plan 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.

**4.** [40 CFR 63.848(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.

**5.** [40 CFR 63.848(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.

**6.** [40 CFR 63.848(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.

**7.** [40 CFR 63.848(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.

**8.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**9.** [40 CFR 63.850(e)]
Recordkeeping. The owner or operator shall maintain files of all information (including all reports and notifications) required by Sec. 63.10(b) and by this subpart.

a. 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;

b. The owner or operator may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche;

c. The owner or operator may report required information on paper or on a labeled computer disc using commonly available and compatible computer software; and

d. In addition to the general records required by Sec. 63.10(b), the owner or operator shall maintain records of the following information:

i. Daily production rate of aluminum;

ii. A copy of the startup, shutdown, and malfunction plan;

iii. Records of design information for paste production plant capture systems;

iv. 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;

v. Records supporting a request for reduced sampling of potlines;

vi. 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;

vii. The current implementation plan for emission averaging and any subsequent amendments;

viii. 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 Sec. 63.848(f)(5)(ii), including the results of each inspection;

ix. 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 Sec. 63.848(g), including the results of each inspection;

x. For a potline equipped with an HF continuous emission monitor, records of information and data required by Sec. 63.10(c);

xi. Records documenting the corrective actions taken when the limit(s) for an operating parameter established under Sec. 63.847(h) were exceeded, when visible emissions indicating abnormal operation were observed from a control device stack during a daily inspection required under Sec. 63.848(g), or when a problem was detected during the daily inspection of a wet roof scrubber for potline secondary control required in Sec. 63.848(f)(5)(ii);

xii. 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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**10.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the dry scrubber reactor/baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

**11.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**12.** The permittee shall maintain records of the following information for each month:

a. the average SO2 content (in percent sulfur) of the anodes for each shipment of anodes received;

b. the consumption rate of the anodes, in pounds of anodes consumed per pound of aluminum produced;

c. the amount of aluminum produced, in pounds;

d. the total hours of operation; and

e. the average hourly SO2 emission rate, i.e., (a X b X c) / d.

## IV. Reporting Requirements

**1.** [40 CFR 63.850(a)]
Notifications. The owner or operator shall submit the following written notifications:

a. Notification for an area source that subsequently increases its emissions such that the source is a major source subject to the standard;

b. Notification that a source is subject to the standard, where the initial startup is before the effective date of the standard;

c. 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;

d. 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;

e. Notification of initial performance test;

f. Notification of initial compliance status;

g. One-time notification for each affected source of the intent to use an HF continuous emission monitor; and

h. 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 Secs. 63.843, 63.844, and 63.846.

**2.** [40 CFR 63.850(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 section A.IV.1.f. Except as provided in paragraph 4. 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.

**3.** [40 CFR 63.850(c)]
Startup, shutdown, and malfunction plan and reports. The owner or operator shall develop and implement a written plan as described in Sec. 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 appplication or included in the operating permit. The permitting authority may review the plan upon request. In addition to the information required in Sec. 63.6(e)(3), the plan shall include:

a. Procedures, including corrective actions, to be followed if a monitoring device measures an operating parameter outside the limit(s) established under Sec. 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 Sec. 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 Sec. 63.848(f)(5)(ii); and

b. The owner or operator shall also keep records of each event as required by Sec. 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 Sec. 63.6(e)(3)(iv).

## IV. Reporting Requirements (continued)

**4.** [40 CFR 63.850(d)]
Excess emissions report. As required by Sec. 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 Sec. 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions.

**5.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the dry scrubber reactor/baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

**6.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** [40 CFR 63.847(b)]
a. Test plan. The owner or operator shall prepare a site-specific test plan prior to the initial performance test according to the requirements of Sec. 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 Sec. 63.848 for emission monitoring. In addition to the information required by Sec. 63.7, the test plan shall include:

i. Procedures to ensure a minimum of three runs are performed annually for the primary control system for each source;

ii. 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;

iii. 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;

iv. 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.

**2.** [40 CFR 63.847(c)]
Initial performance test. Following approval of the site- specific test plan, the owner or operator shall conduct an initial performance test during the first month following the compliance date in accordance with the procedures in this section. If a performance test has been conducted on the primary control system for potlines within the 12 months prior to the compliance date, the results of that performance test may be used to determine initial compliance.

## V. Testing Requirements (continued)

**3.** [40 CFR 63.847(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 40 CFR Part 63, Subpart A, the approved test plan, and the procedures in this section.

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 40 CFR 63.847(e)(1), 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 Secs. 63.843, 63.844, or 63.846.

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.** [40 CFR 63.847(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 Sec. 63.848(f).

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.

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.

**5.** [40 CFR 63.848(a)]
TF emissions from potlines. Using the procedures in Sec. 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.

## V. Testing Requirements (continued)

**6.** [40 CFR 63.848(d)]
Similar potlines. As an alternative to monthly monitoring of TF or POM secondary emissions from each potline using the test methods in Sec. 63.849, the owner or operator may perform monthly monitoring of TF or POM secondary emissions from one potline using the test methods in Secs. 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 (a.) through (g.) 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.

a. 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 Secs. 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.

b. An HF continuous emission monitoring system is an approved alternative for the monitoring of TF secondary emissions.

c. 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.

d. 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.

e. The owner or operator shall submit the results required in paragraph (d.) of this section and all supporting documentation to the applicable regulatory authority for review and approval.

f. 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.

g. 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.

## V. Testing Requirements (continued)

**7.** [40 CFR 63.848(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.

a. 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 (7)(a)(i) or (7)(a)(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.

b. An approved alternative requirement must include a test schedule and the method to be used to measure emissions for performance tests.

c. The owner or operator of a plant that has received approval of an alternative sampling frequency under Sec. 60.194 of this chapter is deemed to have approval of the alternative sampling frequency under this subpart.

d. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(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.

e. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(ii) of this section, the owner or operator shall immediately return to the monthly sampling schedule required by section A.V.5 until another request for an alternative sampling frequency is approved by the applicable regulatory authority.

**8.** [40 CFR 63.849(a)]
The owner or operator shall use the following reference methods to determine compliance with the applicable emission limits for TF and POM emissions:

a. Method 1 in appendix A to part 60 of this chapter for sample and velocity traverses;

b. Method 2 in appendix A to part 60 of this chapter for velocity and volumetric flow rate;

c. Method 3 in appendix A to part 60 of this chapter for gas analysis;

d. 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; 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.

## V. Testing Requirements (continued)

**9.** [40 CFR 63.849(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.

**10.** [40 CFR 63.849(e)]
The owner or operator may use an alternative test method for TF emissions providing:

a. 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 measurements using the alternative method; or

b. 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 Section A.V.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.

**11.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**11.a** Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

**11.b** Emission Limitation:

12.6 pounds per hour of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission test methods and procedures specified in section A.V.12.

**11.c** Emission Limitation:

240 pounds per hour of sulfur dioxide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monitoring and record keeping requirements specified in section A.III.12. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

## V. Testing Requirements (continued)

**11.d** Emission Limitation:

total flouride in excess of 1.5 kg/Mg (3.0 lb/ton) of aluminum produced for each CWPB2 potline

Applicable Compliance Method:

Compliance shall be demonstrated based upon the requirements specified in sections A.V.1 through A.V.10.

**12.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 12 to 24 months after issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

e. The permittee shall perform visible particulate emission observations in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9 during each emission test run.

Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office as required by 40 CFR 63.1515(a)(6). The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**1.** [40 CFR 63.851(a), 40 CFR 63.851(b)]

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)(i) through (a)(v) of this section or of approval or intent to deny approval of the submissions in paragraphs (a)(i) through (a)(v) 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.

i. The test plan in Sec. 63.847(b);

ii. Request to change limits for operating parameters in Sec. 63.847(h)(3);

iii. Request for similar potline monitoring in Sec. 63.848(d)(5);

iv. Request for reduced sampling frequency in Sec. 63.848(e); and

v. Request for an alternative method in Sec. 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.

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Pots 43-85, 2A (P960)

**Activity Description:** Pots 43-85, 2A

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| alumina reduction potline 2A - consisting of pots 43-85 vented through dry scrubber reactor #4 to the baghouses and then exhausting through a single stack | 40 CFR Part 63, Subpart LL [40 CFR 63.843(a)] | The permittee shall not discharge or cause to be discharged into the atmosphere any emissions of total flouride (TF) in excess of 1.5 kg/Mg (3.0 lbs/ton) of aluminum produced for each CWPB2 potline.<br><br>Any potline, other than a reconstructed potline, that is changed such that its applicable subcategory also changes shall meet the applicable emission limit in 40 CFR Part 63, Subpart LL for the original subcategory or the new subcategory, whichever is more stringent. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-17-11(A)(3) | Particulate emissions shall not exceed 12.6 pounds per hour. |
| | OAC rule 3745-18-06(E)(2) | Sulfur dioxide emissions shall not exceed 240 pounds per hour. |
| | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See section A.I.2.c. |

## 2. Additional Terms and Conditions

**2.a** [40 CFR 63.846(b)]
The permittee of an existing potline or anode bake furnace may demonstrate compliance by emission averaging according to the procedures in this section.

The permittee may average TF emissions from potlines and demonstrate compliance with the limits in Table 1 of 40 CFR Part 63 Subpart LL using the following procedures:

i. Monthly average emissions of TF shall not exceed the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL (for TF 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.

ii. To determine compliance with the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL 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 Secs. 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.

**2.b** [40 CFR 63.846(d)]
Implementation plan. The permittee 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:

i. The permittee must submit the implementation plan no later than 6 months before the date that the facility intends to comply with the emission averaging limits.

ii. The permittee 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:

(a) The identification of all emission sources (potlines or anode bake furnaces) in the average;

(b) The assigned TF emission limit for each averaging group of potlines or anode bake furnaces;

(c) 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;

(d) The test plan for the measurement of TF emissions in accordance with the requirements in Sec. 63.847(b);

(e) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;

(f) If the owner or operator requests to monitor an alternative operating parameter pursuant to Sec. 63.848(l):

**2. Additional Terms and Conditions (continued)**

1. A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

2. 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

(g) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.

iii. Approval criteria. Upon receipt, the regulatory authority shall review and approve or disapprove the plan or permit application according to the following criteria:

(a) Whether the content of the plan includes all of the information specified in this section; and

(b) Whether the plan or permit application presents sufficient information to determine that compliance will be achieved and maintained.

iv. Prohibitions. The applicable regulatory authority shall not approve an implementation plan or permit application containing any of the following provisions:

(a) 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;

(b) 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;

(c) The inclusion of any potline or anode bake furnace while it is shut down; or

(d) The inclusion of any periods of startup, shutdown, or malfunction, as described in the startup, shutdown, and malfunction plan required by Sec. 63.850(c), in the emission calculations.

v. 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.

(a) The applicable regulatory authority shall approve the plan for the term of the operating permit;

(b) To revise the plan prior to the end of the permit term, the permittee shall submit a request to the applicable regulatory authority; and

(c) The permittee may submit a request to the applicable regulatory authority to implement emission averaging after the applicable compliance date.

vi. Operation. While operating under an approved implementation plan, the permittee shall monitor the operating parameters of each control system, keep records, and submit periodic reports as required for each source subject to this permit.

**2. Additional Terms and Conditions (continued)**

**2.c** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of RACM. These measures shall include, but not be limited to, the following:

i. the use of the individual cells' moveable hoods, skirts, and doors in a manner that contains and captures, to the extent possible with good engineering design and operation, the fumes released from tapping, charging, carbon setting, and all other electrolytic reduction activities; and

ii. all fugitive dust captured within the RACM area shall be vented to the dry scrubber reactor #3 and the baghouses associated, in series, with this emissions unit.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this emissions unit, including, but not limited to: doorways, windows, and roof openings.

## II. Operational Restrictions

**1.** [40 CFR 63.847(e)(5)]
The permittee shall 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 section A.III.5.

**2.** [40 CFR 63.847(e)(6)]
The permittee shall 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.

## III. Monitoring and/or Record Keeping Requirements

**1.** [40 CFR 63.848(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 (7) of this section, the following monitoring devices shall be installed:

a. For dry alumina scrubbers, devices for the measurement of alumina flow and air flow;

b. For dry coke scrubbers, devices for the measurement of coke flow and air flow;

c. For wet scrubbers as the primary control system, devices for the measurement of water flow and air flow;

d. For electrostatic precipitators, devices for the measurement of voltage and secondary current; and

e. 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.

**2.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**3.** [40 CFR 63.848(h)]
Corrective action. If a monitoring device for a primary control device measures an operating parameter outside the limit(s) established pursuant to Sec. 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 the corrective action procedures identified in the startup, shutdown, and malfunction plan 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.

**4.** [40 CFR 63.848(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.

**5.** [40 CFR 63.848(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.

**6.** [40 CFR 63.848(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.

**7.** [40 CFR 63.848(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.

**8.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**9.** [40 CFR 63.850(e)]
Recordkeeping. The owner or operator shall maintain files of all information (including all reports and notifications) required by Sec. 63.10(b) and by this subpart.

a. 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;

b. The owner or operator may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche;

c. The owner or operator may report required information on paper or on a labeled computer disc using commonly available and compatible computer software; and

d. In addition to the general records required by Sec. 63.10(b), the owner or operator shall maintain records of the following information:

i. Daily production rate of aluminum;

ii. A copy of the startup, shutdown, and malfunction plan;

iii. Records of design information for paste production plant capture systems;

iv. 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;

v. Records supporting a request for reduced sampling of potlines;

vi. 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;

vii. The current implementation plan for emission averaging and any subsequent amendments;

viii. 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 Sec. 63.848(f)(5)(ii), including the results of each inspection;

ix. 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 Sec. 63.848(g), including the results of each inspection;

x. For a potline equipped with an HF continuous emission monitor, records of information and data required by Sec. 63.10(c);

xi. Records documenting the corrective actions taken when the limit(s) for an operating parameter established under Sec. 63.847(h) were exceeded, when visible emissions indicating abnormal operation were observed from a control device stack during a daily inspection required under Sec. 63.848(g), or when a problem was detected during the daily inspection of a wet roof scrubber for potline secondary control required in Sec. 63.848(f)(5)(ii);

xii. 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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**10.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the dry scrubber reactor/baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

**11.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**12.** The permittee shall maintain records of the following information for each month:

a. the average SO2 content (in percent sulfur) of the anodes for each shipment of anodes received;

b. the consumption rate of the anodes, in pounds of anodes consumed per pound of aluminum produced;

c. the amount of aluminum produced, in pounds;

d. the total hours of operation; and

e. the average hourly SO2 emission rate, i.e., (a X b X c) / d.

## IV. Reporting Requirements

**1.** [40 CFR 63.850(a)]
Notifications. The owner or operator shall submit the following written notifications:

a. Notification for an area source that subsequently increases its emissions such that the source is a major source subject to the standard;

b. Notification that a source is subject to the standard, where the initial startup is before the effective date of the standard;

c. 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;

d. 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;

e. Notification of initial performance test;

f. Notification of initial compliance status;

g. One-time notification for each affected source of the intent to use an HF continuous emission monitor; and

h. 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 Secs. 63.843, 63.844, and 63.846.

**2.** [40 CFR 63.850(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 section A.IV.1.f. Except as provided in paragraph 4. 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.

**3.** [40 CFR 63.850(c)]
Startup, shutdown, and malfunction plan and reports. The owner or operator shall develop and implement a written plan as described in Sec. 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 appplication or included in the operating permit. The permitting authority may review the plan upon request. In addition to the information required in Sec. 63.6(e)(3), the plan shall include:

a. Procedures, including corrective actions, to be followed if a monitoring device measures an operating parameter outside the limit(s) established under Sec. 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 Sec. 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 Sec. 63.848(f)(5)(ii); and

b. The owner or operator shall also keep records of each event as required by Sec. 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 Sec. 63.6(e)(3)(iv).

## IV. Reporting Requirements (continued)

**4.** [40 CFR 63.850(d)]
Excess emissions report. As required by Sec. 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 Sec. 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions.

**5.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the dry scrubber reactor/baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

**6.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** [40 CFR 63.847(b)]
a. Test plan. The owner or operator shall prepare a site-specific test plan prior to the initial performance test according to the requirements of Sec. 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 Sec. 63.848 for emission monitoring. In addition to the information required by Sec. 63.7, the test plan shall include:

i. Procedures to ensure a minimum of three runs are performed annually for the primary control system for each source;

ii. 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;

iii. 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;

iv. 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.

**2.** [40 CFR 63.847(c)]
Initial performance test. Following approval of the site- specific test plan, the owner or operator shall conduct an initial performance test during the first month following the compliance date in accordance with the procedures in this section. If a performance test has been conducted on the primary control system for potlines within the 12 months prior to the compliance date, the results of that performance test may be used to determine initial compliance.

## V. Testing Requirements (continued)

**3.** [40 CFR 63.847(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 40 CFR Part 63, Subpart A, the approved test plan, and the procedures in this section.

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 40 CFR 63.847(e)(1), 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 Secs. 63.843, 63.844, or 63.846.

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.** [40 CFR 63.847(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 Sec. 63.848(f).

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.

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.

**5.** [40 CFR 63.848(a)]
TF emissions from potlines. Using the procedures in Sec. 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.

## V. Testing Requirements (continued)

**6.** [40 CFR 63.848(d)]
Similar potlines. As an alternative to monthly monitoring of TF or POM secondary emissions from each potline using the test methods in Sec. 63.849, the owner or operator may perform monthly monitoring of TF or POM secondary emissions from one potline using the test methods in Secs. 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 (a.) through (g.) 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.

a. 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 Secs. 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.

b. An HF continuous emission monitoring system is an approved alternative for the monitoring of TF secondary emissions.

c. 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.

d. 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.

e. The owner or operator shall submit the results required in paragraph (d.) of this section and all supporting documentation to the applicable regulatory authority for review and approval.

f. 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.

g. 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.

## V. Testing Requirements (continued)

**7.** [40 CFR 63.848(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.

a. 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 (7)(a)(i) or (7)(a)(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.

b. An approved alternative requirement must include a test schedule and the method to be used to measure emissions for performance tests.

c. The owner or operator of a plant that has received approval of an alternative sampling frequency under Sec. 60.194 of this chapter is deemed to have approval of the alternative sampling frequency under this subpart.

d. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(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.

e. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(ii) of this section, the owner or operator shall immediately return to the monthly sampling schedule required by section A.V.5 until another request for an alternative sampling frequency is approved by the applicable regulatory authority.

**8.** [40 CFR 63.849(a)]
The owner or operator shall use the following reference methods to determine compliance with the applicable emission limits for TF and POM emissions:

a. Method 1 in appendix A to part 60 of this chapter for sample and velocity traverses;

b. Method 2 in appendix A to part 60 of this chapter for velocity and volumetric flow rate;

c. Method 3 in appendix A to part 60 of this chapter for gas analysis;

d. 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; 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.

## V. Testing Requirements (continued)

**9.** [40 CFR 63.849(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.

**10.** [40 CFR 63.849(e)]
The owner or operator may use an alternative test method for TF emissions providing:

a. 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 measurements using the alternative method; or

b. 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 Section A.V.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.

**11.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**11.a** Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

**11.b** Emission Limitation:

12.6 pounds per hour of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission test methods and procedures specified in section A.V.12.

**11.c** Emission Limitation:

240 pounds per hour of sulfur dioxide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monitoring and record keeping requirements specified in section A.III.12. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

## V. Testing Requirements (continued)

**11.d** Emission Limitation:

total flouride in excess of 1.5 kg/Mg (3.0 lb/ton) of aluminum produced for each CWPB2 potline

Applicable Compliance Method:

Compliance shall be demonstrated based upon the requirements specified in sections A.V.1 through A.V.10.

**12.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 12 to 24 months after issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

e. The permittee shall perform visible particulate emission observations in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9 during each emission test run.

Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office as required by 40 CFR 63.1515(a)(6). The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**1.** [40 CFR 63.851(a), 40 CFR 63.851(b)]

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)(i) through (a)(v) of this section or of approval or intent to deny approval of the submissions in paragraphs (a)(i) through (a)(v) 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.

i. The test plan in Sec. 63.847(b);

ii. Request to change limits for operating parameters in Sec. 63.847(h)(3);

iii. Request for similar potline monitoring in Sec. 63.848(d)(5);

iv. Request for reduced sampling frequency in Sec. 63.848(e); and

v. Request for an alternative method in Sec. 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.

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Pots 0-42, 2B (P961)

**Activity Description:** Pots 0-42, 2B

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| alumina reduction potline 2B - consisting of pots 0-42 vented through dry scrubber reactor #3 to the baghouses and then exhausting through a single stack | 40 CFR Part 63, Subpart LL [40 CFR 63.843(a)] | The permittee shall not discharge or cause to be discharged into the atmosphere any emissions of total flouride (TF) in excess of 1.5 kg/Mg (3.0 lbs/ton) of aluminum produced for each CWPB2 potline.<br><br>Any potline, other than a reconstructed potline, that is changed such that its applicable subcategory also changes shall meet the applicable emission limit in 40 CFR Part 63, Subpart LL for the original subcategory or the new subcategory, whichever is more stringent. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-17-11(A)(3) | Particulate emissions shall not exceed 12.6 pounds per hour. |
| | OAC rule 3745-18-06(E)(2) | Sulfur dioxide emissions shall not exceed 240 pounds per hour. |
| | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See section A.I.2.c. |

## 2. Additional Terms and Conditions

**2.a** [40 CFR 63.846(b)]
The permittee of an existing potline or anode bake furnace may demonstrate compliance by emission averaging according to the procedures in this section.

The permittee may average TF emissions from potlines and demonstrate compliance with the limits in Table 1 of 40 CFR Part 63 Subpart LL using the following procedures:

i. Monthly average emissions of TF shall not exceed the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL (for TF 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.

ii. To determine compliance with the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL 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 Secs. 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.

**2.b** [40 CFR 63.846(d)]
Implementation plan. The permittee 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:

i. The permittee must submit the implementation plan no later than 6 months before the date that the facility intends to comply with the emission averaging limits.

ii. The permittee 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:

(a) The identification of all emission sources (potlines or anode bake furnaces) in the average;

(b) The assigned TF emission limit for each averaging group of potlines or anode bake furnaces;

(c) 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;

(d) The test plan for the measurement of TF emissions in accordance with the requirements in Sec. 63.847(b);

(e) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;

(f) If the owner or operator requests to monitor an alternative operating parameter pursuant to Sec. 63.848(l):

**2. Additional Terms and Conditions (continued)**

1. A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

2. 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

(g) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.

iii. Approval criteria. Upon receipt, the regulatory authority shall review and approve or disapprove the plan or permit application according to the following criteria:

(a) Whether the content of the plan includes all of the information specified in this section; and

(b) Whether the plan or permit application presents sufficient information to determine that compliance will be achieved and maintained.

iv. Prohibitions. The applicable regulatory authority shall not approve an implementation plan or permit application containing any of the following provisions:

(a) 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;

(b) 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;

(c) The inclusion of any potline or anode bake furnace while it is shut down; or

(d) The inclusion of any periods of startup, shutdown, or malfunction, as described in the startup, shutdown, and malfunction plan required by Sec. 63.850(c), in the emission calculations.

v. 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.

(a) The applicable regulatory authority shall approve the plan for the term of the operating permit;

(b) To revise the plan prior to the end of the permit term, the permittee shall submit a request to the applicable regulatory authority; and

(c) The permittee may submit a request to the applicable regulatory authority to implement emission averaging after the applicable compliance date.

vi. Operation. While operating under an approved implementation plan, the permittee shall monitor the operating parameters of each control system, keep records, and submit periodic reports as required for each source subject to this permit.

**2. Additional Terms and Conditions (continued)**

**2.c** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of RACM. These measures shall include, but not be limited to, the following:

i. the use of the individual cells' moveable hoods, skirts, and doors in a manner that contains and captures, to the extent possible with good engineering design and operation, the fumes released from tapping, charging, carbon setting, and all other electrolytic reduction activities; and

ii. all fugitive dust captured within the RACM area shall be vented to the dry scrubber reactor #3 and the baghouses associated, in series, with this emissions unit.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this emissions unit, including, but not limited to: doorways, windows, and roof openings.

## II. Operational Restrictions

**1.** [40 CFR 63.847(e)(5)]
The permittee shall 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 section A.III.5.

**2.** [40 CFR 63.847(e)(6)]
The permittee shall 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.

## III. Monitoring and/or Record Keeping Requirements

**1.** [40 CFR 63.848(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 (7) of this section, the following monitoring devices shall be installed:

a. For dry alumina scrubbers, devices for the measurement of alumina flow and air flow;

b. For dry coke scrubbers, devices for the measurement of coke flow and air flow;

c. For wet scrubbers as the primary control system, devices for the measurement of water flow and air flow;

d. For electrostatic precipitators, devices for the measurement of voltage and secondary current; and

e. 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.

**2.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**3.** [40 CFR 63.848(h)]
Corrective action. If a monitoring device for a primary control device measures an operating parameter outside the limit(s) established pursuant to Sec. 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 the corrective action procedures identified in the startup, shutdown, and malfunction plan 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.

**4.** [40 CFR 63.848(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.

**5.** [40 CFR 63.848(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.

**6.** [40 CFR 63.848(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.

**7.** [40 CFR 63.848(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.

**8.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**9.** [40 CFR 63.850(e)]
Recordkeeping. The owner or operator shall maintain files of all information (including all reports and notifications) required by Sec. 63.10(b) and by this subpart.

a. 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;

b. The owner or operator may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche;

c. The owner or operator may report required information on paper or on a labeled computer disc using commonly available and compatible computer software; and

d. In addition to the general records required by Sec. 63.10(b), the owner or operator shall maintain records of the following information:

i. Daily production rate of aluminum;

ii. A copy of the startup, shutdown, and malfunction plan;

iii. Records of design information for paste production plant capture systems;

iv. 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;

v. Records supporting a request for reduced sampling of potlines;

vi. 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;

vii. The current implementation plan for emission averaging and any subsequent amendments;

viii. 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 Sec. 63.848(f)(5)(ii), including the results of each inspection;

ix. 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 Sec. 63.848(g), including the results of each inspection;

x. For a potline equipped with an HF continuous emission monitor, records of information and data required by Sec. 63.10(c);

xi. Records documenting the corrective actions taken when the limit(s) for an operating parameter established under Sec. 63.847(h) were exceeded, when visible emissions indicating abnormal operation were observed from a control device stack during a daily inspection required under Sec. 63.848(g), or when a problem was detected during the daily inspection of a wet roof scrubber for potline secondary control required in Sec. 63.848(f)(5)(ii);

xii. 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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**10.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the dry scrubber reactor/baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

**11.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**12.** The permittee shall maintain records of the following information for each month:

a. the average SO2 content (in percent sulfur) of the anodes for each shipment of anodes received;

b. the consumption rate of the anodes, in pounds of anodes consumed per pound of aluminum produced;

c. the amount of aluminum produced, in pounds;

d. the total hours of operation; and

e. the average hourly SO2 emission rate, i.e., (a X b X c) / d.

## IV. Reporting Requirements

**1.** [40 CFR 63.850(a)]
Notifications. The owner or operator shall submit the following written notifications:

a. Notification for an area source that subsequently increases its emissions such that the source is a major source subject to the standard;

b. Notification that a source is subject to the standard, where the initial startup is before the effective date of the standard;

c. 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;

d. 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;

e. Notification of initial performance test;

f. Notification of initial compliance status;

g. One-time notification for each affected source of the intent to use an HF continuous emission monitor; and

h. 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 Secs. 63.843, 63.844, and 63.846.

**2.** [40 CFR 63.850(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 section A.IV.1.f. Except as provided in paragraph 4. 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.

**3.** [40 CFR 63.850(c)]
Startup, shutdown, and malfunction plan and reports. The owner or operator shall develop and implement a written plan as described in Sec. 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 appplication or included in the operating permit. The permitting authority may review the plan upon request. In addition to the information required in Sec. 63.6(e)(3), the plan shall include:

a. Procedures, including corrective actions, to be followed if a monitoring device measures an operating parameter outside the limit(s) established under Sec. 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 Sec. 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 Sec. 63.848(f)(5)(ii); and

b. The owner or operator shall also keep records of each event as required by Sec. 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 Sec. 63.6(e)(3)(iv).

## IV. Reporting Requirements (continued)

**4.** [40 CFR 63.850(d)]
Excess emissions report. As required by Sec. 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 Sec. 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions.

**5.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the dry scrubber reactor/baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

**6.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** [40 CFR 63.847(b)]
a. Test plan. The owner or operator shall prepare a site-specific test plan prior to the initial performance test according to the requirements of Sec. 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 Sec. 63.848 for emission monitoring. In addition to the information required by Sec. 63.7, the test plan shall include:

i. Procedures to ensure a minimum of three runs are performed annually for the primary control system for each source;

ii. 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;

iii. 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;

iv. 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.

**2.** [40 CFR 63.847(c)]
Initial performance test. Following approval of the site- specific test plan, the owner or operator shall conduct an initial performance test during the first month following the compliance date in accordance with the procedures in this section. If a performance test has been conducted on the primary control system for potlines within the 12 months prior to the compliance date, the results of that performance test may be used to determine initial compliance.

## V. Testing Requirements (continued)

**3.** [40 CFR 63.847(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 40 CFR Part 63, Subpart A, the approved test plan, and the procedures in this section.

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 40 CFR 63.847(e)(1), 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 Secs. 63.843, 63.844, or 63.846.

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.** [40 CFR 63.847(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 Sec. 63.848(f).

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.

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.

**5.** [40 CFR 63.848(a)]
TF emissions from potlines. Using the procedures in Sec. 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.

## V. Testing Requirements (continued)

**6.** [40 CFR 63.848(d)]
Similar potlines. As an alternative to monthly monitoring of TF or POM secondary emissions from each potline using the test methods in Sec. 63.849, the owner or operator may perform monthly monitoring of TF or POM secondary emissions from one potline using the test methods in Secs. 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 (a.) through (g.) 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.

a. 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 Secs. 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.

b. An HF continuous emission monitoring system is an approved alternative for the monitoring of TF secondary emissions.

c. 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.

d. 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.

e. The owner or operator shall submit the results required in paragraph (d.) of this section and all supporting documentation to the applicable regulatory authority for review and approval.

f. 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.

g. 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.

## V. Testing Requirements (continued)

**7.** [40 CFR 63.848(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.

a. 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 (7)(a)(i) or (7)(a)(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.

b. An approved alternative requirement must include a test schedule and the method to be used to measure emissions for performance tests.

c. The owner or operator of a plant that has received approval of an alternative sampling frequency under Sec. 60.194 of this chapter is deemed to have approval of the alternative sampling frequency under this subpart.

d. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(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.

e. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(ii) of this section, the owner or operator shall immediately return to the monthly sampling schedule required by section A.V.5 until another request for an alternative sampling frequency is approved by the applicable regulatory authority.

**8.** [40 CFR 63.849(a)]
The owner or operator shall use the following reference methods to determine compliance with the applicable emission limits for TF and POM emissions:

a. Method 1 in appendix A to part 60 of this chapter for sample and velocity traverses;

b. Method 2 in appendix A to part 60 of this chapter for velocity and volumetric flow rate;

c. Method 3 in appendix A to part 60 of this chapter for gas analysis;

d. 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; 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.

## V. Testing Requirements (continued)

**9.** [40 CFR 63.849(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.

**10.** [40 CFR 63.849(e)]
The owner or operator may use an alternative test method for TF emissions providing:

a. 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 measurements using the alternative method; or

b. 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 Section A.V.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.

**11.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**11.a** Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

**11.b** Emission Limitation:

12.6 pounds per hour of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission test methods and procedures specified in section A.V.12.

**11.c** Emission Limitation:

240 pounds per hour of sulfur dioxide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monitoring and record keeping requirements specified in section A.III.12. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

## V. Testing Requirements (continued)

**11.d** Emission Limitation:

total flouride in excess of 1.5 kg/Mg (3.0 lb/ton) of aluminum produced for each CWPB2 potline

Applicable Compliance Method:

Compliance shall be demonstrated based upon the requirements specified in sections A.V.1 through A.V.10.

**12.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 12 to 24 months after issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

e. The permittee shall perform visible particulate emission observations in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9 during each emission test run.

Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office as required by 40 CFR 63.1515(a)(6). The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**1.** [40 CFR 63.851(a), 40 CFR 63.851(b)]

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)(i) through (a)(v) of this section or of approval or intent to deny approval of the submissions in paragraphs (a)(i) through (a)(v) 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.

i. The test plan in Sec. 63.847(b);

ii. Request to change limits for operating parameters in Sec. 63.847(h)(3);

iii. Request for similar potline monitoring in Sec. 63.848(d)(5);

iv. Request for reduced sampling frequency in Sec. 63.848(e); and

v. Request for an alternative method in Sec. 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.

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Pots 43-85, 2B (P962)

**Activity Description:** Pots 43-85, 2B

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| alumina reduction potline 2B - consisting of pots 43-85 vented through dry scrubber reactor #4 to the baghouses and then exhausting through a single stack | 40 CFR Part 63, Subpart LL [40 CFR 63.843(a)] | The permittee shall not discharge or cause to be discharged into the atmosphere any emissions of total flouride (TF) in excess of 1.5 kg/Mg (3.0 lbs/ton) of aluminum produced for each CWPB2 potline.<br><br>Any potline, other than a reconstructed potline, that is changed such that its applicable subcategory also changes shall meet the applicable emission limit in 40 CFR Part 63, Subpart LL for the original subcategory or the new subcategory, whichever is more stringent. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-17-11(A)(3) | Particulate emissions shall not exceed 12.6 pounds per hour. |
| | OAC rule 3745-18-06(E)(2) | Sulfur dioxide emissions shall not exceed 240 pounds per hour. |
| | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See section A.I.2.c. |

## 2. Additional Terms and Conditions

**2.a** [40 CFR 63.846(b)]
The permittee of an existing potline or anode bake furnace may demonstrate compliance by emission averaging according to the procedures in this section.

The permittee may average TF emissions from potlines and demonstrate compliance with the limits in Table 1 of 40 CFR Part 63 Subpart LL using the following procedures:

i. Monthly average emissions of TF shall not exceed the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL (for TF 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.

ii. To determine compliance with the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL 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 Secs. 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.

**2.b** [40 CFR 63.846(d)]
Implementation plan. The permittee 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:

i. The permittee must submit the implementation plan no later than 6 months before the date that the facility intends to comply with the emission averaging limits.

ii. The permittee 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:

(a) The identification of all emission sources (potlines or anode bake furnaces) in the average;

(b) The assigned TF emission limit for each averaging group of potlines or anode bake furnaces;

(c) 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;

(d) The test plan for the measurement of TF emissions in accordance with the requirements in Sec. 63.847(b);

(e) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;

(f) If the owner or operator requests to monitor an alternative operating parameter pursuant to Sec. 63.848(l):

**2. Additional Terms and Conditions (continued)**

1. A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

2. 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

(g) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.

iii. Approval criteria. Upon receipt, the regulatory authority shall review and approve or disapprove the plan or permit application according to the following criteria:

(a) Whether the content of the plan includes all of the information specified in this section; and

(b) Whether the plan or permit application presents sufficient information to determine that compliance will be achieved and maintained.

iv. Prohibitions. The applicable regulatory authority shall not approve an implementation plan or permit application containing any of the following provisions:

(a) 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;

(b) 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;

(c) The inclusion of any potline or anode bake furnace while it is shut down; or

(d) The inclusion of any periods of startup, shutdown, or malfunction, as described in the startup, shutdown, and malfunction plan required by Sec. 63.850(c), in the emission calculations.

v. 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.

(a) The applicable regulatory authority shall approve the plan for the term of the operating permit;

(b) To revise the plan prior to the end of the permit term, the permittee shall submit a request to the applicable regulatory authority; and

(c) The permittee may submit a request to the applicable regulatory authority to implement emission averaging after the applicable compliance date.

vi. Operation. While operating under an approved implementation plan, the permittee shall monitor the operating parameters of each control system, keep records, and submit periodic reports as required for each source subject to this permit.

**2. Additional Terms and Conditions (continued)**

**2.c** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of RACM. These measures shall include, but not be limited to, the following:

i. the use of the individual cells' moveable hoods, skirts, and doors in a manner that contains and captures, to the extent possible with good engineering design and operation, the fumes released from tapping, charging, carbon setting, and all other electrolytic reduction activities; and

ii. all fugitive dust captured within the RACM area shall be vented to the dry scrubber reactor #3 and the baghouses associated, in series, with this emissions unit.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this emissions unit, including, but not limited to: doorways, windows, and roof openings.

## II. Operational Restrictions

**1.** [40 CFR 63.847(e)(5)]
The permittee shall 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 section A.III.5.

**2.** [40 CFR 63.847(e)(6)]
The permittee shall 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.

## III. Monitoring and/or Record Keeping Requirements

**1.** [40 CFR 63.848(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 (7) of this section, the following monitoring devices shall be installed:

a. For dry alumina scrubbers, devices for the measurement of alumina flow and air flow;

b. For dry coke scrubbers, devices for the measurement of coke flow and air flow;

c. For wet scrubbers as the primary control system, devices for the measurement of water flow and air flow;

d. For electrostatic precipitators, devices for the measurement of voltage and secondary current; and

e. 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.

**2.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**3.** [40 CFR 63.848(h)]
Corrective action. If a monitoring device for a primary control device measures an operating parameter outside the limit(s) established pursuant to Sec. 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 the corrective action procedures identified in the startup, shutdown, and malfunction plan 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.

**4.** [40 CFR 63.848(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.

**5.** [40 CFR 63.848(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.

**6.** [40 CFR 63.848(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.

**7.** [40 CFR 63.848(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.

**8.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**9.** [40 CFR 63.850(e)]
Recordkeeping. The owner or operator shall maintain files of all information (including all reports and notifications) required by Sec. 63.10(b) and by this subpart.

a. 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;

b. The owner or operator may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche;

c. The owner or operator may report required information on paper or on a labeled computer disc using commonly available and compatible computer software; and

d. In addition to the general records required by Sec. 63.10(b), the owner or operator shall maintain records of the following information:

i. Daily production rate of aluminum;

ii. A copy of the startup, shutdown, and malfunction plan;

iii. Records of design information for paste production plant capture systems;

iv. 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;

v. Records supporting a request for reduced sampling of potlines;

vi. 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;

vii. The current implementation plan for emission averaging and any subsequent amendments;

viii. 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 Sec. 63.848(f)(5)(ii), including the results of each inspection;

ix. 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 Sec. 63.848(g), including the results of each inspection;

x. For a potline equipped with an HF continuous emission monitor, records of information and data required by Sec. 63.10(c);

xi. Records documenting the corrective actions taken when the limit(s) for an operating parameter established under Sec. 63.847(h) were exceeded, when visible emissions indicating abnormal operation were observed from a control device stack during a daily inspection required under Sec. 63.848(g), or when a problem was detected during the daily inspection of a wet roof scrubber for potline secondary control required in Sec. 63.848(f)(5)(ii);

xii. 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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**10.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the dry scrubber reactor/baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

**11.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**12.** The permittee shall maintain records of the following information for each month:

a. the average SO2 content (in percent sulfur) of the anodes for each shipment of anodes received;

b. the consumption rate of the anodes, in pounds of anodes consumed per pound of aluminum produced;

c. the amount of aluminum produced, in pounds;

d. the total hours of operation; and

e. the average hourly SO2 emission rate, i.e., (a X b X c) / d.

## IV. Reporting Requirements

**1.** [40 CFR 63.850(a)]
Notifications. The owner or operator shall submit the following written notifications:

a. Notification for an area source that subsequently increases its emissions such that the source is a major source subject to the standard;

b. Notification that a source is subject to the standard, where the initial startup is before the effective date of the standard;

c. 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;

d. 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;

e. Notification of initial performance test;

f. Notification of initial compliance status;

g. One-time notification for each affected source of the intent to use an HF continuous emission monitor; and

h. 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 Secs. 63.843, 63.844, and 63.846.

**2.** [40 CFR 63.850(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 section A.IV.1.f. Except as provided in paragraph 4. 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.

**3.** [40 CFR 63.850(c)]
Startup, shutdown, and malfunction plan and reports. The owner or operator shall develop and implement a written plan as described in Sec. 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 appplication or included in the operating permit. The permitting authority may review the plan upon request. In addition to the information required in Sec. 63.6(e)(3), the plan shall include:

a. Procedures, including corrective actions, to be followed if a monitoring device measures an operating parameter outside the limit(s) established under Sec. 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 Sec. 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 Sec. 63.848(f)(5)(ii); and

b. The owner or operator shall also keep records of each event as required by Sec. 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 Sec. 63.6(e)(3)(iv).

## IV. Reporting Requirements (continued)

**4.** [40 CFR 63.850(d)]
Excess emissions report. As required by Sec. 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 Sec. 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions.

**5.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the dry scrubber reactor/baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

**6.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** [40 CFR 63.847(b)]
a. Test plan. The owner or operator shall prepare a site-specific test plan prior to the initial performance test according to the requirements of Sec. 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 Sec. 63.848 for emission monitoring. In addition to the information required by Sec. 63.7, the test plan shall include:

i. Procedures to ensure a minimum of three runs are performed annually for the primary control system for each source;

ii. 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;

iii. 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;

iv. 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.

**2.** [40 CFR 63.847(c)]
Initial performance test. Following approval of the site- specific test plan, the owner or operator shall conduct an initial performance test during the first month following the compliance date in accordance with the procedures in this section. If a performance test has been conducted on the primary control system for potlines within the 12 months prior to the compliance date, the results of that performance test may be used to determine initial compliance.

## V. Testing Requirements (continued)

**3.** [40 CFR 63.847(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 40 CFR Part 63, Subpart A, the approved test plan, and the procedures in this section.

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 40 CFR 63.847(e)(1), 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 Secs. 63.843, 63.844, or 63.846.

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.** [40 CFR 63.847(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 Sec. 63.848(f).

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.

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.

**5.** [40 CFR 63.848(a)]
TF emissions from potlines. Using the procedures in Sec. 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.

## V. Testing Requirements (continued)

**6.** [40 CFR 63.848(d)]
Similar potlines. As an alternative to monthly monitoring of TF or POM secondary emissions from each potline using the test methods in Sec. 63.849, the owner or operator may perform monthly monitoring of TF or POM secondary emissions from one potline using the test methods in Secs. 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 (a.) through (g.) 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.

a. 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 Secs. 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.

b. An HF continuous emission monitoring system is an approved alternative for the monitoring of TF secondary emissions.

c. 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.

d. 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.

e. The owner or operator shall submit the results required in paragraph (d.) of this section and all supporting documentation to the applicable regulatory authority for review and approval.

f. 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.

g. 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.

## V. Testing Requirements (continued)

**7.** [40 CFR 63.848(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.

a. 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 (7)(a)(i) or (7)(a)(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.

b. An approved alternative requirement must include a test schedule and the method to be used to measure emissions for performance tests.

c. The owner or operator of a plant that has received approval of an alternative sampling frequency under Sec. 60.194 of this chapter is deemed to have approval of the alternative sampling frequency under this subpart.

d. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(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.

e. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(ii) of this section, the owner or operator shall immediately return to the monthly sampling schedule required by section A.V.5 until another request for an alternative sampling frequency is approved by the applicable regulatory authority.

**8.** [40 CFR 63.849(a)]
The owner or operator shall use the following reference methods to determine compliance with the applicable emission limits for TF and POM emissions:

a. Method 1 in appendix A to part 60 of this chapter for sample and velocity traverses;

b. Method 2 in appendix A to part 60 of this chapter for velocity and volumetric flow rate;

c. Method 3 in appendix A to part 60 of this chapter for gas analysis;

d. 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; 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.

## V. Testing Requirements (continued)

**9.** [40 CFR 63.849(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.

**10.** [40 CFR 63.849(e)]
The owner or operator may use an alternative test method for TF emissions providing:

a. 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 measurements using the alternative method; or

b. 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 Section A.V.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.

**11.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**11.a** Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

**11.b** Emission Limitation:

12.6 pounds per hour of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission test methods and procedures specified in section A.V.12.

**11.c** Emission Limitation:

240 pounds per hour of sulfur dioxide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monitoring and record keeping requirements specified in section A.III.12. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

## V. Testing Requirements (continued)

**11.d** Emission Limitation:

total flouride in excess of 1.5 kg/Mg (3.0 lb/ton) of aluminum produced for each CWPB2 potline

Applicable Compliance Method:

Compliance shall be demonstrated based upon the requirements specified in sections A.V.1 through A.V.10.

**12.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 12 to 24 months after issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

e. The permittee shall perform visible particulate emission observations in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9 during each emission test run.

Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office as required by 40 CFR 63.1515(a)(6). The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**1.** [40 CFR 63.851(a), 40 CFR 63.851(b)]

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)(i) through (a)(v) of this section or of approval or intent to deny approval of the submissions in paragraphs (a)(i) through (a)(v) 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.

i. The test plan in Sec. 63.847(b);

ii. Request to change limits for operating parameters in Sec. 63.847(h)(3);

iii. Request for similar potline monitoring in Sec. 63.848(d)(5);

iv. Request for reduced sampling frequency in Sec. 63.848(e); and

v. Request for an alternative method in Sec. 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.

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Pots 0-42, 3A (P963)

**Activity Description:** Pots 0-42, 3A

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| alumina reduction potline 3A - consisting of pots 0-42 vented through dry scrubber reactor #2 to the baghouses and then exhausting through a single stack | 40 CFR Part 63, Subpart LL [40 CFR 63.843(a)] | The permittee shall not discharge or cause to be discharged into the atmosphere any emissions of total flouride (TF) in excess of 1.5 kg/Mg (3.0 lbs/ton) of aluminum produced for each CWPB2 potline.<br><br>Any potline, other than a reconstructed potline, that is changed such that its applicable subcategory also changes shall meet the applicable emission limit in 40 CFR Part 63, Subpart LL for the original subcategory or the new subcategory, whichever is more stringent. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-17-11(A)(3) | Particulate emissions shall not exceed 12.6 pounds per hour. |
| | OAC rule 3745-18-06(E)(2) | Sulfur dioxide emissions shall not exceed 240 pounds per hour. |
| | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See section A.I.2.c. |

## 2. Additional Terms and Conditions

**2.a** [40 CFR 63.846(b)]
The permittee of an existing potline or anode bake furnace may demonstrate compliance by emission averaging according to the procedures in this section.

The permittee may average TF emissions from potlines and demonstrate compliance with the limits in Table 1 of 40 CFR Part 63 Subpart LL using the following procedures:

i. Monthly average emissions of TF shall not exceed the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL (for TF 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.

ii. To determine compliance with the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL 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 Secs. 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.

**2.b** [40 CFR 63.846(d)]
Implementation plan. The permittee 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:

i. The permittee must submit the implementation plan no later than 6 months before the date that the facility intends to comply with the emission averaging limits.

ii. The permittee 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:

(a) The identification of all emission sources (potlines or anode bake furnaces) in the average;

(b) The assigned TF emission limit for each averaging group of potlines or anode bake furnaces;

(c) 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;

(d) The test plan for the measurement of TF emissions in accordance with the requirements in Sec. 63.847(b);

(e) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;

(f) If the owner or operator requests to monitor an alternative operating parameter pursuant to Sec. 63.848(l):

**2. Additional Terms and Conditions (continued)**

1. A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

2. 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

(g) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.

iii. Approval criteria. Upon receipt, the regulatory authority shall review and approve or disapprove the plan or permit application according to the following criteria:

(a) Whether the content of the plan includes all of the information specified in this section; and

(b) Whether the plan or permit application presents sufficient information to determine that compliance will be achieved and maintained.

iv. Prohibitions. The applicable regulatory authority shall not approve an implementation plan or permit application containing any of the following provisions:

(a) 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;

(b) 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;

(c) The inclusion of any potline or anode bake furnace while it is shut down; or

(d) The inclusion of any periods of startup, shutdown, or malfunction, as described in the startup, shutdown, and malfunction plan required by Sec. 63.850(c), in the emission calculations.

v. 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.

(a) The applicable regulatory authority shall approve the plan for the term of the operating permit;

(b) To revise the plan prior to the end of the permit term, the permittee shall submit a request to the applicable regulatory authority; and

(c) The permittee may submit a request to the applicable regulatory authority to implement emission averaging after the applicable compliance date.

vi. Operation. While operating under an approved implementation plan, the permittee shall monitor the operating parameters of each control system, keep records, and submit periodic reports as required for each source subject to this permit.

**2. Additional Terms and Conditions (continued)**

**2.c** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of RACM. These measures shall include, but not be limited to, the following:

i. the use of the individual cells' moveable hoods, skirts, and doors in a manner that contains and captures, to the extent possible with good engineering design and operation, the fumes released from tapping, charging, carbon setting, and all other electrolytic reduction activities; and

ii. all fugitive dust captured within the RACM area shall be vented to the dry scrubber reactor #3 and the baghouses associated, in series, with this emissions unit.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this emissions unit, including, but not limited to: doorways, windows, and roof openings.

## II. Operational Restrictions

**1.** [40 CFR 63.847(e)(5)]
The permittee shall 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 section A.III.5.

**2.** [40 CFR 63.847(e)(6)]
The permittee shall 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.

## III. Monitoring and/or Record Keeping Requirements

**1.** [40 CFR 63.848(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 (7) of this section, the following monitoring devices shall be installed:

a. For dry alumina scrubbers, devices for the measurement of alumina flow and air flow;

b. For dry coke scrubbers, devices for the measurement of coke flow and air flow;

c. For wet scrubbers as the primary control system, devices for the measurement of water flow and air flow;

d. For electrostatic precipitators, devices for the measurement of voltage and secondary current; and

e. 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.

**2.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**3.** [40 CFR 63.848(h)]
Corrective action. If a monitoring device for a primary control device measures an operating parameter outside the limit(s) established pursuant to Sec. 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 the corrective action procedures identified in the startup, shutdown, and malfunction plan 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.

**4.** [40 CFR 63.848(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.

**5.** [40 CFR 63.848(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.

**6.** [40 CFR 63.848(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.

**7.** [40 CFR 63.848(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.

**8.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**9.** [40 CFR 63.850(e)]
Recordkeeping. The owner or operator shall maintain files of all information (including all reports and notifications) required by Sec. 63.10(b) and by this subpart.

a. 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;

b. The owner or operator may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche;

c. The owner or operator may report required information on paper or on a labeled computer disc using commonly available and compatible computer software; and

d. In addition to the general records required by Sec. 63.10(b), the owner or operator shall maintain records of the following information:

i. Daily production rate of aluminum;

ii. A copy of the startup, shutdown, and malfunction plan;

iii. Records of design information for paste production plant capture systems;

iv. 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;

v. Records supporting a request for reduced sampling of potlines;

vi. 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;

vii. The current implementation plan for emission averaging and any subsequent amendments;

viii. 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 Sec. 63.848(f)(5)(ii), including the results of each inspection;

ix. 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 Sec. 63.848(g), including the results of each inspection;

x. For a potline equipped with an HF continuous emission monitor, records of information and data required by Sec. 63.10(c);

xi. Records documenting the corrective actions taken when the limit(s) for an operating parameter established under Sec. 63.847(h) were exceeded, when visible emissions indicating abnormal operation were observed from a control device stack during a daily inspection required under Sec. 63.848(g), or when a problem was detected during the daily inspection of a wet roof scrubber for potline secondary control required in Sec. 63.848(f)(5)(ii);

xii. 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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**10.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the dry scrubber reactor/baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

**11.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**12.** The permittee shall maintain records of the following information for each month:

a. the average SO2 content (in percent sulfur) of the anodes for each shipment of anodes received;

b. the consumption rate of the anodes, in pounds of anodes consumed per pound of aluminum produced;

c. the amount of aluminum produced, in pounds;

d. the total hours of operation; and

e. the average hourly SO2 emission rate, i.e., (a X b X c) / d.

## IV. Reporting Requirements

**1.** [40 CFR 63.850(a)]
Notifications. The owner or operator shall submit the following written notifications:

a. Notification for an area source that subsequently increases its emissions such that the source is a major source subject to the standard;

b. Notification that a source is subject to the standard, where the initial startup is before the effective date of the standard;

c. 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;

d. 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;

e. Notification of initial performance test;

f. Notification of initial compliance status;

g. One-time notification for each affected source of the intent to use an HF continuous emission monitor; and

h. 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 Secs. 63.843, 63.844, and 63.846.

**2.** [40 CFR 63.850(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 section A.IV.1.f. Except as provided in paragraph 4. 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.

**3.** [40 CFR 63.850(c)]
Startup, shutdown, and malfunction plan and reports. The owner or operator shall develop and implement a written plan as described in Sec. 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 appplication or included in the operating permit. The permitting authority may review the plan upon request. In addition to the information required in Sec. 63.6(e)(3), the plan shall include:

a. Procedures, including corrective actions, to be followed if a monitoring device measures an operating parameter outside the limit(s) established under Sec. 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 Sec. 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 Sec. 63.848(f)(5)(ii); and

b. The owner or operator shall also keep records of each event as required by Sec. 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 Sec. 63.6(e)(3)(iv).

## IV. Reporting Requirements (continued)

**4.** [40 CFR 63.850(d)]
Excess emissions report. As required by Sec. 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 Sec. 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions.

**5.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the dry scrubber reactor/baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

**6.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** [40 CFR 63.847(b)]
a. Test plan. The owner or operator shall prepare a site-specific test plan prior to the initial performance test according to the requirements of Sec. 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 Sec. 63.848 for emission monitoring. In addition to the information required by Sec. 63.7, the test plan shall include:

i. Procedures to ensure a minimum of three runs are performed annually for the primary control system for each source;

ii. 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;

iii. 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;

iv. 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.

**2.** [40 CFR 63.847(c)]
Initial performance test. Following approval of the site- specific test plan, the owner or operator shall conduct an initial performance test during the first month following the compliance date in accordance with the procedures in this section. If a performance test has been conducted on the primary control system for potlines within the 12 months prior to the compliance date, the results of that performance test may be used to determine initial compliance.

## V. Testing Requirements (continued)

**3.** [40 CFR 63.847(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 40 CFR Part 63, Subpart A, the approved test plan, and the procedures in this section.

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 40 CFR 63.847(e)(1), 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 Secs. 63.843, 63.844, or 63.846.

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.** [40 CFR 63.847(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 Sec. 63.848(f).

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.

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.

**5.** [40 CFR 63.848(a)]
TF emissions from potlines. Using the procedures in Sec. 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.

## V. Testing Requirements (continued)

**6.** [40 CFR 63.848(d)]
Similar potlines. As an alternative to monthly monitoring of TF or POM secondary emissions from each potline using the test methods in Sec. 63.849, the owner or operator may perform monthly monitoring of TF or POM secondary emissions from one potline using the test methods in Secs. 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 (a.) through (g.) 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.

a. 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 Secs. 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.

b. An HF continuous emission monitoring system is an approved alternative for the monitoring of TF secondary emissions.

c. 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.

d. 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.

e. The owner or operator shall submit the results required in paragraph (d.) of this section and all supporting documentation to the applicable regulatory authority for review and approval.

f. 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.

g. 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.

## V. Testing Requirements (continued)

**7.** [40 CFR 63.848(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.

a. 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 (7)(a)(i) or (7)(a)(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.

b. An approved alternative requirement must include a test schedule and the method to be used to measure emissions for performance tests.

c. The owner or operator of a plant that has received approval of an alternative sampling frequency under Sec. 60.194 of this chapter is deemed to have approval of the alternative sampling frequency under this subpart.

d. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(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.

e. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(ii) of this section, the owner or operator shall immediately return to the monthly sampling schedule required by section A.V.5 until another request for an alternative sampling frequency is approved by the applicable regulatory authority.

**8.** [40 CFR 63.849(a)]
The owner or operator shall use the following reference methods to determine compliance with the applicable emission limits for TF and POM emissions:

a. Method 1 in appendix A to part 60 of this chapter for sample and velocity traverses;

b. Method 2 in appendix A to part 60 of this chapter for velocity and volumetric flow rate;

c. Method 3 in appendix A to part 60 of this chapter for gas analysis;

d. 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; 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.

## V. Testing Requirements (continued)

**9.** [40 CFR 63.849(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.

**10.** [40 CFR 63.849(e)]
The owner or operator may use an alternative test method for TF emissions providing:

a. 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 measurements using the alternative method; or

b. 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 Section A.V.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.

**11.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**11.a** Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

**11.b** Emission Limitation:

12.6 pounds per hour of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission test methods and procedures specified in section A.V.12.

**11.c** Emission Limitation:

240 pounds per hour of sulfur dioxide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monitoring and record keeping requirements specified in section A.III.12. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

## V. Testing Requirements (continued)

**11.d** Emission Limitation:

total flouride in excess of 1.5 kg/Mg (3.0 lb/ton) of aluminum produced for each CWPB2 potline

Applicable Compliance Method:

Compliance shall be demonstrated based upon the requirements specified in sections A.V.1 through A.V.10.

**12.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 12 to 24 months after issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

e. The permittee shall perform visible particulate emission observations in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9 during each emission test run.

Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office as required by 40 CFR 63.1515(a)(6). The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**1.** [40 CFR 63.851(a), 40 CFR 63.851(b)]

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)(i) through (a)(v) of this section or of approval or intent to deny approval of the submissions in paragraphs (a)(i) through (a)(v) 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.

i. The test plan in Sec. 63.847(b);

ii. Request to change limits for operating parameters in Sec. 63.847(h)(3);

iii. Request for similar potline monitoring in Sec. 63.848(d)(5);

iv. Request for reduced sampling frequency in Sec. 63.848(e); and

v. Request for an alternative method in Sec. 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.

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Pots 43-85, 3A (P964)

**Activity Description:** Pots 43-85, 3A

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| alumina reduction potline 3A - consisting of pots 43-85 vented through dry scrubber reactor #5 to the baghouses and then exhausting through a single stack | 40 CFR Part 63, Subpart LL [40 CFR 63.843(a)] | The permittee shall not discharge or cause to be discharged into the atmosphere any emissions of total flouride (TF) in excess of 1.5 kg/Mg (3.0 lbs/ton) of aluminum produced for each CWPB2 potline.<br><br>Any potline, other than a reconstructed potline, that is changed such that its applicable subcategory also changes shall meet the applicable emission limit in 40 CFR Part 63, Subpart LL for the original subcategory or the new subcategory, whichever is more stringent. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-17-11(A)(3) | Particulate emissions shall not exceed 12.6 pounds per hour. |
| | OAC rule 3745-18-06(E)(2) | Sulfur dioxide emissions shall not exceed 240 pounds per hour. |
| | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See section A.I.2.c. |

## 2. Additional Terms and Conditions

**2.a** [40 CFR 63.846(b)]
The permittee of an existing potline or anode bake furnace may demonstrate compliance by emission averaging according to the procedures in this section.

The permittee may average TF emissions from potlines and demonstrate compliance with the limits in Table 1 of 40 CFR Part 63 Subpart LL using the following procedures:

i. Monthly average emissions of TF shall not exceed the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL (for TF 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.

ii. To determine compliance with the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL 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 Secs. 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.

**2.b** [40 CFR 63.846(d)]
Implementation plan. The permittee 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:

i. The permittee must submit the implementation plan no later than 6 months before the date that the facility intends to comply with the emission averaging limits.

ii. The permittee 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:

(a) The identification of all emission sources (potlines or anode bake furnaces) in the average;

(b) The assigned TF emission limit for each averaging group of potlines or anode bake furnaces;

(c) 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;

(d) The test plan for the measurement of TF emissions in accordance with the requirements in Sec. 63.847(b);

(e) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;

(f) If the owner or operator requests to monitor an alternative operating parameter pursuant to Sec. 63.848(l):

**2. Additional Terms and Conditions (continued)**

1. A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

2. 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

(g) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.

iii. Approval criteria. Upon receipt, the regulatory authority shall review and approve or disapprove the plan or permit application according to the following criteria:

(a) Whether the content of the plan includes all of the information specified in this section; and

(b) Whether the plan or permit application presents sufficient information to determine that compliance will be achieved and maintained.

iv. Prohibitions. The applicable regulatory authority shall not approve an implementation plan or permit application containing any of the following provisions:

(a) 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;

(b) 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;

(c) The inclusion of any potline or anode bake furnace while it is shut down; or

(d) The inclusion of any periods of startup, shutdown, or malfunction, as described in the startup, shutdown, and malfunction plan required by Sec. 63.850(c), in the emission calculations.

v. 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.

(a) The applicable regulatory authority shall approve the plan for the term of the operating permit;

(b) To revise the plan prior to the end of the permit term, the permittee shall submit a request to the applicable regulatory authority; and

(c) The permittee may submit a request to the applicable regulatory authority to implement emission averaging after the applicable compliance date.

vi. Operation. While operating under an approved implementation plan, the permittee shall monitor the operating parameters of each control system, keep records, and submit periodic reports as required for each source subject to this permit.

**2. Additional Terms and Conditions (continued)**

**2.c** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of RACM. These measures shall include, but not be limited to, the following:

i. the use of the individual cells' moveable hoods, skirts, and doors in a manner that contains and captures, to the extent possible with good engineering design and operation, the fumes released from tapping, charging, carbon setting, and all other electrolytic reduction activities; and

ii. all fugitive dust captured within the RACM area shall be vented to the dry scrubber reactor #3 and the baghouses associated, in series, with this emissions unit.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this emissions unit, including, but not limited to: doorways, windows, and roof openings.

## II. Operational Restrictions

**1.** [40 CFR 63.847(e)(5)]
The permittee shall 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 section A.III.5.

**2.** [40 CFR 63.847(e)(6)]
The permittee shall 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.

## III. Monitoring and/or Record Keeping Requirements

**1.** [40 CFR 63.848(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 (7) of this section, the following monitoring devices shall be installed:

a. For dry alumina scrubbers, devices for the measurement of alumina flow and air flow;

b. For dry coke scrubbers, devices for the measurement of coke flow and air flow;

c. For wet scrubbers as the primary control system, devices for the measurement of water flow and air flow;

d. For electrostatic precipitators, devices for the measurement of voltage and secondary current; and

e. 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.

**2.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**3.** [40 CFR 63.848(h)]
Corrective action. If a monitoring device for a primary control device measures an operating parameter outside the limit(s) established pursuant to Sec. 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 the corrective action procedures identified in the startup, shutdown, and malfunction plan 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.

**4.** [40 CFR 63.848(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.

**5.** [40 CFR 63.848(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.

**6.** [40 CFR 63.848(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.

**7.** [40 CFR 63.848(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.

**8.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**9.** [40 CFR 63.850(e)]
Recordkeeping. The owner or operator shall maintain files of all information (including all reports and notifications) required by Sec. 63.10(b) and by this subpart.

a. 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;

b. The owner or operator may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche;

c. The owner or operator may report required information on paper or on a labeled computer disc using commonly available and compatible computer software; and

d. In addition to the general records required by Sec. 63.10(b), the owner or operator shall maintain records of the following information:

i. Daily production rate of aluminum;

ii. A copy of the startup, shutdown, and malfunction plan;

iii. Records of design information for paste production plant capture systems;

iv. 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;

v. Records supporting a request for reduced sampling of potlines;

vi. 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;

vii. The current implementation plan for emission averaging and any subsequent amendments;

viii. 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 Sec. 63.848(f)(5)(ii), including the results of each inspection;

ix. 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 Sec. 63.848(g), including the results of each inspection;

x. For a potline equipped with an HF continuous emission monitor, records of information and data required by Sec. 63.10(c);

xi. Records documenting the corrective actions taken when the limit(s) for an operating parameter established under Sec. 63.847(h) were exceeded, when visible emissions indicating abnormal operation were observed from a control device stack during a daily inspection required under Sec. 63.848(g), or when a problem was detected during the daily inspection of a wet roof scrubber for potline secondary control required in Sec. 63.848(f)(5)(ii);

xii. 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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**10.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the dry scrubber reactor/baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

**11.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**12.** The permittee shall maintain records of the following information for each month:

a. the average SO2 content (in percent sulfur) of the anodes for each shipment of anodes received;

b. the consumption rate of the anodes, in pounds of anodes consumed per pound of aluminum produced;

c. the amount of aluminum produced, in pounds;

d. the total hours of operation; and

e. the average hourly SO2 emission rate, i.e., (a X b X c) / d.

## IV. Reporting Requirements

**1.** [40 CFR 63.850(a)]
Notifications. The owner or operator shall submit the following written notifications:

a. Notification for an area source that subsequently increases its emissions such that the source is a major source subject to the standard;

b. Notification that a source is subject to the standard, where the initial startup is before the effective date of the standard;

c. 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;

d. 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;

e. Notification of initial performance test;

f. Notification of initial compliance status;

g. One-time notification for each affected source of the intent to use an HF continuous emission monitor; and

h. 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 Secs. 63.843, 63.844, and 63.846.

**2.** [40 CFR 63.850(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 section A.IV.1.f. Except as provided in paragraph 4. 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.

**3.** [40 CFR 63.850(c)]
Startup, shutdown, and malfunction plan and reports. The owner or operator shall develop and implement a written plan as described in Sec. 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 appplication or included in the operating permit. The permitting authority may review the plan upon request. In addition to the information required in Sec. 63.6(e)(3), the plan shall include:

a. Procedures, including corrective actions, to be followed if a monitoring device measures an operating parameter outside the limit(s) established under Sec. 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 Sec. 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 Sec. 63.848(f)(5)(ii); and

b. The owner or operator shall also keep records of each event as required by Sec. 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 Sec. 63.6(e)(3)(iv).

## IV. Reporting Requirements (continued)

**4.** [40 CFR 63.850(d)]
Excess emissions report. As required by Sec. 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 Sec. 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions.

**5.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the dry scrubber reactor/baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

**6.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** [40 CFR 63.847(b)]
a. Test plan. The owner or operator shall prepare a site-specific test plan prior to the initial performance test according to the requirements of Sec. 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 Sec. 63.848 for emission monitoring. In addition to the information required by Sec. 63.7, the test plan shall include:

i. Procedures to ensure a minimum of three runs are performed annually for the primary control system for each source;

ii. 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;

iii. 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;

iv. 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.

**2.** [40 CFR 63.847(c)]
Initial performance test. Following approval of the site- specific test plan, the owner or operator shall conduct an initial performance test during the first month following the compliance date in accordance with the procedures in this section. If a performance test has been conducted on the primary control system for potlines within the 12 months prior to the compliance date, the results of that performance test may be used to determine initial compliance.

## V. Testing Requirements (continued)

**3.** [40 CFR 63.847(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 40 CFR Part 63, Subpart A, the approved test plan, and the procedures in this section.

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 40 CFR 63.847(e)(1), 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 Secs. 63.843, 63.844, or 63.846.

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.** [40 CFR 63.847(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 Sec. 63.848(f).

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.

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.

**5.** [40 CFR 63.848(a)]
TF emissions from potlines. Using the procedures in Sec. 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.

## V. Testing Requirements (continued)

**6.** [40 CFR 63.848(d)]
Similar potlines. As an alternative to monthly monitoring of TF or POM secondary emissions from each potline using the test methods in Sec. 63.849, the owner or operator may perform monthly monitoring of TF or POM secondary emissions from one potline using the test methods in Secs. 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 (a.) through (g.) 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.

a. 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 Secs. 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.

b. An HF continuous emission monitoring system is an approved alternative for the monitoring of TF secondary emissions.

c. 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.

d. 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.

e. The owner or operator shall submit the results required in paragraph (d.) of this section and all supporting documentation to the applicable regulatory authority for review and approval.

f. 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.

g. 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.

## V. Testing Requirements (continued)

**7.** [40 CFR 63.848(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.

a. 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 (7)(a)(i) or (7)(a)(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.

b. An approved alternative requirement must include a test schedule and the method to be used to measure emissions for performance tests.

c. The owner or operator of a plant that has received approval of an alternative sampling frequency under Sec. 60.194 of this chapter is deemed to have approval of the alternative sampling frequency under this subpart.

d. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(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.

e. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(ii) of this section, the owner or operator shall immediately return to the monthly sampling schedule required by section A.V.5 until another request for an alternative sampling frequency is approved by the applicable regulatory authority.

**8.** [40 CFR 63.849(a)]
The owner or operator shall use the following reference methods to determine compliance with the applicable emission limits for TF and POM emissions:

a. Method 1 in appendix A to part 60 of this chapter for sample and velocity traverses;

b. Method 2 in appendix A to part 60 of this chapter for velocity and volumetric flow rate;

c. Method 3 in appendix A to part 60 of this chapter for gas analysis;

d. 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; 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.

## V. Testing Requirements (continued)

**9.** [40 CFR 63.849(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.

**10.** [40 CFR 63.849(e)]
The owner or operator may use an alternative test method for TF emissions providing:

a. 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 measurements using the alternative method; or

b. 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 Section A.V.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.

**11.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**11.a** Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

**11.b** Emission Limitation:

12.6 pounds per hour of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission test methods and procedures specified in section A.V.12.

**11.c** Emission Limitation:

240 pounds per hour of sulfur dioxide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monitoring and record keeping requirements specified in section A.III.12. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

## V. Testing Requirements (continued)

**11.d** Emission Limitation:

total flouride in excess of 1.5 kg/Mg (3.0 lb/ton) of aluminum produced for each CWPB2 potline

Applicable Compliance Method:

Compliance shall be demonstrated based upon the requirements specified in sections A.V.1 through A.V.10.

**12.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 12 to 24 months after issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

e. The permittee shall perform visible particulate emission observations in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9 during each emission test run.

Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office as required by 40 CFR 63.1515(a)(6). The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**1.** [40 CFR 63.851(a), 40 CFR 63.851(b)]

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)(i) through (a)(v) of this section or of approval or intent to deny approval of the submissions in paragraphs (a)(i) through (a)(v) 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.

i. The test plan in Sec. 63.847(b);

ii. Request to change limits for operating parameters in Sec. 63.847(h)(3);

iii. Request for similar potline monitoring in Sec. 63.848(d)(5);

iv. Request for reduced sampling frequency in Sec. 63.848(e); and

v. Request for an alternative method in Sec. 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.

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Pots 0-42, 3B (P965)

**Activity Description:** Pots 0-42, 3B

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| alumina reduction potline 3B - consisting of pots 0-42 vented through dry scrubber reactor #2 to the baghouses and then exhausting through a single stack | 40 CFR Part 63, Subpart LL [40 CFR 63.843(a)] | The permittee shall not discharge or cause to be discharged into the atmosphere any emissions of total flouride (TF) in excess of 1.5 kg/Mg (3.0 lbs/ton) of aluminum produced for each CWPB2 potline.<br><br>Any potline, other than a reconstructed potline, that is changed such that its applicable subcategory also changes shall meet the applicable emission limit in 40 CFR Part 63, Subpart LL for the original subcategory or the new subcategory, whichever is more stringent. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-17-11(A)(3) | Particulate emissions shall not exceed 12.6 pounds per hour. |
| | OAC rule 3745-18-06(E)(2) | Sulfur dioxide emissions shall not exceed 240 pounds per hour. |
| | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See section A.I.2.c. |

## 2. Additional Terms and Conditions

**2.a** [40 CFR 63.846(b)]
The permittee of an existing potline or anode bake furnace may demonstrate compliance by emission averaging according to the procedures in this section.

The permittee may average TF emissions from potlines and demonstrate compliance with the limits in Table 1 of 40 CFR Part 63 Subpart LL using the following procedures:

i. Monthly average emissions of TF shall not exceed the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL (for TF 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.

ii. To determine compliance with the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL 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 Secs. 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.

**2.b** [40 CFR 63.846(d)]
Implementation plan. The permittee 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:

i. The permittee must submit the implementation plan no later than 6 months before the date that the facility intends to comply with the emission averaging limits.

ii. The permittee 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:

(a) The identification of all emission sources (potlines or anode bake furnaces) in the average;

(b) The assigned TF emission limit for each averaging group of potlines or anode bake furnaces;

(c) 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;

(d) The test plan for the measurement of TF emissions in accordance with the requirements in Sec. 63.847(b);

(e) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;

(f) If the owner or operator requests to monitor an alternative operating parameter pursuant to Sec. 63.848(l):

**2. Additional Terms and Conditions (continued)**

1. A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

2. 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

(g) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.

iii. Approval criteria. Upon receipt, the regulatory authority shall review and approve or disapprove the plan or permit application according to the following criteria:

(a) Whether the content of the plan includes all of the information specified in this section; and

(b) Whether the plan or permit application presents sufficient information to determine that compliance will be achieved and maintained.

iv. Prohibitions. The applicable regulatory authority shall not approve an implementation plan or permit application containing any of the following provisions:

(a) 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;

(b) 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;

(c) The inclusion of any potline or anode bake furnace while it is shut down; or

(d) The inclusion of any periods of startup, shutdown, or malfunction, as described in the startup, shutdown, and malfunction plan required by Sec. 63.850(c), in the emission calculations.

v. 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.

(a) The applicable regulatory authority shall approve the plan for the term of the operating permit;

(b) To revise the plan prior to the end of the permit term, the permittee shall submit a request to the applicable regulatory authority; and

(c) The permittee may submit a request to the applicable regulatory authority to implement emission averaging after the applicable compliance date.

vi. Operation. While operating under an approved implementation plan, the permittee shall monitor the operating parameters of each control system, keep records, and submit periodic reports as required for each source subject to this permit.

**2. Additional Terms and Conditions (continued)**

**2.c** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of RACM. These measures shall include, but not be limited to, the following:

i. the use of the individual cells' moveable hoods, skirts, and doors in a manner that contains and captures, to the extent possible with good engineering design and operation, the fumes released from tapping, charging, carbon setting, and all other electrolytic reduction activities; and

ii. all fugitive dust captured within the RACM area shall be vented to the dry scrubber reactor #3 and the baghouses associated, in series, with this emissions unit.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this emissions unit, including, but not limited to: doorways, windows, and roof openings.

## II. Operational Restrictions

**1.** [40 CFR 63.847(e)(5)]
The permittee shall 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 section A.III.5.

**2.** [40 CFR 63.847(e)(6)]
The permittee shall 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.

## III. Monitoring and/or Record Keeping Requirements

**1.** [40 CFR 63.848(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 (7) of this section, the following monitoring devices shall be installed:

a. For dry alumina scrubbers, devices for the measurement of alumina flow and air flow;

b. For dry coke scrubbers, devices for the measurement of coke flow and air flow;

c. For wet scrubbers as the primary control system, devices for the measurement of water flow and air flow;

d. For electrostatic precipitators, devices for the measurement of voltage and secondary current; and

e. 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.

**2.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**3.** [40 CFR 63.848(h)]
Corrective action. If a monitoring device for a primary control device measures an operating parameter outside the limit(s) established pursuant to Sec. 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 the corrective action procedures identified in the startup, shutdown, and malfunction plan 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.

**4.** [40 CFR 63.848(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.

**5.** [40 CFR 63.848(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.

**6.** [40 CFR 63.848(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.

**7.** [40 CFR 63.848(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.

**8.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**9.** [40 CFR 63.850(e)]
Recordkeeping. The owner or operator shall maintain files of all information (including all reports and notifications) required by Sec. 63.10(b) and by this subpart.

a. 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;

b. The owner or operator may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche;

c. The owner or operator may report required information on paper or on a labeled computer disc using commonly available and compatible computer software; and

d. In addition to the general records required by Sec. 63.10(b), the owner or operator shall maintain records of the following information:

i. Daily production rate of aluminum;

ii. A copy of the startup, shutdown, and malfunction plan;

iii. Records of design information for paste production plant capture systems;

iv. 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;

v. Records supporting a request for reduced sampling of potlines;

vi. 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;

vii. The current implementation plan for emission averaging and any subsequent amendments;

viii. 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 Sec. 63.848(f)(5)(ii), including the results of each inspection;

ix. 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 Sec. 63.848(g), including the results of each inspection;

x. For a potline equipped with an HF continuous emission monitor, records of information and data required by Sec. 63.10(c);

xi. Records documenting the corrective actions taken when the limit(s) for an operating parameter established under Sec. 63.847(h) were exceeded, when visible emissions indicating abnormal operation were observed from a control device stack during a daily inspection required under Sec. 63.848(g), or when a problem was detected during the daily inspection of a wet roof scrubber for potline secondary control required in Sec. 63.848(f)(5)(ii);

xii. 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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**10.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the dry scrubber reactor/baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

**11.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**12.** The permittee shall maintain records of the following information for each month:

a. the average SO2 content (in percent sulfur) of the anodes for each shipment of anodes received;

b. the consumption rate of the anodes, in pounds of anodes consumed per pound of aluminum produced;

c. the amount of aluminum produced, in pounds;

d. the total hours of operation; and

e. the average hourly SO2 emission rate, i.e., (a X b X c) / d.

## IV. Reporting Requirements

**1.** [40 CFR 63.850(a)]
Notifications. The owner or operator shall submit the following written notifications:

a. Notification for an area source that subsequently increases its emissions such that the source is a major source subject to the standard;

b. Notification that a source is subject to the standard, where the initial startup is before the effective date of the standard;

c. 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;

d. 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;

e. Notification of initial performance test;

f. Notification of initial compliance status;

g. One-time notification for each affected source of the intent to use an HF continuous emission monitor; and

h. 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 Secs. 63.843, 63.844, and 63.846.

**2.** [40 CFR 63.850(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 section A.IV.1.f. Except as provided in paragraph 4. 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.

**3.** [40 CFR 63.850(c)]
Startup, shutdown, and malfunction plan and reports. The owner or operator shall develop and implement a written plan as described in Sec. 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 appplication or included in the operating permit. The permitting authority may review the plan upon request. In addition to the information required in Sec. 63.6(e)(3), the plan shall include:

a. Procedures, including corrective actions, to be followed if a monitoring device measures an operating parameter outside the limit(s) established under Sec. 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 Sec. 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 Sec. 63.848(f)(5)(ii); and

b. The owner or operator shall also keep records of each event as required by Sec. 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 Sec. 63.6(e)(3)(iv).

## IV. Reporting Requirements (continued)

**4.** [40 CFR 63.850(d)]
Excess emissions report. As required by Sec. 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 Sec. 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions.

**5.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the dry scrubber reactor/baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

**6.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** [40 CFR 63.847(b)]
a. Test plan. The owner or operator shall prepare a site-specific test plan prior to the initial performance test according to the requirements of Sec. 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 Sec. 63.848 for emission monitoring. In addition to the information required by Sec. 63.7, the test plan shall include:

i. Procedures to ensure a minimum of three runs are performed annually for the primary control system for each source;

ii. 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;

iii. 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;

iv. 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.

**2.** [40 CFR 63.847(c)]
Initial performance test. Following approval of the site- specific test plan, the owner or operator shall conduct an initial performance test during the first month following the compliance date in accordance with the procedures in this section. If a performance test has been conducted on the primary control system for potlines within the 12 months prior to the compliance date, the results of that performance test may be used to determine initial compliance.

## V. Testing Requirements (continued)

**3.** [40 CFR 63.847(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 40 CFR Part 63, Subpart A, the approved test plan, and the procedures in this section.

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 40 CFR 63.847(e)(1), 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 Secs. 63.843, 63.844, or 63.846.

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.** [40 CFR 63.847(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 Sec. 63.848(f).

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.

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.

**5.** [40 CFR 63.848(a)]
TF emissions from potlines. Using the procedures in Sec. 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.

## V. Testing Requirements (continued)

**6.** [40 CFR 63.848(d)]
Similar potlines. As an alternative to monthly monitoring of TF or POM secondary emissions from each potline using the test methods in Sec. 63.849, the owner or operator may perform monthly monitoring of TF or POM secondary emissions from one potline using the test methods in Secs. 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 (a.) through (g.) 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.

a. 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 Secs. 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.

b. An HF continuous emission monitoring system is an approved alternative for the monitoring of TF secondary emissions.

c. 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.

d. 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.

e. The owner or operator shall submit the results required in paragraph (d.) of this section and all supporting documentation to the applicable regulatory authority for review and approval.

f. 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.

g. 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.

## V. Testing Requirements (continued)

**7.** [40 CFR 63.848(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.

a. 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 (7)(a)(i) or (7)(a)(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.

b. An approved alternative requirement must include a test schedule and the method to be used to measure emissions for performance tests.

c. The owner or operator of a plant that has received approval of an alternative sampling frequency under Sec. 60.194 of this chapter is deemed to have approval of the alternative sampling frequency under this subpart.

d. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(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.

e. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(ii) of this section, the owner or operator shall immediately return to the monthly sampling schedule required by section A.V.5 until another request for an alternative sampling frequency is approved by the applicable regulatory authority.

**8.** [40 CFR 63.849(a)]
The owner or operator shall use the following reference methods to determine compliance with the applicable emission limits for TF and POM emissions:

a. Method 1 in appendix A to part 60 of this chapter for sample and velocity traverses;

b. Method 2 in appendix A to part 60 of this chapter for velocity and volumetric flow rate;

c. Method 3 in appendix A to part 60 of this chapter for gas analysis;

d. 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; 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.

## V. Testing Requirements (continued)

**9.** [40 CFR 63.849(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.

**10.** [40 CFR 63.849(e)]
The owner or operator may use an alternative test method for TF emissions providing:

a. 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 measurements using the alternative method; or

b. 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 Section A.V.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.

**11.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**11.a** Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

**11.b** Emission Limitation:

12.6 pounds per hour of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission test methods and procedures specified in section A.V.12.

**11.c** Emission Limitation:

240 pounds per hour of sulfur dioxide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monitoring and record keeping requirements specified in section A.III.12. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

## V. Testing Requirements (continued)

**11.d** Emission Limitation:

total flouride in excess of 1.5 kg/Mg (3.0 lb/ton) of aluminum produced for each CWPB2 potline

Applicable Compliance Method:

Compliance shall be demonstrated based upon the requirements specified in sections A.V.1 through A.V.10.

**12.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 12 to 24 months after issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

e. The permittee shall perform visible particulate emission observations in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9 during each emission test run.

Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office as required by 40 CFR 63.1515(a)(6). The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**1.** [40 CFR 63.851(a), 40 CFR 63.851(b)]

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)(i) through (a)(v) of this section or of approval or intent to deny approval of the submissions in paragraphs (a)(i) through (a)(v) 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.

i. The test plan in Sec. 63.847(b);

ii. Request to change limits for operating parameters in Sec. 63.847(h)(3);

iii. Request for similar potline monitoring in Sec. 63.848(d)(5);

iv. Request for reduced sampling frequency in Sec. 63.848(e); and

v. Request for an alternative method in Sec. 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.

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Pots 43-85, 3B (P966)

**Activity Description:** Pots 43-85, 3B

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| alumina reduction potline 3B - consisting of pots 43-85 vented through dry scrubber reactor #5 to the baghouses and then exhausting through a single stack | 40 CFR Part 63, Subpart LL [40 CFR 63.843(a)] | The permittee shall not discharge or cause to be discharged into the atmosphere any emissions of total flouride (TF) in excess of 1.5 kg/Mg (3.0 lbs/ton) of aluminum produced for each CWPB2 potline.<br><br>Any potline, other than a reconstructed potline, that is changed such that its applicable subcategory also changes shall meet the applicable emission limit in 40 CFR Part 63, Subpart LL for the original subcategory or the new subcategory, whichever is more stringent. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-17-11(A)(3) | Particulate emissions shall not exceed 12.6 pounds per hour. |
| | OAC rule 3745-18-06(E)(2) | Sulfur dioxide emissions shall not exceed 240 pounds per hour. |
| | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See section A.I.2.c. |

## 2. Additional Terms and Conditions

**2.a** [40 CFR 63.846(b)]
The permittee of an existing potline or anode bake furnace may demonstrate compliance by emission averaging according to the procedures in this section.

The permittee may average TF emissions from potlines and demonstrate compliance with the limits in Table 1 of 40 CFR Part 63 Subpart LL using the following procedures:

i. Monthly average emissions of TF shall not exceed the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL (for TF 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.

ii. To determine compliance with the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL 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 Secs. 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.

**2.b** [40 CFR 63.846(d)]
Implementation plan. The permittee 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:

i. The permittee must submit the implementation plan no later than 6 months before the date that the facility intends to comply with the emission averaging limits.

ii. The permittee 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:

(a) The identification of all emission sources (potlines or anode bake furnaces) in the average;

(b) The assigned TF emission limit for each averaging group of potlines or anode bake furnaces;

(c) 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;

(d) The test plan for the measurement of TF emissions in accordance with the requirements in Sec. 63.847(b);

(e) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;

(f) If the owner or operator requests to monitor an alternative operating parameter pursuant to Sec. 63.848(l):

**2. Additional Terms and Conditions (continued)**

1. A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

2. 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

(g) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.

iii. Approval criteria. Upon receipt, the regulatory authority shall review and approve or disapprove the plan or permit application according to the following criteria:

(a) Whether the content of the plan includes all of the information specified in this section; and

(b) Whether the plan or permit application presents sufficient information to determine that compliance will be achieved and maintained.

iv. Prohibitions. The applicable regulatory authority shall not approve an implementation plan or permit application containing any of the following provisions:

(a) 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;

(b) 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;

(c) The inclusion of any potline or anode bake furnace while it is shut down; or

(d) The inclusion of any periods of startup, shutdown, or malfunction, as described in the startup, shutdown, and malfunction plan required by Sec. 63.850(c), in the emission calculations.

v. 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.

(a) The applicable regulatory authority shall approve the plan for the term of the operating permit;

(b) To revise the plan prior to the end of the permit term, the permittee shall submit a request to the applicable regulatory authority; and

(c) The permittee may submit a request to the applicable regulatory authority to implement emission averaging after the applicable compliance date.

vi. Operation. While operating under an approved implementation plan, the permittee shall monitor the operating parameters of each control system, keep records, and submit periodic reports as required for each source subject to this permit.

**2. Additional Terms and Conditions (continued)**

**2.c** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of RACM. These measures shall include, but not be limited to, the following:

i. the use of the individual cells' moveable hoods, skirts, and doors in a manner that contains and captures, to the extent possible with good engineering design and operation, the fumes released from tapping, charging, carbon setting, and all other electrolytic reduction activities; and

ii. all fugitive dust captured within the RACM area shall be vented to the dry scrubber reactor #3 and the baghouses associated, in series, with this emissions unit.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this emissions unit, including, but not limited to: doorways, windows, and roof openings.

## II. Operational Restrictions

**1.** [40 CFR 63.847(e)(5)]
The permittee shall 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 section A.III.5.

**2.** [40 CFR 63.847(e)(6)]
The permittee shall 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.

## III. Monitoring and/or Record Keeping Requirements

**1.** [40 CFR 63.848(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 (7) of this section, the following monitoring devices shall be installed:

a. For dry alumina scrubbers, devices for the measurement of alumina flow and air flow;

b. For dry coke scrubbers, devices for the measurement of coke flow and air flow;

c. For wet scrubbers as the primary control system, devices for the measurement of water flow and air flow;

d. For electrostatic precipitators, devices for the measurement of voltage and secondary current; and

e. 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.

**2.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**3.** [40 CFR 63.848(h)]
Corrective action. If a monitoring device for a primary control device measures an operating parameter outside the limit(s) established pursuant to Sec. 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 the corrective action procedures identified in the startup, shutdown, and malfunction plan 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.

**4.** [40 CFR 63.848(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.

**5.** [40 CFR 63.848(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.

**6.** [40 CFR 63.848(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.

**7.** [40 CFR 63.848(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.

**8.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**9.** [40 CFR 63.850(e)]
Recordkeeping. The owner or operator shall maintain files of all information (including all reports and notifications) required by Sec. 63.10(b) and by this subpart.

a. 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;

b. The owner or operator may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche;

c. The owner or operator may report required information on paper or on a labeled computer disc using commonly available and compatible computer software; and

d. In addition to the general records required by Sec. 63.10(b), the owner or operator shall maintain records of the following information:

i. Daily production rate of aluminum;

ii. A copy of the startup, shutdown, and malfunction plan;

iii. Records of design information for paste production plant capture systems;

iv. 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;

v. Records supporting a request for reduced sampling of potlines;

vi. 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;

vii. The current implementation plan for emission averaging and any subsequent amendments;

viii. 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 Sec. 63.848(f)(5)(ii), including the results of each inspection;

ix. 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 Sec. 63.848(g), including the results of each inspection;

x. For a potline equipped with an HF continuous emission monitor, records of information and data required by Sec. 63.10(c);

xi. Records documenting the corrective actions taken when the limit(s) for an operating parameter established under Sec. 63.847(h) were exceeded, when visible emissions indicating abnormal operation were observed from a control device stack during a daily inspection required under Sec. 63.848(g), or when a problem was detected during the daily inspection of a wet roof scrubber for potline secondary control required in Sec. 63.848(f)(5)(ii);

xii. 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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**10.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the dry scrubber reactor/baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

**11.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**12.** The permittee shall maintain records of the following information for each month:

a. the average SO2 content (in percent sulfur) of the anodes for each shipment of anodes received;

b. the consumption rate of the anodes, in pounds of anodes consumed per pound of aluminum produced;

c. the amount of aluminum produced, in pounds;

d. the total hours of operation; and

e. the average hourly SO2 emission rate, i.e., (a X b X c) / d.

## IV. Reporting Requirements

**1.** [40 CFR 63.850(a)]
Notifications. The owner or operator shall submit the following written notifications:

a. Notification for an area source that subsequently increases its emissions such that the source is a major source subject to the standard;

b. Notification that a source is subject to the standard, where the initial startup is before the effective date of the standard;

c. 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;

d. 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;

e. Notification of initial performance test;

f. Notification of initial compliance status;

g. One-time notification for each affected source of the intent to use an HF continuous emission monitor; and

h. 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 Secs. 63.843, 63.844, and 63.846.

**2.** [40 CFR 63.850(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 section A.IV.1.f. Except as provided in paragraph 4. 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.

**3.** [40 CFR 63.850(c)]
Startup, shutdown, and malfunction plan and reports. The owner or operator shall develop and implement a written plan as described in Sec. 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 appplication or included in the operating permit. The permitting authority may review the plan upon request. In addition to the information required in Sec. 63.6(e)(3), the plan shall include:

a. Procedures, including corrective actions, to be followed if a monitoring device measures an operating parameter outside the limit(s) established under Sec. 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 Sec. 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 Sec. 63.848(f)(5)(ii); and

b. The owner or operator shall also keep records of each event as required by Sec. 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 Sec. 63.6(e)(3)(iv).

## IV. Reporting Requirements (continued)

**4.** [40 CFR 63.850(d)]
Excess emissions report. As required by Sec. 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 Sec. 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions.

**5.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the dry scrubber reactor/baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

**6.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** [40 CFR 63.847(b)]
a. Test plan. The owner or operator shall prepare a site-specific test plan prior to the initial performance test according to the requirements of Sec. 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 Sec. 63.848 for emission monitoring. In addition to the information required by Sec. 63.7, the test plan shall include:

i. Procedures to ensure a minimum of three runs are performed annually for the primary control system for each source;

ii. 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;

iii. 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;

iv. 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.

**2.** [40 CFR 63.847(c)]
Initial performance test. Following approval of the site- specific test plan, the owner or operator shall conduct an initial performance test during the first month following the compliance date in accordance with the procedures in this section. If a performance test has been conducted on the primary control system for potlines within the 12 months prior to the compliance date, the results of that performance test may be used to determine initial compliance.

## V. Testing Requirements (continued)

**3.** [40 CFR 63.847(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 40 CFR Part 63, Subpart A, the approved test plan, and the procedures in this section.

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 40 CFR 63.847(e)(1), 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 Secs. 63.843, 63.844, or 63.846.

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.** [40 CFR 63.847(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 Sec. 63.848(f).

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.

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.

**5.** [40 CFR 63.848(a)]
TF emissions from potlines. Using the procedures in Sec. 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.

## V. Testing Requirements (continued)

**6.** [40 CFR 63.848(d)]
Similar potlines. As an alternative to monthly monitoring of TF or POM secondary emissions from each potline using the test methods in Sec. 63.849, the owner or operator may perform monthly monitoring of TF or POM secondary emissions from one potline using the test methods in Secs. 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 (a.) through (g.) 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.

a. 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 Secs. 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.

b. An HF continuous emission monitoring system is an approved alternative for the monitoring of TF secondary emissions.

c. 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.

d. 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.

e. The owner or operator shall submit the results required in paragraph (d.) of this section and all supporting documentation to the applicable regulatory authority for review and approval.

f. 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.

g. 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.

## V. Testing Requirements (continued)

**7.** [40 CFR 63.848(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.

a. 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 (7)(a)(i) or (7)(a)(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.

b. An approved alternative requirement must include a test schedule and the method to be used to measure emissions for performance tests.

c. The owner or operator of a plant that has received approval of an alternative sampling frequency under Sec. 60.194 of this chapter is deemed to have approval of the alternative sampling frequency under this subpart.

d. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(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.

e. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(ii) of this section, the owner or operator shall immediately return to the monthly sampling schedule required by section A.V.5 until another request for an alternative sampling frequency is approved by the applicable regulatory authority.

**8.** [40 CFR 63.849(a)]
The owner or operator shall use the following reference methods to determine compliance with the applicable emission limits for TF and POM emissions:

a. Method 1 in appendix A to part 60 of this chapter for sample and velocity traverses;

b. Method 2 in appendix A to part 60 of this chapter for velocity and volumetric flow rate;

c. Method 3 in appendix A to part 60 of this chapter for gas analysis;

d. 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; 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.

## V. Testing Requirements (continued)

**9.** [40 CFR 63.849(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.

**10.** [40 CFR 63.849(e)]
The owner or operator may use an alternative test method for TF emissions providing:

a. 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 measurements using the alternative method; or

b. 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 Section A.V.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.

**11.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**11.a** Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

**11.b** Emission Limitation:

12.6 pounds per hour of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission test methods and procedures specified in section A.V.12.

**11.c** Emission Limitation:

240 pounds per hour of sulfur dioxide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monitoring and record keeping requirements specified in section A.III.12. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

## V. Testing Requirements (continued)

**11.d** Emission Limitation:

total flouride in excess of 1.5 kg/Mg (3.0 lb/ton) of aluminum produced for each CWPB2 potline

Applicable Compliance Method:

Compliance shall be demonstrated based upon the requirements specified in sections A.V.1 through A.V.10.

**12.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 12 to 24 months after issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

e. The permittee shall perform visible particulate emission observations in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9 during each emission test run.

Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office as required by 40 CFR 63.1515(a)(6). The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**1.** [40 CFR 63.851(a), 40 CFR 63.851(b)]

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)(i) through (a)(v) of this section or of approval or intent to deny approval of the submissions in paragraphs (a)(i) through (a)(v) 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.

i. The test plan in Sec. 63.847(b);

ii. Request to change limits for operating parameters in Sec. 63.847(h)(3);

iii. Request for similar potline monitoring in Sec. 63.848(d)(5);

iv. Request for reduced sampling frequency in Sec. 63.848(e); and

v. Request for an alternative method in Sec. 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.

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Pots 0-42, 4A (P967)

**Activity Description:** Pots 0-42, 4A

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| alumina reduction potline 4A - consisting of pots 0-42 vented through dry scrubber reactor #2 to the baghouses and then exhausting through a single stack | 40 CFR Part 63, Subpart LL [40 CFR 63.843(a)] | The permittee shall not discharge or cause to be discharged into the atmosphere any emissions of total flouride (TF) in excess of 1.5 kg/Mg (3.0 lbs/ton) of aluminum produced for each CWPB2 potline.<br><br>Any potline, other than a reconstructed potline, that is changed such that its applicable subcategory also changes shall meet the applicable emission limit in 40 CFR Part 63, Subpart LL for the original subcategory or the new subcategory, whichever is more stringent. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-17-11(A)(3) | Particulate emissions shall not exceed 12.6 pounds per hour. |
| | OAC rule 3745-18-06(E)(2) | Sulfur dioxide emissions shall not exceed 240 pounds per hour. |
| | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See section A.I.2.c. |

## 2. Additional Terms and Conditions

**2.a** [40 CFR 63.846(b)]
The permittee of an existing potline or anode bake furnace may demonstrate compliance by emission averaging according to the procedures in this section.

The permittee may average TF emissions from potlines and demonstrate compliance with the limits in Table 1 of 40 CFR Part 63 Subpart LL using the following procedures:

i. Monthly average emissions of TF shall not exceed the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL (for TF 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.

ii. To determine compliance with the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL 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 Secs. 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.

**2.b** [40 CFR 63.846(d)]
Implementation plan. The permittee 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:

i. The permittee must submit the implementation plan no later than 6 months before the date that the facility intends to comply with the emission averaging limits.

ii. The permittee 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:

(a) The identification of all emission sources (potlines or anode bake furnaces) in the average;

(b) The assigned TF emission limit for each averaging group of potlines or anode bake furnaces;

(c) 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;

(d) The test plan for the measurement of TF emissions in accordance with the requirements in Sec. 63.847(b);

(e) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;

(f) If the owner or operator requests to monitor an alternative operating parameter pursuant to Sec. 63.848(l):

**2. Additional Terms and Conditions (continued)**

1. A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

2. 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

(g) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.

iii. Approval criteria. Upon receipt, the regulatory authority shall review and approve or disapprove the plan or permit application according to the following criteria:

(a) Whether the content of the plan includes all of the information specified in this section; and

(b) Whether the plan or permit application presents sufficient information to determine that compliance will be achieved and maintained.

iv. Prohibitions. The applicable regulatory authority shall not approve an implementation plan or permit application containing any of the following provisions:

(a) 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;

(b) 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;

(c) The inclusion of any potline or anode bake furnace while it is shut down; or

(d) The inclusion of any periods of startup, shutdown, or malfunction, as described in the startup, shutdown, and malfunction plan required by Sec. 63.850(c), in the emission calculations.

v. 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.

(a) The applicable regulatory authority shall approve the plan for the term of the operating permit;

(b) To revise the plan prior to the end of the permit term, the permittee shall submit a request to the applicable regulatory authority; and

(c) The permittee may submit a request to the applicable regulatory authority to implement emission averaging after the applicable compliance date.

vi. Operation. While operating under an approved implementation plan, the permittee shall monitor the operating parameters of each control system, keep records, and submit periodic reports as required for each source subject to this permit.

**2. Additional Terms and Conditions (continued)**

**2.c** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of RACM. These measures shall include, but not be limited to, the following:

i. the use of the individual cells' moveable hoods, skirts, and doors in a manner that contains and captures, to the extent possible with good engineering design and operation, the fumes released from tapping, charging, carbon setting, and all other electrolytic reduction activities; and

ii. all fugitive dust captured within the RACM area shall be vented to the dry scrubber reactor #3 and the baghouses associated, in series, with this emissions unit.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this emissions unit, including, but not limited to: doorways, windows, and roof openings.

## II. Operational Restrictions

**1.** [40 CFR 63.847(e)(5)]
The permittee shall 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 section A.III.5.

**2.** [40 CFR 63.847(e)(6)]
The permittee shall 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.

## III. Monitoring and/or Record Keeping Requirements

**1.** [40 CFR 63.848(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 (7) of this section, the following monitoring devices shall be installed:

a. For dry alumina scrubbers, devices for the measurement of alumina flow and air flow;

b. For dry coke scrubbers, devices for the measurement of coke flow and air flow;

c. For wet scrubbers as the primary control system, devices for the measurement of water flow and air flow;

d. For electrostatic precipitators, devices for the measurement of voltage and secondary current; and

e. 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.

**2.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**3.** [40 CFR 63.848(h)]
Corrective action. If a monitoring device for a primary control device measures an operating parameter outside the limit(s) established pursuant to Sec. 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 the corrective action procedures identified in the startup, shutdown, and malfunction plan 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.

**4.** [40 CFR 63.848(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.

**5.** [40 CFR 63.848(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.

**6.** [40 CFR 63.848(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.

**7.** [40 CFR 63.848(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.

**8.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**9.** [40 CFR 63.850(e)]
Recordkeeping. The owner or operator shall maintain files of all information (including all reports and notifications) required by Sec. 63.10(b) and by this subpart.

a. 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;

b. The owner or operator may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche;

c. The owner or operator may report required information on paper or on a labeled computer disc using commonly available and compatible computer software; and

d. In addition to the general records required by Sec. 63.10(b), the owner or operator shall maintain records of the following information:

i. Daily production rate of aluminum;

ii. A copy of the startup, shutdown, and malfunction plan;

iii. Records of design information for paste production plant capture systems;

iv. 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;

v. Records supporting a request for reduced sampling of potlines;

vi. 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;

vii. The current implementation plan for emission averaging and any subsequent amendments;

viii. 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 Sec. 63.848(f)(5)(ii), including the results of each inspection;

ix. 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 Sec. 63.848(g), including the results of each inspection;

x. For a potline equipped with an HF continuous emission monitor, records of information and data required by Sec. 63.10(c);

xi. Records documenting the corrective actions taken when the limit(s) for an operating parameter established under Sec. 63.847(h) were exceeded, when visible emissions indicating abnormal operation were observed from a control device stack during a daily inspection required under Sec. 63.848(g), or when a problem was detected during the daily inspection of a wet roof scrubber for potline secondary control required in Sec. 63.848(f)(5)(ii);

xii. 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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**10.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the dry scrubber reactor/baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

**11.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**12.** The permittee shall maintain records of the following information for each month:

a. the average SO2 content (in percent sulfur) of the anodes for each shipment of anodes received;

b. the consumption rate of the anodes, in pounds of anodes consumed per pound of aluminum produced;

c. the amount of aluminum produced, in pounds;

d. the total hours of operation; and

e. the average hourly SO2 emission rate, i.e., (a X b X c) / d.

## IV. Reporting Requirements

**1.** [40 CFR 63.850(a)]
Notifications. The owner or operator shall submit the following written notifications:

a. Notification for an area source that subsequently increases its emissions such that the source is a major source subject to the standard;

b. Notification that a source is subject to the standard, where the initial startup is before the effective date of the standard;

c. 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;

d. 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;

e. Notification of initial performance test;

f. Notification of initial compliance status;

g. One-time notification for each affected source of the intent to use an HF continuous emission monitor; and

h. 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 Secs. 63.843, 63.844, and 63.846.

**2.** [40 CFR 63.850(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 section A.IV.1.f. Except as provided in paragraph 4. 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.

**3.** [40 CFR 63.850(c)]
Startup, shutdown, and malfunction plan and reports. The owner or operator shall develop and implement a written plan as described in Sec. 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 appplication or included in the operating permit. The permitting authority may review the plan upon request. In addition to the information required in Sec. 63.6(e)(3), the plan shall include:

a. Procedures, including corrective actions, to be followed if a monitoring device measures an operating parameter outside the limit(s) established under Sec. 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 Sec. 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 Sec. 63.848(f)(5)(ii); and

b. The owner or operator shall also keep records of each event as required by Sec. 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 Sec. 63.6(e)(3)(iv).

## IV. Reporting Requirements (continued)

**4.** [40 CFR 63.850(d)]
Excess emissions report. As required by Sec. 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 Sec. 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions.

**5.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the dry scrubber reactor/baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

**6.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** [40 CFR 63.847(b)]
a. Test plan. The owner or operator shall prepare a site-specific test plan prior to the initial performance test according to the requirements of Sec. 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 Sec. 63.848 for emission monitoring. In addition to the information required by Sec. 63.7, the test plan shall include:

i. Procedures to ensure a minimum of three runs are performed annually for the primary control system for each source;

ii. 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;

iii. 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;

iv. 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.

**2.** [40 CFR 63.847(c)]
Initial performance test. Following approval of the site- specific test plan, the owner or operator shall conduct an initial performance test during the first month following the compliance date in accordance with the procedures in this section. If a performance test has been conducted on the primary control system for potlines within the 12 months prior to the compliance date, the results of that performance test may be used to determine initial compliance.

## V. Testing Requirements (continued)

**3.** [40 CFR 63.847(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 40 CFR Part 63, Subpart A, the approved test plan, and the procedures in this section.

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 40 CFR 63.847(e)(1), 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 Secs. 63.843, 63.844, or 63.846.

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.** [40 CFR 63.847(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 Sec. 63.848(f).

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.

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.

**5.** [40 CFR 63.848(a)]
TF emissions from potlines. Using the procedures in Sec. 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.

## V. Testing Requirements (continued)

**6.** [40 CFR 63.848(d)]
Similar potlines. As an alternative to monthly monitoring of TF or POM secondary emissions from each potline using the test methods in Sec. 63.849, the owner or operator may perform monthly monitoring of TF or POM secondary emissions from one potline using the test methods in Secs. 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 (a.) through (g.) 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.

a. 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 Secs. 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.

b. An HF continuous emission monitoring system is an approved alternative for the monitoring of TF secondary emissions.

c. 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.

d. 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.

e. The owner or operator shall submit the results required in paragraph (d.) of this section and all supporting documentation to the applicable regulatory authority for review and approval.

f. 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.

g. 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.

## V. Testing Requirements (continued)

**7.** [40 CFR 63.848(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.

a. 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 (7)(a)(i) or (7)(a)(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.

b. An approved alternative requirement must include a test schedule and the method to be used to measure emissions for performance tests.

c. The owner or operator of a plant that has received approval of an alternative sampling frequency under Sec. 60.194 of this chapter is deemed to have approval of the alternative sampling frequency under this subpart.

d. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(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.

e. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(ii) of this section, the owner or operator shall immediately return to the monthly sampling schedule required by section A.V.5 until another request for an alternative sampling frequency is approved by the applicable regulatory authority.

**8.** [40 CFR 63.849(a)]
The owner or operator shall use the following reference methods to determine compliance with the applicable emission limits for TF and POM emissions:

a. Method 1 in appendix A to part 60 of this chapter for sample and velocity traverses;

b. Method 2 in appendix A to part 60 of this chapter for velocity and volumetric flow rate;

c. Method 3 in appendix A to part 60 of this chapter for gas analysis;

d. 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; 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.

## V. Testing Requirements (continued)

**9.** [40 CFR 63.849(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.

**10.** [40 CFR 63.849(e)]
The owner or operator may use an alternative test method for TF emissions providing:

a. 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 measurements using the alternative method; or

b. 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 Section A.V.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.

**11.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**11.a** Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

**11.b** Emission Limitation:

12.6 pounds per hour of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission test methods and procedures specified in section A.V.12.

**11.c** Emission Limitation:

240 pounds per hour of sulfur dioxide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monitoring and record keeping requirements specified in section A.III.12. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

## V. Testing Requirements (continued)

**11.d** Emission Limitation:

total flouride in excess of 1.5 kg/Mg (3.0 lb/ton) of aluminum produced for each CWPB2 potline

Applicable Compliance Method:

Compliance shall be demonstrated based upon the requirements specified in sections A.V.1 through A.V.10.

**12.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 12 to 24 months after issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

e. The permittee shall perform visible particulate emission observations in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9 during each emission test run.

Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office as required by 40 CFR 63.1515(a)(6). The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**1.** [40 CFR 63.851(a), 40 CFR 63.851(b)]

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)(i) through (a)(v) of this section or of approval or intent to deny approval of the submissions in paragraphs (a)(i) through (a)(v) 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.

i. The test plan in Sec. 63.847(b);

ii. Request to change limits for operating parameters in Sec. 63.847(h)(3);

iii. Request for similar potline monitoring in Sec. 63.848(d)(5);

iv. Request for reduced sampling frequency in Sec. 63.848(e); and

v. Request for an alternative method in Sec. 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.

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Pots 43-85, 4A (P968)

**Activity Description:** Pots 43-85, 4A

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| alumina reduction potline 4A - consisting of pots 43-85 vented through dry scrubber reactor #5 to the baghouses and then exhausting through a single stack | 40 CFR Part 63, Subpart LL [40 CFR 63.843(a)] | The permittee shall not discharge or cause to be discharged into the atmosphere any emissions of total flouride (TF) in excess of 1.5 kg/Mg (3.0 lbs/ton) of aluminum produced for each CWPB2 potline.<br><br>Any potline, other than a reconstructed potline, that is changed such that its applicable subcategory also changes shall meet the applicable emission limit in 40 CFR Part 63, Subpart LL for the original subcategory or the new subcategory, whichever is more stringent. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-17-11(A)(3) | Particulate emissions shall not exceed 12.6 pounds per hour. |
| | OAC rule 3745-18-06(E)(2) | Sulfur dioxide emissions shall not exceed 240 pounds per hour. |
| | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See section A.I.2.c. |

## 2. Additional Terms and Conditions

**2.a** [40 CFR 63.846(b)]
The permittee of an existing potline or anode bake furnace may demonstrate compliance by emission averaging according to the procedures in this section.

The permittee may average TF emissions from potlines and demonstrate compliance with the limits in Table 1 of 40 CFR Part 63 Subpart LL using the following procedures:

i. Monthly average emissions of TF shall not exceed the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL (for TF 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.

ii. To determine compliance with the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL 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 Secs. 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.

**2.b** [40 CFR 63.846(d)]
Implementation plan. The permittee 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:

i. The permittee must submit the implementation plan no later than 6 months before the date that the facility intends to comply with the emission averaging limits.

ii. The permittee 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:

(a) The identification of all emission sources (potlines or anode bake furnaces) in the average;

(b) The assigned TF emission limit for each averaging group of potlines or anode bake furnaces;

(c) 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;

(d) The test plan for the measurement of TF emissions in accordance with the requirements in Sec. 63.847(b);

(e) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;

(f) If the owner or operator requests to monitor an alternative operating parameter pursuant to Sec. 63.848(l):

**2. Additional Terms and Conditions (continued)**

1. A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

2. 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

(g) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.

iii. Approval criteria. Upon receipt, the regulatory authority shall review and approve or disapprove the plan or permit application according to the following criteria:

(a) Whether the content of the plan includes all of the information specified in this section; and

(b) Whether the plan or permit application presents sufficient information to determine that compliance will be achieved and maintained.

iv. Prohibitions. The applicable regulatory authority shall not approve an implementation plan or permit application containing any of the following provisions:

(a) 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;

(b) 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;

(c) The inclusion of any potline or anode bake furnace while it is shut down; or

(d) The inclusion of any periods of startup, shutdown, or malfunction, as described in the startup, shutdown, and malfunction plan required by Sec. 63.850(c), in the emission calculations.

v. 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.

(a) The applicable regulatory authority shall approve the plan for the term of the operating permit;

(b) To revise the plan prior to the end of the permit term, the permittee shall submit a request to the applicable regulatory authority; and

(c) The permittee may submit a request to the applicable regulatory authority to implement emission averaging after the applicable compliance date.

vi. Operation. While operating under an approved implementation plan, the permittee shall monitor the operating parameters of each control system, keep records, and submit periodic reports as required for each source subject to this permit.

**2. Additional Terms and Conditions (continued)**

**2.c** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of RACM. These measures shall include, but not be limited to, the following:

i. the use of the individual cells' moveable hoods, skirts, and doors in a manner that contains and captures, to the extent possible with good engineering design and operation, the fumes released from tapping, charging, carbon setting, and all other electrolytic reduction activities; and

ii. all fugitive dust captured within the RACM area shall be vented to the dry scrubber reactor #3 and the baghouses associated, in series, with this emissions unit.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this emissions unit, including, but not limited to: doorways, windows, and roof openings.

## II. Operational Restrictions

**1.** [40 CFR 63.847(e)(5)]
The permittee shall 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 section A.III.5.

**2.** [40 CFR 63.847(e)(6)]
The permittee shall 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.

## III. Monitoring and/or Record Keeping Requirements

**1.** [40 CFR 63.848(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 (7) of this section, the following monitoring devices shall be installed:

a. For dry alumina scrubbers, devices for the measurement of alumina flow and air flow;

b. For dry coke scrubbers, devices for the measurement of coke flow and air flow;

c. For wet scrubbers as the primary control system, devices for the measurement of water flow and air flow;

d. For electrostatic precipitators, devices for the measurement of voltage and secondary current; and

e. 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.

**2.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**3.** [40 CFR 63.848(h)]
Corrective action. If a monitoring device for a primary control device measures an operating parameter outside the limit(s) established pursuant to Sec. 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 the corrective action procedures identified in the startup, shutdown, and malfunction plan 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.

**4.** [40 CFR 63.848(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.

**5.** [40 CFR 63.848(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.

**6.** [40 CFR 63.848(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.

**7.** [40 CFR 63.848(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.

**8.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**9.** [40 CFR 63.850(e)]
Recordkeeping. The owner or operator shall maintain files of all information (including all reports and notifications) required by Sec. 63.10(b) and by this subpart.

a. 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;

b. The owner or operator may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche;

c. The owner or operator may report required information on paper or on a labeled computer disc using commonly available and compatible computer software; and

d. In addition to the general records required by Sec. 63.10(b), the owner or operator shall maintain records of the following information:

i. Daily production rate of aluminum;

ii. A copy of the startup, shutdown, and malfunction plan;

iii. Records of design information for paste production plant capture systems;

iv. 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;

v. Records supporting a request for reduced sampling of potlines;

vi. 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;

vii. The current implementation plan for emission averaging and any subsequent amendments;

viii. 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 Sec. 63.848(f)(5)(ii), including the results of each inspection;

ix. 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 Sec. 63.848(g), including the results of each inspection;

x. For a potline equipped with an HF continuous emission monitor, records of information and data required by Sec. 63.10(c);

xi. Records documenting the corrective actions taken when the limit(s) for an operating parameter established under Sec. 63.847(h) were exceeded, when visible emissions indicating abnormal operation were observed from a control device stack during a daily inspection required under Sec. 63.848(g), or when a problem was detected during the daily inspection of a wet roof scrubber for potline secondary control required in Sec. 63.848(f)(5)(ii);

xii. 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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**10.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the dry scrubber reactor/baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

**11.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**12.** The permittee shall maintain records of the following information for each month:

a. the average SO2 content (in percent sulfur) of the anodes for each shipment of anodes received;

b. the consumption rate of the anodes, in pounds of anodes consumed per pound of aluminum produced;

c. the amount of aluminum produced, in pounds;

d. the total hours of operation; and

e. the average hourly SO2 emission rate, i.e., (a X b X c) / d.

## IV. Reporting Requirements

**1.** [40 CFR 63.850(a)]
Notifications. The owner or operator shall submit the following written notifications:

a. Notification for an area source that subsequently increases its emissions such that the source is a major source subject to the standard;

b. Notification that a source is subject to the standard, where the initial startup is before the effective date of the standard;

c. 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;

d. 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;

e. Notification of initial performance test;

f. Notification of initial compliance status;

g. One-time notification for each affected source of the intent to use an HF continuous emission monitor; and

h. 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 Secs. 63.843, 63.844, and 63.846.

**2.** [40 CFR 63.850(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 section A.IV.1.f. Except as provided in paragraph 4. 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.

**3.** [40 CFR 63.850(c)]
Startup, shutdown, and malfunction plan and reports. The owner or operator shall develop and implement a written plan as described in Sec. 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 appplication or included in the operating permit. The permitting authority may review the plan upon request. In addition to the information required in Sec. 63.6(e)(3), the plan shall include:

a. Procedures, including corrective actions, to be followed if a monitoring device measures an operating parameter outside the limit(s) established under Sec. 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 Sec. 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 Sec. 63.848(f)(5)(ii); and

b. The owner or operator shall also keep records of each event as required by Sec. 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 Sec. 63.6(e)(3)(iv).

## IV. Reporting Requirements (continued)

**4.** [40 CFR 63.850(d)]
Excess emissions report. As required by Sec. 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 Sec. 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions.

**5.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the dry scrubber reactor/baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

**6.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** [40 CFR 63.847(b)]
a. Test plan. The owner or operator shall prepare a site-specific test plan prior to the initial performance test according to the requirements of Sec. 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 Sec. 63.848 for emission monitoring. In addition to the information required by Sec. 63.7, the test plan shall include:

i. Procedures to ensure a minimum of three runs are performed annually for the primary control system for each source;

ii. 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;

iii. 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;

iv. 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.

**2.** [40 CFR 63.847(c)]
Initial performance test. Following approval of the site- specific test plan, the owner or operator shall conduct an initial performance test during the first month following the compliance date in accordance with the procedures in this section. If a performance test has been conducted on the primary control system for potlines within the 12 months prior to the compliance date, the results of that performance test may be used to determine initial compliance.

## V. Testing Requirements (continued)

**3.** [40 CFR 63.847(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 40 CFR Part 63, Subpart A, the approved test plan, and the procedures in this section.

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 40 CFR 63.847(e)(1), 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 Secs. 63.843, 63.844, or 63.846.

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.** [40 CFR 63.847(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 Sec. 63.848(f).

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.

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.

**5.** [40 CFR 63.848(a)]
TF emissions from potlines. Using the procedures in Sec. 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.

## V. Testing Requirements (continued)

**6.** [40 CFR 63.848(d)]
Similar potlines. As an alternative to monthly monitoring of TF or POM secondary emissions from each potline using the test methods in Sec. 63.849, the owner or operator may perform monthly monitoring of TF or POM secondary emissions from one potline using the test methods in Secs. 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 (a.) through (g.) 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.

a. 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 Secs. 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.

b. An HF continuous emission monitoring system is an approved alternative for the monitoring of TF secondary emissions.

c. 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.

d. 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.

e. The owner or operator shall submit the results required in paragraph (d.) of this section and all supporting documentation to the applicable regulatory authority for review and approval.

f. 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.

g. 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.

## V. Testing Requirements (continued)

**7.** [40 CFR 63.848(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.

a. 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 (7)(a)(i) or (7)(a)(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.

b. An approved alternative requirement must include a test schedule and the method to be used to measure emissions for performance tests.

c. The owner or operator of a plant that has received approval of an alternative sampling frequency under Sec. 60.194 of this chapter is deemed to have approval of the alternative sampling frequency under this subpart.

d. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(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.

e. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(ii) of this section, the owner or operator shall immediately return to the monthly sampling schedule required by section A.V.5 until another request for an alternative sampling frequency is approved by the applicable regulatory authority.

**8.** [40 CFR 63.849(a)]
The owner or operator shall use the following reference methods to determine compliance with the applicable emission limits for TF and POM emissions:

a. Method 1 in appendix A to part 60 of this chapter for sample and velocity traverses;

b. Method 2 in appendix A to part 60 of this chapter for velocity and volumetric flow rate;

c. Method 3 in appendix A to part 60 of this chapter for gas analysis;

d. 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; 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.

## V. Testing Requirements (continued)

**9.** [40 CFR 63.849(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.

**10.** [40 CFR 63.849(e)]
The owner or operator may use an alternative test method for TF emissions providing:

a. 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 measurements using the alternative method; or

b. 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 Section A.V.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.

**11.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**11.a** Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

**11.b** Emission Limitation:

12.6 pounds per hour of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission test methods and procedures specified in section A.V.12.

**11.c** Emission Limitation:

240 pounds per hour of sulfur dioxide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monitoring and record keeping requirements specified in section A.III.12. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

## V. Testing Requirements (continued)

**11.d** Emission Limitation:

total flouride in excess of 1.5 kg/Mg (3.0 lb/ton) of aluminum produced for each CWPB2 potline

Applicable Compliance Method:

Compliance shall be demonstrated based upon the requirements specified in sections A.V.1 through A.V.10.

**12.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 12 to 24 months after issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

e. The permittee shall perform visible particulate emission observations in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9 during each emission test run.

Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office as required by 40 CFR 63.1515(a)(6). The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**1.** [40 CFR 63.851(a), 40 CFR 63.851(b)]

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)(i) through (a)(v) of this section or of approval or intent to deny approval of the submissions in paragraphs (a)(i) through (a)(v) 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.

i. The test plan in Sec. 63.847(b);

ii. Request to change limits for operating parameters in Sec. 63.847(h)(3);

iii. Request for similar potline monitoring in Sec. 63.848(d)(5);

iv. Request for reduced sampling frequency in Sec. 63.848(e); and

v. Request for an alternative method in Sec. 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.

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Pots 0-42, 4B (P969)

**Activity Description:** Pots 0-42, 4B

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| alumina reduction potline 4B - consisting of pots 0-42 vented through dry scrubber reactor #2 to the baghouses and then exhausting through a single stack | 40 CFR Part 63, Subpart LL [40 CFR 63.843(a)] | The permittee shall not discharge or cause to be discharged into the atmosphere any emissions of total flouride (TF) in excess of 1.5 kg/Mg (3.0 lbs/ton) of aluminum produced for each CWPB2 potline.<br><br>Any potline, other than a reconstructed potline, that is changed such that its applicable subcategory also changes shall meet the applicable emission limit in 40 CFR Part 63, Subpart LL for the original subcategory or the new subcategory, whichever is more stringent. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-17-11(A)(3) | Particulate emissions shall not exceed 12.6 pounds per hour. |
| | OAC rule 3745-18-06(E)(2) | Sulfur dioxide emissions shall not exceed 240 pounds per hour. |
| | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See section A.I.2.c. |

## 2. Additional Terms and Conditions

**2.a** [40 CFR 63.846(b)]
The permittee of an existing potline or anode bake furnace may demonstrate compliance by emission averaging according to the procedures in this section.

The permittee may average TF emissions from potlines and demonstrate compliance with the limits in Table 1 of 40 CFR Part 63 Subpart LL using the following procedures:

i. Monthly average emissions of TF shall not exceed the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL (for TF 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.

ii. To determine compliance with the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL 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 Secs. 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.

**2.b** [40 CFR 63.846(d)]
Implementation plan. The permittee 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:

i. The permittee must submit the implementation plan no later than 6 months before the date that the facility intends to comply with the emission averaging limits.

ii. The permittee 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:

(a) The identification of all emission sources (potlines or anode bake furnaces) in the average;

(b) The assigned TF emission limit for each averaging group of potlines or anode bake furnaces;

(c) 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;

(d) The test plan for the measurement of TF emissions in accordance with the requirements in Sec. 63.847(b);

(e) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;

(f) If the owner or operator requests to monitor an alternative operating parameter pursuant to Sec. 63.848(l):

**2. Additional Terms and Conditions (continued)**

1. A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

2. 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

(g) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.

iii. Approval criteria. Upon receipt, the regulatory authority shall review and approve or disapprove the plan or permit application according to the following criteria:

(a) Whether the content of the plan includes all of the information specified in this section; and

(b) Whether the plan or permit application presents sufficient information to determine that compliance will be achieved and maintained.

iv. Prohibitions. The applicable regulatory authority shall not approve an implementation plan or permit application containing any of the following provisions:

(a) 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;

(b) 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;

(c) The inclusion of any potline or anode bake furnace while it is shut down; or

(d) The inclusion of any periods of startup, shutdown, or malfunction, as described in the startup, shutdown, and malfunction plan required by Sec. 63.850(c), in the emission calculations.

v. 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.

(a) The applicable regulatory authority shall approve the plan for the term of the operating permit;

(b) To revise the plan prior to the end of the permit term, the permittee shall submit a request to the applicable regulatory authority; and

(c) The permittee may submit a request to the applicable regulatory authority to implement emission averaging after the applicable compliance date.

vi. Operation. While operating under an approved implementation plan, the permittee shall monitor the operating parameters of each control system, keep records, and submit periodic reports as required for each source subject to this permit.

**2. Additional Terms and Conditions (continued)**

**2.c** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of RACM. These measures shall include, but not be limited to, the following:

i. the use of the individual cells' moveable hoods, skirts, and doors in a manner that contains and captures, to the extent possible with good engineering design and operation, the fumes released from tapping, charging, carbon setting, and all other electrolytic reduction activities; and

ii. all fugitive dust captured within the RACM area shall be vented to the dry scrubber reactor #3 and the baghouses associated, in series, with this emissions unit.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this emissions unit, including, but not limited to: doorways, windows, and roof openings.

## II. Operational Restrictions

**1.** [40 CFR 63.847(e)(5)]
The permittee shall 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 section A.III.5.

**2.** [40 CFR 63.847(e)(6)]
The permittee shall 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.

## III. Monitoring and/or Record Keeping Requirements

**1.** [40 CFR 63.848(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 (7) of this section, the following monitoring devices shall be installed:

a. For dry alumina scrubbers, devices for the measurement of alumina flow and air flow;

b. For dry coke scrubbers, devices for the measurement of coke flow and air flow;

c. For wet scrubbers as the primary control system, devices for the measurement of water flow and air flow;

d. For electrostatic precipitators, devices for the measurement of voltage and secondary current; and

e. 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.

**2.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**3.** [40 CFR 63.848(h)]
Corrective action. If a monitoring device for a primary control device measures an operating parameter outside the limit(s) established pursuant to Sec. 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 the corrective action procedures identified in the startup, shutdown, and malfunction plan 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.

**4.** [40 CFR 63.848(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.

**5.** [40 CFR 63.848(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.

**6.** [40 CFR 63.848(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.

**7.** [40 CFR 63.848(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.

**8.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**9.** [40 CFR 63.850(e)]
Recordkeeping. The owner or operator shall maintain files of all information (including all reports and notifications) required by Sec. 63.10(b) and by this subpart.

a. 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;

b. The owner or operator may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche;

c. The owner or operator may report required information on paper or on a labeled computer disc using commonly available and compatible computer software; and

d. In addition to the general records required by Sec. 63.10(b), the owner or operator shall maintain records of the following information:

i. Daily production rate of aluminum;

ii. A copy of the startup, shutdown, and malfunction plan;

iii. Records of design information for paste production plant capture systems;

iv. 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;

v. Records supporting a request for reduced sampling of potlines;

vi. 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;

vii. The current implementation plan for emission averaging and any subsequent amendments;

viii. 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 Sec. 63.848(f)(5)(ii), including the results of each inspection;

ix. 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 Sec. 63.848(g), including the results of each inspection;

x. For a potline equipped with an HF continuous emission monitor, records of information and data required by Sec. 63.10(c);

xi. Records documenting the corrective actions taken when the limit(s) for an operating parameter established under Sec. 63.847(h) were exceeded, when visible emissions indicating abnormal operation were observed from a control device stack during a daily inspection required under Sec. 63.848(g), or when a problem was detected during the daily inspection of a wet roof scrubber for potline secondary control required in Sec. 63.848(f)(5)(ii);

xii. 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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**10.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the dry scrubber reactor/baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

**11.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**12.** The permittee shall maintain records of the following information for each month:

a. the average SO2 content (in percent sulfur) of the anodes for each shipment of anodes received;

b. the consumption rate of the anodes, in pounds of anodes consumed per pound of aluminum produced;

c. the amount of aluminum produced, in pounds;

d. the total hours of operation; and

e. the average hourly SO2 emission rate, i.e., (a X b X c) / d.

## IV. Reporting Requirements

**1.** [40 CFR 63.850(a)]
Notifications. The owner or operator shall submit the following written notifications:

a. Notification for an area source that subsequently increases its emissions such that the source is a major source subject to the standard;

b. Notification that a source is subject to the standard, where the initial startup is before the effective date of the standard;

c. 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;

d. 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;

e. Notification of initial performance test;

f. Notification of initial compliance status;

g. One-time notification for each affected source of the intent to use an HF continuous emission monitor; and

h. 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 Secs. 63.843, 63.844, and 63.846.

**2.** [40 CFR 63.850(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 section A.IV.1.f. Except as provided in paragraph 4. 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.

**3.** [40 CFR 63.850(c)]
Startup, shutdown, and malfunction plan and reports. The owner or operator shall develop and implement a written plan as described in Sec. 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 appplication or included in the operating permit. The permitting authority may review the plan upon request. In addition to the information required in Sec. 63.6(e)(3), the plan shall include:

a. Procedures, including corrective actions, to be followed if a monitoring device measures an operating parameter outside the limit(s) established under Sec. 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 Sec. 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 Sec. 63.848(f)(5)(ii); and

b. The owner or operator shall also keep records of each event as required by Sec. 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 Sec. 63.6(e)(3)(iv).

## IV. Reporting Requirements (continued)

**4.** [40 CFR 63.850(d)]
Excess emissions report. As required by Sec. 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 Sec. 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions.

**5.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the dry scrubber reactor/baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

**6.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** [40 CFR 63.847(b)]
a. Test plan. The owner or operator shall prepare a site-specific test plan prior to the initial performance test according to the requirements of Sec. 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 Sec. 63.848 for emission monitoring. In addition to the information required by Sec. 63.7, the test plan shall include:

i. Procedures to ensure a minimum of three runs are performed annually for the primary control system for each source;

ii. 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;

iii. 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;

iv. 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.

**2.** [40 CFR 63.847(c)]
Initial performance test. Following approval of the site- specific test plan, the owner or operator shall conduct an initial performance test during the first month following the compliance date in accordance with the procedures in this section. If a performance test has been conducted on the primary control system for potlines within the 12 months prior to the compliance date, the results of that performance test may be used to determine initial compliance.

## V. Testing Requirements (continued)

**3.** [40 CFR 63.847(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 40 CFR Part 63, Subpart A, the approved test plan, and the procedures in this section.

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 40 CFR 63.847(e)(1), 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 Secs. 63.843, 63.844, or 63.846.

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.** [40 CFR 63.847(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 Sec. 63.848(f).

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.

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.

**5.** [40 CFR 63.848(a)]
TF emissions from potlines. Using the procedures in Sec. 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.

## V. Testing Requirements (continued)

**6.** [40 CFR 63.848(d)]
Similar potlines. As an alternative to monthly monitoring of TF or POM secondary emissions from each potline using the test methods in Sec. 63.849, the owner or operator may perform monthly monitoring of TF or POM secondary emissions from one potline using the test methods in Secs. 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 (a.) through (g.) 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.

a. 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 Secs. 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.

b. An HF continuous emission monitoring system is an approved alternative for the monitoring of TF secondary emissions.

c. 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.

d. 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.

e. The owner or operator shall submit the results required in paragraph (d.) of this section and all supporting documentation to the applicable regulatory authority for review and approval.

f. 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.

g. 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.

## V. Testing Requirements (continued)

**7.** [40 CFR 63.848(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.

a. 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 (7)(a)(i) or (7)(a)(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.

b. An approved alternative requirement must include a test schedule and the method to be used to measure emissions for performance tests.

c. The owner or operator of a plant that has received approval of an alternative sampling frequency under Sec. 60.194 of this chapter is deemed to have approval of the alternative sampling frequency under this subpart.

d. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(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.

e. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(ii) of this section, the owner or operator shall immediately return to the monthly sampling schedule required by section A.V.5 until another request for an alternative sampling frequency is approved by the applicable regulatory authority.

**8.** [40 CFR 63.849(a)]
The owner or operator shall use the following reference methods to determine compliance with the applicable emission limits for TF and POM emissions:

a. Method 1 in appendix A to part 60 of this chapter for sample and velocity traverses;

b. Method 2 in appendix A to part 60 of this chapter for velocity and volumetric flow rate;

c. Method 3 in appendix A to part 60 of this chapter for gas analysis;

d. 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; 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.

## V. Testing Requirements (continued)

**9.** [40 CFR 63.849(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.

**10.** [40 CFR 63.849(e)]
The owner or operator may use an alternative test method for TF emissions providing:

a. 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 measurements using the alternative method; or

b. 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 Section A.V.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.

**11.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**11.a** Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

**11.b** Emission Limitation:

12.6 pounds per hour of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission test methods and procedures specified in section A.V.12.

**11.c** Emission Limitation:

240 pounds per hour of sulfur dioxide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monitoring and record keeping requirements specified in section A.III.12. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

## V. Testing Requirements (continued)

**11.d** Emission Limitation:

total flouride in excess of 1.5 kg/Mg (3.0 lb/ton) of aluminum produced for each CWPB2 potline

Applicable Compliance Method:

Compliance shall be demonstrated based upon the requirements specified in sections A.V.1 through A.V.10.

**12.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 12 to 24 months after issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

e. The permittee shall perform visible particulate emission observations in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9 during each emission test run.

Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office as required by 40 CFR 63.1515(a)(6). The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**1.** [40 CFR 63.851(a), 40 CFR 63.851(b)]

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)(i) through (a)(v) of this section or of approval or intent to deny approval of the submissions in paragraphs (a)(i) through (a)(v) 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.

i. The test plan in Sec. 63.847(b);

ii. Request to change limits for operating parameters in Sec. 63.847(h)(3);

iii. Request for similar potline monitoring in Sec. 63.848(d)(5);

iv. Request for reduced sampling frequency in Sec. 63.848(e); and

v. Request for an alternative method in Sec. 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.

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Pots 43-85, 4B (P970)

**Activity Description:** Pots 43-85, 4B

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| alumina reduction potline 4B - consisting of pots 43-85 vented through dry scrubber reactor #5 to the baghouses and then exhausting through a single stack | 40 CFR Part 63, Subpart LL [40 CFR 63.843(a)] | The permittee shall not discharge or cause to be discharged into the atmosphere any emissions of total flouride (TF) in excess of 1.5 kg/Mg (3.0 lbs/ton) of aluminum produced for each CWPB2 potline.<br><br>Any potline, other than a reconstructed potline, that is changed such that its applicable subcategory also changes shall meet the applicable emission limit in 40 CFR Part 63, Subpart LL for the original subcategory or the new subcategory, whichever is more stringent. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-17-11(A)(3) | Particulate emissions shall not exceed 12.6 pounds per hour. |
| | OAC rule 3745-18-06(E)(2) | Sulfur dioxide emissions shall not exceed 240 pounds per hour. |
| | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See section A.I.2.c. |

## 2. Additional Terms and Conditions

**2.a** [40 CFR 63.846(b)]
The permittee of an existing potline or anode bake furnace may demonstrate compliance by emission averaging according to the procedures in this section.

The permittee may average TF emissions from potlines and demonstrate compliance with the limits in Table 1 of 40 CFR Part 63 Subpart LL using the following procedures:

i. Monthly average emissions of TF shall not exceed the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL (for TF 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.

ii. To determine compliance with the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL 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 Secs. 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.

**2.b** [40 CFR 63.846(d)]
Implementation plan. The permittee 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:

i. The permittee must submit the implementation plan no later than 6 months before the date that the facility intends to comply with the emission averaging limits.

ii. The permittee 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:

(a) The identification of all emission sources (potlines or anode bake furnaces) in the average;

(b) The assigned TF emission limit for each averaging group of potlines or anode bake furnaces;

(c) 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;

(d) The test plan for the measurement of TF emissions in accordance with the requirements in Sec. 63.847(b);

(e) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;

(f) If the owner or operator requests to monitor an alternative operating parameter pursuant to Sec. 63.848(l):

**2. Additional Terms and Conditions (continued)**

1. A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

2. 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

(g) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.

iii. Approval criteria. Upon receipt, the regulatory authority shall review and approve or disapprove the plan or permit application according to the following criteria:

(a) Whether the content of the plan includes all of the information specified in this section; and

(b) Whether the plan or permit application presents sufficient information to determine that compliance will be achieved and maintained.

iv. Prohibitions. The applicable regulatory authority shall not approve an implementation plan or permit application containing any of the following provisions:

(a) 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;

(b) 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;

(c) The inclusion of any potline or anode bake furnace while it is shut down; or

(d) The inclusion of any periods of startup, shutdown, or malfunction, as described in the startup, shutdown, and malfunction plan required by Sec. 63.850(c), in the emission calculations.

v. 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.

(a) The applicable regulatory authority shall approve the plan for the term of the operating permit;

(b) To revise the plan prior to the end of the permit term, the permittee shall submit a request to the applicable regulatory authority; and

(c) The permittee may submit a request to the applicable regulatory authority to implement emission averaging after the applicable compliance date.

vi. Operation. While operating under an approved implementation plan, the permittee shall monitor the operating parameters of each control system, keep records, and submit periodic reports as required for each source subject to this permit.

**2. Additional Terms and Conditions (continued)**

**2.c** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of RACM. These measures shall include, but not be limited to, the following:

i. the use of the individual cells' moveable hoods, skirts, and doors in a manner that contains and captures, to the extent possible with good engineering design and operation, the fumes released from tapping, charging, carbon setting, and all other electrolytic reduction activities; and

ii. all fugitive dust captured within the RACM area shall be vented to the dry scrubber reactor #3 and the baghouses associated, in series, with this emissions unit.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this emissions unit, including, but not limited to: doorways, windows, and roof openings.

## II. Operational Restrictions

**1.** [40 CFR 63.847(e)(5)]
The permittee shall 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 section A.III.5.

**2.** [40 CFR 63.847(e)(6)]
The permittee shall 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.

## III. Monitoring and/or Record Keeping Requirements

**1.** [40 CFR 63.848(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 (7) of this section, the following monitoring devices shall be installed:

a. For dry alumina scrubbers, devices for the measurement of alumina flow and air flow;

b. For dry coke scrubbers, devices for the measurement of coke flow and air flow;

c. For wet scrubbers as the primary control system, devices for the measurement of water flow and air flow;

d. For electrostatic precipitators, devices for the measurement of voltage and secondary current; and

e. 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.

**2.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**3.** [40 CFR 63.848(h)]
Corrective action. If a monitoring device for a primary control device measures an operating parameter outside the limit(s) established pursuant to Sec. 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 the corrective action procedures identified in the startup, shutdown, and malfunction plan 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.

**4.** [40 CFR 63.848(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.

**5.** [40 CFR 63.848(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.

**6.** [40 CFR 63.848(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.

**7.** [40 CFR 63.848(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.

**8.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**9.** [40 CFR 63.850(e)]
Recordkeeping. The owner or operator shall maintain files of all information (including all reports and notifications) required by Sec. 63.10(b) and by this subpart.

a. 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;

b. The owner or operator may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche;

c. The owner or operator may report required information on paper or on a labeled computer disc using commonly available and compatible computer software; and

d. In addition to the general records required by Sec. 63.10(b), the owner or operator shall maintain records of the following information:

i. Daily production rate of aluminum;

ii. A copy of the startup, shutdown, and malfunction plan;

iii. Records of design information for paste production plant capture systems;

iv. 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;

v. Records supporting a request for reduced sampling of potlines;

vi. 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;

vii. The current implementation plan for emission averaging and any subsequent amendments;

viii. 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 Sec. 63.848(f)(5)(ii), including the results of each inspection;

ix. 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 Sec. 63.848(g), including the results of each inspection;

x. For a potline equipped with an HF continuous emission monitor, records of information and data required by Sec. 63.10(c);

xi. Records documenting the corrective actions taken when the limit(s) for an operating parameter established under Sec. 63.847(h) were exceeded, when visible emissions indicating abnormal operation were observed from a control device stack during a daily inspection required under Sec. 63.848(g), or when a problem was detected during the daily inspection of a wet roof scrubber for potline secondary control required in Sec. 63.848(f)(5)(ii);

xii. 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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**10.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the dry scrubber reactor/baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

**11.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**12.** The permittee shall maintain records of the following information for each month:

a. the average SO2 content (in percent sulfur) of the anodes for each shipment of anodes received;

b. the consumption rate of the anodes, in pounds of anodes consumed per pound of aluminum produced;

c. the amount of aluminum produced, in pounds;

d. the total hours of operation; and

e. the average hourly SO2 emission rate, i.e., (a X b X c) / d.

## IV. Reporting Requirements

**1.** [40 CFR 63.850(a)]
Notifications. The owner or operator shall submit the following written notifications:

a. Notification for an area source that subsequently increases its emissions such that the source is a major source subject to the standard;

b. Notification that a source is subject to the standard, where the initial startup is before the effective date of the standard;

c. 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;

d. 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;

e. Notification of initial performance test;

f. Notification of initial compliance status;

g. One-time notification for each affected source of the intent to use an HF continuous emission monitor; and

h. 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 Secs. 63.843, 63.844, and 63.846.

**2.** [40 CFR 63.850(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 section A.IV.1.f. Except as provided in paragraph 4. 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.

**3.** [40 CFR 63.850(c)]
Startup, shutdown, and malfunction plan and reports. The owner or operator shall develop and implement a written plan as described in Sec. 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 appplication or included in the operating permit. The permitting authority may review the plan upon request. In addition to the information required in Sec. 63.6(e)(3), the plan shall include:

a. Procedures, including corrective actions, to be followed if a monitoring device measures an operating parameter outside the limit(s) established under Sec. 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 Sec. 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 Sec. 63.848(f)(5)(ii); and

b. The owner or operator shall also keep records of each event as required by Sec. 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 Sec. 63.6(e)(3)(iv).

## IV. Reporting Requirements (continued)

**4.** [40 CFR 63.850(d)]
Excess emissions report. As required by Sec. 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 Sec. 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions.

**5.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the dry scrubber reactor/baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

**6.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** [40 CFR 63.847(b)]
a. Test plan. The owner or operator shall prepare a site-specific test plan prior to the initial performance test according to the requirements of Sec. 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 Sec. 63.848 for emission monitoring. In addition to the information required by Sec. 63.7, the test plan shall include:

i. Procedures to ensure a minimum of three runs are performed annually for the primary control system for each source;

ii. 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;

iii. 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;

iv. 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.

**2.** [40 CFR 63.847(c)]
Initial performance test. Following approval of the site- specific test plan, the owner or operator shall conduct an initial performance test during the first month following the compliance date in accordance with the procedures in this section. If a performance test has been conducted on the primary control system for potlines within the 12 months prior to the compliance date, the results of that performance test may be used to determine initial compliance.

## V. Testing Requirements (continued)

**3.** [40 CFR 63.847(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 40 CFR Part 63, Subpart A, the approved test plan, and the procedures in this section.

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 40 CFR 63.847(e)(1), 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 Secs. 63.843, 63.844, or 63.846.

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.** [40 CFR 63.847(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 Sec. 63.848(f).

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.

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.

**5.** [40 CFR 63.848(a)]
TF emissions from potlines. Using the procedures in Sec. 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.

## V. Testing Requirements (continued)

**6.** [40 CFR 63.848(d)]
Similar potlines. As an alternative to monthly monitoring of TF or POM secondary emissions from each potline using the test methods in Sec. 63.849, the owner or operator may perform monthly monitoring of TF or POM secondary emissions from one potline using the test methods in Secs. 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 (a.) through (g.) 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.

a. 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 Secs. 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.

b. An HF continuous emission monitoring system is an approved alternative for the monitoring of TF secondary emissions.

c. 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.

d. 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.

e. The owner or operator shall submit the results required in paragraph (d.) of this section and all supporting documentation to the applicable regulatory authority for review and approval.

f. 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.

g. 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.

## V. Testing Requirements (continued)

**7.** [40 CFR 63.848(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.

a. 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 (7)(a)(i) or (7)(a)(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.

b. An approved alternative requirement must include a test schedule and the method to be used to measure emissions for performance tests.

c. The owner or operator of a plant that has received approval of an alternative sampling frequency under Sec. 60.194 of this chapter is deemed to have approval of the alternative sampling frequency under this subpart.

d. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(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.

e. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(ii) of this section, the owner or operator shall immediately return to the monthly sampling schedule required by section A.V.5 until another request for an alternative sampling frequency is approved by the applicable regulatory authority.

**8.** [40 CFR 63.849(a)]
The owner or operator shall use the following reference methods to determine compliance with the applicable emission limits for TF and POM emissions:

a. Method 1 in appendix A to part 60 of this chapter for sample and velocity traverses;

b. Method 2 in appendix A to part 60 of this chapter for velocity and volumetric flow rate;

c. Method 3 in appendix A to part 60 of this chapter for gas analysis;

d. 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; 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.

## V. Testing Requirements (continued)

**9.** [40 CFR 63.849(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.

**10.** [40 CFR 63.849(e)]
The owner or operator may use an alternative test method for TF emissions providing:

a. 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 measurements using the alternative method; or

b. 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 Section A.V.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.

**11.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**11.a** Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

**11.b** Emission Limitation:

12.6 pounds per hour of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission test methods and procedures specified in section A.V.12.

**11.c** Emission Limitation:

240 pounds per hour of sulfur dioxide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monitoring and record keeping requirements specified in section A.III.12. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

## V. Testing Requirements (continued)

**11.d** Emission Limitation:

total flouride in excess of 1.5 kg/Mg (3.0 lb/ton) of aluminum produced for each CWPB2 potline

Applicable Compliance Method:

Compliance shall be demonstrated based upon the requirements specified in sections A.V.1 through A.V.10.

**12.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 12 to 24 months after issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

e. The permittee shall perform visible particulate emission observations in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9 during each emission test run.

Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office as required by 40 CFR 63.1515(a)(6). The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**1.** [40 CFR 63.851(a), 40 CFR 63.851(b)]

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)(i) through (a)(v) of this section or of approval or intent to deny approval of the submissions in paragraphs (a)(i) through (a)(v) 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.

i. The test plan in Sec. 63.847(b);

ii. Request to change limits for operating parameters in Sec. 63.847(h)(3);

iii. Request for similar potline monitoring in Sec. 63.848(d)(5);

iv. Request for reduced sampling frequency in Sec. 63.848(e); and

v. Request for an alternative method in Sec. 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.

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Pots 0-42, 5A (P971)

**Activity Description:** Pots 0-42, 5A

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| alumina reduction potline 5A - consisting of pots 0-42 vented through dry scrubber reactor #1 to the baghouses and then exhausting through a single stack | 40 CFR Part 63, Subpart LL [40 CFR 63.843(a)] | The permittee shall not discharge or cause to be discharged into the atmosphere any emissions of total flouride (TF) in excess of 1.5 kg/Mg (3.0 lbs/ton) of aluminum produced for each CWPB2 potline.<br><br>Any potline, other than a reconstructed potline, that is changed such that its applicable subcategory also changes shall meet the applicable emission limit in 40 CFR Part 63, Subpart LL for the original subcategory or the new subcategory, whichever is more stringent. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-17-11(A)(3) | Particulate emissions shall not exceed 12.6 pounds per hour. |
| | OAC rule 3745-18-06(E)(2) | Sulfur dioxide emissions shall not exceed 240 pounds per hour. |
| | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See section A.I.2.c. |

## 2. Additional Terms and Conditions

**2.a** [40 CFR 63.846(b)]
The permittee of an existing potline or anode bake furnace may demonstrate compliance by emission averaging according to the procedures in this section.

The permittee may average TF emissions from potlines and demonstrate compliance with the limits in Table 1 of 40 CFR Part 63 Subpart LL using the following procedures:

i. Monthly average emissions of TF shall not exceed the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL (for TF 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.

ii. To determine compliance with the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL 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 Secs. 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.

**2.b** [40 CFR 63.846(d)]
Implementation plan. The permittee 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:

i. The permittee must submit the implementation plan no later than 6 months before the date that the facility intends to comply with the emission averaging limits.

ii. The permittee 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:

(a) The identification of all emission sources (potlines or anode bake furnaces) in the average;

(b) The assigned TF emission limit for each averaging group of potlines or anode bake furnaces;

(c) 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;

(d) The test plan for the measurement of TF emissions in accordance with the requirements in Sec. 63.847(b);

(e) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;

(f) If the owner or operator requests to monitor an alternative operating parameter pursuant to Sec. 63.848(l):

**2. Additional Terms and Conditions (continued)**

1. A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

2. 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

(g) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.

iii. Approval criteria. Upon receipt, the regulatory authority shall review and approve or disapprove the plan or permit application according to the following criteria:

(a) Whether the content of the plan includes all of the information specified in this section; and

(b) Whether the plan or permit application presents sufficient information to determine that compliance will be achieved and maintained.

iv. Prohibitions. The applicable regulatory authority shall not approve an implementation plan or permit application containing any of the following provisions:

(a) 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;

(b) 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;

(c) The inclusion of any potline or anode bake furnace while it is shut down; or

(d) The inclusion of any periods of startup, shutdown, or malfunction, as described in the startup, shutdown, and malfunction plan required by Sec. 63.850(c), in the emission calculations.

v. 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.

(a) The applicable regulatory authority shall approve the plan for the term of the operating permit;

(b) To revise the plan prior to the end of the permit term, the permittee shall submit a request to the applicable regulatory authority; and

(c) The permittee may submit a request to the applicable regulatory authority to implement emission averaging after the applicable compliance date.

vi. Operation. While operating under an approved implementation plan, the permittee shall monitor the operating parameters of each control system, keep records, and submit periodic reports as required for each source subject to this permit.

**2. Additional Terms and Conditions (continued)**

**2.c** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of RACM. These measures shall include, but not be limited to, the following:

i. the use of the individual cells' moveable hoods, skirts, and doors in a manner that contains and captures, to the extent possible with good engineering design and operation, the fumes released from tapping, charging, carbon setting, and all other electrolytic reduction activities; and

ii. all fugitive dust captured within the RACM area shall be vented to the dry scrubber reactor #3 and the baghouses associated, in series, with this emissions unit.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this emissions unit, including, but not limited to: doorways, windows, and roof openings.

## II. Operational Restrictions

**1.** [40 CFR 63.847(e)(5)]
The permittee shall 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 section A.III.5.

**2.** [40 CFR 63.847(e)(6)]
The permittee shall 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.

## III. Monitoring and/or Record Keeping Requirements

**1.** [40 CFR 63.848(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 (7) of this section, the following monitoring devices shall be installed:

a. For dry alumina scrubbers, devices for the measurement of alumina flow and air flow;

b. For dry coke scrubbers, devices for the measurement of coke flow and air flow;

c. For wet scrubbers as the primary control system, devices for the measurement of water flow and air flow;

d. For electrostatic precipitators, devices for the measurement of voltage and secondary current; and

e. 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.

**2.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**3.** [40 CFR 63.848(h)]
Corrective action. If a monitoring device for a primary control device measures an operating parameter outside the limit(s) established pursuant to Sec. 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 the corrective action procedures identified in the startup, shutdown, and malfunction plan 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.

**4.** [40 CFR 63.848(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.

**5.** [40 CFR 63.848(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.

**6.** [40 CFR 63.848(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.

**7.** [40 CFR 63.848(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.

**8.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**9.** [40 CFR 63.850(e)]
Recordkeeping. The owner or operator shall maintain files of all information (including all reports and notifications) required by Sec. 63.10(b) and by this subpart.

a. 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;

b. The owner or operator may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche;

c. The owner or operator may report required information on paper or on a labeled computer disc using commonly available and compatible computer software; and

d. In addition to the general records required by Sec. 63.10(b), the owner or operator shall maintain records of the following information:

i. Daily production rate of aluminum;

ii. A copy of the startup, shutdown, and malfunction plan;

iii. Records of design information for paste production plant capture systems;

iv. 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;

v. Records supporting a request for reduced sampling of potlines;

vi. 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;

vii. The current implementation plan for emission averaging and any subsequent amendments;

viii. 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 Sec. 63.848(f)(5)(ii), including the results of each inspection;

ix. 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 Sec. 63.848(g), including the results of each inspection;

x. For a potline equipped with an HF continuous emission monitor, records of information and data required by Sec. 63.10(c);

xi. Records documenting the corrective actions taken when the limit(s) for an operating parameter established under Sec. 63.847(h) were exceeded, when visible emissions indicating abnormal operation were observed from a control device stack during a daily inspection required under Sec. 63.848(g), or when a problem was detected during the daily inspection of a wet roof scrubber for potline secondary control required in Sec. 63.848(f)(5)(ii);

xii. 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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**10.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the dry scrubber reactor/baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

**11.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**12.** The permittee shall maintain records of the following information for each month:

a. the average SO2 content (in percent sulfur) of the anodes for each shipment of anodes received;

b. the consumption rate of the anodes, in pounds of anodes consumed per pound of aluminum produced;

c. the amount of aluminum produced, in pounds;

d. the total hours of operation; and

e. the average hourly SO2 emission rate, i.e., (a X b X c) / d.

## IV. Reporting Requirements

**1.** [40 CFR 63.850(a)]
Notifications. The owner or operator shall submit the following written notifications:

a. Notification for an area source that subsequently increases its emissions such that the source is a major source subject to the standard;

b. Notification that a source is subject to the standard, where the initial startup is before the effective date of the standard;

c. 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;

d. 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;

e. Notification of initial performance test;

f. Notification of initial compliance status;

g. One-time notification for each affected source of the intent to use an HF continuous emission monitor; and

h. 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 Secs. 63.843, 63.844, and 63.846.

**2.** [40 CFR 63.850(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 section A.IV.1.f. Except as provided in paragraph 4. 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.

**3.** [40 CFR 63.850(c)]
Startup, shutdown, and malfunction plan and reports. The owner or operator shall develop and implement a written plan as described in Sec. 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 appplication or included in the operating permit. The permitting authority may review the plan upon request. In addition to the information required in Sec. 63.6(e)(3), the plan shall include:

a. Procedures, including corrective actions, to be followed if a monitoring device measures an operating parameter outside the limit(s) established under Sec. 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 Sec. 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 Sec. 63.848(f)(5)(ii); and

b. The owner or operator shall also keep records of each event as required by Sec. 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 Sec. 63.6(e)(3)(iv).

## IV. Reporting Requirements (continued)

**4.** [40 CFR 63.850(d)]
Excess emissions report. As required by Sec. 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 Sec. 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions.

**5.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the dry scrubber reactor/baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

**6.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** [40 CFR 63.847(b)]
a. Test plan. The owner or operator shall prepare a site-specific test plan prior to the initial performance test according to the requirements of Sec. 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 Sec. 63.848 for emission monitoring. In addition to the information required by Sec. 63.7, the test plan shall include:

i. Procedures to ensure a minimum of three runs are performed annually for the primary control system for each source;

ii. 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;

iii. 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;

iv. 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.

**2.** [40 CFR 63.847(c)]
Initial performance test. Following approval of the site- specific test plan, the owner or operator shall conduct an initial performance test during the first month following the compliance date in accordance with the procedures in this section. If a performance test has been conducted on the primary control system for potlines within the 12 months prior to the compliance date, the results of that performance test may be used to determine initial compliance.

## V. Testing Requirements (continued)

**3.** [40 CFR 63.847(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 40 CFR Part 63, Subpart A, the approved test plan, and the procedures in this section.

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 40 CFR 63.847(e)(1), 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 Secs. 63.843, 63.844, or 63.846.

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.** [40 CFR 63.847(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 Sec. 63.848(f).

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.

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.

**5.** [40 CFR 63.848(a)]
TF emissions from potlines. Using the procedures in Sec. 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.

## V. Testing Requirements (continued)

**6.** [40 CFR 63.848(d)]
Similar potlines. As an alternative to monthly monitoring of TF or POM secondary emissions from each potline using the test methods in Sec. 63.849, the owner or operator may perform monthly monitoring of TF or POM secondary emissions from one potline using the test methods in Secs. 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 (a.) through (g.) 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.

a. 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 Secs. 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.

b. An HF continuous emission monitoring system is an approved alternative for the monitoring of TF secondary emissions.

c. 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.

d. 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.

e. The owner or operator shall submit the results required in paragraph (d.) of this section and all supporting documentation to the applicable regulatory authority for review and approval.

f. 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.

g. 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.

## V. Testing Requirements (continued)

**7.** [40 CFR 63.848(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.

a. 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 (7)(a)(i) or (7)(a)(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.

b. An approved alternative requirement must include a test schedule and the method to be used to measure emissions for performance tests.

c. The owner or operator of a plant that has received approval of an alternative sampling frequency under Sec. 60.194 of this chapter is deemed to have approval of the alternative sampling frequency under this subpart.

d. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(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.

e. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(ii) of this section, the owner or operator shall immediately return to the monthly sampling schedule required by section A.V.5 until another request for an alternative sampling frequency is approved by the applicable regulatory authority.

**8.** [40 CFR 63.849(a)]
The owner or operator shall use the following reference methods to determine compliance with the applicable emission limits for TF and POM emissions:

a. Method 1 in appendix A to part 60 of this chapter for sample and velocity traverses;

b. Method 2 in appendix A to part 60 of this chapter for velocity and volumetric flow rate;

c. Method 3 in appendix A to part 60 of this chapter for gas analysis;

d. 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; 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.

## V. Testing Requirements (continued)

**9.** [40 CFR 63.849(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.

**10.** [40 CFR 63.849(e)]
The owner or operator may use an alternative test method for TF emissions providing:

a. 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 measurements using the alternative method; or

b. 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 Section A.V.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.

**11.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**11.a** Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

**11.b** Emission Limitation:

12.6 pounds per hour of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission test methods and procedures specified in section A.V.12.

**11.c** Emission Limitation:

240 pounds per hour of sulfur dioxide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monitoring and record keeping requirements specified in section A.III.12. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

## V. Testing Requirements (continued)

**11.d** Emission Limitation:

total flouride in excess of 1.5 kg/Mg (3.0 lb/ton) of aluminum produced for each CWPB2 potline

Applicable Compliance Method:

Compliance shall be demonstrated based upon the requirements specified in sections A.V.1 through A.V.10.

**12.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 12 to 24 months after issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

e. The permittee shall perform visible particulate emission observations in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9 during each emission test run.

Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office as required by 40 CFR 63.1515(a)(6). The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**1.** [40 CFR 63.851(a), 40 CFR 63.851(b)]

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)(i) through (a)(v) of this section or of approval or intent to deny approval of the submissions in paragraphs (a)(i) through (a)(v) 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.

i. The test plan in Sec. 63.847(b);

ii. Request to change limits for operating parameters in Sec. 63.847(h)(3);

iii. Request for similar potline monitoring in Sec. 63.848(d)(5);

iv. Request for reduced sampling frequency in Sec. 63.848(e); and

v. Request for an alternative method in Sec. 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.

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Pots 43-85, 5A (P972)

**Activity Description:** Pots 43-85, 5A

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| alumina reduction potline 5A - consisting of pots 43-85 vented through dry scrubber reactor #6 to the baghouses and then exhausting through a single stack | 40 CFR Part 63, Subpart LL [40 CFR 63.843(a)] | The permittee shall not discharge or cause to be discharged into the atmosphere any emissions of total flouride (TF) in excess of 1.5 kg/Mg (3.0 lbs/ton) of aluminum produced for each CWPB2 potline.<br><br>Any potline, other than a reconstructed potline, that is changed such that its applicable subcategory also changes shall meet the applicable emission limit in 40 CFR Part 63, Subpart LL for the original subcategory or the new subcategory, whichever is more stringent. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-17-11(A)(3) | Particulate emissions shall not exceed 12.6 pounds per hour. |
| | OAC rule 3745-18-06(E)(2) | Sulfur dioxide emissions shall not exceed 240 pounds per hour. |
| | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See section A.I.2.c. |

## 2. Additional Terms and Conditions

**2.a** [40 CFR 63.846(b)]
The permittee of an existing potline or anode bake furnace may demonstrate compliance by emission averaging according to the procedures in this section.

The permittee may average TF emissions from potlines and demonstrate compliance with the limits in Table 1 of 40 CFR Part 63 Subpart LL using the following procedures:

i. Monthly average emissions of TF shall not exceed the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL (for TF 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.

ii. To determine compliance with the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL 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 Secs. 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.

**2.b** [40 CFR 63.846(d)]
Implementation plan. The permittee 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:

i. The permittee must submit the implementation plan no later than 6 months before the date that the facility intends to comply with the emission averaging limits.

ii. The permittee 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:

(a) The identification of all emission sources (potlines or anode bake furnaces) in the average;

(b) The assigned TF emission limit for each averaging group of potlines or anode bake furnaces;

(c) 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;

(d) The test plan for the measurement of TF emissions in accordance with the requirements in Sec. 63.847(b);

(e) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;

(f) If the owner or operator requests to monitor an alternative operating parameter pursuant to Sec. 63.848(l):

**2. Additional Terms and Conditions (continued)**

1. A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

2. 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

(g) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.

iii. Approval criteria. Upon receipt, the regulatory authority shall review and approve or disapprove the plan or permit application according to the following criteria:

(a) Whether the content of the plan includes all of the information specified in this section; and

(b) Whether the plan or permit application presents sufficient information to determine that compliance will be achieved and maintained.

iv. Prohibitions. The applicable regulatory authority shall not approve an implementation plan or permit application containing any of the following provisions:

(a) 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;

(b) 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;

(c) The inclusion of any potline or anode bake furnace while it is shut down; or

(d) The inclusion of any periods of startup, shutdown, or malfunction, as described in the startup, shutdown, and malfunction plan required by Sec. 63.850(c), in the emission calculations.

v. 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.

(a) The applicable regulatory authority shall approve the plan for the term of the operating permit;

(b) To revise the plan prior to the end of the permit term, the permittee shall submit a request to the applicable regulatory authority; and

(c) The permittee may submit a request to the applicable regulatory authority to implement emission averaging after the applicable compliance date.

vi. Operation. While operating under an approved implementation plan, the permittee shall monitor the operating parameters of each control system, keep records, and submit periodic reports as required for each source subject to this permit.

**2. Additional Terms and Conditions (continued)**

**2.c** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of RACM. These measures shall include, but not be limited to, the following:

i. the use of the individual cells' moveable hoods, skirts, and doors in a manner that contains and captures, to the extent possible with good engineering design and operation, the fumes released from tapping, charging, carbon setting, and all other electrolytic reduction activities; and

ii. all fugitive dust captured within the RACM area shall be vented to the dry scrubber reactor #3 and the baghouses associated, in series, with this emissions unit.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this emissions unit, including, but not limited to: doorways, windows, and roof openings.

## II. Operational Restrictions

**1.** [40 CFR 63.847(e)(5)]
The permittee shall 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 section A.III.5.

**2.** [40 CFR 63.847(e)(6)]
The permittee shall 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.

## III. Monitoring and/or Record Keeping Requirements

**1.** [40 CFR 63.848(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 (7) of this section, the following monitoring devices shall be installed:

a. For dry alumina scrubbers, devices for the measurement of alumina flow and air flow;

b. For dry coke scrubbers, devices for the measurement of coke flow and air flow;

c. For wet scrubbers as the primary control system, devices for the measurement of water flow and air flow;

d. For electrostatic precipitators, devices for the measurement of voltage and secondary current; and

e. 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.

**2.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**3.** [40 CFR 63.848(h)]
Corrective action. If a monitoring device for a primary control device measures an operating parameter outside the limit(s) established pursuant to Sec. 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 the corrective action procedures identified in the startup, shutdown, and malfunction plan 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.

**4.** [40 CFR 63.848(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.

**5.** [40 CFR 63.848(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.

**6.** [40 CFR 63.848(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.

**7.** [40 CFR 63.848(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.

**8.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**9.** [40 CFR 63.850(e)]
Recordkeeping. The owner or operator shall maintain files of all information (including all reports and notifications) required by Sec. 63.10(b) and by this subpart.

a. 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;

b. The owner or operator may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche;

c. The owner or operator may report required information on paper or on a labeled computer disc using commonly available and compatible computer software; and

d. In addition to the general records required by Sec. 63.10(b), the owner or operator shall maintain records of the following information:

i. Daily production rate of aluminum;

ii. A copy of the startup, shutdown, and malfunction plan;

iii. Records of design information for paste production plant capture systems;

iv. 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;

v. Records supporting a request for reduced sampling of potlines;

vi. 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;

vii. The current implementation plan for emission averaging and any subsequent amendments;

viii. 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 Sec. 63.848(f)(5)(ii), including the results of each inspection;

ix. 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 Sec. 63.848(g), including the results of each inspection;

x. For a potline equipped with an HF continuous emission monitor, records of information and data required by Sec. 63.10(c);

xi. Records documenting the corrective actions taken when the limit(s) for an operating parameter established under Sec. 63.847(h) were exceeded, when visible emissions indicating abnormal operation were observed from a control device stack during a daily inspection required under Sec. 63.848(g), or when a problem was detected during the daily inspection of a wet roof scrubber for potline secondary control required in Sec. 63.848(f)(5)(ii);

xii. 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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**10.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the dry scrubber reactor/baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

**11.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**12.** The permittee shall maintain records of the following information for each month:

a. the average SO2 content (in percent sulfur) of the anodes for each shipment of anodes received;

b. the consumption rate of the anodes, in pounds of anodes consumed per pound of aluminum produced;

c. the amount of aluminum produced, in pounds;

d. the total hours of operation; and

e. the average hourly SO2 emission rate, i.e., (a X b X c) / d.

## IV. Reporting Requirements

**1.** [40 CFR 63.850(a)]
Notifications. The owner or operator shall submit the following written notifications:

a. Notification for an area source that subsequently increases its emissions such that the source is a major source subject to the standard;

b. Notification that a source is subject to the standard, where the initial startup is before the effective date of the standard;

c. 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;

d. 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;

e. Notification of initial performance test;

f. Notification of initial compliance status;

g. One-time notification for each affected source of the intent to use an HF continuous emission monitor; and

h. 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 Secs. 63.843, 63.844, and 63.846.

**2.** [40 CFR 63.850(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 section A.IV.1.f. Except as provided in paragraph 4. 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.

**3.** [40 CFR 63.850(c)]
Startup, shutdown, and malfunction plan and reports. The owner or operator shall develop and implement a written plan as described in Sec. 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 appplication or included in the operating permit. The permitting authority may review the plan upon request. In addition to the information required in Sec. 63.6(e)(3), the plan shall include:

a. Procedures, including corrective actions, to be followed if a monitoring device measures an operating parameter outside the limit(s) established under Sec. 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 Sec. 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 Sec. 63.848(f)(5)(ii); and

b. The owner or operator shall also keep records of each event as required by Sec. 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 Sec. 63.6(e)(3)(iv).

## IV. Reporting Requirements (continued)

**4.** [40 CFR 63.850(d)]
Excess emissions report. As required by Sec. 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 Sec. 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions.

**5.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the dry scrubber reactor/baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

**6.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** [40 CFR 63.847(b)]
a. Test plan. The owner or operator shall prepare a site-specific test plan prior to the initial performance test according to the requirements of Sec. 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 Sec. 63.848 for emission monitoring. In addition to the information required by Sec. 63.7, the test plan shall include:

i. Procedures to ensure a minimum of three runs are performed annually for the primary control system for each source;

ii. 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;

iii. 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;

iv. 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.

**2.** [40 CFR 63.847(c)]
Initial performance test. Following approval of the site- specific test plan, the owner or operator shall conduct an initial performance test during the first month following the compliance date in accordance with the procedures in this section. If a performance test has been conducted on the primary control system for potlines within the 12 months prior to the compliance date, the results of that performance test may be used to determine initial compliance.

## V. Testing Requirements (continued)

**3.** [40 CFR 63.847(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 40 CFR Part 63, Subpart A, the approved test plan, and the procedures in this section.

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 40 CFR 63.847(e)(1), 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 Secs. 63.843, 63.844, or 63.846.

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.** [40 CFR 63.847(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 Sec. 63.848(f).

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.

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.

**5.** [40 CFR 63.848(a)]
TF emissions from potlines. Using the procedures in Sec. 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.

## V. Testing Requirements (continued)

**6.** [40 CFR 63.848(d)]
Similar potlines. As an alternative to monthly monitoring of TF or POM secondary emissions from each potline using the test methods in Sec. 63.849, the owner or operator may perform monthly monitoring of TF or POM secondary emissions from one potline using the test methods in Secs. 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 (a.) through (g.) 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.

a. 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 Secs. 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.

b. An HF continuous emission monitoring system is an approved alternative for the monitoring of TF secondary emissions.

c. 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.

d. 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.

e. The owner or operator shall submit the results required in paragraph (d.) of this section and all supporting documentation to the applicable regulatory authority for review and approval.

f. 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.

g. 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.

## V. Testing Requirements (continued)

**7.** [40 CFR 63.848(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.

a. 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 (7)(a)(i) or (7)(a)(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.

b. An approved alternative requirement must include a test schedule and the method to be used to measure emissions for performance tests.

c. The owner or operator of a plant that has received approval of an alternative sampling frequency under Sec. 60.194 of this chapter is deemed to have approval of the alternative sampling frequency under this subpart.

d. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(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.

e. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(ii) of this section, the owner or operator shall immediately return to the monthly sampling schedule required by section A.V.5 until another request for an alternative sampling frequency is approved by the applicable regulatory authority.

**8.** [40 CFR 63.849(a)]
The owner or operator shall use the following reference methods to determine compliance with the applicable emission limits for TF and POM emissions:

a. Method 1 in appendix A to part 60 of this chapter for sample and velocity traverses;

b. Method 2 in appendix A to part 60 of this chapter for velocity and volumetric flow rate;

c. Method 3 in appendix A to part 60 of this chapter for gas analysis;

d. 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; 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.

## V. Testing Requirements (continued)

**9.** [40 CFR 63.849(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.

**10.** [40 CFR 63.849(e)]
The owner or operator may use an alternative test method for TF emissions providing:

a. 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 measurements using the alternative method; or

b. 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 Section A.V.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.

**11.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**11.a** Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

**11.b** Emission Limitation:

12.6 pounds per hour of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission test methods and procedures specified in section A.V.12.

**11.c** Emission Limitation:

240 pounds per hour of sulfur dioxide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monitoring and record keeping requirements specified in section A.III.12. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

## V. Testing Requirements (continued)

**11.d** Emission Limitation:

total flouride in excess of 1.5 kg/Mg (3.0 lb/ton) of aluminum produced for each CWPB2 potline

Applicable Compliance Method:

Compliance shall be demonstrated based upon the requirements specified in sections A.V.1 through A.V.10.

**12.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 12 to 24 months after issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

e. The permittee shall perform visible particulate emission observations in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9 during each emission test run.

Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office as required by 40 CFR 63.1515(a)(6). The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**1.** [40 CFR 63.851(a), 40 CFR 63.851(b)]

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)(i) through (a)(v) of this section or of approval or intent to deny approval of the submissions in paragraphs (a)(i) through (a)(v) 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.

i. The test plan in Sec. 63.847(b);

ii. Request to change limits for operating parameters in Sec. 63.847(h)(3);

iii. Request for similar potline monitoring in Sec. 63.848(d)(5);

iv. Request for reduced sampling frequency in Sec. 63.848(e); and

v. Request for an alternative method in Sec. 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.

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Pots 0-42, 5B (P973)

**Activity Description:** Pots 0-42, 5B

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| alumina reduction potline 5B - consisting of pots 0-42 vented through dry scrubber reactor #1 to the baghouses and then exhausting through a single stack | 40 CFR Part 63, Subpart LL [40 CFR 63.843(a)] | The permittee shall not discharge or cause to be discharged into the atmosphere any emissions of total flouride (TF) in excess of 1.5 kg/Mg (3.0 lbs/ton) of aluminum produced for each CWPB2 potline.<br><br>Any potline, other than a reconstructed potline, that is changed such that its applicable subcategory also changes shall meet the applicable emission limit in 40 CFR Part 63, Subpart LL for the original subcategory or the new subcategory, whichever is more stringent. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-17-11(A)(3) | Particulate emissions shall not exceed 12.6 pounds per hour. |
| | OAC rule 3745-18-06(E)(2) | Sulfur dioxide emissions shall not exceed 240 pounds per hour. |
| | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See section A.I.2.c. |

## 2. Additional Terms and Conditions

**2.a** [40 CFR 63.846(b)]
The permittee of an existing potline or anode bake furnace may demonstrate compliance by emission averaging according to the procedures in this section.

The permittee may average TF emissions from potlines and demonstrate compliance with the limits in Table 1 of 40 CFR Part 63 Subpart LL using the following procedures:

i. Monthly average emissions of TF shall not exceed the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL (for TF 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.

ii. To determine compliance with the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL 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 Secs. 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.

**2.b** [40 CFR 63.846(d)]
Implementation plan. The permittee 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:

i. The permittee must submit the implementation plan no later than 6 months before the date that the facility intends to comply with the emission averaging limits.

ii. The permittee 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:

(a) The identification of all emission sources (potlines or anode bake furnaces) in the average;

(b) The assigned TF emission limit for each averaging group of potlines or anode bake furnaces;

(c) 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;

(d) The test plan for the measurement of TF emissions in accordance with the requirements in Sec. 63.847(b);

(e) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;

(f) If the owner or operator requests to monitor an alternative operating parameter pursuant to Sec. 63.848(l):

**2. Additional Terms and Conditions (continued)**

1. A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

2. 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

(g) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.

iii. Approval criteria. Upon receipt, the regulatory authority shall review and approve or disapprove the plan or permit application according to the following criteria:

(a) Whether the content of the plan includes all of the information specified in this section; and

(b) Whether the plan or permit application presents sufficient information to determine that compliance will be achieved and maintained.

iv. Prohibitions. The applicable regulatory authority shall not approve an implementation plan or permit application containing any of the following provisions:

(a) 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;

(b) 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;

(c) The inclusion of any potline or anode bake furnace while it is shut down; or

(d) The inclusion of any periods of startup, shutdown, or malfunction, as described in the startup, shutdown, and malfunction plan required by Sec. 63.850(c), in the emission calculations.

v. 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.

(a) The applicable regulatory authority shall approve the plan for the term of the operating permit;

(b) To revise the plan prior to the end of the permit term, the permittee shall submit a request to the applicable regulatory authority; and

(c) The permittee may submit a request to the applicable regulatory authority to implement emission averaging after the applicable compliance date.

vi. Operation. While operating under an approved implementation plan, the permittee shall monitor the operating parameters of each control system, keep records, and submit periodic reports as required for each source subject to this permit.

**2. Additional Terms and Conditions (continued)**

**2.c** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of RACM. These measures shall include, but not be limited to, the following:

i. the use of the individual cells' moveable hoods, skirts, and doors in a manner that contains and captures, to the extent possible with good engineering design and operation, the fumes released from tapping, charging, carbon setting, and all other electrolytic reduction activities; and

ii. all fugitive dust captured within the RACM area shall be vented to the dry scrubber reactor #3 and the baghouses associated, in series, with this emissions unit.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this emissions unit, including, but not limited to: doorways, windows, and roof openings.

## II. Operational Restrictions

**1.** [40 CFR 63.847(e)(5)]
The permittee shall 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 section A.III.5.

**2.** [40 CFR 63.847(e)(6)]
The permittee shall 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.

## III. Monitoring and/or Record Keeping Requirements

**1.** [40 CFR 63.848(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 (7) of this section, the following monitoring devices shall be installed:

a. For dry alumina scrubbers, devices for the measurement of alumina flow and air flow;

b. For dry coke scrubbers, devices for the measurement of coke flow and air flow;

c. For wet scrubbers as the primary control system, devices for the measurement of water flow and air flow;

d. For electrostatic precipitators, devices for the measurement of voltage and secondary current; and

e. 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.

**2.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**3.** [40 CFR 63.848(h)]
Corrective action. If a monitoring device for a primary control device measures an operating parameter outside the limit(s) established pursuant to Sec. 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 the corrective action procedures identified in the startup, shutdown, and malfunction plan 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.

**4.** [40 CFR 63.848(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.

**5.** [40 CFR 63.848(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.

**6.** [40 CFR 63.848(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.

**7.** [40 CFR 63.848(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.

**8.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**9.** [40 CFR 63.850(e)]
Recordkeeping. The owner or operator shall maintain files of all information (including all reports and notifications) required by Sec. 63.10(b) and by this subpart.

a. 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;

b. The owner or operator may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche;

c. The owner or operator may report required information on paper or on a labeled computer disc using commonly available and compatible computer software; and

d. In addition to the general records required by Sec. 63.10(b), the owner or operator shall maintain records of the following information:

i. Daily production rate of aluminum;

ii. A copy of the startup, shutdown, and malfunction plan;

iii. Records of design information for paste production plant capture systems;

iv. 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;

v. Records supporting a request for reduced sampling of potlines;

vi. 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;

vii. The current implementation plan for emission averaging and any subsequent amendments;

viii. 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 Sec. 63.848(f)(5)(ii), including the results of each inspection;

ix. 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 Sec. 63.848(g), including the results of each inspection;

x. For a potline equipped with an HF continuous emission monitor, records of information and data required by Sec. 63.10(c);

xi. Records documenting the corrective actions taken when the limit(s) for an operating parameter established under Sec. 63.847(h) were exceeded, when visible emissions indicating abnormal operation were observed from a control device stack during a daily inspection required under Sec. 63.848(g), or when a problem was detected during the daily inspection of a wet roof scrubber for potline secondary control required in Sec. 63.848(f)(5)(ii);

xii. 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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**10.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the dry scrubber reactor/baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

**11.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**12.** The permittee shall maintain records of the following information for each month:

a. the average SO2 content (in percent sulfur) of the anodes for each shipment of anodes received;

b. the consumption rate of the anodes, in pounds of anodes consumed per pound of aluminum produced;

c. the amount of aluminum produced, in pounds;

d. the total hours of operation; and

e. the average hourly SO2 emission rate, i.e., (a X b X c) / d.

## IV. Reporting Requirements

**1.** [40 CFR 63.850(a)]
Notifications. The owner or operator shall submit the following written notifications:

a. Notification for an area source that subsequently increases its emissions such that the source is a major source subject to the standard;

b. Notification that a source is subject to the standard, where the initial startup is before the effective date of the standard;

c. 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;

d. 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;

e. Notification of initial performance test;

f. Notification of initial compliance status;

g. One-time notification for each affected source of the intent to use an HF continuous emission monitor; and

h. 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 Secs. 63.843, 63.844, and 63.846.

**2.** [40 CFR 63.850(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 section A.IV.1.f. Except as provided in paragraph 4. 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.

**3.** [40 CFR 63.850(c)]
Startup, shutdown, and malfunction plan and reports. The owner or operator shall develop and implement a written plan as described in Sec. 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 appplication or included in the operating permit. The permitting authority may review the plan upon request. In addition to the information required in Sec. 63.6(e)(3), the plan shall include:

a. Procedures, including corrective actions, to be followed if a monitoring device measures an operating parameter outside the limit(s) established under Sec. 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 Sec. 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 Sec. 63.848(f)(5)(ii); and

b. The owner or operator shall also keep records of each event as required by Sec. 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 Sec. 63.6(e)(3)(iv).

## IV. Reporting Requirements (continued)

**4.** [40 CFR 63.850(d)]
Excess emissions report. As required by Sec. 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 Sec. 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions.

**5.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the dry scrubber reactor/baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

**6.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** [40 CFR 63.847(b)]
a. Test plan. The owner or operator shall prepare a site-specific test plan prior to the initial performance test according to the requirements of Sec. 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 Sec. 63.848 for emission monitoring. In addition to the information required by Sec. 63.7, the test plan shall include:

i. Procedures to ensure a minimum of three runs are performed annually for the primary control system for each source;

ii. 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;

iii. 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;

iv. 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.

**2.** [40 CFR 63.847(c)]
Initial performance test. Following approval of the site- specific test plan, the owner or operator shall conduct an initial performance test during the first month following the compliance date in accordance with the procedures in this section. If a performance test has been conducted on the primary control system for potlines within the 12 months prior to the compliance date, the results of that performance test may be used to determine initial compliance.

## V. Testing Requirements (continued)

**3.** [40 CFR 63.847(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 40 CFR Part 63, Subpart A, the approved test plan, and the procedures in this section.

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 40 CFR 63.847(e)(1), 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 Secs. 63.843, 63.844, or 63.846.

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.** [40 CFR 63.847(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 Sec. 63.848(f).

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.

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.

**5.** [40 CFR 63.848(a)]
TF emissions from potlines. Using the procedures in Sec. 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.

## V. Testing Requirements (continued)

**6.** [40 CFR 63.848(d)]
Similar potlines. As an alternative to monthly monitoring of TF or POM secondary emissions from each potline using the test methods in Sec. 63.849, the owner or operator may perform monthly monitoring of TF or POM secondary emissions from one potline using the test methods in Secs. 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 (a.) through (g.) 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.

a. 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 Secs. 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.

b. An HF continuous emission monitoring system is an approved alternative for the monitoring of TF secondary emissions.

c. 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.

d. 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.

e. The owner or operator shall submit the results required in paragraph (d.) of this section and all supporting documentation to the applicable regulatory authority for review and approval.

f. 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.

g. 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.

## V. Testing Requirements (continued)

**7.** [40 CFR 63.848(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.

a. 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 (7)(a)(i) or (7)(a)(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.

b. An approved alternative requirement must include a test schedule and the method to be used to measure emissions for performance tests.

c. The owner or operator of a plant that has received approval of an alternative sampling frequency under Sec. 60.194 of this chapter is deemed to have approval of the alternative sampling frequency under this subpart.

d. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(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.

e. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(ii) of this section, the owner or operator shall immediately return to the monthly sampling schedule required by section A.V.5 until another request for an alternative sampling frequency is approved by the applicable regulatory authority.

**8.** [40 CFR 63.849(a)]
The owner or operator shall use the following reference methods to determine compliance with the applicable emission limits for TF and POM emissions:

a. Method 1 in appendix A to part 60 of this chapter for sample and velocity traverses;

b. Method 2 in appendix A to part 60 of this chapter for velocity and volumetric flow rate;

c. Method 3 in appendix A to part 60 of this chapter for gas analysis;

d. 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; 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.

## V. Testing Requirements (continued)

**9.** [40 CFR 63.849(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.

**10.** [40 CFR 63.849(e)]
The owner or operator may use an alternative test method for TF emissions providing:

a. 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 measurements using the alternative method; or

b. 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 Section A.V.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.

**11.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**11.a** Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

**11.b** Emission Limitation:

12.6 pounds per hour of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission test methods and procedures specified in section A.V.12.

**11.c** Emission Limitation:

240 pounds per hour of sulfur dioxide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monitoring and record keeping requirements specified in section A.III.12. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

## V. Testing Requirements (continued)

**11.d** Emission Limitation:

total flouride in excess of 1.5 kg/Mg (3.0 lb/ton) of aluminum produced for each CWPB2 potline

Applicable Compliance Method:

Compliance shall be demonstrated based upon the requirements specified in sections A.V.1 through A.V.10.

**12.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 12 to 24 months after issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

e. The permittee shall perform visible particulate emission observations in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9 during each emission test run.

Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office as required by 40 CFR 63.1515(a)(6). The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**1.** [40 CFR 63.851(a), 40 CFR 63.851(b)]

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)(i) through (a)(v) of this section or of approval or intent to deny approval of the submissions in paragraphs (a)(i) through (a)(v) 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.

i. The test plan in Sec. 63.847(b);

ii. Request to change limits for operating parameters in Sec. 63.847(h)(3);

iii. Request for similar potline monitoring in Sec. 63.848(d)(5);

iv. Request for reduced sampling frequency in Sec. 63.848(e); and

v. Request for an alternative method in Sec. 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.

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Pots 43-85, 5B (P974)

**Activity Description:** Pots 43-85, 5B

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| alumina reduction potline 5B - consisting of pots 43-85 vented through dry scrubber reactor #6 to the baghouses and then exhausting through a single stack | 40 CFR Part 63, Subpart LL [40 CFR 63.843(a)] | The permittee shall not discharge or cause to be discharged into the atmosphere any emissions of total flouride (TF) in excess of 1.5 kg/Mg (3.0 lbs/ton) of aluminum produced for each CWPB2 potline.<br><br>Any potline, other than a reconstructed potline, that is changed such that its applicable subcategory also changes shall meet the applicable emission limit in 40 CFR Part 63, Subpart LL for the original subcategory or the new subcategory, whichever is more stringent. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-17-11(A)(3) | Particulate emissions shall not exceed 12.6 pounds per hour. |
| | OAC rule 3745-18-06(E)(2) | Sulfur dioxide emissions shall not exceed 240 pounds per hour. |
| | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See section A.I.2.c. |

## 2. Additional Terms and Conditions

**2.a** [40 CFR 63.846(b)]
The permittee of an existing potline or anode bake furnace may demonstrate compliance by emission averaging according to the procedures in this section.

The permittee may average TF emissions from potlines and demonstrate compliance with the limits in Table 1 of 40 CFR Part 63 Subpart LL using the following procedures:

i. Monthly average emissions of TF shall not exceed the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL (for TF 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.

ii. To determine compliance with the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL 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 Secs. 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.

**2.b** [40 CFR 63.846(d)]
Implementation plan. The permittee 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:

i. The permittee must submit the implementation plan no later than 6 months before the date that the facility intends to comply with the emission averaging limits.

ii. The permittee 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:

(a) The identification of all emission sources (potlines or anode bake furnaces) in the average;

(b) The assigned TF emission limit for each averaging group of potlines or anode bake furnaces;

(c) 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;

(d) The test plan for the measurement of TF emissions in accordance with the requirements in Sec. 63.847(b);

(e) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;

(f) If the owner or operator requests to monitor an alternative operating parameter pursuant to Sec. 63.848(l):

**2. Additional Terms and Conditions (continued)**

1. A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

2. 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

(g) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.

iii. Approval criteria. Upon receipt, the regulatory authority shall review and approve or disapprove the plan or permit application according to the following criteria:

(a) Whether the content of the plan includes all of the information specified in this section; and

(b) Whether the plan or permit application presents sufficient information to determine that compliance will be achieved and maintained.

iv. Prohibitions. The applicable regulatory authority shall not approve an implementation plan or permit application containing any of the following provisions:

(a) 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;

(b) 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;

(c) The inclusion of any potline or anode bake furnace while it is shut down; or

(d) The inclusion of any periods of startup, shutdown, or malfunction, as described in the startup, shutdown, and malfunction plan required by Sec. 63.850(c), in the emission calculations.

v. 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.

(a) The applicable regulatory authority shall approve the plan for the term of the operating permit;

(b) To revise the plan prior to the end of the permit term, the permittee shall submit a request to the applicable regulatory authority; and

(c) The permittee may submit a request to the applicable regulatory authority to implement emission averaging after the applicable compliance date.

vi. Operation. While operating under an approved implementation plan, the permittee shall monitor the operating parameters of each control system, keep records, and submit periodic reports as required for each source subject to this permit.

**2. Additional Terms and Conditions (continued)**

**2.c** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of RACM. These measures shall include, but not be limited to, the following:

i. the use of the individual cells' moveable hoods, skirts, and doors in a manner that contains and captures, to the extent possible with good engineering design and operation, the fumes released from tapping, charging, carbon setting, and all other electrolytic reduction activities; and

ii. all fugitive dust captured within the RACM area shall be vented to the dry scrubber reactor #3 and the baghouses associated, in series, with this emissions unit.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this emissions unit, including, but not limited to: doorways, windows, and roof openings.

## II. Operational Restrictions

**1.** [40 CFR 63.847(e)(5)]
The permittee shall 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 section A.III.5.

**2.** [40 CFR 63.847(e)(6)]
The permittee shall 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.

## III. Monitoring and/or Record Keeping Requirements

**1.** [40 CFR 63.848(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 (7) of this section, the following monitoring devices shall be installed:

a. For dry alumina scrubbers, devices for the measurement of alumina flow and air flow;

b. For dry coke scrubbers, devices for the measurement of coke flow and air flow;

c. For wet scrubbers as the primary control system, devices for the measurement of water flow and air flow;

d. For electrostatic precipitators, devices for the measurement of voltage and secondary current; and

e. 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.

**2.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**3.** [40 CFR 63.848(h)]
Corrective action. If a monitoring device for a primary control device measures an operating parameter outside the limit(s) established pursuant to Sec. 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 the corrective action procedures identified in the startup, shutdown, and malfunction plan 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.

**4.** [40 CFR 63.848(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.

**5.** [40 CFR 63.848(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.

**6.** [40 CFR 63.848(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.

**7.** [40 CFR 63.848(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.

**8.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**9.** [40 CFR 63.850(e)]
Recordkeeping. The owner or operator shall maintain files of all information (including all reports and notifications) required by Sec. 63.10(b) and by this subpart.

a. 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;

b. The owner or operator may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche;

c. The owner or operator may report required information on paper or on a labeled computer disc using commonly available and compatible computer software; and

d. In addition to the general records required by Sec. 63.10(b), the owner or operator shall maintain records of the following information:

i. Daily production rate of aluminum;

ii. A copy of the startup, shutdown, and malfunction plan;

iii. Records of design information for paste production plant capture systems;

iv. 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;

v. Records supporting a request for reduced sampling of potlines;

vi. 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;

vii. The current implementation plan for emission averaging and any subsequent amendments;

viii. 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 Sec. 63.848(f)(5)(ii), including the results of each inspection;

ix. 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 Sec. 63.848(g), including the results of each inspection;

x. For a potline equipped with an HF continuous emission monitor, records of information and data required by Sec. 63.10(c);

xi. Records documenting the corrective actions taken when the limit(s) for an operating parameter established under Sec. 63.847(h) were exceeded, when visible emissions indicating abnormal operation were observed from a control device stack during a daily inspection required under Sec. 63.848(g), or when a problem was detected during the daily inspection of a wet roof scrubber for potline secondary control required in Sec. 63.848(f)(5)(ii);

xii. 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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**10.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the dry scrubber reactor/baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

**11.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**12.** The permittee shall maintain records of the following information for each month:

a. the average SO2 content (in percent sulfur) of the anodes for each shipment of anodes received;

b. the consumption rate of the anodes, in pounds of anodes consumed per pound of aluminum produced;

c. the amount of aluminum produced, in pounds;

d. the total hours of operation; and

e. the average hourly SO2 emission rate, i.e., (a X b X c) / d.

## IV. Reporting Requirements

**1.** [40 CFR 63.850(a)]
Notifications. The owner or operator shall submit the following written notifications:

a. Notification for an area source that subsequently increases its emissions such that the source is a major source subject to the standard;

b. Notification that a source is subject to the standard, where the initial startup is before the effective date of the standard;

c. 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;

d. 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;

e. Notification of initial performance test;

f. Notification of initial compliance status;

g. One-time notification for each affected source of the intent to use an HF continuous emission monitor; and

h. 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 Secs. 63.843, 63.844, and 63.846.

**2.** [40 CFR 63.850(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 section A.IV.1.f. Except as provided in paragraph 4. 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.

**3.** [40 CFR 63.850(c)]
Startup, shutdown, and malfunction plan and reports. The owner or operator shall develop and implement a written plan as described in Sec. 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 appplication or included in the operating permit. The permitting authority may review the plan upon request. In addition to the information required in Sec. 63.6(e)(3), the plan shall include:

a. Procedures, including corrective actions, to be followed if a monitoring device measures an operating parameter outside the limit(s) established under Sec. 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 Sec. 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 Sec. 63.848(f)(5)(ii); and

b. The owner or operator shall also keep records of each event as required by Sec. 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 Sec. 63.6(e)(3)(iv).

## IV. Reporting Requirements (continued)

**4.** [40 CFR 63.850(d)]
Excess emissions report. As required by Sec. 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 Sec. 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions.

**5.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the dry scrubber reactor/baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

**6.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** [40 CFR 63.847(b)]
a. Test plan. The owner or operator shall prepare a site-specific test plan prior to the initial performance test according to the requirements of Sec. 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 Sec. 63.848 for emission monitoring. In addition to the information required by Sec. 63.7, the test plan shall include:

i. Procedures to ensure a minimum of three runs are performed annually for the primary control system for each source;

ii. 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;

iii. 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;

iv. 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.

**2.** [40 CFR 63.847(c)]
Initial performance test. Following approval of the site- specific test plan, the owner or operator shall conduct an initial performance test during the first month following the compliance date in accordance with the procedures in this section. If a performance test has been conducted on the primary control system for potlines within the 12 months prior to the compliance date, the results of that performance test may be used to determine initial compliance.

## V. Testing Requirements (continued)

**3.** [40 CFR 63.847(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 40 CFR Part 63, Subpart A, the approved test plan, and the procedures in this section.

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 40 CFR 63.847(e)(1), 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 Secs. 63.843, 63.844, or 63.846.

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.** [40 CFR 63.847(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 Sec. 63.848(f).

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.

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.

**5.** [40 CFR 63.848(a)]
TF emissions from potlines. Using the procedures in Sec. 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.

## V. Testing Requirements (continued)

**6.** [40 CFR 63.848(d)]
Similar potlines. As an alternative to monthly monitoring of TF or POM secondary emissions from each potline using the test methods in Sec. 63.849, the owner or operator may perform monthly monitoring of TF or POM secondary emissions from one potline using the test methods in Secs. 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 (a.) through (g.) 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.

a. 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 Secs. 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.

b. An HF continuous emission monitoring system is an approved alternative for the monitoring of TF secondary emissions.

c. 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.

d. 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.

e. The owner or operator shall submit the results required in paragraph (d.) of this section and all supporting documentation to the applicable regulatory authority for review and approval.

f. 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.

g. 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.

## V. Testing Requirements (continued)

**7.** [40 CFR 63.848(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.

a. 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 (7)(a)(i) or (7)(a)(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.

b. An approved alternative requirement must include a test schedule and the method to be used to measure emissions for performance tests.

c. The owner or operator of a plant that has received approval of an alternative sampling frequency under Sec. 60.194 of this chapter is deemed to have approval of the alternative sampling frequency under this subpart.

d. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(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.

e. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(ii) of this section, the owner or operator shall immediately return to the monthly sampling schedule required by section A.V.5 until another request for an alternative sampling frequency is approved by the applicable regulatory authority.

**8.** [40 CFR 63.849(a)]
The owner or operator shall use the following reference methods to determine compliance with the applicable emission limits for TF and POM emissions:

a. Method 1 in appendix A to part 60 of this chapter for sample and velocity traverses;

b. Method 2 in appendix A to part 60 of this chapter for velocity and volumetric flow rate;

c. Method 3 in appendix A to part 60 of this chapter for gas analysis;

d. 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; 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.

## V. Testing Requirements (continued)

**9.** [40 CFR 63.849(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.

**10.** [40 CFR 63.849(e)]
The owner or operator may use an alternative test method for TF emissions providing:

a. 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 measurements using the alternative method; or

b. 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 Section A.V.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.

**11.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**11.a** Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

**11.b** Emission Limitation:

12.6 pounds per hour of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission test methods and procedures specified in section A.V.12.

**11.c** Emission Limitation:

240 pounds per hour of sulfur dioxide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monitoring and record keeping requirements specified in section A.III.12. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

## V. Testing Requirements (continued)

**11.d** Emission Limitation:

total flouride in excess of 1.5 kg/Mg (3.0 lb/ton) of aluminum produced for each CWPB2 potline

Applicable Compliance Method:

Compliance shall be demonstrated based upon the requirements specified in sections A.V.1 through A.V.10.

**12.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 12 to 24 months after issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

e. The permittee shall perform visible particulate emission observations in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9 during each emission test run.

Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office as required by 40 CFR 63.1515(a)(6). The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**1.** [40 CFR 63.851(a), 40 CFR 63.851(b)]

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)(i) through (a)(v) of this section or of approval or intent to deny approval of the submissions in paragraphs (a)(i) through (a)(v) 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.

i. The test plan in Sec. 63.847(b);

ii. Request to change limits for operating parameters in Sec. 63.847(h)(3);

iii. Request for similar potline monitoring in Sec. 63.848(d)(5);

iv. Request for reduced sampling frequency in Sec. 63.848(e); and

v. Request for an alternative method in Sec. 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.

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Pots 0-42, 6A (P975)

**Activity Description:** Pots 0-42, 6A

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| alumina reduction potline 6A - consisting of pots 0-42 vented through dry scrubber reactor #1 to the baghouses and then exhausting through a single stack | 40 CFR Part 63, Subpart LL [40 CFR 63.843(a)] | The permittee shall not discharge or cause to be discharged into the atmosphere any emissions of total flouride (TF) in excess of 1.5 kg/Mg (3.0 lbs/ton) of aluminum produced for each CWPB2 potline.<br><br>Any potline, other than a reconstructed potline, that is changed such that its applicable subcategory also changes shall meet the applicable emission limit in 40 CFR Part 63, Subpart LL for the original subcategory or the new subcategory, whichever is more stringent. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-17-11(A)(3) | Particulate emissions shall not exceed 12.6 pounds per hour. |
| | OAC rule 3745-18-06(E)(2) | Sulfur dioxide emissions shall not exceed 240 pounds per hour. |
| | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See section A.I.2.c. |

## 2. Additional Terms and Conditions

**2.a** [40 CFR 63.846(b)]
The permittee of an existing potline or anode bake furnace may demonstrate compliance by emission averaging according to the procedures in this section.

The permittee may average TF emissions from potlines and demonstrate compliance with the limits in Table 1 of 40 CFR Part 63 Subpart LL using the following procedures:

i. Monthly average emissions of TF shall not exceed the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL (for TF 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.

ii. To determine compliance with the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL 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 Secs. 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.

**2.b** [40 CFR 63.846(d)]
Implementation plan. The permittee 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:

i. The permittee must submit the implementation plan no later than 6 months before the date that the facility intends to comply with the emission averaging limits.

ii. The permittee 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:

(a) The identification of all emission sources (potlines or anode bake furnaces) in the average;

(b) The assigned TF emission limit for each averaging group of potlines or anode bake furnaces;

(c) 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;

(d) The test plan for the measurement of TF emissions in accordance with the requirements in Sec. 63.847(b);

(e) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;

(f) If the owner or operator requests to monitor an alternative operating parameter pursuant to Sec. 63.848(l):

**2. Additional Terms and Conditions (continued)**

1. A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

2. 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

(g) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.

iii. Approval criteria. Upon receipt, the regulatory authority shall review and approve or disapprove the plan or permit application according to the following criteria:

(a) Whether the content of the plan includes all of the information specified in this section; and

(b) Whether the plan or permit application presents sufficient information to determine that compliance will be achieved and maintained.

iv. Prohibitions. The applicable regulatory authority shall not approve an implementation plan or permit application containing any of the following provisions:

(a) 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;

(b) 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;

(c) The inclusion of any potline or anode bake furnace while it is shut down; or

(d) The inclusion of any periods of startup, shutdown, or malfunction, as described in the startup, shutdown, and malfunction plan required by Sec. 63.850(c), in the emission calculations.

v. 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.

(a) The applicable regulatory authority shall approve the plan for the term of the operating permit;

(b) To revise the plan prior to the end of the permit term, the permittee shall submit a request to the applicable regulatory authority; and

(c) The permittee may submit a request to the applicable regulatory authority to implement emission averaging after the applicable compliance date.

vi. Operation. While operating under an approved implementation plan, the permittee shall monitor the operating parameters of each control system, keep records, and submit periodic reports as required for each source subject to this permit.

**2. Additional Terms and Conditions (continued)**

**2.c** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of RACM. These measures shall include, but not be limited to, the following:

i. the use of the individual cells' moveable hoods, skirts, and doors in a manner that contains and captures, to the extent possible with good engineering design and operation, the fumes released from tapping, charging, carbon setting, and all other electrolytic reduction activities; and

ii. all fugitive dust captured within the RACM area shall be vented to the dry scrubber reactor #3 and the baghouses associated, in series, with this emissions unit.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this emissions unit, including, but not limited to: doorways, windows, and roof openings.

## II. Operational Restrictions

**1.** [40 CFR 63.847(e)(5)]
The permittee shall 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 section A.III.5.

**2.** [40 CFR 63.847(e)(6)]
The permittee shall 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.

## III. Monitoring and/or Record Keeping Requirements

**1.** [40 CFR 63.848(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 (7) of this section, the following monitoring devices shall be installed:

a. For dry alumina scrubbers, devices for the measurement of alumina flow and air flow;

b. For dry coke scrubbers, devices for the measurement of coke flow and air flow;

c. For wet scrubbers as the primary control system, devices for the measurement of water flow and air flow;

d. For electrostatic precipitators, devices for the measurement of voltage and secondary current; and

e. 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.

**2.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**3.** [40 CFR 63.848(h)]
Corrective action. If a monitoring device for a primary control device measures an operating parameter outside the limit(s) established pursuant to Sec. 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 the corrective action procedures identified in the startup, shutdown, and malfunction plan 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.

**4.** [40 CFR 63.848(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.

**5.** [40 CFR 63.848(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.

**6.** [40 CFR 63.848(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.

**7.** [40 CFR 63.848(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.

**8.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**9.** [40 CFR 63.850(e)]
Recordkeeping. The owner or operator shall maintain files of all information (including all reports and notifications) required by Sec. 63.10(b) and by this subpart.

a. 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;

b. The owner or operator may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche;

c. The owner or operator may report required information on paper or on a labeled computer disc using commonly available and compatible computer software; and

d. In addition to the general records required by Sec. 63.10(b), the owner or operator shall maintain records of the following information:

i. Daily production rate of aluminum;

ii. A copy of the startup, shutdown, and malfunction plan;

iii. Records of design information for paste production plant capture systems;

iv. 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;

v. Records supporting a request for reduced sampling of potlines;

vi. 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;

vii. The current implementation plan for emission averaging and any subsequent amendments;

viii. 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 Sec. 63.848(f)(5)(ii), including the results of each inspection;

ix. 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 Sec. 63.848(g), including the results of each inspection;

x. For a potline equipped with an HF continuous emission monitor, records of information and data required by Sec. 63.10(c);

xi. Records documenting the corrective actions taken when the limit(s) for an operating parameter established under Sec. 63.847(h) were exceeded, when visible emissions indicating abnormal operation were observed from a control device stack during a daily inspection required under Sec. 63.848(g), or when a problem was detected during the daily inspection of a wet roof scrubber for potline secondary control required in Sec. 63.848(f)(5)(ii);

xii. 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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**10.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the dry scrubber reactor/baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

**11.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**12.** The permittee shall maintain records of the following information for each month:

a. the average SO2 content (in percent sulfur) of the anodes for each shipment of anodes received;

b. the consumption rate of the anodes, in pounds of anodes consumed per pound of aluminum produced;

c. the amount of aluminum produced, in pounds;

d. the total hours of operation; and

e. the average hourly SO2 emission rate, i.e., (a X b X c) / d.

## IV. Reporting Requirements

**1.** [40 CFR 63.850(a)]
Notifications. The owner or operator shall submit the following written notifications:

a. Notification for an area source that subsequently increases its emissions such that the source is a major source subject to the standard;

b. Notification that a source is subject to the standard, where the initial startup is before the effective date of the standard;

c. 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;

d. 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;

e. Notification of initial performance test;

f. Notification of initial compliance status;

g. One-time notification for each affected source of the intent to use an HF continuous emission monitor; and

h. 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 Secs. 63.843, 63.844, and 63.846.

**2.** [40 CFR 63.850(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 section A.IV.1.f. Except as provided in paragraph 4. 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.

**3.** [40 CFR 63.850(c)]
Startup, shutdown, and malfunction plan and reports. The owner or operator shall develop and implement a written plan as described in Sec. 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 appplication or included in the operating permit. The permitting authority may review the plan upon request. In addition to the information required in Sec. 63.6(e)(3), the plan shall include:

a. Procedures, including corrective actions, to be followed if a monitoring device measures an operating parameter outside the limit(s) established under Sec. 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 Sec. 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 Sec. 63.848(f)(5)(ii); and

b. The owner or operator shall also keep records of each event as required by Sec. 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 Sec. 63.6(e)(3)(iv).

## IV. Reporting Requirements (continued)

**4.** [40 CFR 63.850(d)]
Excess emissions report. As required by Sec. 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 Sec. 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions.

**5.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the dry scrubber reactor/baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

**6.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** [40 CFR 63.847(b)]
a. Test plan. The owner or operator shall prepare a site-specific test plan prior to the initial performance test according to the requirements of Sec. 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 Sec. 63.848 for emission monitoring. In addition to the information required by Sec. 63.7, the test plan shall include:

i. Procedures to ensure a minimum of three runs are performed annually for the primary control system for each source;

ii. 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;

iii. 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;

iv. 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.

**2.** [40 CFR 63.847(c)]
Initial performance test. Following approval of the site- specific test plan, the owner or operator shall conduct an initial performance test during the first month following the compliance date in accordance with the procedures in this section. If a performance test has been conducted on the primary control system for potlines within the 12 months prior to the compliance date, the results of that performance test may be used to determine initial compliance.

## V. Testing Requirements (continued)

**3.** [40 CFR 63.847(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 40 CFR Part 63, Subpart A, the approved test plan, and the procedures in this section.

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 40 CFR 63.847(e)(1), 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 Secs. 63.843, 63.844, or 63.846.

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.** [40 CFR 63.847(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 Sec. 63.848(f).

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.

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.

**5.** [40 CFR 63.848(a)]
TF emissions from potlines. Using the procedures in Sec. 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.

## V. Testing Requirements (continued)

**6.** [40 CFR 63.848(d)]
Similar potlines. As an alternative to monthly monitoring of TF or POM secondary emissions from each potline using the test methods in Sec. 63.849, the owner or operator may perform monthly monitoring of TF or POM secondary emissions from one potline using the test methods in Secs. 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 (a.) through (g.) 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.

a. 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 Secs. 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.

b. An HF continuous emission monitoring system is an approved alternative for the monitoring of TF secondary emissions.

c. 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.

d. 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.

e. The owner or operator shall submit the results required in paragraph (d.) of this section and all supporting documentation to the applicable regulatory authority for review and approval.

f. 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.

g. 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.

## V. Testing Requirements (continued)

**7.** [40 CFR 63.848(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.

a. 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 (7)(a)(i) or (7)(a)(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.

b. An approved alternative requirement must include a test schedule and the method to be used to measure emissions for performance tests.

c. The owner or operator of a plant that has received approval of an alternative sampling frequency under Sec. 60.194 of this chapter is deemed to have approval of the alternative sampling frequency under this subpart.

d. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(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.

e. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(ii) of this section, the owner or operator shall immediately return to the monthly sampling schedule required by section A.V.5 until another request for an alternative sampling frequency is approved by the applicable regulatory authority.

**8.** [40 CFR 63.849(a)]
The owner or operator shall use the following reference methods to determine compliance with the applicable emission limits for TF and POM emissions:

a. Method 1 in appendix A to part 60 of this chapter for sample and velocity traverses;

b. Method 2 in appendix A to part 60 of this chapter for velocity and volumetric flow rate;

c. Method 3 in appendix A to part 60 of this chapter for gas analysis;

d. 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; 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.

## V. Testing Requirements (continued)

**9.** [40 CFR 63.849(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.

**10.** [40 CFR 63.849(e)]
The owner or operator may use an alternative test method for TF emissions providing:

a. 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 measurements using the alternative method; or

b. 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 Section A.V.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.

**11.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**11.a** Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

**11.b** Emission Limitation:

12.6 pounds per hour of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission test methods and procedures specified in section A.V.12.

**11.c** Emission Limitation:

240 pounds per hour of sulfur dioxide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monitoring and record keeping requirements specified in section A.III.12. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

## V. Testing Requirements (continued)

**11.d** Emission Limitation:

total flouride in excess of 1.5 kg/Mg (3.0 lb/ton) of aluminum produced for each CWPB2 potline

Applicable Compliance Method:

Compliance shall be demonstrated based upon the requirements specified in sections A.V.1 through A.V.10.

**12.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 12 to 24 months after issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

e. The permittee shall perform visible particulate emission observations in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9 during each emission test run.

Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office as required by 40 CFR 63.1515(a)(6). The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**1.** [40 CFR 63.851(a), 40 CFR 63.851(b)]

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)(i) through (a)(v) of this section or of approval or intent to deny approval of the submissions in paragraphs (a)(i) through (a)(v) 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.

i. The test plan in Sec. 63.847(b);

ii. Request to change limits for operating parameters in Sec. 63.847(h)(3);

iii. Request for similar potline monitoring in Sec. 63.848(d)(5);

iv. Request for reduced sampling frequency in Sec. 63.848(e); and

v. Request for an alternative method in Sec. 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.

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Pots 43-85, 6A (P976)

**Activity Description:** Pots 43-85, 6A

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| alumina reduction potline 6A - consisting of pots 43-85 vented through dry scrubber reactor #6 to the baghouses and then exhausting through a single stack | 40 CFR Part 63, Subpart LL [40 CFR 63.843(a)] | The permittee shall not discharge or cause to be discharged into the atmosphere any emissions of total flouride (TF) in excess of 1.5 kg/Mg (3.0 lbs/ton) of aluminum produced for each CWPB2 potline.<br><br>Any potline, other than a reconstructed potline, that is changed such that its applicable subcategory also changes shall meet the applicable emission limit in 40 CFR Part 63, Subpart LL for the original subcategory or the new subcategory, whichever is more stringent. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-17-11(A)(3) | Particulate emissions shall not exceed 12.6 pounds per hour. |
| | OAC rule 3745-18-06(E)(2) | Sulfur dioxide emissions shall not exceed 240 pounds per hour. |
| | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See section A.I.2.c. |

## 2. Additional Terms and Conditions

**2.a** [40 CFR 63.846(b)]
The permittee of an existing potline or anode bake furnace may demonstrate compliance by emission averaging according to the procedures in this section.

The permittee may average TF emissions from potlines and demonstrate compliance with the limits in Table 1 of 40 CFR Part 63 Subpart LL using the following procedures:

i. Monthly average emissions of TF shall not exceed the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL (for TF 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.

ii. To determine compliance with the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL 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 Secs. 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.

**2.b** [40 CFR 63.846(d)]
Implementation plan. The permittee 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:

i. The permittee must submit the implementation plan no later than 6 months before the date that the facility intends to comply with the emission averaging limits.

ii. The permittee 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:

(a) The identification of all emission sources (potlines or anode bake furnaces) in the average;

(b) The assigned TF emission limit for each averaging group of potlines or anode bake furnaces;

(c) 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;

(d) The test plan for the measurement of TF emissions in accordance with the requirements in Sec. 63.847(b);

(e) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;

(f) If the owner or operator requests to monitor an alternative operating parameter pursuant to Sec. 63.848(l):

**2. Additional Terms and Conditions (continued)**

1. A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

2. 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

(g) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.

iii. Approval criteria. Upon receipt, the regulatory authority shall review and approve or disapprove the plan or permit application according to the following criteria:

(a) Whether the content of the plan includes all of the information specified in this section; and

(b) Whether the plan or permit application presents sufficient information to determine that compliance will be achieved and maintained.

iv. Prohibitions. The applicable regulatory authority shall not approve an implementation plan or permit application containing any of the following provisions:

(a) 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;

(b) 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;

(c) The inclusion of any potline or anode bake furnace while it is shut down; or

(d) The inclusion of any periods of startup, shutdown, or malfunction, as described in the startup, shutdown, and malfunction plan required by Sec. 63.850(c), in the emission calculations.

v. 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.

(a) The applicable regulatory authority shall approve the plan for the term of the operating permit;

(b) To revise the plan prior to the end of the permit term, the permittee shall submit a request to the applicable regulatory authority; and

(c) The permittee may submit a request to the applicable regulatory authority to implement emission averaging after the applicable compliance date.

vi. Operation. While operating under an approved implementation plan, the permittee shall monitor the operating parameters of each control system, keep records, and submit periodic reports as required for each source subject to this permit.

**2. Additional Terms and Conditions (continued)**

**2.c** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of RACM. These measures shall include, but not be limited to, the following:

i. the use of the individual cells' moveable hoods, skirts, and doors in a manner that contains and captures, to the extent possible with good engineering design and operation, the fumes released from tapping, charging, carbon setting, and all other electrolytic reduction activities; and

ii. all fugitive dust captured within the RACM area shall be vented to the dry scrubber reactor #3 and the baghouses associated, in series, with this emissions unit.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this emissions unit, including, but not limited to: doorways, windows, and roof openings.

## II. Operational Restrictions

**1.** [40 CFR 63.847(e)(5)]
The permittee shall 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 section A.III.5.

**2.** [40 CFR 63.847(e)(6)]
The permittee shall 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.

## III. Monitoring and/or Record Keeping Requirements

**1.** [40 CFR 63.848(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 (7) of this section, the following monitoring devices shall be installed:

a. For dry alumina scrubbers, devices for the measurement of alumina flow and air flow;

b. For dry coke scrubbers, devices for the measurement of coke flow and air flow;

c. For wet scrubbers as the primary control system, devices for the measurement of water flow and air flow;

d. For electrostatic precipitators, devices for the measurement of voltage and secondary current; and

e. 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.

**2.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**3.** [40 CFR 63.848(h)]
Corrective action. If a monitoring device for a primary control device measures an operating parameter outside the limit(s) established pursuant to Sec. 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 the corrective action procedures identified in the startup, shutdown, and malfunction plan 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.

**4.** [40 CFR 63.848(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.

**5.** [40 CFR 63.848(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.

**6.** [40 CFR 63.848(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.

**7.** [40 CFR 63.848(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.

**8.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**9.** [40 CFR 63.850(e)]
Recordkeeping. The owner or operator shall maintain files of all information (including all reports and notifications) required by Sec. 63.10(b) and by this subpart.

a. 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;

b. The owner or operator may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche;

c. The owner or operator may report required information on paper or on a labeled computer disc using commonly available and compatible computer software; and

d. In addition to the general records required by Sec. 63.10(b), the owner or operator shall maintain records of the following information:

i. Daily production rate of aluminum;

ii. A copy of the startup, shutdown, and malfunction plan;

iii. Records of design information for paste production plant capture systems;

iv. 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;

v. Records supporting a request for reduced sampling of potlines;

vi. 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;

vii. The current implementation plan for emission averaging and any subsequent amendments;

viii. 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 Sec. 63.848(f)(5)(ii), including the results of each inspection;

ix. 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 Sec. 63.848(g), including the results of each inspection;

x. For a potline equipped with an HF continuous emission monitor, records of information and data required by Sec. 63.10(c);

xi. Records documenting the corrective actions taken when the limit(s) for an operating parameter established under Sec. 63.847(h) were exceeded, when visible emissions indicating abnormal operation were observed from a control device stack during a daily inspection required under Sec. 63.848(g), or when a problem was detected during the daily inspection of a wet roof scrubber for potline secondary control required in Sec. 63.848(f)(5)(ii);

xii. 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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**10.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the dry scrubber reactor/baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

**11.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**12.** The permittee shall maintain records of the following information for each month:

a. the average SO2 content (in percent sulfur) of the anodes for each shipment of anodes received;

b. the consumption rate of the anodes, in pounds of anodes consumed per pound of aluminum produced;

c. the amount of aluminum produced, in pounds;

d. the total hours of operation; and

e. the average hourly SO2 emission rate, i.e., (a X b X c) / d.

## IV. Reporting Requirements

**1.** [40 CFR 63.850(a)]
Notifications. The owner or operator shall submit the following written notifications:

a. Notification for an area source that subsequently increases its emissions such that the source is a major source subject to the standard;

b. Notification that a source is subject to the standard, where the initial startup is before the effective date of the standard;

c. 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;

d. 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;

e. Notification of initial performance test;

f. Notification of initial compliance status;

g. One-time notification for each affected source of the intent to use an HF continuous emission monitor; and

h. 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 Secs. 63.843, 63.844, and 63.846.

**2.** [40 CFR 63.850(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 section A.IV.1.f. Except as provided in paragraph 4. 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.

**3.** [40 CFR 63.850(c)]
Startup, shutdown, and malfunction plan and reports. The owner or operator shall develop and implement a written plan as described in Sec. 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 appplication or included in the operating permit. The permitting authority may review the plan upon request. In addition to the information required in Sec. 63.6(e)(3), the plan shall include:

a. Procedures, including corrective actions, to be followed if a monitoring device measures an operating parameter outside the limit(s) established under Sec. 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 Sec. 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 Sec. 63.848(f)(5)(ii); and

b. The owner or operator shall also keep records of each event as required by Sec. 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 Sec. 63.6(e)(3)(iv).

## IV. Reporting Requirements (continued)

**4.** [40 CFR 63.850(d)]
Excess emissions report. As required by Sec. 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 Sec. 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions.

**5.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the dry scrubber reactor/baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

**6.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** [40 CFR 63.847(b)]
a. Test plan. The owner or operator shall prepare a site-specific test plan prior to the initial performance test according to the requirements of Sec. 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 Sec. 63.848 for emission monitoring. In addition to the information required by Sec. 63.7, the test plan shall include:

i. Procedures to ensure a minimum of three runs are performed annually for the primary control system for each source;

ii. 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;

iii. 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;

iv. 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.

**2.** [40 CFR 63.847(c)]
Initial performance test. Following approval of the site- specific test plan, the owner or operator shall conduct an initial performance test during the first month following the compliance date in accordance with the procedures in this section. If a performance test has been conducted on the primary control system for potlines within the 12 months prior to the compliance date, the results of that performance test may be used to determine initial compliance.

## V. Testing Requirements (continued)

**3.** [40 CFR 63.847(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 40 CFR Part 63, Subpart A, the approved test plan, and the procedures in this section.

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 40 CFR 63.847(e)(1), 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 Secs. 63.843, 63.844, or 63.846.

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.** [40 CFR 63.847(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 Sec. 63.848(f).

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.

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.

**5.** [40 CFR 63.848(a)]
TF emissions from potlines. Using the procedures in Sec. 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.

## V. Testing Requirements (continued)

**6.** [40 CFR 63.848(d)]
Similar potlines. As an alternative to monthly monitoring of TF or POM secondary emissions from each potline using the test methods in Sec. 63.849, the owner or operator may perform monthly monitoring of TF or POM secondary emissions from one potline using the test methods in Secs. 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 (a.) through (g.) 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.

a. 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 Secs. 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.

b. An HF continuous emission monitoring system is an approved alternative for the monitoring of TF secondary emissions.

c. 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.

d. 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.

e. The owner or operator shall submit the results required in paragraph (d.) of this section and all supporting documentation to the applicable regulatory authority for review and approval.

f. 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.

g. 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.

## V. Testing Requirements (continued)

**7.** [40 CFR 63.848(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.

a. 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 (7)(a)(i) or (7)(a)(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.

b. An approved alternative requirement must include a test schedule and the method to be used to measure emissions for performance tests.

c. The owner or operator of a plant that has received approval of an alternative sampling frequency under Sec. 60.194 of this chapter is deemed to have approval of the alternative sampling frequency under this subpart.

d. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(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.

e. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(ii) of this section, the owner or operator shall immediately return to the monthly sampling schedule required by section A.V.5 until another request for an alternative sampling frequency is approved by the applicable regulatory authority.

**8.** [40 CFR 63.849(a)]
The owner or operator shall use the following reference methods to determine compliance with the applicable emission limits for TF and POM emissions:

a. Method 1 in appendix A to part 60 of this chapter for sample and velocity traverses;

b. Method 2 in appendix A to part 60 of this chapter for velocity and volumetric flow rate;

c. Method 3 in appendix A to part 60 of this chapter for gas analysis;

d. 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; 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.

## V. Testing Requirements (continued)

**9.** [40 CFR 63.849(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.

**10.** [40 CFR 63.849(e)]
The owner or operator may use an alternative test method for TF emissions providing:

a. 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 measurements using the alternative method; or

b. 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 Section A.V.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.

**11.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**11.a** Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

**11.b** Emission Limitation:

12.6 pounds per hour of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission test methods and procedures specified in section A.V.12.

**11.c** Emission Limitation:

240 pounds per hour of sulfur dioxide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monitoring and record keeping requirements specified in section A.III.12. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

## V. Testing Requirements (continued)

**11.d** Emission Limitation:

total flouride in excess of 1.5 kg/Mg (3.0 lb/ton) of aluminum produced for each CWPB2 potline

Applicable Compliance Method:

Compliance shall be demonstrated based upon the requirements specified in sections A.V.1 through A.V.10.

**12.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 12 to 24 months after issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

e. The permittee shall perform visible particulate emission observations in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9 during each emission test run.

Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office as required by 40 CFR 63.1515(a)(6). The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**1.** [40 CFR 63.851(a), 40 CFR 63.851(b)]

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)(i) through (a)(v) of this section or of approval or intent to deny approval of the submissions in paragraphs (a)(i) through (a)(v) 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.

i. The test plan in Sec. 63.847(b);

ii. Request to change limits for operating parameters in Sec. 63.847(h)(3);

iii. Request for similar potline monitoring in Sec. 63.848(d)(5);

iv. Request for reduced sampling frequency in Sec. 63.848(e); and

v. Request for an alternative method in Sec. 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.

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Pots 0-42, 6B (P977)

**Activity Description:** Pots 0-42, 6B

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| alumina reduction potline 6B - consisting of pots 0-42 vented through dry scrubber reactor #1 to the baghouses and then exhausting through a single stack | 40 CFR Part 63, Subpart LL [40 CFR 63.843(a)] | The permittee shall not discharge or cause to be discharged into the atmosphere any emissions of total flouride (TF) in excess of 1.5 kg/Mg (3.0 lbs/ton) of aluminum produced for each CWPB2 potline.<br><br>Any potline, other than a reconstructed potline, that is changed such that its applicable subcategory also changes shall meet the applicable emission limit in 40 CFR Part 63, Subpart LL for the original subcategory or the new subcategory, whichever is more stringent. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-17-11(A)(3) | Particulate emissions shall not exceed 12.6 pounds per hour. |
| | OAC rule 3745-18-06(E)(2) | Sulfur dioxide emissions shall not exceed 240 pounds per hour. |
| | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See section A.I.2.c. |

## 2. Additional Terms and Conditions

**2.a** [40 CFR 63.846(b)]
The permittee of an existing potline or anode bake furnace may demonstrate compliance by emission averaging according to the procedures in this section.

The permittee may average TF emissions from potlines and demonstrate compliance with the limits in Table 1 of 40 CFR Part 63 Subpart LL using the following procedures:

i. Monthly average emissions of TF shall not exceed the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL (for TF 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.

ii. To determine compliance with the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL 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 Secs. 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.

**2.b** [40 CFR 63.846(d)]
Implementation plan. The permittee 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:

i. The permittee must submit the implementation plan no later than 6 months before the date that the facility intends to comply with the emission averaging limits.

ii. The permittee 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:

(a) The identification of all emission sources (potlines or anode bake furnaces) in the average;

(b) The assigned TF emission limit for each averaging group of potlines or anode bake furnaces;

(c) 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;

(d) The test plan for the measurement of TF emissions in accordance with the requirements in Sec. 63.847(b);

(e) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;

(f) If the owner or operator requests to monitor an alternative operating parameter pursuant to Sec. 63.848(l):

**2. Additional Terms and Conditions (continued)**

1. A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

2. 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

(g) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.

iii. Approval criteria. Upon receipt, the regulatory authority shall review and approve or disapprove the plan or permit application according to the following criteria:

(a) Whether the content of the plan includes all of the information specified in this section; and

(b) Whether the plan or permit application presents sufficient information to determine that compliance will be achieved and maintained.

iv. Prohibitions. The applicable regulatory authority shall not approve an implementation plan or permit application containing any of the following provisions:

(a) 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;

(b) 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;

(c) The inclusion of any potline or anode bake furnace while it is shut down; or

(d) The inclusion of any periods of startup, shutdown, or malfunction, as described in the startup, shutdown, and malfunction plan required by Sec. 63.850(c), in the emission calculations.

v. 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.

(a) The applicable regulatory authority shall approve the plan for the term of the operating permit;

(b) To revise the plan prior to the end of the permit term, the permittee shall submit a request to the applicable regulatory authority; and

(c) The permittee may submit a request to the applicable regulatory authority to implement emission averaging after the applicable compliance date.

vi. Operation. While operating under an approved implementation plan, the permittee shall monitor the operating parameters of each control system, keep records, and submit periodic reports as required for each source subject to this permit.

**2. Additional Terms and Conditions (continued)**

**2.c** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of RACM. These measures shall include, but not be limited to, the following:

i. the use of the individual cells' moveable hoods, skirts, and doors in a manner that contains and captures, to the extent possible with good engineering design and operation, the fumes released from tapping, charging, carbon setting, and all other electrolytic reduction activities; and

ii. all fugitive dust captured within the RACM area shall be vented to the dry scrubber reactor #3 and the baghouses associated, in series, with this emissions unit.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this emissions unit, including, but not limited to: doorways, windows, and roof openings.

## II. Operational Restrictions

**1.** [40 CFR 63.847(e)(5)]
The permittee shall 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 section A.III.5.

**2.** [40 CFR 63.847(e)(6)]
The permittee shall 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.

## III. Monitoring and/or Record Keeping Requirements

**1.** [40 CFR 63.848(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 (7) of this section, the following monitoring devices shall be installed:

a. For dry alumina scrubbers, devices for the measurement of alumina flow and air flow;

b. For dry coke scrubbers, devices for the measurement of coke flow and air flow;

c. For wet scrubbers as the primary control system, devices for the measurement of water flow and air flow;

d. For electrostatic precipitators, devices for the measurement of voltage and secondary current; and

e. 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.

**2.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**3.** [40 CFR 63.848(h)]
Corrective action. If a monitoring device for a primary control device measures an operating parameter outside the limit(s) established pursuant to Sec. 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 the corrective action procedures identified in the startup, shutdown, and malfunction plan 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.

**4.** [40 CFR 63.848(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.

**5.** [40 CFR 63.848(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.

**6.** [40 CFR 63.848(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.

**7.** [40 CFR 63.848(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.

**8.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**9.** [40 CFR 63.850(e)]
Recordkeeping. The owner or operator shall maintain files of all information (including all reports and notifications) required by Sec. 63.10(b) and by this subpart.

a. 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;

b. The owner or operator may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche;

c. The owner or operator may report required information on paper or on a labeled computer disc using commonly available and compatible computer software; and

d. In addition to the general records required by Sec. 63.10(b), the owner or operator shall maintain records of the following information:

i. Daily production rate of aluminum;

ii. A copy of the startup, shutdown, and malfunction plan;

iii. Records of design information for paste production plant capture systems;

iv. 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;

v. Records supporting a request for reduced sampling of potlines;

vi. 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;

vii. The current implementation plan for emission averaging and any subsequent amendments;

viii. 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 Sec. 63.848(f)(5)(ii), including the results of each inspection;

ix. 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 Sec. 63.848(g), including the results of each inspection;

x. For a potline equipped with an HF continuous emission monitor, records of information and data required by Sec. 63.10(c);

xi. Records documenting the corrective actions taken when the limit(s) for an operating parameter established under Sec. 63.847(h) were exceeded, when visible emissions indicating abnormal operation were observed from a control device stack during a daily inspection required under Sec. 63.848(g), or when a problem was detected during the daily inspection of a wet roof scrubber for potline secondary control required in Sec. 63.848(f)(5)(ii);

xii. 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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**10.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the dry scrubber reactor/baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

**11.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**12.** The permittee shall maintain records of the following information for each month:

a. the average SO2 content (in percent sulfur) of the anodes for each shipment of anodes received;

b. the consumption rate of the anodes, in pounds of anodes consumed per pound of aluminum produced;

c. the amount of aluminum produced, in pounds;

d. the total hours of operation; and

e. the average hourly SO2 emission rate, i.e., (a X b X c) / d.

## IV. Reporting Requirements

**1.** [40 CFR 63.850(a)]
Notifications. The owner or operator shall submit the following written notifications:

a. Notification for an area source that subsequently increases its emissions such that the source is a major source subject to the standard;

b. Notification that a source is subject to the standard, where the initial startup is before the effective date of the standard;

c. 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;

d. 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;

e. Notification of initial performance test;

f. Notification of initial compliance status;

g. One-time notification for each affected source of the intent to use an HF continuous emission monitor; and

h. 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 Secs. 63.843, 63.844, and 63.846.

**2.** [40 CFR 63.850(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 section A.IV.1.f. Except as provided in paragraph 4. 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.

**3.** [40 CFR 63.850(c)]
Startup, shutdown, and malfunction plan and reports. The owner or operator shall develop and implement a written plan as described in Sec. 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 appplication or included in the operating permit. The permitting authority may review the plan upon request. In addition to the information required in Sec. 63.6(e)(3), the plan shall include:

a. Procedures, including corrective actions, to be followed if a monitoring device measures an operating parameter outside the limit(s) established under Sec. 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 Sec. 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 Sec. 63.848(f)(5)(ii); and

b. The owner or operator shall also keep records of each event as required by Sec. 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 Sec. 63.6(e)(3)(iv).

## IV. Reporting Requirements (continued)

**4.** [40 CFR 63.850(d)]
Excess emissions report. As required by Sec. 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 Sec. 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions.

**5.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the dry scrubber reactor/baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

**6.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** [40 CFR 63.847(b)]
a. Test plan. The owner or operator shall prepare a site-specific test plan prior to the initial performance test according to the requirements of Sec. 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 Sec. 63.848 for emission monitoring. In addition to the information required by Sec. 63.7, the test plan shall include:

i. Procedures to ensure a minimum of three runs are performed annually for the primary control system for each source;

ii. 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;

iii. 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;

iv. 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.

**2.** [40 CFR 63.847(c)]
Initial performance test. Following approval of the site- specific test plan, the owner or operator shall conduct an initial performance test during the first month following the compliance date in accordance with the procedures in this section. If a performance test has been conducted on the primary control system for potlines within the 12 months prior to the compliance date, the results of that performance test may be used to determine initial compliance.

## V. Testing Requirements (continued)

**3.** [40 CFR 63.847(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 40 CFR Part 63, Subpart A, the approved test plan, and the procedures in this section.

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 40 CFR 63.847(e)(1), 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 Secs. 63.843, 63.844, or 63.846.

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.** [40 CFR 63.847(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 Sec. 63.848(f).

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.

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.

**5.** [40 CFR 63.848(a)]
TF emissions from potlines. Using the procedures in Sec. 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.

## V. Testing Requirements (continued)

**6.** [40 CFR 63.848(d)]
Similar potlines. As an alternative to monthly monitoring of TF or POM secondary emissions from each potline using the test methods in Sec. 63.849, the owner or operator may perform monthly monitoring of TF or POM secondary emissions from one potline using the test methods in Secs. 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 (a.) through (g.) 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.

a. 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 Secs. 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.

b. An HF continuous emission monitoring system is an approved alternative for the monitoring of TF secondary emissions.

c. 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.

d. 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.

e. The owner or operator shall submit the results required in paragraph (d.) of this section and all supporting documentation to the applicable regulatory authority for review and approval.

f. 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.

g. 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.

## V. Testing Requirements (continued)

**7.** [40 CFR 63.848(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.

a. 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 (7)(a)(i) or (7)(a)(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.

b. An approved alternative requirement must include a test schedule and the method to be used to measure emissions for performance tests.

c. The owner or operator of a plant that has received approval of an alternative sampling frequency under Sec. 60.194 of this chapter is deemed to have approval of the alternative sampling frequency under this subpart.

d. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(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.

e. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(ii) of this section, the owner or operator shall immediately return to the monthly sampling schedule required by section A.V.5 until another request for an alternative sampling frequency is approved by the applicable regulatory authority.

**8.** [40 CFR 63.849(a)]
The owner or operator shall use the following reference methods to determine compliance with the applicable emission limits for TF and POM emissions:

a. Method 1 in appendix A to part 60 of this chapter for sample and velocity traverses;

b. Method 2 in appendix A to part 60 of this chapter for velocity and volumetric flow rate;

c. Method 3 in appendix A to part 60 of this chapter for gas analysis;

d. 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; 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.

## V. Testing Requirements (continued)

**9.** [40 CFR 63.849(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.

**10.** [40 CFR 63.849(e)]
The owner or operator may use an alternative test method for TF emissions providing:

a. 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 measurements using the alternative method; or

b. 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 Section A.V.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.

**11.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**11.a** Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

**11.b** Emission Limitation:

12.6 pounds per hour of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission test methods and procedures specified in section A.V.12.

**11.c** Emission Limitation:

240 pounds per hour of sulfur dioxide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monitoring and record keeping requirements specified in section A.III.12. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

## V. Testing Requirements (continued)

**11.d** Emission Limitation:

total flouride in excess of 1.5 kg/Mg (3.0 lb/ton) of aluminum produced for each CWPB2 potline

Applicable Compliance Method:

Compliance shall be demonstrated based upon the requirements specified in sections A.V.1 through A.V.10.

**12.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 12 to 24 months after issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

e. The permittee shall perform visible particulate emission observations in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9 during each emission test run.

Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office as required by 40 CFR 63.1515(a)(6). The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**1.** [40 CFR 63.851(a), 40 CFR 63.851(b)]

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)(i) through (a)(v) of this section or of approval or intent to deny approval of the submissions in paragraphs (a)(i) through (a)(v) 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.

i. The test plan in Sec. 63.847(b);

ii. Request to change limits for operating parameters in Sec. 63.847(h)(3);

iii. Request for similar potline monitoring in Sec. 63.848(d)(5);

iv. Request for reduced sampling frequency in Sec. 63.848(e); and

v. Request for an alternative method in Sec. 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.

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Pots 43-85, 6B (P978)

**Activity Description:** Pots 43-85, 6B

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| alumina reduction potline 6B - consisting of pots 43-85 vented through dry scrubber reactor #6 to the baghouses and then exhausting through a single stack | 40 CFR Part 63, Subpart LL [40 CFR 63.843(a)] | The permittee shall not discharge or cause to be discharged into the atmosphere any emissions of total flouride (TF) in excess of 1.5 kg/Mg (3.0 lbs/ton) of aluminum produced for each CWPB2 potline.<br><br>Any potline, other than a reconstructed potline, that is changed such that its applicable subcategory also changes shall meet the applicable emission limit in 40 CFR Part 63, Subpart LL for the original subcategory or the new subcategory, whichever is more stringent. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-17-11(A)(3) | Particulate emissions shall not exceed 12.6 pounds per hour. |
| | OAC rule 3745-18-06(E)(2) | Sulfur dioxide emissions shall not exceed 240 pounds per hour. |
| | OAC rule 3745-17-07(B)(1) | Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average. |
| | OAC rule 3745-17-08(B) | The permittee shall employ reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.<br><br>See section A.I.2.c. |

## 2. Additional Terms and Conditions

**2.a** [40 CFR 63.846(b)]
The permittee of an existing potline or anode bake furnace may demonstrate compliance by emission averaging according to the procedures in this section.

The permittee may average TF emissions from potlines and demonstrate compliance with the limits in Table 1 of 40 CFR Part 63 Subpart LL using the following procedures:

i. Monthly average emissions of TF shall not exceed the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL (for TF 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.

ii. To determine compliance with the applicable emission limit in Table 1 of 40 CFR Part 63 Subpart LL 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 Secs. 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.

**2.b** [40 CFR 63.846(d)]
Implementation plan. The permittee 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:

i. The permittee must submit the implementation plan no later than 6 months before the date that the facility intends to comply with the emission averaging limits.

ii. The permittee 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:

(a) The identification of all emission sources (potlines or anode bake furnaces) in the average;

(b) The assigned TF emission limit for each averaging group of potlines or anode bake furnaces;

(c) 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;

(d) The test plan for the measurement of TF emissions in accordance with the requirements in Sec. 63.847(b);

(e) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;

(f) If the owner or operator requests to monitor an alternative operating parameter pursuant to Sec. 63.848(l):

**2. Additional Terms and Conditions (continued)**

1. A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

2. 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

(g) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.

iii. Approval criteria. Upon receipt, the regulatory authority shall review and approve or disapprove the plan or permit application according to the following criteria:

(a) Whether the content of the plan includes all of the information specified in this section; and

(b) Whether the plan or permit application presents sufficient information to determine that compliance will be achieved and maintained.

iv. Prohibitions. The applicable regulatory authority shall not approve an implementation plan or permit application containing any of the following provisions:

(a) 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;

(b) 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;

(c) The inclusion of any potline or anode bake furnace while it is shut down; or

(d) The inclusion of any periods of startup, shutdown, or malfunction, as described in the startup, shutdown, and malfunction plan required by Sec. 63.850(c), in the emission calculations.

v. 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.

(a) The applicable regulatory authority shall approve the plan for the term of the operating permit;

(b) To revise the plan prior to the end of the permit term, the permittee shall submit a request to the applicable regulatory authority; and

(c) The permittee may submit a request to the applicable regulatory authority to implement emission averaging after the applicable compliance date.

vi. Operation. While operating under an approved implementation plan, the permittee shall monitor the operating parameters of each control system, keep records, and submit periodic reports as required for each source subject to this permit.

**2. Additional Terms and Conditions (continued)**

**2.c** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of RACM. These measures shall include, but not be limited to, the following:

i. the use of the individual cells' moveable hoods, skirts, and doors in a manner that contains and captures, to the extent possible with good engineering design and operation, the fumes released from tapping, charging, carbon setting, and all other electrolytic reduction activities; and

ii. all fugitive dust captured within the RACM area shall be vented to the dry scrubber reactor #3 and the baghouses associated, in series, with this emissions unit.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this emissions unit, including, but not limited to: doorways, windows, and roof openings.

## II. Operational Restrictions

**1.** [40 CFR 63.847(e)(5)]
The permittee shall 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 section A.III.5.

**2.** [40 CFR 63.847(e)(6)]
The permittee shall 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.

## III. Monitoring and/or Record Keeping Requirements

**1.** [40 CFR 63.848(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 (7) of this section, the following monitoring devices shall be installed:

a. For dry alumina scrubbers, devices for the measurement of alumina flow and air flow;

b. For dry coke scrubbers, devices for the measurement of coke flow and air flow;

c. For wet scrubbers as the primary control system, devices for the measurement of water flow and air flow;

d. For electrostatic precipitators, devices for the measurement of voltage and secondary current; and

e. 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.

**2.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**3.** [40 CFR 63.848(h)]
Corrective action. If a monitoring device for a primary control device measures an operating parameter outside the limit(s) established pursuant to Sec. 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 the corrective action procedures identified in the startup, shutdown, and malfunction plan 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.

**4.** [40 CFR 63.848(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.

**5.** [40 CFR 63.848(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.

**6.** [40 CFR 63.848(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.

**7.** [40 CFR 63.848(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.

**8.** [40 CFR 63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**9.** [40 CFR 63.850(e)]
Recordkeeping. The owner or operator shall maintain files of all information (including all reports and notifications) required by Sec. 63.10(b) and by this subpart.

a. 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;

b. The owner or operator may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche;

c. The owner or operator may report required information on paper or on a labeled computer disc using commonly available and compatible computer software; and

d. In addition to the general records required by Sec. 63.10(b), the owner or operator shall maintain records of the following information:

i. Daily production rate of aluminum;

ii. A copy of the startup, shutdown, and malfunction plan;

iii. Records of design information for paste production plant capture systems;

iv. 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;

v. Records supporting a request for reduced sampling of potlines;

vi. 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;

vii. The current implementation plan for emission averaging and any subsequent amendments;

viii. 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 Sec. 63.848(f)(5)(ii), including the results of each inspection;

ix. 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 Sec. 63.848(g), including the results of each inspection;

x. For a potline equipped with an HF continuous emission monitor, records of information and data required by Sec. 63.10(c);

xi. Records documenting the corrective actions taken when the limit(s) for an operating parameter established under Sec. 63.847(h) were exceeded, when visible emissions indicating abnormal operation were observed from a control device stack during a daily inspection required under Sec. 63.848(g), or when a problem was detected during the daily inspection of a wet roof scrubber for potline secondary control required in Sec. 63.848(f)(5)(ii);

xii. 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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**10.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the dry scrubber reactor/baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

**11.** The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

**12.** The permittee shall maintain records of the following information for each month:

a. the average SO2 content (in percent sulfur) of the anodes for each shipment of anodes received;

b. the consumption rate of the anodes, in pounds of anodes consumed per pound of aluminum produced;

c. the amount of aluminum produced, in pounds;

d. the total hours of operation; and

e. the average hourly SO2 emission rate, i.e., (a X b X c) / d.

## IV. Reporting Requirements

**1.** [40 CFR 63.850(a)]
Notifications. The owner or operator shall submit the following written notifications:

a. Notification for an area source that subsequently increases its emissions such that the source is a major source subject to the standard;

b. Notification that a source is subject to the standard, where the initial startup is before the effective date of the standard;

c. 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;

d. 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;

e. Notification of initial performance test;

f. Notification of initial compliance status;

g. One-time notification for each affected source of the intent to use an HF continuous emission monitor; and

h. 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 Secs. 63.843, 63.844, and 63.846.

**2.** [40 CFR 63.850(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 section A.IV.1.f. Except as provided in paragraph 4. 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.

**3.** [40 CFR 63.850(c)]
Startup, shutdown, and malfunction plan and reports. The owner or operator shall develop and implement a written plan as described in Sec. 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 appplication or included in the operating permit. The permitting authority may review the plan upon request. In addition to the information required in Sec. 63.6(e)(3), the plan shall include:

a. Procedures, including corrective actions, to be followed if a monitoring device measures an operating parameter outside the limit(s) established under Sec. 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 Sec. 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 Sec. 63.848(f)(5)(ii); and

b. The owner or operator shall also keep records of each event as required by Sec. 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 Sec. 63.6(e)(3)(iv).

## IV. Reporting Requirements (continued)

**4.** [40 CFR 63.850(d)]
Excess emissions report. As required by Sec. 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 Sec. 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions.

**5.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the dry scrubber reactor/baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

**6.** The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** [40 CFR 63.847(b)]
a. Test plan. The owner or operator shall prepare a site-specific test plan prior to the initial performance test according to the requirements of Sec. 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 Sec. 63.848 for emission monitoring. In addition to the information required by Sec. 63.7, the test plan shall include:

i. Procedures to ensure a minimum of three runs are performed annually for the primary control system for each source;

ii. 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;

iii. 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;

iv. 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.

**2.** [40 CFR 63.847(c)]
Initial performance test. Following approval of the site- specific test plan, the owner or operator shall conduct an initial performance test during the first month following the compliance date in accordance with the procedures in this section. If a performance test has been conducted on the primary control system for potlines within the 12 months prior to the compliance date, the results of that performance test may be used to determine initial compliance.

## V. Testing Requirements (continued)

**3.** [40 CFR 63.847(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 40 CFR Part 63, Subpart A, the approved test plan, and the procedures in this section.

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 40 CFR 63.847(e)(1), 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 Secs. 63.843, 63.844, or 63.846.

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.** [40 CFR 63.847(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 Sec. 63.848(f).

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.

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.

**5.** [40 CFR 63.848(a)]
TF emissions from potlines. Using the procedures in Sec. 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.

## V. Testing Requirements (continued)

**6.** [40 CFR 63.848(d)]
Similar potlines. As an alternative to monthly monitoring of TF or POM secondary emissions from each potline using the test methods in Sec. 63.849, the owner or operator may perform monthly monitoring of TF or POM secondary emissions from one potline using the test methods in Secs. 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 (a.) through (g.) 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.

a. 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 Secs. 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.

b. An HF continuous emission monitoring system is an approved alternative for the monitoring of TF secondary emissions.

c. 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.

d. 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.

e. The owner or operator shall submit the results required in paragraph (d.) of this section and all supporting documentation to the applicable regulatory authority for review and approval.

f. 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.

g. 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.

## V. Testing Requirements (continued)

**7.** [40 CFR 63.848(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.

a. 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 (7)(a)(i) or (7)(a)(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.

b. An approved alternative requirement must include a test schedule and the method to be used to measure emissions for performance tests.

c. The owner or operator of a plant that has received approval of an alternative sampling frequency under Sec. 60.194 of this chapter is deemed to have approval of the alternative sampling frequency under this subpart.

d. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(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.

e. If emissions in excess of the applicable TF limit occur while performing quarterly sampling approved under paragraph (7)(a)(ii) of this section, the owner or operator shall immediately return to the monthly sampling schedule required by section A.V.5 until another request for an alternative sampling frequency is approved by the applicable regulatory authority.

**8.** [40 CFR 63.849(a)]
The owner or operator shall use the following reference methods to determine compliance with the applicable emission limits for TF and POM emissions:

a. Method 1 in appendix A to part 60 of this chapter for sample and velocity traverses;

b. Method 2 in appendix A to part 60 of this chapter for velocity and volumetric flow rate;

c. Method 3 in appendix A to part 60 of this chapter for gas analysis;

d. 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; 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.

## V. Testing Requirements (continued)

**9.** [40 CFR 63.849(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.

**10.** [40 CFR 63.849(e)]
The owner or operator may use an alternative test method for TF emissions providing:

a. 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 measurements using the alternative method; or

b. 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 Section A.V.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.

**11.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**11.a** Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

**11.b** Emission Limitation:

12.6 pounds per hour of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission test methods and procedures specified in section A.V.12.

**11.c** Emission Limitation:

240 pounds per hour of sulfur dioxide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monitoring and record keeping requirements specified in section A.III.12. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

## V. Testing Requirements (continued)

**11.d** Emission Limitation:

total flouride in excess of 1.5 kg/Mg (3.0 lb/ton) of aluminum produced for each CWPB2 potline

Applicable Compliance Method:

Compliance shall be demonstrated based upon the requirements specified in sections A.V.1 through A.V.10.

**12.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 12 to 24 months after issuance of the permit and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

e. The permittee shall perform visible particulate emission observations in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9 during each emission test run.

Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office as required by 40 CFR 63.1515(a)(6). The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**1.** [40 CFR 63.851(a), 40 CFR 63.851(b)]

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)(i) through (a)(v) of this section or of approval or intent to deny approval of the submissions in paragraphs (a)(i) through (a)(v) 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.

i. The test plan in Sec. 63.847(b);

ii. Request to change limits for operating parameters in Sec. 63.847(h)(3);

iii. Request for similar potline monitoring in Sec. 63.848(d)(5);

iv. Request for reduced sampling frequency in Sec. 63.848(e); and

v. Request for an alternative method in Sec. 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.

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** SPL Vitrification #2 (P979)

**Activity Description:** Spent Potliner vitrification (permit 1 of 2)

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| spent potliner mill (sizing and handling operation vented to 9 baghouses in parallel) | OAC rule 3745-31-05(A)(3) (PTI 17-1400) | Particulate emissions from the sizing and handling operation shall not exceed 0.010 gr/dscf, 1.55 pounds per hour, nor 6.76 tons per year.<br><br>Visible particulate emissions of fugitive dust shall not exceed 10% opacity as a 3-minute average.<br><br>See section A.I.2.c. |
| | OAC rule 3745-17-07(B)(1) | The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| | OAC rule 3745-17-08(B)(3) | The control requirements specified by this rule are less stringent than the control requirements established pursuant to OAC rule 3745-31-05(A)(3). |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions from the sizing and handling baghouses shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-17-11(A)(2) | The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| storage silo vents | OAC rule 3745-31-05(A)(3) (PTI 17-1400) | Particulate emissions from the storage silo vents shall not exceed 0.010 gr/dscf or no visible particulate emissions, whichever is least restrictive, nor 0.0005 ton per year.<br><br>See section A.I.2.c. |
| | OAC rule 3745-17-07(A)(1) | The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| | OAC rule 3745-17-11(A)(2) | The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |

**2. Additional Terms and Conditions**

**2.a** The material handling operation(s) that are covered by this permit are listed below:

sizing and handling operation:
handling
comminution mill
weigh hopper
transporter
blender

storage silo vents:
baghouse fines silo
sand silo
glass cullet silo
limestone silo #1
limestone silo #2
spent potliner silo

**2. Additional Terms and Conditions (continued)**

**2.b** The permittee shall minimize or eliminate visible emissions of fugitive dust through the employment of RACM. These measures shall include, but not be limited to, the following:

i. the use of a closed pneumatic system, fabric filters, hood enclosures,

ii. unloading of delivery vehicles shall be stopped if visible emissions are noted; and

iii. all fugitive dust captured within the RACM area shall be vented to the the baghouses associated, with this emissions unit.

By employing the above-mentioned RACM, visible emissions of fugitive dust shall be minimized or eliminated from any non-stack egress point from the building housing this emissions unit, including, but not limited to: doorways, windows, and roof openings.

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

**2.c** Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of BAT.

## II. Operational Restrictions

**1.** A broken bag detector shall be maintained on all fabric filters serving spent potliner systems. These detectors shall be maintained in accordance with manufacturers instructions.

## III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform daily checks for any visible particulate emissions from each of the material handling operations identified above. The presence or absence of any visible emissions shall be noted in an operations log. If any visible emissions are observed, corrective actions shall be taken to eliminate the visible emissions and these actions shall also be noted in the operations log.

**2.** The above-mentioned inspections shall be performed during representative, normal operating conditions.

**3.** The permittee shall maintain the following records for the broken bag detectors:

a. the dates and time of any alarm; and

b. the actions taken to correct the alarm situation.

## IV. Reporting Requirements

**1.a** The permittee shall submit deviation (excursion) reports that identify each day during which an inspection was not performed by the required frequency. These reports shall be submitted within 30 days after the occurrence.

**1.b** The permittee shall submit deviation (excursion) reports that identify each instance when a control measure, that was to be performed as a result of an inspection, was not implemented. These reports shall be submitted within 30 days after the occurrence.

**2.** The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

**1.a** Emission Limitation:

10% opacity as a 3-minute average for fugitive emissions from the sizing and handling operation.
Visible particulate emissions from the sizing and handling baghouses shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

Compliance shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

**1.b** Emission Limitation:

0.010 grain of particulate emissions per dry standard cubic foot of exhaust gases from the sizing and handling operation

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5, as required in section V.2 below.

**1.c** Emission Limitation:

no visible particulate emissions from the storage silo vents

Applicable Compliance Method:

Compliance shall be demonstrated using Test Method 22-like visible emission observations. (Although Test Method 22 applies to fugitive emissions units, the visible/no visible emissions observation technique of Test Method 22 can be applied to ducted emissions, i.e., Test Method 22-like visible emission observations.)

**1.d** Emission Limitation:

1.55 pounds per hour of particulate emissions from the sizing and handling operation

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the emission testing methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

**1.e** Emission Limitation:

6.76 tons per year of particulate emissions from the sizing and handling operation

Applicable Compliance Method:

The annual allowable was developed by multiplying the maximum hourly allowable particulate emission rate (1.55 lbs/hr) by the maximum annual hours of operation (8760 hours), and then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

## V. Testing Requirements (continued)

**1.f** Emission Limitation:

Particulate emissions from the storage silo vents shall not exceed 0.010 gr/dscf

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the emission testing methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

**1.g** Emission Limitation:

0.0005 ton per year of particulate emissions from the silo storage vents

Applicable Compliance Method:

Compliance shall be determined in accordance with the following equation to calculate the contributions of baghouse fines, sand, glass cullet, limestone and spent potliner to the total particulate emissions from the storage silo vents. (The emission factors used in this equation are derived from the equation contained in AP-42, Section 13.2.4.3, dated January, 1995 for material handling.)

PE = EF x PR x CF x CE

where:

PE = particulate emissions, in tons per year;

EF = emission factor of 0.02 lb/ton for baghouse fines;
emission factor of 0.02 lb/ton for sand;
emission factor of 0.02 lb/ton for glass cullet;
emission factor of 0.02 lb/ton for limestone;
emission factor of 0.00003 lb/ton for spent potliner;

PR = production rate of 1753 tons per year for baghouse fines;
production rate of 2200 tons per year for sand;
production rate of 2200 tons per year for glass cullet;
production rate of 2200 tons per year for limestone;
production rate of 43,800 tons per year for spent potliner;

CF = conversion factor of 1 ton per 2000 lbs; and

CE = 99.9% control efficiency or 0.001.

As long as no visible particulate emissions are evident, compliance with the control efficiency is assumed.

## V. Testing Requirements (continued)

**2.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 60 days after the restart of this emissions unit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulates.

c. Test Methods 1 through 5 of 40 CFR Part 60, Appendix A shall be employed to demonstrate compliance with the allowable mass emission rates.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Anode Baking Furnace-661 (P996)

**Activity Description:** Anode Baking Furnace-661

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| anode baking furnace 661 | OAC rule 3745-17-11(B)(1) | Particulate emissions shall not exceed 19.3 pounds per hour. |
| | 40 CFR Part 63, Subpart LL | [63.843(c)]<br>The owner or operator shall not discharge or cause to be discharged into the atmosphere any emissions of total flouride (TF) or polycyclic organic matter (POM) in excess of the limits specified below from emissions units P996, P997, and P998, combined:<br><br>Emissions of TF shall not exceed 0.20 lb/ton of green anode.<br><br>Emissions of POM shall not exceed 0.18 lb/ton of green anode. |
| | OAC rule 3745-18-06(D)(2) | Sulfur dioxide emissions shall not exceed 141 pounds per hour. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |

## 2. Additional Terms and Conditions

**2.a** [63.846(a),(c)]
The owner or operator of an existing anode bake furnace may demonstrate compliance by emission averaging according to the procedures in this section. The owner or operator may average TF and/or POM emissions from anode bake furnaces and demonstrate compliance with the limits in Table 3 of 40 CFR Part 63, Subpart LL using the procedures described below:

(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 40 CFR Part 63, Subpart LL in any one year; and

(2) To determine compliance with the applicable emission limit in Table 3 of 40 CFR Part 63, Subpart LL 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 40 CFR Part 63, Subpart LL, Secs. 63.847 and 63.849.

**2.b** [63.846(d)]
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 Sec. 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 Sec. 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

**2. Additional Terms and Conditions (continued)**

(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 record keeping 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 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 section A.IV.1.a.(2), 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 40 CFR Part 63, Subpart LL and this permit.

## II. Operational Restrictions

**None**

## III. Monitoring and/or Record Keeping Requirements

**1.** [63.848(c)]
TF and POM emissions from anode bake furnaces. Using the procedures in 40 CFR Part 63.847, section A.V of this permit, and 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.

**2.** [63.848(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 section A.III.8, 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.

**3.** [63.848(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.

**4.** [63.848(h)]
Corrective action. If a monitoring device for a primary control device measures an operating parameter outside the limit(s) established pursuant to Sec. 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 the corrective action procedures identified in the startup, shutdown, and malfunction plan 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.

**5.** [63.848(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.

**6.** [63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**7.** [63.848(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.

**8.** [63.848(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.

**9.** [63.850(e)(4)]
In addition to the general records required by Sec. 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; and

(iii) a copy of the startup, shutdown, and malfunction plan.

## IV. Reporting Requirements

**1.** [63.850(b), (c), (d)]
Notifications. The owner or operator shall submit the following written notifications:

(1) Performance test reports. The owner or operator shall report the results of the initial performance test. Except as provided in paragraph (3) 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.

(2) Startup, shutdown, and malfunction plan and reports. The owner or operator shall develop and implement a written plan as described in Sec. 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 permitting authority may review the plan upon request. In addition to the information required in Sec. 63.6(e)(3), the plan shall include:

(i) Procedures, including corrective actions, to be followed if a monitoring device measures an operating parameter outside the limit(s) established under Sec. 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 Sec. 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 Sec. 63.848(f)(5)(ii); and

(ii) The owner or operator shall also keep records of each event as required by Sec. 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 Sec. 63.6(e)(3)(iv).

(3) Excess emissions report. As required by Sec. 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 Sec. 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions.

## V. Testing Requirements

**1.** [63.847(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 Sec. 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 Sec. 63.848 for emission monitoring. In addition to the information required by Sec. 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) 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.

**2.** [63.847(c)]
Initial performance test. Following approval of the site-specific test plan, the owner or operator shall conduct an initial performance test during the first month following the compliance date in accordance with the procedures in this section. If a performance test has been conducted on the primary control system for the anode bake furnace within the 12 months prior to the compliance date, the results of that performance test may be used to determine initial compliance.

[63.847(d)(4)]
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 40 CFR Part 63 Subpart LL Section 63.847, 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 Secs. 63.843, 63.844, or 63.846 and this permit.

## V. Testing Requirements (continued)

**3.** [63.847(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 Sec. 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 40 CFR Part 63, Subpart LL and this permit.

(2) 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.

**4.** [63.849(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 40 CFR Part 60 for sample and velocity traverses;

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

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

(4) 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;

(5) Method 13A or Method 13B and Method 14 or Method 14A in appendix A to 40 CFR Part 60 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 40 CFR Part 63 Subpart LL 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 40 CFR Part 63 Subpart LL and Method 14 in appendix A to 40 CFR Part 60 or an approved alternative method for the concentration of POM where emissions are sampled from roof monitors not employing wet roof scrubbers.

**5.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**5.a** Emission Limitation:

19.3 pounds per hour of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the methods and procedures specified in section A.V.6.

## V. Testing Requirements (continued)

**5.b** Emission Limitation:

0.20 lb of TF per ton of green anode from emissions units P996, P997, and P998, combined
0.18 lb of POM per ton of green anode from emissions units P996, P997, and P998, combined

Applicable Compliance Method:

Compliance shall be demonstrated based upon the methods and procedures specified in sections A.V.1 through A.V.4.

**5.c** Emission Limitation:

141 pounds per hour of sulfur dioxide

Applicable Compliance Method:

Compliance shall be demonstrated based upon the methods and procedures specified in section A.V.6.

**5.d** Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996. No visible emission testing is specifically required to demonstrate compliance with this limit but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).

**6.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted approximately 1.5 years after permit issuance and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulates and sulfur dioxide.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A and for sulfur dioxide, Methods 1 through 4 and 6 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

## V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Anode Baking Furnace-662 (P997)

**Activity Description:** Anode Baking Furnace-662

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| anode baking furnace 662 | OAC rule 3745-17-11(B)(1) | Particulate emissions shall not exceed 19.3 pounds per hour. |
| | 40 CFR Part 63, Subpart LL | [63.843(c)]<br>The owner or operator shall not discharge or cause to be discharged into the atmosphere any emissions of total flouride (TF) or polycyclic organic matter (POM) in excess of the limits specified below from emissions units P996, P997, and P998, combined:<br><br>Emissions of TF shall not exceed 0.20 lb/ton of green anode.<br><br>Emissions of POM shall not exceed 0.18 lb/ton of green anode. |
| | OAC rule 3745-18-06(D)(2) | Sulfur dioxide emissions shall not exceed 141 pounds per hour. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |

## 2. Additional Terms and Conditions

**2.a** [63.846(a),(c)]
The owner or operator of an existing anode bake furnace may demonstrate compliance by emission averaging according to the procedures in this section. The owner or operator may average TF and/or POM emissions from anode bake furnaces and demonstrate compliance with the limits in Table 3 of 40 CFR Part 63, Subpart LL using the procedures described below:

(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 40 CFR Part 63, Subpart LL in any one year; and

(2) To determine compliance with the applicable emission limit in Table 3 of 40 CFR Part 63, Subpart LL 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 40 CFR Part 63, Subpart LL, Secs. 63.847 and 63.849.

**2.b** [63.846(d)]
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 Sec. 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 Sec. 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

**2. Additional Terms and Conditions (continued)**

(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 record keeping 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 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 section A.IV.1.a.(2), 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 40 CFR Part 63, Subpart LL and this permit.

## II. Operational Restrictions

**None**

## III. Monitoring and/or Record Keeping Requirements

**1.** [63.848(c)]
TF and POM emissions from anode bake furnaces. Using the procedures in 40 CFR Part 63.847, section A.V of this permit, and 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.

**2.** [63.848(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 section A.III.8, 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.

**3.** [63.848(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.

**4.** [63.848(h)]
Corrective action. If a monitoring device for a primary control device measures an operating parameter outside the limit(s) established pursuant to Sec. 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 the corrective action procedures identified in the startup, shutdown, and malfunction plan 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.

**5.** [63.848(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.

**6.** [63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**7.** [63.848(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.

**8.** [63.848(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.

**9.** [63.850(e)(4)]
In addition to the general records required by Sec. 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; and

(iii) a copy of the startup, shutdown, and malfunction plan.

## IV. Reporting Requirements

**1.** [63.850(b), (c), (d)]
Notifications. The owner or operator shall submit the following written notifications:

(1) Performance test reports. The owner or operator shall report the results of the initial performance test. Except as provided in paragraph (3) 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.

(2) Startup, shutdown, and malfunction plan and reports. The owner or operator shall develop and implement a written plan as described in Sec. 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 permitting authority may review the plan upon request. In addition to the information required in Sec. 63.6(e)(3), the plan shall include:

(i) Procedures, including corrective actions, to be followed if a monitoring device measures an operating parameter outside the limit(s) established under Sec. 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 Sec. 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 Sec. 63.848(f)(5)(ii); and

(ii) The owner or operator shall also keep records of each event as required by Sec. 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 Sec. 63.6(e)(3)(iv).

(3) Excess emissions report. As required by Sec. 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 Sec. 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions.

## V. Testing Requirements

**1.** [63.847(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 Sec. 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 Sec. 63.848 for emission monitoring. In addition to the information required by Sec. 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) 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.

**2.** [63.847(c)]
Initial performance test. Following approval of the site-specific test plan, the owner or operator shall conduct an initial performance test during the first month following the compliance date in accordance with the procedures in this section. If a performance test has been conducted on the primary control system for the anode bake furnace within the 12 months prior to the compliance date, the results of that performance test may be used to determine initial compliance.

[63.847(d)(4)]
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 40 CFR Part 63 Subpart LL Section 63.847, 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 Secs. 63.843, 63.844, or 63.846 and this permit.

## V. Testing Requirements (continued)

**3.** [63.847(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 Sec. 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 40 CFR Part 63, Subpart LL and this permit.

(2) 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.

**4.** [63.849(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 40 CFR Part 60 for sample and velocity traverses;

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

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

(4) 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;

(5) Method 13A or Method 13B and Method 14 or Method 14A in appendix A to 40 CFR Part 60 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 40 CFR Part 63 Subpart LL 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 40 CFR Part 63 Subpart LL and Method 14 in appendix A to 40 CFR Part 60 or an approved alternative method for the concentration of POM where emissions are sampled from roof monitors not employing wet roof scrubbers.

**5.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**5.a** Emission Limitation:

19.3 pounds per hour of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the methods and procedures specified in section A.V.6.

## V. Testing Requirements (continued)

**5.b** Emission Limitation:

0.20 lb of TF per ton of green anode from emissions units P996, P997, and P998, combined
0.18 lb of POM per ton of green anode from emissions units P996, P997, and P998, combined

Applicable Compliance Method:

Compliance shall be demonstrated based upon the methods and procedures specified in sections A.V.1 through A.V.4.

**5.c** Emission Limitation:

141 pounds per hour of sulfur dioxide

Applicable Compliance Method:

Compliance shall be demonstrated based upon the methods and procedures specified in section A.V.6.

**5.d** Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996. No visible emission testing is specifically required to demonstrate compliance with this limit but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).

**6.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted approximately 1.5 years after permit issuance and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulates and sulfur dioxide.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A and for sulfur dioxide, Methods 1 through 4 and 6 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

## V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Anode Baking Furnace-663 (P998)

**Activity Description:** Anode Baking Furnace-663

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| anode baking furnace 663 | OAC rule 3745-17-11(B)(1) | Particulate emissions shall not exceed 19.3 pounds per hour. |
| | 40 CFR Part 63, Subpart LL | [63.843(c)]<br>The owner or operator shall not discharge or cause to be discharged into the atmosphere any emissions of total flouride (TF) or polycyclic organic matter (POM) in excess of the limits specified below from emissions units P996, P997, and P998, combined:<br><br>Emissions of TF shall not exceed 0.20 lb/ton of green anode.<br><br>Emissions of POM shall not exceed 0.18 lb/ton of green anode. |
| | OAC rule 3745-18-06(D)(2) | Sulfur dioxide emissions shall not exceed 141 pounds per hour. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |

## 2. Additional Terms and Conditions

**2.a** [63.846(a),(c)]
The owner or operator of an existing anode bake furnace may demonstrate compliance by emission averaging according to the procedures in this section. The owner or operator may average TF and/or POM emissions from anode bake furnaces and demonstrate compliance with the limits in Table 3 of 40 CFR Part 63, Subpart LL using the procedures described below:

(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 40 CFR Part 63, Subpart LL in any one year; and

(2) To determine compliance with the applicable emission limit in Table 3 of 40 CFR Part 63, Subpart LL 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 40 CFR Part 63, Subpart LL, Secs. 63.847 and 63.849.

**2.b** [63.846(d)]
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 Sec. 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 Sec. 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

**2. Additional Terms and Conditions (continued)**

(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 record keeping 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 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 section A.IV.1.a.(2), 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 40 CFR Part 63, Subpart LL and this permit.

## II. Operational Restrictions

**None**

## III. Monitoring and/or Record Keeping Requirements

**1.** [63.848(c)]
TF and POM emissions from anode bake furnaces. Using the procedures in 40 CFR Part 63.847, section A.V of this permit, and 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.

**2.** [63.848(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 section A.III.8, 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.

**3.** [63.848(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.

**4.** [63.848(h)]
Corrective action. If a monitoring device for a primary control device measures an operating parameter outside the limit(s) established pursuant to Sec. 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 the corrective action procedures identified in the startup, shutdown, and malfunction plan 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.

**5.** [63.848(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.

**6.** [63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**7.** [63.848(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.

**8.** [63.848(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.

**9.** [63.850(e)(4)]
In addition to the general records required by Sec. 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; and

(iii) a copy of the startup, shutdown, and malfunction plan.

## IV. Reporting Requirements

**1.** [63.850(b), (c), (d)]
Notifications. The owner or operator shall submit the following written notifications:

(1) Performance test reports. The owner or operator shall report the results of the initial performance test. Except as provided in paragraph (3) 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.

(2) Startup, shutdown, and malfunction plan and reports. The owner or operator shall develop and implement a written plan as described in Sec. 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 permitting authority may review the plan upon request. In addition to the information required in Sec. 63.6(e)(3), the plan shall include:

(i) Procedures, including corrective actions, to be followed if a monitoring device measures an operating parameter outside the limit(s) established under Sec. 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 Sec. 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 Sec. 63.848(f)(5)(ii); and

(ii) The owner or operator shall also keep records of each event as required by Sec. 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 Sec. 63.6(e)(3)(iv).

(3) Excess emissions report. As required by Sec. 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 Sec. 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions.

## V. Testing Requirements

**1.** [63.847(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 Sec. 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 Sec. 63.848 for emission monitoring. In addition to the information required by Sec. 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) 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.

**2.** [63.847(c)]
Initial performance test. Following approval of the site-specific test plan, the owner or operator shall conduct an initial performance test during the first month following the compliance date in accordance with the procedures in this section. If a performance test has been conducted on the primary control system for the anode bake furnace within the 12 months prior to the compliance date, the results of that performance test may be used to determine initial compliance.

[63.847(d)(4)]
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 40 CFR Part 63 Subpart LL Section 63.847, 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 Secs. 63.843, 63.844, or 63.846 and this permit.

## V. Testing Requirements (continued)

**3.** [63.847(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 Sec. 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 40 CFR Part 63, Subpart LL and this permit.

(2) 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.

**4.** [63.849(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 40 CFR Part 60 for sample and velocity traverses;

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

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

(4) 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;

(5) Method 13A or Method 13B and Method 14 or Method 14A in appendix A to 40 CFR Part 60 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 40 CFR Part 63 Subpart LL 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 40 CFR Part 63 Subpart LL and Method 14 in appendix A to 40 CFR Part 60 or an approved alternative method for the concentration of POM where emissions are sampled from roof monitors not employing wet roof scrubbers.

**5.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**5.a** Emission Limitation:

19.3 pounds per hour of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the methods and procedures specified in section A.V.6.

## V. Testing Requirements (continued)

**5.b** Emission Limitation:

0.20 lb of TF per ton of green anode from emissions units P996, P997, and P998, combined
0.18 lb of POM per ton of green anode from emissions units P996, P997, and P998, combined

Applicable Compliance Method:

Compliance shall be demonstrated based upon the methods and procedures specified in sections A.V.1 through A.V.4.

**5.c** Emission Limitation:

141 pounds per hour of sulfur dioxide

Applicable Compliance Method:

Compliance shall be demonstrated based upon the methods and procedures specified in section A.V.6.

**5.d** Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996. No visible emission testing is specifically required to demonstrate compliance with this limit but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).

**6.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted approximately 1.5 years after permit issuance and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulates and sulfur dioxide.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A and for sulfur dioxide, Methods 1 through 4 and 6 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

## V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Anode Baking Furnace-664 (P999)

**Activity Description:** Anode Baking Furnace-664

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| anode baking furnace 664 | OAC rule 3745-17-11(B)(1) | Particulate emissions shall not exceed 19.3 pounds per hour. |
| | 40 CFR Part 63, Subpart LL | [63.843(c)]<br>The owner or operator shall not discharge or cause to be discharged into the atmosphere any emissions of total flouride (TF) or polycyclic organic matter (POM) in excess of the limits specified below from emissions units P999 and P900, combined:<br><br>Emissions of TF shall not exceed 0.20 lb/ton of green anode.<br><br>Emissions of POM shall not exceed 0.18 lb/ton of green anode. |
| | OAC rule 3745-18-06(D)(2) | Sulfur dioxide emissions shall not exceed 141 pounds per hour. |
| | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |

## 2. Additional Terms and Conditions

**2.a** [63.846(a),(c)]
The owner or operator of an existing anode bake furnace may demonstrate compliance by emission averaging according to the procedures in this section. The owner or operator may average TF and/or POM emissions from anode bake furnaces and demonstrate compliance with the limits in Table 3 of 40 CFR Part 63, Subpart LL using the procedures described below:

(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 40 CFR Part 63, Subpart LL in any one year; and

(2) To determine compliance with the applicable emission limit in Table 3 of 40 CFR Part 63, Subpart LL 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 40 CFR Part 63, Subpart LL, Secs. 63.847 and 63.849.

**2.b** [63.846(d)]
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 Sec. 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 Sec. 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

**2. Additional Terms and Conditions (continued)**

(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 record keeping 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 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 section A.IV.1.a.(2), 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 40 CFR Part 63, Subpart LL and this permit.

## II. Operational Restrictions

**None**

## III. Monitoring and/or Record Keeping Requirements

**1.** [63.848(c)]
TF and POM emissions from anode bake furnaces. Using the procedures in 40 CFR Part 63.847, section A.V of this permit, and 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.

**2.** [63.848(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 section A.III.8, 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.

**3.** [63.848(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.

**4.** [63.848(h)]
Corrective action. If a monitoring device for a primary control device measures an operating parameter outside the limit(s) established pursuant to Sec. 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 the corrective action procedures identified in the startup, shutdown, and malfunction plan 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.

**5.** [63.848(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.

**6.** [63.848(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.

## III. Monitoring and/or Record Keeping Requirements (continued)

**7.** [63.848(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.

**8.** [63.848(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.

**9.** [63.850(e)(4)]
In addition to the general records required by Sec. 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; and

(iii) a copy of the startup, shutdown, and malfunction plan.

## IV. Reporting Requirements

**1.** [63.850(b), (c), (d)]
Notifications. The owner or operator shall submit the following written notifications:

(1) Performance test reports. The owner or operator shall report the results of the initial performance test. Except as provided in paragraph (3) 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.

(2) Startup, shutdown, and malfunction plan and reports. The owner or operator shall develop and implement a written plan as described in Sec. 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 permitting authority may review the plan upon request. In addition to the information required in Sec. 63.6(e)(3), the plan shall include:

(i) Procedures, including corrective actions, to be followed if a monitoring device measures an operating parameter outside the limit(s) established under Sec. 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 Sec. 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 Sec. 63.848(f)(5)(ii); and

(ii) The owner or operator shall also keep records of each event as required by Sec. 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 Sec. 63.6(e)(3)(iv).

(3) Excess emissions report. As required by Sec. 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 Sec. 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions.

## V. Testing Requirements

**1.** [63.847(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 Sec. 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 Sec. 63.848 for emission monitoring. In addition to the information required by Sec. 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) 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.

**2.** [63.847(c)]
Initial performance test. Following approval of the site-specific test plan, the owner or operator shall conduct an initial performance test during the first month following the compliance date in accordance with the procedures in this section. If a performance test has been conducted on the primary control system for the anode bake furnace within the 12 months prior to the compliance date, the results of that performance test may be used to determine initial compliance.

[63.847(d)(4)]
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 40 CFR Part 63 Subpart LL Section 63.847, 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 Secs. 63.843, 63.844, or 63.846 and this permit.

## V. Testing Requirements (continued)

**3.** [63.847(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 Sec. 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 40 CFR Part 63, Subpart LL and this permit.

(2) 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.

**4.** [63.849(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 40 CFR Part 60 for sample and velocity traverses;

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

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

(4) 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;

(5) Method 13A or Method 13B and Method 14 or Method 14A in appendix A to 40 CFR Part 60 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 40 CFR Part 63 Subpart LL 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 40 CFR Part 63 Subpart LL and Method 14 in appendix A to 40 CFR Part 60 or an approved alternative method for the concentration of POM where emissions are sampled from roof monitors not employing wet roof scrubbers.

**5.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**5.a** Emission Limitation:

19.3 pounds per hour of particulate emissions

Applicable Compliance Method:

Compliance shall be demonstrated based upon the methods and procedures specified in section A.V.6.

## V. Testing Requirements (continued)

**5.b** Emission Limitation:

0.20 lb of TF per ton of green anode from emissions units P999 and P900, combined
0.18 lb of POM per ton of green anode from emissions units P999 and P900, combined

Applicable Compliance Method:

Compliance shall be demonstrated based upon the methods and procedures specified in sections A.V.1 through A.V.4.

**5.c** Emission Limitation:

141 pounds per hour of sulfur dioxide

Applicable Compliance Method:

Compliance shall be demonstrated based upon the methods and procedures specified in section A.V.6.

**5.d** Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996. No visible emission testing is specifically required to demonstrate compliance with this limit but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).

**6.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted approximately 1.5 years after permit issuance and within 12 months prior to permit expiration.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulates and sulfur dioxide.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A and for sulfur dioxide, Methods 1 through 4 and 6 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

## V. Testing Requirements (continued)

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Paint Booth Bld 212 (Z014)

**Activity Description:** Paint Shop (Building 212) Paint Booth

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Building 224 Spray Booth (R001) | OAC rule 3745-17-07(A) | Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. |
| | OAC rule 3745-17-11 | 0.551 pound per hour of particulate emissions |
| | OAC rule 3745-21-07(G)(2) | none<br><br>See A.I.2.a below. |

**2. Additional Terms and Conditions**

**2.a** The permittee shall not employ any photochemically reactive material in this emissions unit.

Note: The definition of "photochemically reactive material" is stated in OAC rule 3745-21-01(C)(5).

### II. Operational Restrictions

**1.** The permittee shall employ a spray booth filter having a design control efficiency for particulates greater than 98% during any operation of this emissions unit.

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall collect and record for each day for the coating operation the company identification for each coating, thinner, and cleanup material employed and a statement as to whether or not each is a "photochemically reactive material".

**2.** The permittee shall maintain daily records that document any time periods when the spray booth filter system was not in service when the emissions unit was in operation.

### IV. Reporting Requirements

**1.** The permittee shall submit deviation (excursion) reports that identify all periods of time when a photochemically reactive material was employed in this emissions unit. These reports shall be submitted within 30 days after the occurrence.

## IV. Reporting Requirements (continued)

**2.** The permittee shall notify the Director (the Ohio EPA, Southeast District Office) in writing of any daily record showing that the spray booth filter system was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (the Ohio EPA, Southeast District Office) within 30 days after the event occurs.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

**1.a** Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996. No visible emission testing is specifically required to demonstrate compliance with this limit but, if appropriate, may be requested pursuant to OAC rule 3745-15-04(A).

**1.b** Emission Limitation:

0.551 lb/hr of particulate emissions

Applicable Compliance Method:

To determine the actual worst case particulate emission rate, the following equation shall be used:

E = (M) * (1-TE) * (1-CE)

where:

E = particulate emission rate (lbs/hr)

M = maximum coating solids usage rate (lbs/hr)

TE = transfer efficiency, which is the ratio of the amount of coating solids deposited on the coated part to the amount of coating solids used

CE = control efficiency of the control equipment - If more than one piece of control equipment is used in series, the equation should be multiplied by additional (1-CE) terms for each additional piece of equipment.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in OAC rule 3745-17-03(B)(10).

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

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