



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL
CARROLL COUNTY**

CERTIFIED MAIL

Street Address:

50 West Town Street, Suite 700

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center
P.O. Box 1049

Application No:

02-22163

Fac ID: 0210000107

DATE: 2/20/2007

Aluminum One
John Stiefel
217 Roosevelt Ave
Minerva, OH 44657

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00 which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, OH 43215

Sincerely,

Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

CC: USEPA

NEDO



Permit To Install
Terms and Conditions

Issue Date: 2/20/2007
Effective Date: 2/20/2007

**FINAL PERMIT TO INSTALL
02-22163**

Application Number: 02-22163
Facility ID: 0210000107
Permit Fee: **\$1000**
Name of Facility: Aluminum One
Person to Contact: John Stiefel
Address: 217 Roosevelt Ave
Minerva, OH 44657

Location of proposed air contaminant source(s) [emissions unit(s)]:
**217 Roosevelt Ave
Minerva, Ohio**

Description of proposed emissions unit(s):
Modification to Rotary Furnace No. 6.

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski
Director

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Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping 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 (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) 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. 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 (i.e., postmarked) quarterly 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.)

3. 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.

4. 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

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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.

5. 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).

6. 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.

7. 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.

8. Termination of Permit to Install

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

9. Construction of New Sources(s)

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The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

10. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

11. Applicability

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

12. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

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13. Source Operation and Operating Permit Requirements After Completion of Construction

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

14. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

15. 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. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

B. Permit to Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)
 TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons Per Year</u>
PE	13.36
HCL	1.14
D/F	7.49E-07
CO	2.43
NOx	1.45

Emissions Unit ID: **P004**

Issued: 2/20/2007

(This permit is a Chapter 31 modification of PTI No. 02-13875 and contains an increase of 0.70 ton HCL and 3.36E-07 ton D/F TEQ. PE emissions will remain unchanged.)

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PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**A. Applicable Emissions Limitations and/or Control Requirements**

- The specific operations(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 specified in narrative form following the table.

Operations, Property, and/or Equipment - (P004) - Modification to Rotary Furnace No. 6

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	<p>Particulate emissions (PE) shall not exceed 3.0 lbs/hr and 13.14 tpy.</p> <p>Hydrogen chloride (HCL) emissions shall not exceed 0.26 lb/hr and 1.14 tpy.</p> <p>Visible PE shall not exceed 10% opacity, as a 6-minute average, at any time.</p> <p>Nitrogen oxides (NO_x) emissions as a product of combustion shall not exceed 0.33 lb/hr and 1.45 tpy.</p> <p>Carbon monoxide (CO) emissions as a product of combustion shall not exceed 0.56 lb/hr and 2.43 tpy.</p> <p>PE as a product of combustion shall not exceed 0.05 lb/hr and 0.22 tpy.</p> <p>See section A.1.2.f.</p>
40 CFR Part 63, Subpart RRR	<p>2.1×10^{-4} grain (15g/Mg) of D/F TEQ per ton of feed/charge and 7.49E-07 ton per year</p> <p>See sections A.1.2.b, A.1.2.c, A.1.2.d, A.1.2.e, B.1, B.2 and B.3.</p>
OAC rule 3745-17-07(A)	<p>The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p>

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OAC rule 3745-17-11(B)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
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Issued: 2/20/2007**2. Additional Terms and Conditions**

- 2.a** This emissions unit is a group 1 furnace which may process oily/greasy scrap and may use a reactive fluorine-based flux. This 7.0 MM Btu/hour rotary tilting furnace will fire with natural gas/oxyfuel. The furnace will be equipped with a collection system consisting of a canopy hood and duct work, a dust dropout box, and a 40,000 cfm, 3-compartment, negative pressure baghouse with a shaker cleaning mechanism. The bags will be pre-coated with hydrated lime. Lime will be added to the baghouse continuously and following each shakeout cycle, at a minimum. The baghouse operation will be monitored using a triboelectric bag leak detector. The feed/charge rate will be recorded using a scale and a recorder, with calibration of the scale at least once every 6-month period to $\pm 1\%$ accuracy. This will not be an in-line fluxer, nor will there be a sidewall.
- 2.b** The permittee must provide and maintain easily visible labels posted at this emissions unit that identify the applicable emission limits and means of compliance, including the type of emissions unit (e.g. group 1 furnace) and the applicable operational standards and control methods (work practice or control device). This includes, but is not limited to, the type of charge to be used (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.
- 2.c** The permittee must design and install a system for the capture and collection of emissions to meet the engineering standards for minimum exhaust rates as published by the American Conference of Governmental Industrial Hygienists in chapters 3 and 5 of "Industrial Ventilation: A Manual of Recommended Practice". The permittee shall:
- i. vent captured emissions through a closed system, except that dilution air may be added to emission streams for the purpose of controlling temperature at the inlet to a fabric filter; and
 - ii. operate each capture/collection system according to the procedures and requirements in the OM&M plan.
- 2.d** The permittee shall:
- i. install and operate a device that measures and records or otherwise

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determines the weight of feed/charge (or throughput) for each operating cycle or time period used in the performance test; and

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

2.e For the bag leak detection system the permittee shall:

- i. initiate corrective action within 1 hour of a bag leak detection system alarm; and
- ii. operate the fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period.

In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time shall be counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If the permittee takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the permittee to initiate corrective action.

2.f The doors in the vicinity of the furnace shall be kept closed except when material or people are entering or exiting the furnace area.

B. Operational Restrictions

1. The permittee shall maintain the 3-hour block average inlet temperature for the fabric filter at or below the average temperature established during the performance test, plus 25°F.
2. For the lime injection system, the permittee shall maintain free-flowing lime in the hopper to the feed device at all times and maintain the lime feeder setting at the same level established during the performance test.
3. The permittee shall maintain the total reactive flux injection rate for each operating cycle or time period used in the performance test at or below the average rate established during the performance test.

C. Monitoring and/or Record keeping Requirements

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1. The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the pressure drop across the baghouse during operation of this emissions unit, including periods of startup and shutdown. 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 on a weekly basis.

Whenever the monitored value for the pressure drop deviates from the range specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the pressure drop readings immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The acceptable range for the pressure drop across the baghouse shall be based upon the manufacturer's specifications until such time as any required emission testing is conducted.

This range is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the range based upon information obtained during future particulate emission tests that demonstrate compliance with the allowable particulate emission rate for this emissions unit. In addition, approved revisions to the range will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

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2. The permittee shall collect and record the following information for each day for the control equipment:
 - a. a log of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit; and
 - b. a log of all times the outside door(s) adjacent to the furnace capture hood was/were open and the reason why.
3. The permittee shall prepare and submit to the Ohio EPA, Northeast District Office, a revised operation, maintenance and monitoring (OM&M) plan and a revised startup, shutdown and malfunction plan (SSMP), as applicable.
4. The permittee must inspect the labels for this emissions unit at least once per calendar month to confirm that posted labels as required by A.2.b are intact and legible.
5. To determine the feed/charge rate, the permittee must install, calibrate, operate and maintain a device to measure and record the total weight of feed/charge to the emissions unit over the same operating cycle or time period used in the performance test. Feed/charge or aluminum production must be measured and recorded on an emission unit-by-emission unit basis.
 - a. The accuracy of the weight measurement device or procedure must be ± 1 percent of the weight being measured. The permittee may apply to the Director (Ohio EPA, Northeast District Office) for approval to use a device of alternative accuracy if the required accuracy cannot be achieved as a result of equipment layout or charging practices. A device of alternative accuracy will not be approved unless the permittee provides assurance through data and information that the emissions unit will meet the relevant emission standard.
 - b. The permittee must verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every 6 months.
6. The permittee must install, operate and maintain on a continuous basis a bag leak detection system as required below or a continuous opacity monitoring system as required below.
 - a. The permittee must install and operate a bag leak detection system for each exhaust stack of a fabric filter.

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- b. Each Triboelectric bag leak detection system must be installed, calibrated, operated and maintained according to the "Fabric Filter Bag Leak Detection Guidance" (September 1997). This document is available from the US EPA; Office of Air Quality Planning and Standards; Emissions, Monitoring and Analysis Division; Emission Measurement Center (MD-19), Research Triangle Park, NC 27711. This document also is available on the Technology Transfer Network (TTN) under Emission Measurement Technical Information (EMTIC), Continuous Emission Monitoring. Other bag leak detection systems must be installed, operated, calibrated and maintained in a manner consistent with the manufacturer's written specifications and recommendations.
- c. The bag leak detection system must be certified by the manufacturer to be capable of detecting PE at concentrations of 10 milligrams per actual cubic meter (0.0044 grain per actual cubic foot) or less.
- d. The bag leak detection system sensor must provide output of relative or absolute PM loadings.
- e. The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.
- f. The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel.
- g. For negative pressure filters, the bag leak detector must be installed downstream of the fabric filter.
- h. Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.
- i. The baseline output must be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time.
- j. Following initial adjustment of the system, the permittee must not adjust the sensitivity or range, averaging period, alarm set points or alarm delay time except as detailed in the OM&M plan. In no case may the sensitivity be increased by more than 100 percent or decreased more than 50 percent over a

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365-day period unless such adjustment follows a complete fabric filter inspection which demonstrates that the fabric filter is in good operating condition.

7. For the fabric filter inlet temperature, the permittee shall:
 - a. install calibrate, maintain and operate a device to continuously monitor and record the temperature of the fabric filter inlet gases consistent with the requirements for continuous monitoring systems in Subpart A of 40 CFR Part 63.
 - b. The temperature monitoring device must meet each of these performance and equipment specifications.
 - i. The monitoring system must record the temperature in 15-minute block averages and calculate and record the average temperature for each 3-hour block period.
 - ii. The recorder response range must include zero and 1.5 times the average temperature established according to the requirements in 40 CFR 63.1512(n).
 - iii. The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system of alternate reference, subject to approval by the Administrator.
8. For the lime injection system the permittee shall:
 - a. for a continuous lime injection system verify that lime is always free-flowing by either:
 - i. inspecting each feed hopper or silo at least once each 8-hour period and recording the results of each inspection. If lime is found not to be free-flowing during any of the 8-hour periods, the permittee must increase the frequency of inspections to at least once every 4-hour period for the next 3 days. The permittee may return to inspections at least once every 8 hour period if corrective action results in no further blockages of lime during the 3-day period; or
 - ii. Subject to the approval of the Director (Ohio EPA, Northeast District Office), installing, operating and maintaining a load cell, carrier gas/lime flow indicator, carrier gas pressure drop measurement system or other system to confirm that lime is free-flowing. If lime is found not to be

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free-flowing, the permittee must promptly initiate and complete corrective action, or

- iii. Subject to the approval of the Director (Ohio EPA, Northeast District Office), installing, operating and maintaining a device to monitor the concentration of HCL at the outlet of the fabric filter. If an increase in the concentration of HCL indicates that the lime is not free-flowing, the permittee must promptly initiate and complete corrective action.
 - b. The permittee must record the lime feeder setting once each day of operation.
 - c. The permittee must obtain permission from the Director (Ohio EPA, Northeast District Office) for the intermittent lime addition monitoring procedure. The Director (Ohio EPA, Northeast District Office) will not approve a monitoring procedure unless data and information are submitted establishing that the procedure is adequate to ensure that relevant emission standards will be met on a continuous basis.
9. Except as provided below, the permittee must calculate and record the 3-day, 24-hour rolling average emissions of PE, 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:
 - a. calculate and record the total weight of material charged to each emission unit in the secondary aluminous processing unit for each 24-hour day of operation using the feed/charge weight information required above. If the permittee chooses to comply on the basis of weight of aluminum produced by the emissions 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.
 - b. 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.
10. The permittee shall maintain files of all information (including all reports and notifications) required by the general provisions and 40 CFR Part 63, Subpart RRR.

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- a. The permittee 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.
 - b. The permittee may retain records on microfilm, computer disks, magnetic tape or microfiche; and
 - c. the permittee may report required information on paper or on a labeled computer disk using commonly available and EPA-compatible computer software.
11. In addition to the general records required by 63.10(b), the permittee must maintain records of:
- a. for the bag leak detection system, the number of total operating hours for the emissions unit during each 6-month reporting period, records of each alarm, the time of the alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective actions taken.
 - b. For the lime injected fabric filter:
 - i. records of inspections at least once every 8-hour period verifying that lime is present in the feeder hopper or silo and flowing, including any inspection where blockage is found, with a brief explanation of the cause of the blockage and the corrective action taken, and records of inspections at least once every 4-hour period for the subsequent 3 days. If flow monitors, pressure drop sensors or lead cells are used to verify that lime is present in the hopper and flowing, records of all monitor or sensor output including any event where blockage was found, with a brief explanation of the cause of the blockage and the corrective action taken:
 - ii. If the lime feeder setting is monitored, records of daily inspections of feeder setting, including records of any deviation of the feeder setting from the setting used in the performance test, with a brief explanation of the cause of the deviation and the corrective action taken.

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- c. For each continuous monitoring system, records required by 63.10(c).
- d. Records of feed/charge (or throughput) weights for each operating cycle or time period used in the performance test.
- e. Records of monthly inspections for proper unit labeling for this furnace.
- f. Records of annual inspections of emission capture/collection and closed vent systems.
- g. Current copy of all required plans, including any revisions, with records documenting conformance with the applicable plant, including the startup, shutdown and malfunction plan and the OM&M plan.

D. Reporting Requirements

- 1. The permittee must submit an updated initial notification to the Director (Ohio EPA, Northeast District Office), as required.
- 2. The permittee must submit an updated notification of compliance status report within 60 days after the compliance date established by 40 CFR 63.1501(a), as required.
- 3. The permittee must develop a modified startup, shutdown and malfunction and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the standard. The permittee shall also keep records of each event as required by 63.10(b) and record and report if an action taken during a startup, shutdown or malfunction is not consistent with the procedure in the plan as described in 63.6(e)(3).
- 4. The permittee must submit semiannual reports according to the requirements in 63.10(e)(3). Except, the permittee must submit the semiannual reports within 60 days after the end of each 6-month period instead of within 30 days after the calendar half as specified in 63.10(e)(3)(v). When no deviations of parameters have occurred, the permittee must submit a report stating that no excess emissions occurred during the reporting period. A report must be submitted if any of these conditions occur during a 6-month reporting period:
 - a. The corrective action specified in the OM&M plan for a bag leak detection system alarm was not initiated within 1 hour.

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- b. An excursion of a complaint process or operating parameter value or range (e.g., lime injection rate or screw feeder setting, total reactive chlorine/fluorine flux injection rate, fabric filter inlet temperature, definition of acceptable scrap or other approved operating parameter).
- c. Each period of time when the pressure drop across the baghouse field was outside of the acceptable range.
- d. 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).
- e. The emissions unit was not operated according to the requirements of this subpart.

E. Testing Requirements

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

- a. Emission Limitation:

PE shall not exceed 3.0 lbs/hr and 13.14 tpy.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, PE testing for this emissions unit to demonstrate compliance with the allowable mass emission rate in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

Compliance with the annual emission limit shall be determined by multiplying the number of hours of annual operation by the hourly emission rate determined by the PE test and dividing by 2000 lbs/ton.

- b. Emission Limitation:

HCL emissions shall not exceed 0.26 lb/hr and 1.14 tpy.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, HCL testing for this emissions unit to demonstrate compliance with the allowable mass emission rate in

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accordance with 40 CFR Part 60, Appendix A, Method 26A.

Compliance with the annual emission limit shall be determined by multiplying the number of hours of annual operation by the hourly emission rate determined by the HCL test and dividing by 2000 lbs/ton.

c. Emission Limitation:

2.1×10^{-4} grain (15g/Mg) of D/F TEQ per ton of feed/charge to the furnace and 7.49E-07 ton per year

Applicable Compliance Method:

Should the permittee employ a chlorine-based flux, the permittee shall conduct, or have conducted, D/F testing for this emissions unit to demonstrate compliance with the allowable mass emission rate in accordance with 40 CFR Part 60, Appendix A, Method 23.

Compliance with the annual emission limit shall be determined by multiplying the number of hours of annual operation by the hourly emission rate determined by the D/F test and dividing by 2000 lbs/ton.

d. Emission Limitation:

Visible PE shall not exceed 10% opacity, as a 6-minute average, at any time.

Applicable Compliance Method:

Compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

e. Emission Limitations:

NO_x emissions as a product of combustion shall not exceed 0.33 lb/hr and 1.45 tpy.

CO emissions as a product of combustion shall not exceed 0.56 lb/hr and 2.43 tpy.

PE as a product of combustion shall not exceed 0.05 lb/hr and 0.22 tpy.

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Applicable Compliance Method:

Compliance for each pollutant was calculated on a one-time basis as follows:

$$\text{NO}_x : (50 \text{ lbs/MM ft}^3)^{(1)} \times (7 \text{ MM Btu/hour}) \times (1 \text{ scf}/1,059 \text{ BTU}) = 0.33 \text{ lb/hour} \times 8760/2000 = 1.45 \text{ tpy}$$

$$\text{CO}: (84 \text{ lbs/ MM ft}^3)^{(1)} \times (7 \text{ MM Btu/hour}) \times (1 \text{ scf}/1,059 \text{ Btu}) = 0.56 \text{ lb/hour} \times 8760/2000 = 2.43 \text{ tpy}$$

$$\text{PE}: (7.6 \text{ lb/MM Btu ft}^3)^{(2)} \times (7 \text{ MM Btu/hour}) \times (1 \text{ scf}/1,059 \text{ Btu}) = 0.05 \text{ lb/hour} \times 8760/2000 = 0.22 \text{ tpy}$$

(1) AP- 42, Table 1.4-1 (7/98) for natural gas combustion

(2) AP-42, Table 1.4-2 (7/98) for natural gas combustion

Note: No NO_x would be formed during combustion of oxyfuel. Also, various on-line literature suggests combustion of oxyfuel may reduce CO formation 40-60%.

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 90 days after startup. All of the tests shall be conducted while the furnace is operating at or near the maximum feed/charge rate.
 - b. The emission testing shall be conducted to demonstrate compliance with the PE, HCL, D/F short term limitations and total fluoride emissions for total HAP determination. The testing shall also establish the minimum lime feed rate, the maximum inlet temperature to the baghouse, the pressure drop across the baghouse, the total reactive fluorine or chlorine flux rate and the scrap charge rate and monitoring method.
 - c. Prior to the emissions testing, the bag leak detection system shall be installed and properly calibrated. The continuous lime feed rate monitoring system shall be properly installed and operating.
 - d. The following test method(s) shall be employed to demonstrate compliance with

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the allowable mass emission rate(s): Methods 1-5 for PE, Method 26A for HCL, Method 23 for D/F and Method 13B for total fluoride. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA, including a modification to Method 26A for fluorine.

- e. 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, Northeast District Office.
- f. 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, Northeast 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, Northeast District Office's refusal to accept the results of the emission test(s).
- g. Personnel from the Ohio EPA, Northeast 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.
- h. 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 appropriate Ohio EPA, Northeast 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, Northeast District Office.

F. Miscellaneous Requirements

None