



10/29/2013

Certified Mail

Robert Phillips
Matalco
4420 LOUISVILLE RD
Canton, OH 44705

No	TOXIC REVIEW
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MODELING SUBMITTED
No	SYNTHETIC MINOR TO AVOID TITLE V
No	FEDERALLY ENFORCABLE PTIO (FEPTIO)
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 1576001813
Permit Number: P0113415
Permit Type: Administrative Modification
County: Stark

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

How to appeal this permit

The issuance of this PTIO is a final action of the Director 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, made payable to "Ohio Treasurer Josh Mandel," 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
77 South High Street, 17th Floor
Columbus, OH 43215

How to save money, reduce pollution and reduce energy consumption

The Ohio EPA is encouraging 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 Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: www.ohioairquality.org/clean_air

How to give us feedback on your permitting experience

Please complete a survey at www.epa.ohio.gov/survey.aspx and give us feedback on your permitting experience. We value your opinion.

How to get an electronic copy of your permit

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Canton City Health Department at (330)489-3385 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Michael W. Ahern, Manager

Permit Issuance and Data Management Section, DAPC

Cc: Canton



FINAL

**Division of Air Pollution Control
Permit-to-Install and Operate
for
Matalco**

Facility ID:	1576001813
Permit Number:	P0113415
Permit Type:	Administrative Modification
Issued:	10/29/2013
Effective:	10/29/2013
Expiration:	2/24/2021



Division of Air Pollution Control
Permit-to-Install and Operate
for
Matalco

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Authorization

Facility ID: 1576001813
 Application Number(s): A0047153, A0048615
 Permit Number: P0113415
 Permit Description: Administrative Modification PTIO to correct rating of aluminum reverberatory furnace, EU P901, from 5.0 to 12.0 tph and revise allowable emissions limits based on emissions factors obtained from 3-26-2013 stack testing results.
 Permit Type: Administrative Modification
 Permit Fee: \$500.00
 Issue Date: 10/29/2013
 Effective Date: 10/29/2013
 Expiration Date: 2/24/2021
 Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

Matalco
 4420 LOUISVILLE RD
 Canton, OH 44705

of a Permit-to-Install and Operate for the emissions unit(s) identified on the following page.

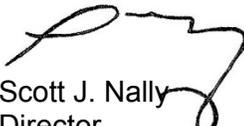
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Canton City Health Department
 420 Market Avenue
 Canton, OH 44702-1544
 (330)489-3385

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s)) listed in this section 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 described emissions unit(s) will operate in compliance with applicable State and federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency



Scott J. Nally
 Director



Final Permit-to-Install and Operate

Matalco

Permit Number: P0113415

Facility ID: 1576001813

Effective Date: 10/29/2013

Authorization (continued)

Permit Number: P0113415

Permit Description: Administrative Modification PTIO to correct rating of aluminum reverberatory furnace, EU P901, from 5.0 to 12.0 tph and revise allowable emissions limits based on emissions factors obtained from 3-26-2013 stack testing results.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

Emissions Unit ID:	P901
Company Equipment ID:	OH #1 Furnace
Superseded Permit Number:	P0107468
General Permit Category and Type:	Not Applicable



Final Permit-to-Install and Operate

Matalco

Permit Number: P0113415

Facility ID: 1576001813

Effective Date: 10/29/2013

A. Standard Terms and Conditions



1. What does this permit-to-install and operate ("PTIO") allow me to do?

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

2. Who is responsible for complying with this permit?

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

3. What records must I keep under this permit?

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

4. What are my permit fees and when do I pay them?

There are two fees associated with permitted air contaminant sources in Ohio:

PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

5. When does my PTIO expire, and when do I need to submit my renewal application?

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is



very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

6. What happens to this permit if my project is delayed or I do not install or modify my source?

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

7. What reports must I submit under this permit?

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions of this permit will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.



10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the [DO/LAA] in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

12. What happens if one or more emissions units operated under this permit is/are shut down permanently?

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emission unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.



13. Can I transfer this permit to a new owner or operator?

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

15. What happens if a portion of this permit is determined to be invalid?

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.



Final Permit-to-Install and Operate

Matalco

Permit Number: P0113415

Facility ID: 1576001813

Effective Date: 10/29/2013

B. Facility-Wide Terms and Conditions



Final Permit-to-Install and Operate

Matalco

Permit Number: P0113415

Facility ID: 1576001813

Effective Date: 10/29/2013

1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) None.
 - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (1) None.
2. The following emissions units contained in this permit are subject to 40 CFR Part 63, Subpart RRR: P901. The complete MACT requirements, including General Provisions, may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the appropriate Ohio EPA District Office or local air agency.



Final Permit-to-Install and Operate

Matalco

Permit Number: P0113415

Facility ID: 1576001813

Effective Date: 10/29/2013

C. Emissions Unit Terms and Conditions



1. P901, OH #1 Furnace

Operations, Property and/or Equipment Description:

Secondary Aluminum Group 1 Reverberatory Melting Furnace, natural gas-fired with 36 mmBTU/Hr heat input capacity and 12.0 TPH maximum melt capacity

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001	Filterable Particulate Emissions less than 10 microns in diameter (PE/PM ₁₀) shall not exceed 0.324 lb/hr and 1.420 tpy. Filterable Particulate Emissions less than 2.5 microns diameter (PE/PM _{2.5}) shall not exceed 0.270 lb/hr and 1.183 tpy. Nitrogen Oxides (NOx) emissions shall not exceed 1.140 lb/hr and 4.993 tpy. Carbon Monoxide (CO) emissions shall not exceed 0.750 lb/hr and 3.285 tpy. See b)(2)b. and c)(1).
b.	OAC rule 3745-31-05(A)(3), as effective 12/01/2006	See b)(2)c.
c.	OAC rule 3745-17-11	See b)(2)d. and c)(1).



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
e.	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust from this emissions unit shall not exceed 20% opacity, as a 3-minute average.
f.	OAC rule 3745-17-08(B)(3) [Facility located in an Appendix "A" area]	Reasonably available control measures for fugitive dust. See b)(2)e.
g.	40 CFR Part 63, Subpart RRR (40 CFR 63.1500 – 1519)	See b)(2)f. and c)(2)-c)(5).

(2) Additional Terms and Conditions

- a. The uncontrolled potential to emit for VOC, OC, SO₂ and Pb is negligible for this emissions unit. Therefore no emissions limitations or recordkeeping requirements for these pollutants are included in this permit.
- b. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.
- c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.
 - i. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the CO, NO_x, PM₁₀, and PM_{2.5} from this air contaminant source since the uncontrolled potential to emit for CO, NO_x, PM₁₀, and PM_{2.5} is less than 10 tons/yr.
 - ii. The particulate emissions (PE/PM) shall not exceed the allowable emission rate of 21.67 lb/hr based on Table I from the Appendix of OAC rule 3745-17-11 with a process weight rate of 12.0 tons/hr of molten aluminum.



- iii. The operational restriction in term c)(1) remains effective to ensure compliance with the emission limit established OAC rule 3745-17-11 in term b)(2)c.ii. above.
 - d. The particulate emissions (PE/PM) limitations pursuant to this rule are less stringent than the limitations established by OAC rule 3745-31-05(A)(3) and the uncontrolled PE/PM potential to emit for this emission unit. See f)(1)g.
 - e. The permittee shall take or install reasonably available control measures to prevent fugitive dust from becoming airborne. Such measures shall include, but not be limited to, the installation and use of hoods, fans, and/or other equipment to adequately enclose, contain, capture, vent, and control fugitive dust from this emissions unit meeting the following requirements:
 - i. the collection efficiency shall be sufficient to minimize or eliminate visible emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design; and
 - ii. the control equipment for this emissions unit shall achieve an outlet emission rate of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases or there shall be no visible particulate emissions (whichever is less stringent) from the exhaust stack of this emissions unit.
 - f. This affected Emissions Unit (EU) is designated as a Group 1 furnace under 40 CFR Part 63, Subpart RRR because it processes clean charge using a reactive flux. However, because the EU melts only clean aluminum scrap, Subpart RRR does not apply. See section 40 CFR Part 63.1505(i).
 - g. The terms and conditions for this emissions unit as specified in this Permit to Install and Operate (PTIO) P0113415 supersede all the terms and conditions specified in PTIO P0107468 dated February 24, 2011.
- c) Operational Restrictions
- (1) The permittee shall fire only natural gas as fuel in this emissions unit.
 - (2) The permittee shall charge this emission unit with clean aluminum material only. Clean material charge is defined as follows: "materials including molten aluminum; T-bar; sow; ingot; billet; pig; alloying elements; uncoated/ unpainted thermally dried aluminum chips; aluminum scrap dried at 650°F or higher; aluminum scrap delacquered/ decoated at 900°F or higher; other oil and lubricant free unpainted/ uncoated gates and risers; oil and lubricant free unpainted/ uncoated aluminum scrap, shapes, or products (e.g. pistons) that have not undergone any process (e.g. machining, coating, painting, etc.) that would cause contamination of the aluminum (with oils, lubricants, coatings, or paints); and internal runaround."
 - (3) The permittee shall conduct reactive fluxing in this emission unit with only magnesium chloride based reactive agents. Flux shall be added only into the molten vortex of the Electromagnetic Pump (EMP) charging well. The permittee shall not add reactive flux



within the hearth or in the sidewall. The quantity of reactive flux added shall not exceed 0.7 lb flux/ton molten aluminum.

- (4) Alloying, if any is performed in this emissions unit, shall be done with only clean materials, i.e., free of HAP's or precursors to HAP's.
- (5) Chlorine gas shall not be added to this EU for the purpose of demagging the aluminum.

d) **Monitoring and/or Recordkeeping 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 emissions of fugitive dust 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 emissions incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item d. above or continue the daily check until the incident has ended. The observer may indicate that the visible emissions 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 permittee shall maintain records of permissible feed/charge materials and certify charge materials every 6 months.
- (3) The permittee shall maintain records of the flux materials used by name and manufacturer, the halogen content of each flux, and the quantity of flux used per batch of aluminum processed.

e) **Reporting Requirements**

- (1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Canton City Health Department, Air Pollution Control Division by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting



period of no more than twelve months for each air contaminant source identified in this permit. It is recommended that the PER is submitted electronically through the Ohio EPA's "e-Business Center: Air Services" although PERs can be submitted via U.S. postal service or can be hand delivered..

- (2) The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in term number d)(1) above:
 - a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit;
 - b. all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and
 - c. any corrective actions taken to minimize or eliminate the visible particulate emissions from the stack and/or visible emissions of fugitive dust.
- (3) The permittee shall identify the following information in the annual permit evaluation report in accordance with the operational restrictions for clean aluminum material usage in term number c)(2) above and the recordkeeping requirements in term number d)(3) above:
 - a. all instances in which any materials other than clean aluminum material defined in term c)(2) above were charged into this emission unit.

f) Testing Requirements

- (1) Compliance with the emission limitation(s) in Section b)(1). of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitation:

Filterable PE/PM₁₀ emissions shall not exceed 0.324 lb/hr and 1.420 tpy.

Applicable Compliance Method:

The hourly emissions rate for filterable Particulate Emissions (PE/PM) exiting the stack was established using the results from stack testing performed on 3/26/2013 which demonstrated a PE/PM emissions rate of 0.2286 lb/hr based on the average emissions rate of 3 test runs at an aluminum processing rate of 8.48 tons/hr.

For fugitive dust from the emissions unit, the PTIO Application gives a range of capture efficiencies from 90% to 98%. To be conservative in estimating the amount of fugitive dust, an overall capture efficiency of 90% is assumed. Thus the total PE/PM emissions including fugitives is:



$$\frac{\text{PE/PM exiting the stack}}{\text{Overall Capture Efficiency}} = \frac{0.2286 \text{ lb/hr}}{0.90} = 0.254 \text{ lb/hr}$$

An emissions factor was derived by dividing the average PE/PM rate of 0.254 lb/hr by the average aluminum processing rate of 8.48 tons/hr as follows:

$$\frac{0.254 \text{ lb PE/hr}}{8.48 \text{ ton Al /hr}} = \frac{0.030 \text{ lb PE/PM}}{\text{ton Al}}$$

Based on a maximum process rate of 12.0 tons Al/hr and providing a 50% margin as requested by the facility, the maximum actual hourly PE/PM emissions are:

$$\frac{0.030 \text{ lbPE}}{\text{ton Al hr}} \times \frac{12.0 \text{ tons Al}}{\text{hr}} \times 1.50 = \frac{0.540 \text{ lb PE/PM}}{\text{hr}}$$

The maximum hourly PE/PM₁₀ from the melting process is calculated as 60% of the PE/PM emissions rate from above based on the particulate size proportions given in AP-42, Section 12.8, Secondary Aluminum Operations, Table 12.8-4, 10/86:

$$\text{PE/PM}_{10} = \frac{0.540 \text{ lb PE/PM}}{\text{hr}} \times 0.60 = \frac{0.324 \text{ lb PE/PM}_{10}}{\text{hr}}$$

If required, compliance shall be demonstrated by emissions tests performed in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 201 or 201A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

The annual limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8760 hrs/yr and dividing by 2000 lbs/ton, as shown below. Therefore compliance with the hourly PE/PM₁₀ emissions limitation demonstrates compliance with the annual PE/PM₁₀ emissions limitation.

$$0.324 \text{ lb/hr} \times 8760 \text{ hr/yr} \div 2000 \text{ lbs/ton} = 1.420 \text{ tpy PE/PM}_{10}$$

b. Emission Limitation:

Filterable PE/PM_{2.5} emissions shall not exceed 0.270 lb/hr and 1.183 tpy.

Applicable Compliance Method:

The hourly emissions limitation was established as 50% of the actual PE/PM emissions rate from above based on the particulate size proportions given in AP-42, Section 12.8, Secondary Aluminum Operations, Table 12.8-4, 10/86:

$$\text{PE/PM}_{2.5} = \frac{0.540 \text{ lb PE/PM}}{\text{hr}} \times 0.50 = \frac{0.270 \text{ lb PE/PM}_{2.5}}{\text{hr}}$$



If required, compliance shall be demonstrated by emissions tests performed in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A, Method 201A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

The annual limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8760 hrs/yr and dividing by 2000 lbs/ton, as shown below. Therefore compliance with the hourly PE/PM_{2.5} emissions limitation demonstrates compliance with the annual PE/PM_{2.5} emissions limitation.

$$0.270 \text{ lb/hr} \times 8760 \text{ hr/yr} \div 2000 \text{ lbs/ton} = 1.183 \text{ tpy PE/PM}_{2.5}$$

c. Emission Limitation:

NOx emissions shall not exceed 1.140 lb / hr and 4.993 tpy.

Applicable Compliance Method:

The hourly emissions limitation was established using the results from stack testing performed on 3/26/2013. An emissions factor was derived by dividing the average NOx emissions rate of 0.5359 lb/hr from 3 test runs by the average aluminum processing rate of 8.48 tons/hr as follows:

$$\frac{0.5359 \text{ lbNOx/hr}}{8.48 \text{ ton Al /hr}} = \frac{0.0632 \text{ lbNOx}}{\text{ton Al}}$$

Based on a maximum process rate of 12.0 tons Al/hr and providing a 50% margin as requested by the facility, the maximum actual hourly NOx emissions are:

$$\frac{0.0632 \text{ lbNOx}}{\text{ton Al hr}} \times \frac{12.0 \text{ tons Al}}{\text{hr}} \times 1.50 \approx \frac{1.140 \text{ lbNOx}}{\text{hr}}$$

If required, compliance shall be demonstrated by emissions tests performed in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A, Method 7. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

The annual limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8760 hrs/yr and dividing by 2000 lbs/ton, as shown below. Therefore compliance with the hourly NOx emissions limitation demonstrates compliance with the annual NOx emissions limitation.

$$1.140 \text{ lb/hr} \times 8760 \text{ hr/yr} \div 2000 \text{ lbs/ton} = 4.993 \text{ tpyNOx}$$



d. Emission Limitation:

CO emissions shall not exceed 0.750 lb/hr and 3.285 tpy

Applicable Compliance Method:

The hourly emissions limitation was established using the results from stack testing performed on 3/26/2013. An emissions factor was derived by dividing the average CO emissions rate of 0.3501 lb/hr from 3 test runs by the average aluminum processing rate of 8.48 tons/hr as follows:

$$\frac{0.3501 \text{ lb CO/hr}}{8.48 \text{ ton Al /hr}} = \frac{0.0413 \text{ lb CO}}{\text{ton Al}}$$

Based on a maximum process rate of 12.0 tons Al/hr and providing a 50% margin as requested by the facility, the maximum actual hourly CO emissions are:

$$\text{ton Al} \frac{0.0413 \text{ lbCO}}{\text{hr}} \times \frac{12.0 \text{ tons Al}}{\text{hr}} \times 1.50 \approx \underline{0.750 \text{ lb CO}}$$

If required, compliance shall be demonstrated by emissions tests performed in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A, Method 10. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

The annual limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8760 hrs/yr and dividing by 2000 lbs/ton, as shown below. Therefore compliance with the hourly CO emissions limitation demonstrates compliance with the annual CO emissions limitation.

$$0.750 \text{ lb/hr} \times 8760 \text{ hr/yr} \div 2000 \text{ lbs/ton} = 3.285 \text{ tpy CO}$$

e. Emission Limitation:

Visible particulate emissions from the stack shall not exceed 20 percent opacity as a six-minute average, except as specified by rule; and visible emissions from fugitive dust shall not exceed 20 percent opacity as a three-minute average

Applicable Compliance Method:

If required, compliance with the stack visible particulate emissions limitation shall be determined through visible emissions observations performed in accordance with U.S. EPA Method 9.

f. Emission Limitation:

Reasonably available control measures to achieve the following: The controlled emissions from the stack shall achieve an outlet emission rate of not greater than



0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases or there shall be no visible emissions from the exhaust stack.

Applicable Compliance Method:

The results from stack testing performed on 3/26/2013 were 0.0027 gr/dscf, which demonstrated compliance with the 0.030 gr/dscf emission limitation.

If required, compliance with the requirement for no visible particulate emissions from the exhaust stack, identified in this permit, shall be determined in accordance with U.S. EPA Method 9. If opting to comply with the outlet particulate emissions rate, compliance with the 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases from the stack shall be determined in accordance with U.S. EPA Methods 1 through 5.

g. Emission Limitation:

The particulate emissions (PE/PM) shall not exceed 21.67 lb/hr.

Applicable Compliance Method:

The maximum allowable PE/PM in lb/hr is established by OAC rule 3745-17-11. Using the equation from Table I, with a process weight rate (P) = 12 TPH:

$$\begin{aligned} PE/PM &= 4.10 \times (P)^{0.67} \\ PE/PM &= 4.10 \times (12)^{0.67} = 21.67 \text{ lb/hr} \end{aligned}$$

As shown above in f)(1)a., the maximum uncontrolled emission rate for PE/PM for this emission unit is 0.254 lb/hr. Since 0.254 lb/hr is much less than 21.67 lb/hr, compliance with this emission limitation is assumed.

If required, compliance shall be demonstrated by emissions tests performed in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

g) Miscellaneous Requirements

- (1) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified PTIO prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTIO.