



07/27/2026

Mr. Douglas Wike
Imperial Aluminum - Minerva, LLC
217 Roosevelt St
Minerva, OH 44657

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 0210000107
Permit Number: P0139624
Permit Type: Initial Installation
County: Carroll

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

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install and Operate (P110) for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the permit. A public notice will appear in the Ohio Environmental Protection Agency Weekly Review and Public Notices website, [Weekly Review and Public Notices](#). A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically on the Ohio EPA document search webpage: [eDocument Search / Ohio Environmental Protection Agency](#). Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrea Moore
Permit Review/Development Section
Ohio EPA, DAPC
50 West Town Street Suite 700
PO Box 1049
Columbus, Ohio 43216-1049

and Ohio EPA DAPC, Northeast District Office
2110 East Aurora Rd.
Twinsburg, OH 44087

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice appears on the Ohio EPA Weekly Review and Public Notices website, [Weekly Review and Public Notices / Ohio Environmental Protection Agency](#). You will be notified if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Ohio EPA DAPC, Northeast District Office at (330)963-1200.

Sincerely,

Robert Hodanbosi
Chief, Division of Air Pollution Control

cc: U.S. EPA Region 5 Via E-Mail Notification
Ohio EPA-NEDO; Pennsylvania; West Virginia

PUBLIC NOTICE

The following matters are the subject of this public notice by the Ohio Environmental Protection Agency. The complete public notice, including any additional instructions for submitting comments, requesting information, a public hearing, or filing an appeal may be obtained at: [*Weekly Review and Public Notices / Ohio Environmental Protection Agency*](#) or Hearing Clerk, Ohio EPA, 50 W. Town St., Columbus, Ohio 43215. Ph: 614-644-3037 email: [*HClerk@epa.ohio.gov*](mailto:HClerk@epa.ohio.gov)

Draft Air Pollution Permit-to-Install and Operate Initial Installation

Imperial Aluminum - Minerva, LLC
217 ROOSEVELT AVE

Minerva, OH 44657

ID#: P0139624

Date of Action: 07/27/2026

Permit Desc: Initial installation permit for a reverberatory furnace, P012, to replace the current reverberatory furnace P010, at a synthetic minor secondary aluminum processing facility. P012 is a reverberatory furnace that will be part of the facility's secondary aluminum processing unit (SAPU), which means all existing Group 1 furnaces within a secondary aluminum processing facility. The furnace will be controlled by a lime-injected baghouse.

The permit and complete instructions for requesting information or submitting comments may be obtained at: <https://ohioepa.commentinput.com> - Search by entering the permit # P0139624 in the "Search Projects" search box.

Permit Strategy Write-Up

1. Check all that apply:

☒ ***Synthetic Minor Determination***

☐ Netting Determination

2. Source Description:

Initial installation permit for a reverberatory furnace, P012, to replace current furnace P010, at a synthetic minor secondary aluminum processing facility. P012 is a reverberatory furnace that will be part of the facility's secondary aluminum processing unit (SAPU), which means all existing Group 1 furnaces within a secondary aluminum processing facility. The furnace will be controlled by a lime-injected baghouse, as required by the MACT.

3. Facility Emissions and Attainment Status:

Imperial Aluminum is an area source for HAP and minor source for criteria pollutants. Compliance with the requirements in this permit will ensure that the facility stays under the 10 TPY threshold for individual HAP.

Imperial Aluminum is located at 217 Roosevelt Street, Minerva, OH in Carroll County. Carroll County is currently evaluated as "attainment" for CO, lead, NO_x, PM, O₂ and SO₂.

4. Source Emissions:

Secondary aluminum processing facilities emit particulate matter; HAPs – HCl, HF; dioxins/furans; and natural gas combustion emissions. The lime injected baghouse will reduce emissions of HAPs to below TV thresholds.

5. Conclusion:

This renewal will not result in an increase to the overall facility-wide emissions.

6. Please provide additional notes or comments as necessary:

None

7. Total Permit Allowable Emissions Summary (for informational purposes only):

<u>Pollutant</u>	<u>Tons Per Year</u>
PE	16.64
Facility-wide HCl	9.21
HF	1.31
D/F	8.64E-07
NO _x	4.25
CO	3.59



**Environmental
Protection
Agency**

DRAFT

**Division of Air Pollution Control
Permit-to-Install and Operate
for
Imperial Aluminum - Minerva, LLC**

Facility ID: 0210000107
Permit Number: P0139624
Permit Type: Initial Installation
Issued: 07/27/2026
Effective: To be entered upon final issuance
Expiration: To be entered upon final issuance

Division of Air Pollution Control
Permit-to-Install and Operate
for
Imperial Aluminum - Minerva, LLC

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Authorization

Facility ID: 0210000107
Application Number(s): A0080650A0080650
Permit Number: P0139624
Permit Description: Initial installation permit for a reverberatory furnace, P012, to replace the current reverberatory furnace P010, at a synthetic minor secondary aluminum processing facility. P012 is a reverberatory furnace that will be part of the facility's secondary aluminum processing unit (SAPU), which means all existing Group 1 furnaces within a secondary aluminum processing facility. The furnace will be controlled by a lime-injected baghouse.
Permit Type: Initial Installation
Permit Fee: \$1,500.00 *DO NOT send payment at this time, subject to change before final issuance*
Issue Date: 07/27/2026
Effective Date: To be entered upon final issuance
Expiration Date: To be entered upon final issuance
Permit Evaluation
Report (PER) Annual Date: To be entered upon final issuance

This document constitutes issuance of a Permit-to-Install and Operate for the emissions unit(s) identified on the following page to:

Imperial Aluminum - Minerva, LLC
217 ROOSEVELT AVE
Minerva, OH 44657

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

Ohio EPA DAPC, Northeast District Office
2110 East Aurora Rd.
Twinsburg, OH 44087
(330)963-1200

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

John Logue
Director



Authorization (continued)

Permit Number: P0139624

Permit Description: Initial installation permit for a reverberatory furnace, P012, to replace the current reverberatory furnace P010, at a synthetic minor secondary aluminum processing facility. P012 is a reverberatory furnace that will be part of the facility's secondary aluminum processing unit (SAPU), which means all existing Group 1 furnaces within a secondary aluminum processing facility. The furnace will be controlled by a lime-injected baghouse.

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

Emissions Unit ID:

P012

Company Equipment ID:

Reverberatory Furnace

Superseded Permit Number:

General Permit Category and Type:

Not Applicable

List of Commonly Used Abbreviations

AP-42 = U.S. EPA's Compilation of Air Pollution Emissions Factors	HVLP = high volume, low pressure	PER = Permit Evaluation Report
ASTM = American Society for Testing and Materials	LAER = lowest achievable emission rate	PM = particulate matter
BACT = Best Available Control Technology	lb(s)/hr = pound(s) per hour	PM ₁₀ = particulate matter with an aerodynamic diameter less than or equal to 10 microns
BAT = Best Available Technology	LDAR = leak detection and repair	PM _{2.5} = particulate matter with an aerodynamic diameter less than or equal to 2.5 microns
CAA = Clean Air Act	LPG = liquefied petroleum gas/propane	ppb = parts per billion
CAM = compliance assurance monitoring	MACT = maximum achievable control technology	ppm = parts per million
CEMS = continuous emissions monitoring system	MAGLC = maximum acceptable ground level concentration	PSD = Prevention of Significant Deterioration
CFC = chlorofluorocarbon	mg/m ³ = milligrams per cubic meter	psi = pounds per square inch
CFR = Code of Federal Regulations	MM = million	psia = pounds per square inch absolute
CH ₄ = methane	MMBtu = million British Thermal Units	PTE = potential-to-emit
CI = compression ignition	MSDS = material safety data sheet	PTI = Permit-to-Install
CO = carbon monoxide	MSW = municipal solid waste	PTIO = Permit-to-Install and Operate
CO ₂ = carbon dioxide	NAAQS = National Ambient Air Quality Standard	PTO = Permit-to-Operate
COM = continuous opacity monitor	NESHAP = National Emission Standard for Hazardous Air Pollutants	PWR = process weight rate
DAPC = Division of Air Pollution Control	NG = natural gas	RACM = reasonably available control measures
DO/LAA = District Office/Local Air Agency	ng/m ³ = nanograms per cubic meter	RACT = reasonably available control technology
dscf = dry standard cubic foot	NH ₃ = ammonia	RATA = relative accuracy test audit
EAC = emissions activity category	NMHC = non-methane hydrocarbons	RTO = regenerative thermal oxidizer
eDocs = electronic documents database	NMOC = non-methane organic compound	SB265 = Senate Bill 265
ERAC = Environmental Review Appeals Commission	NO = nitrogen oxide	scfm = standard cubic feet per minute
ESP = electrostatic precipitator	NO ₂ = nitrogen dioxide	SI = spark ignition
EU = emissions unit	NO _x = nitrogen oxides	SIP = State Implementation Plan
FEPTIO = Federally Enforceable Permit-to-Install and Operate	NSPS = New Source Performance Standard	SO ₂ = sulfur dioxide
FER = Fee Emissions Report	NSR = New Source Review	SSMP = startup, shutdown, and malfunction plan
FR = Federal Register	NTV = Non-Title V	TDS = total dissolved solids
GACT = generally achievable control technology	O&M = operation and maintenance	TLV = threshold limit value
GHG = greenhouse gases	OAC = Ohio Administrative Code	TO = thermal oxidizer
gr/dscf = grains per dry standard cubic foot	OC = organic compound	TPH = ton(s) per hour
H ₂ S = hydrogen sulfide	Ohio EPA = Ohio Environmental Protection Agency	TPY = ton(s) per year
H ₂ SO ₄ = sulfuric acid	ORC = Ohio Revised Code	TSP = total suspended particulates
HAP = hazardous air pollutant	Pb = lead	VE = visible emissions
HCl = hydrogen chloride	PBR = Permit-By-Rule	VMT = vehicle miles traveled
HF = hydrogen fluoride	PCB = polychlorinated biphenyl	VOC = volatile organic compound
Hg = mercury	PE = particulate emissions	WPP = work practice plan
hp = horsepower	PEMS = predictive emissions monitoring system	µg/m ³ = micrograms per cubic meter



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:

- a) 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.

- b) 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 (either electronically through Ohio EPA's eBusiness Center: Air Services web service or 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 once by 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 permit evaluation report (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 Ohio EPA DAPC, Northeast District Office 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/her 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 shut down 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, the new owner or operator must follow the procedures in OAC Chapter 3745-31-07, including notifying Ohio EPA or the local air agency of the change in ownership or operator within thirty days of the transfer date. Any transferee of this permit shall 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.



**Environmental
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Agency**

Draft Permit-to-Install and Operate

Imperial Aluminum - Minerva, LLC

Permit Number: P0139624

Facility ID: 0210000107

Effective Date: To be entered upon final issuance

B. Facility-Wide Terms and Conditions



1. This permit document constitutes a PTI issued in accordance with ORC 3704.03(F) and a PTO issued in accordance with ORC 3704.03(G).
 - a) For the purpose of a PTI 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 PTO 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) B.3, B.4, and B.5.
2. *Secondary aluminum processing unit (SAPU)*. An existing SAPU means all existing Group 1 furnaces and all existing in-line fluxers within a secondary aluminum production facility. Each existing Group 1 furnace or existing in-line fluxer is considered an EU within a SAPU. A new SAPU means any combination of individual Group 1 furnaces and in-line fluxers within a secondary aluminum processing facility which either were constructed or reconstructed after February 11, 1999, or have been permanently redesigned as new EUs pursuant to §63.1505(k)(6). Each of the Group 1 furnaces or in-line fluxers within a new SAPU is considered an EU within that SAPU. A secondary aluminum production facility may have more than one new SAPU.

EUs P004, P006, and P012, combined, are an existing SAPU.
3. Allowable Facility-Wide Emissions Limitations
 - a) The facility-wide HCl emissions shall not exceed 2.1 lbs/hr from the SAPU (EUs P004, P006, and P012, combined).
 - b) The facility-wide HCl emissions shall not exceed 9.21 TPY, as a rolling, 12-month summation, from the SAPU.
4. Reporting Requirements
 - a) All applications, notifications, or reports required in writing are to be submitted through Ohio EPA's eBusiness Center: Air Services online web portal. Hardcopy submissions will be accepted on an as-needed basis if the permittee cannot submit the required documents through Air Services. In the event of a hardcopy submission, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submittal of applications, notifications, or reports to Ohio EPA fulfills the requirement to submit information to the director, the appropriate Ohio EPA DO/LAA, and/or any other individual or organization identified as a recipient unless otherwise specified in this permit. Consistent with OAC rule 3745-15-03, the application, notification or report is considered submitted on the date the submittal is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services. The permittee shall submit an annual PER to Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12 months for each air contaminant source identified in this permit.
 - b) The permittee shall submit quarterly deviation (excursion) reports that identify:
 - (1) All deviations (excursions) of the following emissions limitations, operational restrictions and/or control device operating parameter limitations that restrict the PTE of any regulated air pollutant and have been detected by the monitoring, recordkeeping and/or testing requirements in this permit:
 - a. The facility-wide HCl emissions shall not exceed 2.1 lbs/hr from the SAPU (EUs P004, P006, and P012, combined).



- b. The facility-wide HCl emissions shall not exceed 9.21 TPY, as a rolling, 12-month summation, from the SAPU.
- (2) The probable cause of each deviation (excursion);
- (3) Any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
- (4) The magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states no deviations (excursions) occurred during the quarter.

The reports shall be submitted each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June) and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Ohio EPA Northeast DO.

5. Testing Requirements

- a) Compliance with the Emissions Limitations and/or Control Requirements specified in section B.3 of these terms and conditions shall be determined in accordance with the following methods:

- (1) Emissions Limitations:

The facility-wide HCl emissions shall not exceed 2.1 lbs/hr from the SAPU.

The facility-wide HCl emissions shall not exceed 9.21 TPY, as a rolling, 12-month summation, from the SAPU.

Applicable Compliance Methods:

Compliance with the facility-wide hourly emissions limitation shall be demonstrated based upon summing the results of the most recent emissions tests performed for EUs P004, P006, and P012, in accordance with the methods and procedures specified in C.1.f)(2).

The annual emissions limitation was developed by multiplying the short-term facility-wide combined allowable HCl limitation (2.1 lbs/hr) by the maximum annual hours of operation (8,760 hrs/yr), then dividing by 2,000 lbs/ton. Therefore, if compliance is shown with the short-term allowable emissions limitation, compliance shall also be shown with the annual emissions limitation.



C. Emissions Unit Terms and Conditions



1. P012, Reverberatory Furnace

Operations, Property and/or Equipment Description:

Reverberatory furnace with two 10 MMBtu/hr burners which fire with oxyfuel. The furnace is equipped with a collection system consisting of a canopy hood and duct work, a cyclone, a spark arrestor and a 70,000 cfm-designed, negative pressure baghouse with hydrated lime injection and a pulse cleaning mechanism. The baghouse operation is equipped with a bag leak detection system. This furnace has a sidewall. The emissions from the sidewall are collected and controlled with the furnace emissions.

a) This permit document constitutes a PTI issued in accordance with ORC 3704.03(F) and a PTO issued in accordance with ORC 3704.03(G).

(1) For the purpose of a PTI document, the EU 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 purposes of a PTO document, the EU terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. b)(1)c.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each EU 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)	PE shall not exceed 3.80 lbs/hr and 16.64 TPY.
b.	OAC rule 3745-31-05(A)(3)(a)(ii)	The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the dioxin/furan (D/F), HF, and CO emissions from this air contaminant source since the uncontrolled PTE is less than 10 TPY.
c.	OAC rule 3745-31-05(D)(1)(b) SM to avoid Title V	HF emissions shall not exceed 0.30 lb/hr and 1.31 TPY. See B.3 – B.5 in the facility-wide section of this permit and b)(2)a, b)(2)g, c)(1) – c)(3), c)(5), d)(1), d)(2), d)(7), d)(8), d)(12)a, d)(12)f, d)(12)h, e)(1), f)(1)b and f)(2)e below.
d.	OAC rule 3745-17-07(A)	VE from the stack serving this EU shall not exceed 20% opacity as a six-minute average.
e.	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).



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
f.	40 CFR Part 63, Subpart RRR Pursuant to §63.1503, this EU is a group 1 furnace.	The owner or operator of a Group 1 furnace must use this limit to determine the emission standards for a SAPU: D/F emissions from the SAPU shall not exceed 2.1E-04 grain D/F TEQ per ton of feed or charge based on a three-day, 24-hour rolling average emissions of D/F for the SAPU on a daily basis. See b)(2)a – b)(2)h and c)(1) – c)(5) below.

(2) Additional Terms and Conditions

- a. The permittee shall use hydrated lime in any baghouse serving this EU, including any backup baghouse, at the rate set during the most recent performance test which demonstrates compliance with all emissions limitations, and which demonstrates that HCl emissions from the facility are less than 10 TPY.
- b. The permittee shall prepare and implement an Operation, Maintenance and Management (OM&M) Plan for this EU, in accordance with §63.1510(b) and §63.1510(s) of Subpart RRR. The OM&M Plan shall be updated as required by the rule and this permit.
- c. The EU shall be operated in accordance with the most current OM&M Plan and most current Startup, Shutdown and Malfunction Plan (SSMP).
- d. The permittee shall provide and maintain an easily visible label posted at the EU that identifies the applicable emissions limits and means of compliance, including the type of EU (that is, 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.
- e. The permittee shall employ a system for the capture and collection of emissions to meet the engineering standards for minimum exhaust rates as published by the ACGIH in chapters 3 and 5 of "Industrial Ventilation: A Manual of Recommended Practice for Design," 27th edition.
- f. The EU shall be equipped with a bag leak detection system with an alarm that will sound automatically when an increase in relative PE over a preset level is detected. The alarm shall be located where it is easily heard by plant operating personnel. The system's instrumentation and alarm may be shared among detectors.

The permittee shall initiate corrective action within one hour of a bag leak detection system alarm. The fabric filter system shall be operated such that the bag leak detection system alarm does not sound more than 5% of the operating time during a six-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 one hour. If the permittee takes longer than one 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.



- g. The furnace may employ 2 – 6% aluminum fluoride or 1 – 5% cryolite as a cover flux, and potassium aluminum fluoride (PAF) as a demagging flux.
- h. When a process parameter or add-on air pollution control device operating parameter deviates from the value or range established during the most recent performance test and incorporated in the OM&M Plan, the owner or operator must initiate corrective action. Corrective actions must restore operation of the affected source or EU (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 most recent performance test and steps to prevent the likely recurrence of the cause of a deviation.

c) Operational Restrictions

- (1) For the lime injection system, the permittee shall maintain free-flowing lime in the hopper to the feed device at all times to maintain the lime feeder setting at the same level established during the most recent performance test which demonstrated compliance with the applicable emissions limitations.
- (2) The permittee shall maintain the three-hour block average inlet temperature for each fabric filter at or below the average temperature established during the most recent performance test which demonstrated compliance with the applicable emissions limitations, plus 25°F.
- (3) The permittee shall maintain the total cover flux and demagging (PAF) fluxing rates for each operating cycle (or time period used in the most recent performance test which demonstrated compliance with the applicable emissions limitations) at or below the average rates established during the performance test.
- (4) The values for the parameters required in c)(1) – c)(3), that are established during the most recent performance test which demonstrates compliance with the applicable emissions limitations, shall be included as revisions to the OM&M Plan.
- (5) The permittee shall initiate the pulse air shakedown and clean the entire baghouse between charges. Prior to starting a new charge, the permittee shall apply a new lime pre-coat, in an amount no less than what was pre-applied during the most recent performance test that showed compliance with the emissions limitations contained in this permit. The lime pre-coat amount shall be included in the OM&M Plan.

d) Monitoring and/or Recordkeeping Requirements

- (1) To verify that lime is always free-flowing in the continuous lime injection system, the permittee shall inspect each feed hopper or silo at least once each eight-hour period and record the results of each inspection. If lime is found not to be free-flowing during any of the eight-hour periods, the permittee must increase the frequency of inspections to at least once every four-hour period for the next three days. The permittee may return to inspections at least once every eight-hour period if corrective action results in no further blockages of lime during the three-day period.

If lime is found not to be free-flowing, the permittee must promptly initiate and complete corrective action. The permittee must record the lime feeder setting once each day of operation.



- (2) The permittee shall maintain monthly records of the volume (in pounds) of lime introduced into the baghouse for this EU.
- (3) The permittee shall inspect the labels for this EU at least once per calendar month to confirm that posted labels, as required by b)(2)d, are intact and legible.
- (4) The permittee shall maintain a daily log of operating time for each capture (collection) system, control device, monitoring equipment and the associated EU.
- (5) The permittee shall inspect each capture/collection and closed vent system at least once per calendar year to ensure that the system is operating in accordance with the requirements in §63.1506(c) and §63.1510(d)(2) of Subpart RRR.
- (6) The permittee must operate and maintain, on a continuous basis, a bag leak detection system, as required below, or a COM system, as required in 40 CFR Part 63, Subpart RRR. 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% or decreased by more than 50% over a 365-day period, unless such adjustment follows a complete fabric filter inspection which demonstrates that the fabric filter is in good operating condition.

Each bag leak detection system shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's operating instructions. It shall be certified by the manufacturer to be capable of detecting PE at concentrations of 10 mg/m³ (0.0044 grains per actual cubic foot) or less. It shall provide output of relative or absolute PM loadings and shall be equipped with a device to continuously record the output signal from the sensor.

- (7) To determine the total reactive flux feed rates, the permittee shall record the time, weight and type of flux for each addition of solid reactive flux, for each 15-minute block period during each operating cycle or time period used in the performance test during which reactive fluxing occurs.

The permittee 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 emissions standards on a continuous basis.

- (8) For the fabric filter inlet temperature, the permittee shall 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 (CMS) in Subparts A and RRR of 40 CFR Part 63. The monitoring system must record the temperature in 15-minute block averages and calculate and record the average temperature for each three-hour block period.
- (9) To determine the feed/charge rate, the permittee must calibrate, operate, and maintain a device to measure and record the total weight of feed/charge to each EU over the operating cycle or time period used during the most recent performance test which demonstrated compliance with the applicable emissions limitations.
- (10) The feed/charge rate shall be recorded using a scale and a recorder, with a calibration of the scale at least once every six-month period to $\pm 1.0\%$ accuracy. The feed/charge must be measured and recorded on an EU-by-EU basis. 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 six months.



- (11) The permittee shall calculate and record the three-day, 24-hour rolling average emissions of D/F for each secondary aluminum processing unit on a daily basis. To calculate the three-day, 24-hour rolling average, the owner or operator must:
- Calculate and record the total weight of material charged to each EU in the SAPU for each 24-hour day of operation using the feed/charge weight information required above; and
 - Multiply the total feed/charge weight to each EU for the 24-hour period (in lbs/ton of feed/charge) by the emissions rate for that EU (as determined during the most recent performance test that demonstrated compliance) to provide emissions for each EU for the 24-hour period, in pounds.
- (12) In addition to the general records required by 40 CFR 63.10(b), the permittee must maintain records of:
- All monitor or sensor output for the lime injected fabric filter, including any event where blockage was found, with a brief explanation of the cause of the blockage and the corrective actions taken;
 - The current copy of all required plans, including any revisions with records documenting conformance with the applicable plan, including the SSMP and OM&M plan;
 - Monthly inspections for labels;
 - Annual inspections of emissions capture/collection and closed vent system;
 - For the bag leak detection system, the number of total operating hours for each EU during each six-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;
 - Fifteen-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;
 - Any failure to meet an operational restriction or monitored parameter;
 - Fabric filter inlet temperature deviation logs;
 - Feed/charge (or throughput) weights for each operating cycle or time period used in the performance test; and
 - Total charge weight for the SAPU, 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 three-day, 24-hour rolling average emissions.
- (13) The permittee shall maintain files of all information (including all reports and notifications) required by the general provisions of 40 CFR Part 63, Subpart RRR. The permittee must retain each record for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report or record. The most recent two years of records must be retained at the facility. The remaining three years of records may be retained off site.
- The permittee may retain records on microfilm, computer disks, magnetic tape or microfiche. The permittee may report required information on paper or on a labeled computer disk using commonly available and EPA-compatible computer software.



e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify:

- a. All deviations (excursions) of the following emission limitations, operational restrictions, and/or control device operating parameter limitations that restrict the PTE of any regulated air pollutant and have been detected by the monitoring, recordkeeping, and/or testing requirements in this permit:
 - i. Maintain free-flowing lime in the hopper to the feed device at all times to maintain the lime feeder setting at the same level established during the most recent performance test which demonstrated compliance with the applicable emissions limitations;
 - ii. Maintain the total cover flux and demagging (PAF) fluxing rates for each operating cycle at or below the average rates established during the performance test which demonstrated compliance with the applicable emissions limitations; and
 - iii. Maintain the three-hour block average inlet temperature for each fabric filter at or below the average temperature established during the most recent performance test which demonstrated compliance with the applicable emissions limitations, plus 25°F.
- b. The probable cause of each deviation (excursion).
- c. Any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions).
- d. The magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Ohio EPA Northeast DO.

- (2) The permittee shall submit an initial notification and notification of compliance status reports, as required by §63.1515 of Subpart RRR.
- (3) The permittee shall submit semi-annual reports to the Ohio EPA Northeast DO within 60 days after the end of each six-month period. The six-month reporting periods shall be January 1 to June 30, and July 1 to December 31 of each calendar year. These reports shall include the following information:
 - a. The corrective action specified in the OM&M Plan for a bag leak detection system alarm, or for a COM deviation, that was not initiated within one hour; and
 - b. Any excursion of an operational requirement listed in the Operational Restrictions section of this permit.
- (4) 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:
 - a. Any periods of excess emissions, as defined in §63.1516(b)(1), that occurred during the year were reported as required by this subpart; and
 - b. All monitoring, recordkeeping, and reporting requirements were met during the year.



f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emissions Limitations:

PE shall not exceed 3.80 lbs/hr and 16.64 TPY.

Applicable Compliance Methods:

Compliance with the hourly emissions limitation shall be demonstrated by stack testing in accordance with the methods and procedures specified in f)(2).

The annual emissions limitation was developed by multiplying the short-term allowable PE limitation (3.80 lbs/hr) by the maximum annual hours of operation (8,760 hrs/yr), then dividing by 2,000 lbs/ton. Therefore, if compliance is shown with the short-term allowable emissions limitation, compliance shall also be shown with the annual emissions limitation.

b. Emissions Limitations:

HF emissions shall not exceed 0.30 lb/hr and 1.31 TPY.

Applicable Compliance Methods:

Compliance with the hourly emissions limitation shall be demonstrated by stack testing in accordance with the methods and procedures specified in f)(2).

The annual emissions limitation was developed by multiplying the short-term allowable HF emissions limitation (0.30 lb/hr) by the maximum annual hours of operation (8,760 hrs/yr) then dividing by 2,000 lbs/ton. Therefore, if compliance is shown with the short-term allowable emissions limitation, compliance shall also be shown with the annual emissions limitation.

c. Emissions Limitations:

D/F emissions from the SAPU shall not exceed 2.1E-04 grain D/F TEQ per ton of feed or charge, based on a three-day, 24-hour rolling average emissions of D/F for the SAPU on a daily basis.

Applicable Compliance Methods:

Compliance with the hourly emissions limitation shall be demonstrated by stack testing in accordance with the methods and procedures specified in f)(2).

d. Emissions Limitation:

VE shall not exceed 20% opacity, as a six-minute average.

Applicable Compliance Method:

Compliance shall be demonstrated based upon VE observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

- (2) The permitted shall conduct, or have conducted, emissions testing for this EU in accordance with the following requirements:

- a. The emissions testing shall be conducted no later than 180 days after initial startup of the EU. The EU shall be retested every five years thereafter.



- b. The emissions testing shall be conducted to demonstrate compliance with the short-term emissions limitations for PE, HF, HCl and D/F; opacity; and fugitive PE from the building (Note: the permit for these EUs does not include a fugitive emissions limitation from the building; however, this information shall be documented during the testing period).
- c. The following test methods shall be employed to demonstrate compliance with the allowable mass emissions rates:
 - i. PE: 40 CFR Part 60, Appendix A, Method 5
 - ii. HF & HCl: 40 CFR Part 60, Appendix A, Method 26A
 - iii. D/F: 40 CFR Part 60, Appendix A, Method 23A
 - iv. Opacity: 40 CFR Part 60, Appendix A, Method 9
 - v. Fugitive PE from building: 40 CFR Part 60, Appendix A, Method 22Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.
- d. The emissions testing shall include a measurement and/or record of the following values, when the testing demonstrates compliance with all emissions limitations:
 - i. The actual temperatures of the exhaust gases entering each baghouse;
 - ii. The actual amounts of hydrated lime injected in each baghouse during the testing period;
 - iii. The actual feed rates of cover flux and potassium aluminum fluoride for this EU during the testing period; and
 - iv. The actual aluminum feed/charge rate for this EU during the testing period.
- e. The permittee shall use the above measurements/readings obtained during emissions testing, when testing demonstrates compliance with all emissions limitations, to determine the following in order to comply with the requirements in c)(1), c)(2) and c)(3):
 - i. Maximum three-hour block average temperature of the exhaust gases entering each baghouse, determined by the average inlet temperature during testing plus 25°F;
 - ii. The setting to feed/inject hydrated lime to each baghouse;
 - iii. Maximum feed rate for cover flux to each EU, determined by the average feed rates during testing; and
 - iv. Maximum feed rate for potassium aluminum fluoride to each EU, determined by the average feed rates during testing.
- f. During the emissions testing, each EU shall be operated under operational conditions approved in advance by the Ohio EPA Northeast DO. Operational conditions that may need to be approved include, but are not limited to, the production rate, the type of material processed, material make-up (solvent content, etc.), or control equipment operational limitations (burner temperature, precipitator voltage, etc.). In general, testing shall be done under worst-case conditions expected during the life of the permit. As part of the information provided in the Intent to Test (ITT) notification form described below, the permittee shall provide a description of the EU operational conditions they will meet during the emissions testing and describe why they believe



worst-case operating conditions will be met. Prior to conducting the test(s), the permittee shall confirm with the Ohio EPA Northeast DO that the proposed operating conditions constitute worst-case. Failure to test under the approved conditions may result in Ohio EPA not accepting the test results as a demonstration of compliance.

- g. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an ITT notification to the Ohio EPA Northeast DO. The ITT shall describe in detail the proposed test methods and procedures, the EU 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 DO's refusal to accept the results of the emissions test(s).
- h. Personnel from the Ohio EPA Northeast DO shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of each EU and the testing procedures provide a valid characterization of the emissions from each EU and/or the performance of the control equipment.
- i. 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 Northeast DO 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 DO.

g) **Miscellaneous Requirements**

- (1) §63.1503 of 40 CFR Part 63, Subpart RRR defines TEQ as the international method of expressing toxicity equivalents for D/Fs as defined in "Interim Procedures for Estimating Risks Associated with Exposure to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs) and 1989 Update" (EPA-625/3-89-016).
- (2) The permit application reports the maximum aluminum scrap charge is 7,000 lbs/hr or 3.5 TPH, the maximum molten aluminum from P006 is 7,000 lbs/hr or 3.5 TPH, the maximum cover flux feed rate as 600 lbs/hr, the maximum PAF feed rate as 500 lbs/hr and the total charge/feed as 15,100 lbs/hr or 7.55 TPH.