



3/13/2015

Rodney McDaniels  
General Aluminum  
5159 S. Prospect St.  
Rootstown, OH 44266

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

Facility ID: 1667070012  
Permit Number: P0118461  
Permit Type: Initial Installation  
County: Portage

Certified Mail

Yes	TOXIC REVIEW
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
Yes	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
Yes	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 (PTIO) 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 (EPA) Weekly Review and the local newspaper, The Record Courier. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc) by clicking the "Search for Permits" link under the Permitting topic on the Programs tab. 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:

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

and Akron Regional Air Quality Management District  
1867 West Market St.  
Akron, OH 44313

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. 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 Akron Regional Air Quality Management District at (330)375-2480.

Sincerely,

Erica R. Engel-Ishida, Manager  
Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA Region 5 Via E-Mail Notification  
ARAQMD; Pennsylvania; West Virginia; Canada



PUBLIC NOTICE

3/13/2015 Issuance of Draft Air Pollution Permit-To-Install and Operate

General Aluminum  
5159 S. Prospect St.,  
Rootstown, OH 44266

Portage County

FACILITY DESC.: Aluminum Foundries (except Die-Casting)

PERMIT #: P0118461

PERMIT TYPE: Initial Installation

PERMIT DESC: Initial installation of two furnaces and two pouring/cooling turntables.

The Director of the Ohio Environmental Protection Agency issued the draft permit above. The permit and complete instructions for requesting information or submitting comments may be obtained at: <http://epa.ohio.gov/dapc/permitonline.aspx> by entering the permit # or: Sean Vadas, Akron Regional Air Quality Management District, 1867 West Market St., Akron, OH 44313. Ph: (330)375-2480





## Permit Strategy Write-Up

1. Check all that apply:

Synthetic Minor Determination

Netting Determination

2. Source Description: This permit will allow for the installation of 2 natural gas fired aluminum melting furnaces and 2 pouring/cooling turntables.

3. Facility Emissions and Attainment Status: General Aluminum is an existing aluminum foundry in Portage County which is nonattainment for ozone. The facility has the potential to trigger Title V permitting requirements for VOC but has been operating under a FEPTIO for the existing emissions units with a facility-wide production limitation of 17,000 tons of aluminum, as a rolling 12-month summation to remain as a minor source of VOC emissions.

4. Source Emissions: The new furnaces and turntables will emit VOC, as well as other pollutants.

5. Conclusion: By maintaining the facility-wide existing production limitation, General Aluminum will remain a minor source and avoid Title V permitting requirements with the installation of the two new furnaces and two pouring turntables. Facility VOC emissions will be limited to 96.3 tons per year.

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>
VOC	96.3





**DRAFT**

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

Facility ID:	1667070012
Permit Number:	P0118461
Permit Type:	Initial Installation
Issued:	3/13/2015
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  
General Aluminum

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**Draft Permit-to-Install and Operate**

General Aluminum

**Permit Number:** P0118461

**Facility ID:** 1667070012

**Effective Date:** To be entered upon final issuance

## Authorization

Facility ID: 1667070012  
Application Number(s): A0052788  
Permit Number: P0118461  
Permit Description: Initial installation of two furnaces and two pouring/cooling turntables.  
Permit Type: Initial Installation  
Permit Fee: \$2,000.00 *DO NOT send payment at this time, subject to change before final issuance*  
Issue Date: 3/13/2015  
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 to:

General Aluminum  
5159 S. Prospect St.  
Rootstown, OH 44266

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:

Akron Regional Air Quality Management District  
1867 West Market St.  
Akron, OH 44313  
(330)375-2480

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

Craig W. Butler  
Director



## Authorization (continued)

Permit Number: P0118461

Permit Description: Initial installation of two furnaces and two pouring/cooling turntables.

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

### Group Name: Furnaces

<b>Emissions Unit ID:</b>	<b>P922</b>
Company Equipment ID:	New #4 Furnace
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P923</b>
Company Equipment ID:	New Furnace #6
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

### Group Name: Pouring/Cooling Turntables

<b>Emissions Unit ID:</b>	<b>F004</b>
Company Equipment ID:	1100 Pouring/Cooling Turntable
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>F005</b>
Company Equipment ID:	1500 Pouring/Cooling Turntable
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



**Draft Permit-to-Install and Operate**

General Aluminum

**Permit Number:** P0118461

**Facility ID:** 1667070012

**Effective Date:** To be entered upon final issuance

## **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 Akron Regional Air Quality Management District 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.



**Draft Permit-to-Install and Operate**

General Aluminum

**Permit Number:** P0118461

**Facility ID:** 1667070012

**Effective Date:** To be entered upon final issuance

## **B. Facility-Wide Terms and Conditions**



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) All.
2. The permittee is advised that this facility may be subject to the "Generally Available Control Technology" (GACT) requirements under Title 40 of the Code of Regulations, Part 63, Subpart ZZZZZZ, the National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Area Sources: Aluminum, Copper, and Other Nonferrous Foundries. At this time the Ohio EPA is not accepting the delegating authority to enforce the standards promulgated under the Urban Air Toxics Strategy. The requirements of this rule, that are applicable to the area source(s) (for hazardous air pollutants) identified in this permit, shall be enforceable by U.S. EPA. Region 5. The complete requirements of this Subpart (including the Part 63 General Provisions) may be accessed via the Internet from the Electronic code of Federal Regulations (e-CFR) website <http://www.ecfr.gov/> or by contacting the appropriate Ohio EPA District Office or Local Air Agency.



**Draft Permit-to-Install and Operate**

General Aluminum

**Permit Number:** P0118461

**Facility ID:** 1667070012

**Effective Date:** To be entered upon final issuance

## **C. Emissions Unit Terms and Conditions**



**1. Emissions Unit Group -Furnaces: P922,P923,**

<b>EU ID</b>	<b>Operations, Property and/or Equipment Description</b>
P922	Furnace #4 – 4.0 MMBtu/hr natural gas-fired aluminum reverberatory melting furnace
P923	Furnace #6 – 7.0 MMBtu/hr natural gas-fired aluminum reverberatory melting furnace

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. b)(1)i., d)(4) through d)(7), and e)(5).

(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. All except b)(1)i.,d)(4) through d)(7), and e)(5).

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.

	<b>Applicable Rules/Requirements</b>	<b>Applicable Emissions Limitations/Control Measures</b>
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	<p>Particulate emissions (PE) shall not exceed 0.582 pound per ton of aluminum charged.</p> <p>Nitrogen oxides (NOx) emissions shall not exceed 1.032 pounds per ton of aluminum charged.</p> <p>Carbon monoxide (CO) emissions shall not exceed 84.0 pounds per million cubic feet of natural gas combusted.</p> <p>Hydrogen fluoride (HF) emissions shall not exceed 0.12 pound per ton of aluminum charged.</p> <p>See b)(2)a. below.</p>



**Draft Permit-to-Install and Operate**

General Aluminum

**Permit Number:** P0118461

**Facility ID:** 1667070012

**Effective Date:** To be entered upon final issuance

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-31-05(A)(3), as effective 12/01/06	See b)(2)b. below.
c.	ORC 3704.03(T)	Volatile organic compound (VOC) emissions shall not exceed 1.673 pounds per ton of aluminum charged.
d.	OAC rule 3745-17-07(A)	Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
e.	OAC rule 3745-17-07(B) OAC rule 3745-17-08(B)	Exempt.  Not located in an area specified in Appendix A of OAC rule 3745-17-08.
f.	OAC rule 3745-17-11(B)	PE shall not exceed 5.38 pounds per hour. (based on 3,000 pounds/hour maximum process weight rate)  This limit applies after the SIP is approved as noted below in b)(2)b. removing the BAT limits.
g.	OAC rule 3745-31-05(D)	Combined annual emissions from the entire facility shall not exceed 96.3 tons per year of VOC, as a rolling, 12-month summation.  Total maximum annual production throughput from the entire facility shall not exceed 17,000 tons of aluminum per year, as a rolling, 12-month summation.  Total maximum annual sand usage from the entire facility shall not exceed 17,000 tons per year, as a rolling, 12-month summation.
h.	40 CFR 63, Subpart RRR	Exempt.  An area source that only charges clean charge, internal scrap, or customer returns, as defined in 40 CFR 63.1503 and does not operate a thermal chip dryer.
i.	OAC rule 3745-114-01 ORC 3704.03(F)(4)(c)	See d)(4) through d)(7), and e)(5) below.



(2) Additional Terms and Conditions

- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 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 ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulation for NAAQS pollutant emissions 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 revision 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 limits/control measures no longer apply.

- b. 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.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PE, NO<sub>x</sub>, CO, or HF emissions from this air contaminant source since the uncontrolled potential to emit for PE, NO<sub>x</sub>, CO, and HF is less than 10 tons/year.

c) Operational Restrictions

- (1) The permittee shall only combust natural gas as fuel in this emissions unit.
- (2) Neither demagging nor degassing shall be performed in this emissions unit. Only fluxing, performed with the addition of dry powdered fluxes, for the sole purpose of preventing, reducing, and removing oxide impurities from the aluminum melt, shall be permitted in this emissions unit.
- (3) The emissions unit shall be charged with only clean charge, internal scrap, or customer returns, as defined in 40 CFR 63.1503.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. The total amount of aluminum charged in the furnace, in pounds or tons.
- (2) The permittee shall maintain monthly records of the following information for the entire facility:
  - a. The combined rolling, 12-month summation of the total VOC emissions, in pounds or tons;
  - b. The combined rolling, 12-month summation of the total aluminum production throughput, in pounds or tons; and



- c. The combined rolling, 12-month summation of the total amount of sand usage, in pounds or tons.
- (3) The permittee shall perform weekly 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.

- (4) The federally enforceable permit-to-install and operate (FEPTIO) application for these emissions unit(s), P922 – P923, was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:
- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been



documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

- i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
- ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "X" hours per day and "Y" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

- d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: hydrogen fluoride

TLV (mg/m3): 0.411

Maximum Hourly Emission Rate (lbs/hr): 0.36

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 9.37

MAGLC (ug/m3): 9.79

The permittee, has demonstrated that emissions of hydrogen fluoride, from emissions unit(s) P922 – P923, is estimated to be equal or greater than eighty per cent, but less than 100 per cent of the maximum acceptable ground level concentration (MAGLC), shall not operate the emissions unit(s) at a rate that would exceed the daily emissions rate, process weight rate, and/or restricted hours of operations, as allowed in this permit; and any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

- (5) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the



change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:

- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
- c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final FEPTIO prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

- (6) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):
  - a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
  - b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
  - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
  - d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination



that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

- (7) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

e) Reporting Requirements

- (1) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.

- (2) 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 potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
  - i. 96.3 tons of VOC, as a rolling, 12-month summation for the entire facility;
  - ii. 17,000 tons of aluminum throughput, as a rolling, 12-month summation for the entire facility; and
  - iii. 17,000 tons of sand throughput, as a rolling, 12-month summation for the entire facility.
- 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); and
- 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 that 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 Director (the appropriate District Office or local air agency).

- (3) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted 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.
- (4) 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)(3) above:
  - c. all days during which any visible particulate emissions were observed from the stack serving this emissions unit;
  - d. 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
  - e. any corrective actions taken to minimize or eliminate the visible particulate emissions from the stack and/or visible emissions of fugitive dust.
- (5) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration, in the annual Permit Evaluation Report (PER). If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.

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 0.582 pound per ton of aluminum charged.

PE shall not exceed 5.38 pounds per hour.



Applicable Compliance Method:

If required, compliance with the PE limitations above shall be determined based on the results of emission testing conducted in accordance with Methods 1-5, of 40 CFR Part 60, Appendix A.

b. Emissions Limitation:

NO<sub>x</sub> emissions shall not exceed 1.032 pounds per ton of aluminum charged.

Applicable Compliance Method:

If required, compliance with the NO<sub>x</sub> emission limitation shall be determined by based on the results of emission testing conducted in accordance with Methods 1-4, and 7 of 40 CFR Part 60, Appendix A.

c. Emissions Limitation:

CO emissions shall not exceed 84.0 pounds per million cubic feet of natural gas combusted.

Applicable Compliance Method:

The CO emission limitation above was developed based upon the emission factor in USEPA's AP-42, Fifth Edition, Table 1.4-1.

If required, compliance with the CO emission factor limitation above shall be determined based on the results of emission testing conducted in accordance with Methods 1-4, and 10 of 40 CFR Part 60, Appendix A.

d. Emissions Limitation:

HF emissions shall not exceed 0.12 pound per ton of aluminum charged.

Applicable Compliance Method:

If required, compliance with the HF emission limitation above shall be determined based on the results of emission testing conducted in accordance with Methods 1-4, and 26 or 26A of 40 CFR Part 60, Appendix A.

e. Emissions Limitation:

VOC emissions shall not exceed 1.673 pounds per ton of aluminum charged.

Applicable Compliance Method:

If required, compliance with the VOC emission limitation above shall be determined based on the results of emission testing conducted in accordance with Methods 1-4, and 18 or 25/25A of 40 CFR Part 60, Appendix A.



f. Emissions Limitation:

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

Applicable Compliance Method:

If required, compliance with the visible PE limitation shall be demonstrated through the results of visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

g. Emissions Limitation:

Combined annual emissions from the entire facility shall not exceed 96.3 tons per year of VOC, as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the VOC mass emission limitation shall be determined through the record keeping requirements of section d)(2) above.

g) Miscellaneous Requirements

- (1) None.



**2. Emissions Unit Group -Pouring/Cooling Turntables: F004,F005,**

<b>EU ID</b>	<b>Operations, Property and/or Equipment Description</b>
F004	1100 Pouring/Cooling Turntable
F005	1500 Pouring/Cooling Turntable

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. All.

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.

	<b>Applicable Rules/Requirements</b>	<b>Applicable Emissions Limitations/Control Measures</b>
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Sulfur dioxide (SO <sub>2</sub> ) emissions shall not exceed 0.511 pounds per ton of aluminum.  Particulate emissions (PE) shall not exceed 0.34 pound per ton of aluminum.  See b)(2)a. below.
b.	OAC rule 3745-31-05(A)(3), as effective 12/01/06	See b)(2)b. below.
c.	ORC 3704.03(T)	Volatile organic compound (VOC) emissions shall not exceed 2.17 pounds per ton of aluminum.  Carbon monoxide (CO) emissions shall not exceed 1.43 pounds per ton of aluminum.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-17-07(B) OAC rule 3745-17-08(B)	Exempt.  Not located in an area specified in Appendix A of OAC rule 3745-17-08.
e.	OAC rule 3745-31-05(D)	Combined annual emissions from the entire facility shall not exceed 96.3 tons per year of VOC, as a rolling, 12-month summation.  Total maximum annual production throughput from the entire facility shall not exceed 17,000 tons of aluminum per year, as a rolling, 12-month summation.  Total maximum annual sand usage from the entire facility shall not exceed 17,000 tons per year, as a rolling, 12-month summation.

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 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 ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulation for NAAQS pollutant emissions 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 revision 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 limits/control measures no longer apply.

b. 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.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PE or SO<sub>2</sub> emissions from this air contaminant source since the uncontrolled potential to emit for PE and SO<sub>2</sub> is less than 10 tons/year.

c) Operational Restrictions

(1) None.



d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, 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 fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible 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 monthly records of the following information for the entire facility:
  - a. The combined rolling, 12-month summation of the total VOC emissions, in pounds or tons;
  - b. The combined rolling, 12-month summation of the total aluminum production throughput, in pounds or tons; and
  - c. The combined rolling, 12-month summation of the total amount of sand usage from the entire facility, in pounds or tons.

e) Reporting Requirements

- (1) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the



document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.

- (2) 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 potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
    - i. 96.3 tons of VOC, as a rolling, 12-month summation for the entire facility;
    - ii. 17,000 tons of aluminum throughput, as a rolling, 12-month summation for the entire facility; and
    - iii. 17,000 tons of sand throughput, as a rolling, 12-month summation for the entire facility.
  - 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); and
  - 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 that 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 Director (the appropriate District Office or local air agency).

- (3) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted 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.
- (4) 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 emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and
- b. any corrective actions taken to minimize or eliminate the visible emissions.

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 Limitation:

SO<sub>2</sub> emissions shall not exceed 0.511 pounds per ton of aluminum.

Applicable Compliance Method:

The emission SO<sub>2</sub> emission limitation above was developed based upon the emission factor as submitted by the permittee.

If required, the permittee shall demonstrate compliance with the SO<sub>2</sub> emission limitation above in accordance with the Methods 1-4 and 6 of 40 CFR Part 60, Appendix A.

b. Emissions Limitation:

CO emissions shall not exceed 1.43 pounds per ton of aluminum.

Applicable Compliance Method:

The emission CO emission limitation was developed based upon the emission factor as submitted by the permittee.

If required, the permittee shall demonstrate compliance with the CO emission limitation above in accordance with the Methods 1-4 and 10 of 40 CFR Part 60, Appendix A.

c. Emissions Limitation:

VOC emissions shall not exceed 2.17 pounds per ton of aluminum.

Applicable Compliance Method:

The VOC emission limitation was developed based upon the emission factor as submitted by the permittee.

If required, the permittee shall demonstrate compliance with the VOC emission limitation above in accordance with the Methods 1-4 and 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.



d. Emissions Limitation:

PE shall not exceed 0.34 pound per ton of aluminum.

Applicable Compliance Method:

The PE limitation was developed based upon the emission factor as submitted by the permittee.

If required, the permittee shall demonstrate compliance with the PE limitation above in accordance with the Methods 1-5 of 40 CFR Part 60, Appendix A.

e. Emissions Limitation:

Combined annual emissions from the entire facility shall not exceed 96.3 tons per year of VOC, as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the VOC mass emission limitation shall be determined through the record keeping requirements of section d)(2) above.

g) Miscellaneous Requirements

(1) None.