



State of Ohio Environmental Protection Agency

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Columbus, Ohio 43215

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Columbus, OH 43216-1049

2/24/2009

Marc Prigozen  
Staker Alloys  
1723 Woodlawn Ave.  
Middletown, OH 45044

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE  
Facility ID: 0812100596  
Permit Number: P0104369  
Permit Type: Renewal  
County: Clark

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR
No	CEMS
Yes	MACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install and Operate ("PTIO") which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully.

Ohio EPA maintains a document entitled "Frequently Asked Questions about the PTIO". The document can be downloaded from the DAPC Web page, [www.epa.state.oh.us/dapc](http://www.epa.state.oh.us/dapc), from the "Permits" link. This document contains additional information related to your permit, such as what activities are covered under the PTIO, who has enforcement authority over the permit and Ohio EPA's authorization to inspect your facility and records. Please contact the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469 if you need assistance.

The issuance of this PTIO is a final action of the Director and may be appealed to the Environmental Review Appeals Commission ("ERAC") under Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and describe the action complained of and the grounds for the appeal. The appeal must be filed with the ERAC within thirty (30) days after notice of the Director's action. A filing fee of \$70.00 must be submitted to the ERAC with the appeal, although the ERAC, has discretion to reduce the amount of the filing fee if you can demonstrate (by affidavit) that payment of the full amount of the fee would cause extreme hardship. If you file an appeal of this action, you must notify Ohio EPA of the filing of the appeal (by providing a copy to the Director) within three (3) days of filing your appeal with the ERAC. Ohio EPA requests that a copy of the appeal also be provided to the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the ERAC at the following address:

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

If you have any questions regarding this permit, please contact the Regional Air Pollution Control Agency. This permit has been posted to the Division of Air Pollution Control (DAPC) Web page [www.epa.state.oh.us/dapc](http://www.epa.state.oh.us/dapc).

Sincerely,

Michael W. Ahern, Manager  
Permit Issuance and Data Management Section, DAPC

Cc: RAPCA

Ted Strickland, Governor  
Lee Fisher, Lieutenant Governor  
Chris Korleski, Director





**State of Ohio Environmental Protection Agency  
Division of Air Pollution Control**

**FINAL**

**Air Pollution Permit-to-Install and Operate  
for  
Staker Alloys**

Facility ID: 0812100596  
Permit Number: P0104369  
Permit Type: Renewal  
Issued: 2/24/2009  
Effective: 2/24/2009  
Expiration: 2/24/2019





**Air Pollution Permit-to-Install and Operate**  
for  
Staker Alloys

**Table of Contents**

Authorization ..... 1

A. Standard Terms and Conditions ..... 3

    1. What does this permit-to-install and operate ("PTIO") allow me to do?..... 4

    2. Who is responsible for complying with this permit? ..... 4

    3. What records must I keep under this permit? ..... 4

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

    5. When does my PTIO expire, and when do I need to submit my renewal application? ..... 4

    6. What happens to this permit if my project is delayed or I do not install or modify my source? ..... 5

    7. What reports must I submit under this permit? ..... 5

    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? ..... 5

    9. What are my obligations when I perform scheduled maintenance on air pollution control equipment? ... 5

    10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report? ..... 6

    11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located? ..... 6

    12. What happens if one or more emissions units operated under this permit is/are shut down permanently? ..... 6

    13. Can I transfer this permit to a new owner or operator? ..... 6

    14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"? ..... 7

    15. What happens if a portion of this permit is determined to be invalid? ..... 7

B. Facility-Wide Terms and Conditions ..... 8

C. Emissions Unit Terms and Conditions ..... 10

    1. P001, aluminum furnace ..... 11





State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install and Operate**  
**Permit Number:** P0104369  
**Facility ID:** 0812100596  
**Effective Date:** 2/24/2009

## Authorization

Facility ID: 0812100596  
Application Number(s): A0036780  
Permit Number: P0104369  
Permit Description: First issue PTIO (Renewal) replacing PTI 08-04779 for emissions unit P001 - secondary aluminum sweat furnace  
Permit Type: Renewal  
Permit Fee: \$0.00  
Issue Date: 2/24/2009  
Effective Date: 2/24/2009  
Expiration Date: 2/24/2019  
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15  
This document constitutes issuance to:

Staker Alloys  
1075 James Street  
Springfield, OH 45503

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

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Regional Air Pollution Control Agency  
117 South Main Street  
Dayton, OH 45422-1280  
(937)225-4435

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

Chris Korleski  
Director



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install and Operate**  
**Permit Number:** P0104369  
**Facility ID:** 0812100596  
**Effective Date:** 2/24/2009

## Authorization (continued)

Permit Number: P0104369  
Permit Description: First issue PTIO (Renewal) replacing PTI 08-04779 for emissions unit P001 - secondary aluminum sweat furnace

Permits for the following emissions unit(s) or groups of emissions units are in this document as indicated below:

<b>Emissions Unit ID:</b>	<b>P001</b>
Company Equipment ID:	aluminum furnace
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install and Operate**

**Permit Number:** P0104369

**Facility ID:** 0812100596

**Effective Date:** 2/24/2009

## **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 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 Regional Air Pollution Control Agency 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



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install and Operate**

**Permit Number:** P0104369

**Facility ID:** 0812100596

**Effective Date:** 2/24/2009

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.



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install and Operate**

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



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install and Operate**

**Permit Number:** P0104369

**Facility ID:** 0812100596

**Effective Date:** 2/24/2009

1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
  - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
    - (1) None.
  - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
    - (1) None.



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install and Operate**

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**Effective Date:** 2/24/2009

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



**1. P001, aluminum furnace**

**Operations, Property and/or Equipment Description:**

secondary aluminum sweat furnace with afterburner; Pre-Aug. 3, 2006 BAT

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

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

a. None.

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

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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)	The particulate emissions (PE) shall not exceed 0.023 lb/hour and 0.10 TPY.  The nitrogen oxides (NOx) emissions shall not exceed 1.80 TPY.  The visible particulate emissions shall not exceed 10 percent opacity, as a 6-minute average, except as provided by rule.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1)(a), OAC rule 3745-17-11(B)(1), and 40 CFR Part 63, Subparts A and RRR.
b.	OAC rule 3745-17-07(A)(1)(a) OAC rule 3745-17-11(B)(1)	The emission limitation specified by these rules are less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	40 CFR Part 63, Subparts A and	The dioxins/furans emissions shall not



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	RRR	exceed 0.80 nanogram (ng) TEQ per dscm (3.5 x 10 <sup>-10</sup> grains per dscf) at 11 percent oxygen (O <sub>2</sub> ). See b)(2)b.

(2) Additional Terms and Conditions

- a. The 0.023 lb/hr and 0.10 TPY PE emissions were developed for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.
- b. The permittee is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Secondary Aluminum Production 40 CFR Part 63, Subpart RRR promulgated March 23, 2000 and must comply with the provisions of the rule as an area source.

c) Operational Restrictions

- (1) An afterburner for controlling emissions must be installed and used at all times during operation of the furnace. The after burner shall have a design residence time of 0.8 second or greater, and the average combustion temperature, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1650 degrees Fahrenheit.
- (2) The furnace and afterburner shall be operated and maintained in accordance with the emissions unit's operation, maintenance and monitoring (OM&M) plan following the manufacturer's recommendations, instructions, and operating manuals.
- (3) The emissions unit can only operate with metallic charge, any nonmetallic charge shall not be loaded into the furnace. All metallic charge shall be free of ice, water, lead and magnesium.
- (4) This emissions unit is permitted to burn propane or natural gas.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the temperature at the exit of the of the combustion zone for the afterburner, in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The monitoring system shall collect and record the average temperature for 15 minute block averages and determine the average temperature for each 3-hour block of time.



- (2) 40 CFR Part 63, Subpart RRR requires a calibration and certification of the afterburner temperature monitor be performed every six months. An alternative to performing the calibration and certification for every six months was approved by USEPA for this emissions unit. The alternative requires the procedures as outlined in the USEPA approval letter of September 21, 2006 be implemented in the operation, maintenance and monitoring plan for this emissions unit. These procedures include the following specifications for the continuous temperature monitor and recorder for measuring and recording the temperature at the exit of the of the combustion zone for the afterburner.
    - a. The permittee will utilize three pieces of equipment: a data logger, a dual thermocouple and a digital readout. The data logger will utilize a software program to allow the operator to arrange data in a spreadsheet file. A spool of very low impedance wire is also utilized as part of the package since the currents generated by the thermocouples may be very low.
    - b. Dual thermocouples are to be used so that the data logger and the digital read-out each has its own thermocouple. As a result, there will be sufficient current for the digital read-out and the data logger to read properly. Both thermocouples will read the same temperature and report to their own piece of equipment. As part of the standard operating procedure, a second set of thermocouples will be kept on site to replace a malfunctioning unit immediately.
  - (3) The permittee shall collect and record the following information each day when the emissions unit was in operation:
    - a. A log or record of the downtime for the afterburner or monitoring equipment when the associated emissions unit was in operation, and;
    - b. All 3-hour blocks of time during which the average combustion temperature of the afterburner was less than 1650 degrees Fahrenheit.
  - (4) The permittee shall implement the procedures outlined in the USEPA approval letter of September 21, 2006 in the operation, maintenance and monitoring plan for this emissions unit as an alternative to performing a calibration and certification of the afterburner temperature monitor every six months as specified by Subpart RRR.
- e) Reporting Requirements
- (1) The permittee shall submit quarterly deviations (excursion) reports that identify all periods of time during which the temperature of the smelting furnace afterburner was not maintained above the required temperature.
  - (2) The permittee shall submit quarterly summaries that include a log or record of the downtime for the afterburner and/or monitoring equipment when the associated emissions unit was in operation.
- f) Testing Requirements
- (1) Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following:



a. Emission Limitation –

The particulate emissions (PE) shall not exceed 0.023 lb/hour.

Applicable Compliance Method -

The hourly particulate emissions rate was determined from manufacturers' supplied test data (0.023 lb/hour).

b. Emission Limitation -

The particulate emissions (PE) shall not exceed 0.10 TPY.

Applicable Compliance Method -

Compliance shall be shown by multiplying the hourly limitation by 8,760 hrs/yr and then dividing by 2,000 lbs/ton.

c. Emission Limitation -

The nitrogen oxides (NOx) emissions shall not exceed 1.80 TPY.

Applicable Compliance Method -

Compliance shall be shown by multiplying the source manufacturers' supplied test data (0.41 lb-NOx/hour) by 8,760 hrs/yr and then dividing by 2,000 lbs/ton.

d. Emission Limitation-

The visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.

Applicable Compliance Method -

Compliance shall be determined by visible emissions evaluations performed in accordance with OAC rule 3475-17-03(B)(1) using the methods and procedures specified in USEPA Reference Method 9.

e. Emission Limitation-

The dioxins/furans emissions shall not exceed 0.80 nanogram (ng) TEQ per dscm (3.5 x 10<sup>-10</sup> grains per dscf) at 11 percent oxygen (O<sub>2</sub>).

Applicable Compliance Method -

Compliance shall be demonstrated through compliance with operational restrictions listed in c).

g) Miscellaneous Requirements

- (1) The terms and conditions contained in this permit to install and operate shall supersede all the air pollution control requirements contained in the permit to install 08-04779 issued on December 14, 2006.