



State of Ohio Environmental Protection Agency

**RE: DRAFT PERMIT TO INSTALL
ERIE COUNTY**

CERTIFIED MAIL

Street Address:

Mailing Address:

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

Lazarus Gov.
Center

Application No: 03-17106

Fac ID: 0322020149

DATE: 3/29/2007

Thakar Aluminum Corporation
Ron Struzinger
1364 Olds Street
Sandusky, OH 44870

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on 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 proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43216-1049.

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$5000** will be due. Please do not submit any payment now.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Sincerely,

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

CC: USEPA

NWDO

Toledo Metro Area Coun of Govts

MI



STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

**Permit To Install
Terms and Conditions**

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

DRAFT PERMIT TO INSTALL 03-17106

Application Number: 03-17106
Facility ID: 0322020149
Permit Fee: **To be entered upon final issuance**
Name of Facility: Thakar Aluminum Corporation
Person to Contact: Ron Struzinger
Address: 1364 Olds Street
Sandusky, OH 44870

Location of proposed air contaminant source(s) [emissions unit(s)]:

**1364 Olds Street
Sandusky, Ohio**

Description of proposed emissions unit(s):

Modification of two of three aluminum melting furnaces to include the use of an alternate fuel and all three aluminum melting furnaces for the use of reactive flux.

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski
Director

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

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

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections,

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conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

6. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

7. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

8. Termination of Permit to Install

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

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9. Construction of New Sources(s)

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

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

10. Public Disclosure

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

11. Applicability

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

12. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available

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Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

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

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

14. Construction Compliance Certification

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

15. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

B. Permit to Install Summary of Allowable Emissions

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

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

<u>Pollutant</u>	<u>Tons Per Year</u>
PE	6.00
NOx	19.28
CO	8.76

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PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment - (P001) - aluminum melting furnace, modification of an existing emissions unit to allow for oxygen enrichment and reactive flux

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	0.45 lbs particulate emissions (PE)/hr; 2.0 tons PE/yr 2.2 lbs/NOx/hr; 9.64 tons NOx/yr 1.0 lb CO/hr; 4.38 tons CO/yr Visible particulate emissions shall not exceed 20% opacity, as a six-minute average See A.2.a
OAC rule 3745-21-08(B)	See A.2.d
OAC rule 3745-23-06(B)	See A.2.e
OAC rule 3745-17-11(B)(1)	See A.2.b
OAC rule 3745-17-07(A)	See A.2.c
40 CFR Part 63, Subpart RRR	Recordkeeping and reporting requirements (See A.2.f)

2. Additional Terms and Conditions

- 2.a Compliance with this rule includes compliance with the work practice requirements of 40 CFR Part 63, Subpart RRR (the Secondary Aluminum Processing MACT).
- 2.b The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(ii), Figure II in OAC rule 3745-17-11 does not apply. Also Table 1 does not apply since the facility is located in Erie County.

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- 2.c** This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.
- 2.d** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.e** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

On February 14, 2005, OAC rule 3745-23-06 was rescinded; therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the U.S. EPA approves the revision to OAC rule 3745-23-06, the requirement to satisfy the "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.f** Per 40 CFR 63.1503, this emissions unit is a Group 1 furnace at an area source. This facility, including this emissions unit, is not subject to the emissions limitations and testing requirements of 40 CFR 63.1500 et seq. (MACT Subpart RRR) per 40 CFR 63.1500(c) because the facility is not major for HAPs; does not melt materials other than clean charge, internal scrap, and customer returns; and because the facility does not operate sweat furnaces, thermal chip dryers, or scrap dryers/delacquering kilns/ decoating kilns (all as defined in 40 CFR 63.1503). See also, section B.1 of this permit.

B. Operational Restrictions

Emissions Unit ID: P001

1. The permittee shall melt only clean charge, internal scrap, and customer returns, as defined in 40 CFR 63.1503, in this emission unit.

Clean charge means furnace charge materials including molten aluminum, T-bar, sow, ingot, billet, pig, alloying elements, aluminum scrap (as defined in 40 CFR 63.1503) known by the permittee to be entirely free of paints, coatings, lubricants; uncoated/unpainted aluminum chips that have been thermally dried or treated by a centrifugal cleaner; aluminum scrap dried at 343 deg C (650 deg F) or higher; aluminum scrap delacquered/decoated at 482 deg C (900 deg F) or higher, and runaround scrap (as defined in 40 CFR 63.1503).

Internal scrap means all aluminum scrap regardless of the level of contamination which originates from castings or extrusions produced by an aluminum die casting facility, aluminum foundry, or aluminum extrusion facility, and which remains at all times within the control of the company that produced the castings or extrusions.

Customer returns means any aluminum product which is returned by a customer to the aluminum company that originally manufactured the product prior to resale of the product or further distribution in commerce, and which contains no paint or other solid coatings (i.e., lacquers).

2. The permittee shall burn only natural gas in this emissions unit, with no more than 3% oxygen enrichment (0.0396 of the combustion air flow).
3. The permittee shall prepare and implement for this emissions unit, a written operation, maintenance, and monitoring (OM&M) plan, in accordance with 40 CFR 63.1510(b) and 40 CFR 63.1510(o). This OM&M plan must contain the elements listed in 40 CFR 63.1510(b)(1) through (b)(8), and 40 CFR 63.1510(o)(1) through (o)(8). This plan must be submitted to the Ohio EPA, Northwest District Office (NWDO) no later than 6 months after the issuance date of this permit. The permittee shall also operate this furnace in accordance with the OM&M plan, as approved by Ohio EPA, NWDO, including the initiation of corrective action if necessary.
4. The permittee shall provide and maintain an easily visible label posted at this furnace, that identifies the applicable emissions limits and means of compliance, including:
 - a. the type of emissions unit (i.e. Group 1 furnace); and
 - b. the applicable operational standard(s) and control method(s) (i.e. applicable work practice requirements).

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5. The permittee shall maintain the total reactive chlorine flux injection rate for each operating cycle at or below 30 lbs.

C. Monitoring and/or Recordkeeping Requirements

1. For each operating cycle during which the permittee deviated from the charge restrictions of section B.1 above, the permittee shall maintain a record of the type and quantity of such charge employed.
2. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
3. The permittee shall maintain records of the percentage of oxygen enrichment employed for each operating cycle.
4. 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 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 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 emission incident; and
 - e. any corrective actions taken to minimize or eliminate the abnormal 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.

Emissions Unit ID: **P001**

5. The permittee shall inspect the label for this group 1 furnace at least once per calendar month to confirm that posted labels as required by the operational standard in 40 CFR 63.1506(b) are intact and legible.
6. The permittee shall install, calibrate, operate, and maintain a device to continuously measure and record the weight of gaseous or liquid reactive flux injected to this emissions unit. The monitoring system must record the weight for each 15-minute block period, during which reactive fluxing occurs, over the same operating cycle or time period used in the performance test. The accuracy of the weight measurement device must be +/- 1 percent of the weight of the reactive component of the flux being measured. The owner or operator may apply to the Ohio EPA for permission to use a weight measurement device of alternative accuracy in cases where the reactive flux flow rates are so low as to make the use of a weight measurement device of +/- 1 percent impracticable. A device of alternative accuracy will not be approved unless the owner or operator provides assurance through data and information that this emissions unit will meet the relevant emission standard. The permittee shall verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every 6 months. The permittee shall monitor and record the total reactive chlorine flux injection rate over the same operating cycle or time period used in the performance test.
7. The permittee shall install, calibrate, operate, and maintain a device to measure and record the total weight of feed/charge to, or the aluminum production from, this emissions unit over the same operating cycle or time period used in the performance test. As an alternative to a measurement device, the permittee may use a procedure acceptable to Ohio EPA to determine the total weight of feed/charge or aluminum production. The accuracy of the weight measurement device or procedure must be +/- 1 percent of the weight being measured. The permittee may apply to the Ohio EPA for approval to use a device of alternative accuracy if the required accuracy cannot be achieved as a result of equipment layout or charging practices. A device of alternative accuracy will not be approved unless the owner or operator provides assurance through data and information that this emissions unit will meet the relevant emission standard. The permittee shall verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every 6 months. The permittee shall monitor and record the total weight of feed/charge to or aluminum production from, this emissions unit over the same operating cycle or time period used in the performance test.
8. The permit to install for emissions units P001, P003, and P004 were evaluated based on the actual materials and the design parameters of the emissions unit's exhaust

Emissions Unit ID: P001

system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: hydrogen chloride (HCl)

TLV (mg/m³): 5.5

Maximum Hourly Emission Rate (lbs/hr): 1.23*

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m³): 73.35**

MAGLC (ug/m³): 131

*Average hourly emissions rate based on an operating schedule of 3.5 cycles, per furnace, per day, and a charge rate of 30 lbs of reactive flux added during one 15-minute period per cycle.

**Maximum concentration off-site, at a distance of 100 meters from the stack (minimum distance to fence line from any stack).

9. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:
 - a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;

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- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

10. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"
 - a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

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D. Reporting Requirements

1. The permittee shall submit quarterly deviation reports that identify each day during which the permittee deviated from the charge restrictions of section B.1 above, and the type and quantity of such charge employed.

The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
3. The permittee shall submit deviation (excursion) reports that identify each operating cycle when the fuel exceeded 3% oxygen enrichment (0.0396 of the combustion air flow) in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
4. The permittee shall submit semiannual written reports that (a) identify all days during which any abnormal visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the abnormal visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. Compliance with the emission limitations specified in Section A.1 of the terms and conditions of this permit shall be determined in accordance with the following methods:

- a. Emission Limitation:
0.45 lbs PE/hr; 2.0 tons PE/yr

Applicable Compliance Method:

The hourly limitation is based on the results of a 1998 stack test. If required, compliance with the particulate emission limitation shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A - Methods 1-5.

The annual limitation was established by multiplying the hourly limitation by a maximum operating schedule of 8,760 hours per year and dividing by 2000 lbs.

Emissions Unit ID: P001

Therefore provided compliance is shown with the hourly limitation, compliance with the annual limitation will be assumed.

- b. Emission Limitation:
2.2 lbs/NO_x/hr; 9.64 tons NO_x/yr

Applicable Compliance Method:

The hourly limitation is based on the results of a 2005 stack test. If required, compliance with the particulate emission limitation shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A - Methods 1-4, and 7.

The annual limitation was established by multiplying the hourly limitation by a maximum operating schedule of 8,760 hours per year and dividing by 2000 lbs. Therefore provided compliance is shown with the hourly limitation, compliance with the annual limitation will be assumed.

- c. Emission Limitation:
1.0 lb CO/hr; 4.38 tons CO/yr

Applicable Compliance Method:

The hourly limitation is based on the results of a 2005 stack test. If required, compliance with the particulate emission limitation shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A - Methods 1-4, and 10.

The annual limitation was established by multiplying the hourly limitation by a maximum operating schedule of 8,760 hours per year and dividing by 2000 lbs. Therefore provided compliance is shown with the hourly limitation, compliance with the annual limitation will be assumed.

- d. Emission Limitation:
Visible particulate stack emissions shall not exceed 20% opacity, as a six-minute average.

Applicable Compliance Method:

If required, compliance shall be determined in accordance with OAC rule 3745-17-03(B).

F. Miscellaneous Requirements

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None

Emissions Unit ID: **P001**

Issued: To be entered upon final issuance

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment - (P003) - aluminum melting furnace

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	0.45 lbs particulate emissions (PE)/hr; 2.0 tons/yr Visible PE shall not exceed 20% opacity, as a six-minute average See A.2.a
OAC rule 3745-17-11(B)(1)	See A.2.b
OAC rule 3745-17-07(A)	See A.2.c
40 CFR Part 63, Subpart RRR	Recordkeeping and reporting requirements (See A.2.d)

2. Additional Terms and Conditions

- 2.a Compliance with this rule includes compliance with the work practice requirements of 40 CFR Part 60, Subpart RRR (the Secondary Aluminum Processing MACT).
- 2.b The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(ii), Figure II in OAC rule 3745-17-11 does not apply. Also Table 1 does not apply since the facility is located in Erie County.
- 2.c This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.
- 2.d Per 40 CFR 63.1503, this emissions unit is a Group 1 furnace at an area source.

Emissions Unit ID: P003

This facility, including this emissions unit, is not subject to the emissions limitations and testing requirements of 40 CFR 63.1500 et seq. (MACT Subpart RRR) per 40 CFR 63.1500(c) because the facility is not major for HAPs; does not melt materials other than clean charge, internal scrap, and customer returns; and because the facility does not operate sweat furnaces, thermal chip dryers, or scrap dryers/delacquering kilns/ decoating kilns (all as defined in 40 CFR 63.1503). See also, section B.1 of this permit.

B. Operational Restrictions

1. The permittee shall melt only clean charge, internal scrap, and customer returns, as defined in 40 CFR 63.1503, in this emission unit.

Clean charge means furnace charge materials including molten aluminum, T-bar, sow, ingot, billet, pig, alloying elements, aluminum scrap (as defined in 40 CFR 63.1503) known by the permittee to be entirely free of paints, coatings, lubricants; uncoated/unpainted aluminum chips that have been thermally dried or treated by a centrifugal cleaner; aluminum scrap dried at 343 deg C (650 deg F) or higher; aluminum scrap delacquered/decoated at 482 deg C (900 deg F) or higher, and runaround scrap (as defined in 40 CFR 63.1503).

Internal scrap means all aluminum scrap regardless of the level of contamination which originates from castings or extrusions produced by an aluminum die casting facility, aluminum foundry, or aluminum extrusion facility, and which remains at all times within the control of the company that produced the castings or extrusions.

Customer returns means any aluminum product which is returned by a customer to the aluminum company that originally manufactured the product prior to resale of the product or further distribution in commerce, and which contains no paint or other solid coatings (i.e., lacquers).

2. The permittee shall burn only natural gas in this emissions unit, with no oxygen enrichment.
3. The permittee shall prepare and implement for this emissions unit, a written operation, maintenance, and monitoring (OM&M) plan, in accordance with 40 CFR 63.1510(b) and 40 CFR 63.1510(o). This OM&M plan must contain the elements listed in 40 CFR 63.1510(b)(1) through (b)(8), and 40 CFR 63.1510(o)(1) through (o)(8). This plan must be submitted to the Ohio EPA, Northwest District Office (NWDO) no later than 6 months after the issuance date of this permit. The permittee shall also operate this furnace in accordance with the OM&M plan, as approved by Ohio EPA, NWDO,

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including the initiation of corrective action if necessary.

4. The permittee shall provide and maintain an easily visible label posted at this furnace, that identifies the applicable emissions limits and means of compliance, including:
 - a. the type of emissions unit (i.e. Group 1 furnace); and
 - b. the applicable operational standard(s) and control method(s) (i.e. applicable work practice requirements).
5. The permittee shall maintain the total reactive chlorine flux injection rate for each operating cycle at or below 30 lbs.

C. Monitoring and/or Recordkeeping Requirements

1. For each operating cycle during which the permittee deviated from the charge restrictions of section B.1 above, the permittee shall maintain a record of the type and quantity of such charge employed.
2. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
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 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 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 emission incident; and
 - e. any corrective actions taken to minimize or eliminate the abnormal 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

Emissions Unit ID: **P003**

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 permittee shall inspect the label for this group 1 furnace at least once per calendar month to confirm that posted labels as required by the operational standard in 40 CFR 63.1506(b) are intact and legible.
5. The permittee shall install, calibrate, operate, and maintain a device to continuously measure and record the weight of gaseous or liquid reactive flux injected to this emissions unit. The monitoring system must record the weight for each 15-minute block period, during which reactive fluxing occurs, over the same operating cycle or time period used in the performance test. The accuracy of the weight measurement device must be +/- 1 percent of the weight of the reactive component of the flux being measured. The owner or operator may apply to the Ohio EPA for permission to use a weight measurement device of alternative accuracy in cases where the reactive flux flow rates are so low as to make the use of a weight measurement device of +/- 1 percent impracticable. A device of alternative accuracy will not be approved unless the owner or operator provides assurance through data and information that this emissions unit will meet the relevant emission standard. The permittee shall verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every 6 months. The permittee shall monitor and record the total reactive chlorine flux injection rate over the same operating cycle or time period used in the performance test.
6. The permittee shall install, calibrate, operate, and maintain a device to measure and record the total weight of feed/charge to, or the aluminum production from, this emissions unit over the same operating cycle or time period used in the performance test. As an alternative to a measurement device, the permittee may use a procedure acceptable to Ohio EPA to determine the total weight of feed/charge or aluminum production. The accuracy of the weight measurement device or procedure must be +/- 1 percent of the weight being measured. The permittee may apply to the Ohio EPA for approval to use a device of alternative accuracy if the required accuracy cannot be achieved as a result of equipment layout or charging practices. A device of alternative accuracy will not be approved unless the owner or operator provides assurance through data and information that this emissions unit will meet the relevant emission standard. The permittee shall verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, or if no calibration

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schedule is specified, at least once every 6 months. The permittee shall monitor and record the total weight of feed/charge to or aluminum production from, this emissions unit over the same operating cycle or time period used in the performance test.

7. The permit to install for emissions units P001, P003, and P004 were evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: hydrogen chloride (HCl)

TLV (mg/m³): 5.5

Maximum Hourly Emission Rate (lbs/hr): 1.23*

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m³): 75.65**

MAGLC (ug/m³): 131

*Average hourly emissions rate based on an operating schedule of 3.5 cycles, per furnace, per day, and a charge rate of 30 lbs of reactive flux added during one 15-minute period per cycle.

**Maximum concentration off-site, at a distance of 100 meters from the stack (minimum distance to fence line from any stack).

8. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

Emissions Unit ID: P003

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value 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 pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

9. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"
 - a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation reports that identify each operating cycle

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during which the permittee deviated from the charge restrictions of section B.1 above, and the type and quantity of such charge employed.

The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
3. The permittee shall submit semiannual written reports that (a) identify all days during which any abnormal visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the abnormal visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. Compliance with the emission limitations specified in Section A.1 of the terms and conditions of this permit shall be determined in accordance with the following methods:

- a. Emission Limitation:
0.45 lbs PE/hr; 2.0 tons PE/yr

Applicable Compliance Method:

The hourly limitation is based on the results of a 1998 stack test. If required, compliance with the particulate emission limitation shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A - Methods 1-5.

The annual limitation was established by multiplying the hourly limitation by a maximum operating schedule of 8,760 hours per year and dividing by 2000 lbs. Therefore provided compliance is shown with the hourly limitation, compliance with the annual limitation will be assumed.

- b. Emission Limitation:
Visible particulate stack emissions shall not exceed 20% opacity, as a six-minute average

Applicable Compliance Method:

Thakar Aluminum Corporation
DTL Application: 03-17106

Facility ID: 0322020149

Emissions Unit ID: **P003**

If required, compliance shall be determined in accordance with OAC rule 3745-17-03(B).

F. Miscellaneous Requirements

None

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PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment - (P004) - aluminum melting furnace

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	0.45 lbs particulate emissions (PE)/hr; 2.0 tons/yr 2.2 lbs/NOx/hr; 9.64 tons NOx/yr 1.0 lb CO/hr; 4.38 tons CO/yr Visible PE shall not exceed 20% opacity, as a six-minute average See A.2.a
OAC rule 3745-21-08(B)	See A.2.d
OAC rule 3745-23-06(B)	See A.2.e
OAC rule 3745-17-11(B)(1)	See A.2.b
OAC rule 3745-17-07(A)	See A.2.c
40 CFR Part 63, Subpart RRR	Recordkeeping and reporting requirements (See A.2.f)

2. Additional Terms and Conditions

- 2.a Compliance with this rule includes compliance with the work practice requirements of 40 CFR Part 63, Subpart RRR (the Secondary Aluminum Processing MACT).
- 2.b The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(ii), Figure II in OAC rule 3745-17-11 does not apply. Also Table 1 does not apply since the facility is located in Erie County.

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2.c This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.

2.d The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.e The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

On February 14, 2005, OAC rule 3745-23-06 was rescinded; therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the U.S. EPA approves the revision to OAC rule 3745-23-06, the requirement to satisfy the "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.f Per 40 CFR 63.1503, this emissions unit is a Group 1 furnace at an area source. This facility, including this emissions unit, is not subject to the emissions limitations and testing requirements of 40 CFR 63.1500 et seq. (MACT Subpart RRR) per 40 CFR 63.1500(c) because the facility is not major for HAPs; does not melt materials other than clean charge, internal scrap, and customer returns; and because the facility does not operate sweat furnaces, thermal chip dryers, or scrap dryers/delacquering kilns/ decoating kilns (all as defined in 40 CFR 63.1503). See also, section B.1 of this permit.

B. Operational Restrictions

Emissions Unit ID: **P004**

1. The permittee shall melt only clean charge, internal scrap, and customer returns, as defined in 40 CFR 63.1503, in this emission unit.

Clean charge means furnace charge materials including molten aluminum, T-bar, sow, ingot, billet, pig, alloying elements, aluminum scrap (as defined in 40 CFR 63.1503) known by the permittee to be entirely free of paints, coatings, lubricants; uncoated/unpainted aluminum chips that have been thermally dried or treated by a centrifugal cleaner; aluminum scrap dried at 343 deg C (650 deg F) or higher; aluminum scrap delacquered/decoated at 482 deg C (900 deg F) or higher, and runaround scrap (as defined in 40 CFR 63.1503).

Internal scrap means all aluminum scrap regardless of the level of contamination which originates from castings or extrusions produced by an aluminum die casting facility, aluminum foundry, or aluminum extrusion facility, and which remains at all times within the control of the company that produced the castings or extrusions.

Customer returns means any aluminum product which is returned by a customer to the aluminum company that originally manufactured the product prior to resale of the product or further distribution in commerce, and which contains no paint or other solid coatings (i.e., lacquers).

2. The permittee shall burn only natural gas in this emissions unit, with no more than 3% oxygen enrichment (0.0396 of the combustion air flow).
3. The permittee shall prepare and implement for this emissions unit, a written operation, maintenance, and monitoring (OM&M) plan, in accordance with 40 CFR 63.1510(b) and 40 CFR 63.1510(o). This OM&M plan must contain the elements listed in 40 CFR 63.1510(b)(1) through (b)(8), and 40 CFR 63.1510(o)(1) through (o)(8). This plan must be submitted to the Ohio EPA, Northwest District Office (NWDO) no later than 6 months after the issuance date of this permit. The permittee shall also operate this furnace in accordance with the OM&M plan, as approved by Ohio EPA, NWDO, including the initiation of corrective action if necessary.
4. The permittee shall provide and maintain an easily visible label posted at this furnace, that identifies the applicable emissions limits and means of compliance, including:
 - a. the type of emissions unit (i.e. Group 1 furnace); and
 - b. the applicable operational standard(s) and control method(s) (i.e. applicable work practice requirements).
5. The permittee shall maintain the total reactive chlorine flux injection rate for each

Emissions Unit ID: P004

operating cycle at or below 30.

C. Monitoring and/or Recordkeeping Requirements

1. For each operating cycle during which the permittee deviated from the charge restrictions of section B.1 above, the permittee shall maintain a record of the type and quantity of such charge employed.
2. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
3. The permittee shall maintain records of the percentage of oxygen enrichment employed for each operating cycle.
4. 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 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 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 emission incident; and
 - e. any corrective actions taken to minimize or eliminate the abnormal 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.

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5. The permittee shall inspect the label for this group 1 furnace at least once per calendar month to confirm that posted labels as required by the operational standard in 40 CFR 63.1506(b) are intact and legible.
6. The permittee shall install, calibrate, operate, and maintain a device to continuously measure and record the weight of gaseous or liquid reactive flux injected to this emissions unit. The monitoring system must record the weight for each 15-minute block period, during which reactive fluxing occurs, over the same operating cycle or time period used in the performance test. The accuracy of the weight measurement device must be +/- 1 percent of the weight of the reactive component of the flux being measured. The owner or operator may apply to the Ohio EPA for permission to use a weight measurement device of alternative accuracy in cases where the reactive flux flow rates are so low as to make the use of a weight measurement device of +/- 1 percent impracticable. A device of alternative accuracy will not be approved unless the owner or operator provides assurance through data and information that this emissions unit will meet the relevant emission standard. The permittee shall verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every 6 months. The permittee shall monitor and record the total reactive chlorine flux injection rate over the same operating cycle or time period used in the performance test.
7. The permittee shall install, calibrate, operate, and maintain a device to measure and record the total weight of feed/charge to, or the aluminum production from, this emissions unit over the same operating cycle or time period used in the performance test. As an alternative to a measurement device, the permittee may use a procedure acceptable to Ohio EPA to determine the total weight of feed/charge or aluminum production. The accuracy of the weight measurement device or procedure must be +/- 1 percent of the weight being measured. The permittee may apply to the Ohio EPA for approval to use a device of alternative accuracy if the required accuracy cannot be achieved as a result of equipment layout or charging practices. A device of alternative accuracy will not be approved unless the owner or operator provides assurance through data and information that this emissions unit will meet the relevant emission standard. The permittee shall verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every 6 months. The permittee shall monitor and record the total weight of feed/charge to or aluminum production from, this emissions unit over the same operating cycle or time period used in the performance test.
8. The permit to install for emissions units P001, P003, and P004 were evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio

Emissions Unit ID: **P004**

EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: hydrogen chloride (HCl)

TLV (mg/m³): 5.5

Maximum Hourly Emission Rate (lbs/hr): 1.23*

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m³): 75.65**

MAGLC (ug/m³): 131

*Average hourly emissions rate based on an operating schedule of 3.5 cycles, per furnace, per day, and a charge rate of 30 lbs of reactive flux added during one 15-minute period per cycle.

**Maximum concentration off-site, at a distance of 100 meters from the stack (minimum distance to fence line from any stack).

9. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:
 - a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;

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- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

- 10. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"
 - a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

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D. Reporting Requirements

1. The permittee shall submit quarterly deviation reports that identify each day during which the permittee deviated from the charge restrictions of section B.1 above, and the type and quantity of such charge employed.

The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
3. The permittee shall submit deviation (excursion) reports that identify each day when the fuel exceeded 3% oxygen enrichment (0.0396 of the combustion air flow) in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
4. The permittee shall submit semiannual written reports that (a) identify all days during which any abnormal visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the abnormal visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. Compliance with the emission limitations specified in Section A.1 of the terms and conditions of this permit shall be determined in accordance with the following methods:

- a. Emission Limitation:
0.45 lbs PE/hr; 2.0 tons PE/yr

Applicable Compliance Method:

The hourly limitation is based on the results of a 1998 stack test. If required, compliance with the particulate emission limitation shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A - Methods 1-5.

The annual limitation was established by multiplying the hourly limitation by a maximum operating schedule of 8,760 hours per year and dividing by 2000 lbs.

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Therefore provided compliance is shown with the hourly limitation, compliance with the annual limitation will be assumed.

- b. Emission Limitation:
2.2 lbs/NO_x/hr; 9.64 tons NO_x/yr

Applicable Compliance Method:

The hourly limitation is based on the results of a 2005 stack test. If required, compliance with the particulate emission limitation shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A - Methods 1-4, and 7.

The annual limitation was established by multiplying the hourly limitation by a maximum operating schedule of 8,760 hours per year and dividing by 2000 lbs. Therefore provided compliance is shown with the hourly limitation, compliance with the annual limitation will be assumed.

- c. Emission Limitation:
1.0 lb CO/hr; 4.38 tons CO/yr

Applicable Compliance Method:

The hourly limitation is based on the results of a 2005 stack test. If required, compliance with the particulate emission limitation shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A - Methods 1-4, and 10.

The annual limitation was established by multiplying the hourly limitation by a maximum operating schedule of 8,760 hours per year and dividing by 2000 lbs. Therefore provided compliance is shown with the hourly limitation, compliance with the annual limitation will be assumed.

- d. Emission Limitation:
Visible particulate stack emissions shall not exceed 20% opacity, as a six-minute average.

Applicable Compliance Method:

If required, compliance shall be determined in accordance with OAC rule 3745-17-03(B).

F. Miscellaneous Requirements

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None

Emissions Unit ID: **P004**

Emissions Unit ID: **P004**

SIC CODE 3341 SCC CODE 3-04-001-03, 3-04-001-04 EMISSIONS UNIT ID P001

EMISSIONS UNIT DESCRIPTION aluminum melting furnace
 DATE INSTALLED installed pre-1972, mod. 03-2006

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment	0.45 lbs PE/hr	2.0 tons PE/yr	0.45 lbs PE/hr	2.0 tons PE/yr
PM ₁₀					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides	attainment	2.2 lbs NOx/hr	9.64 tons NOx/yr	2.2 lbs NOx/hr	9.64 tons NOx/yr
Carbon Monoxide	attainment	1.0 lb CO/hr	4.38 tons CO/yr	1.0 lb CO/hr	4.38 tons CO/yr
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? **RRR** NESHAP? No PSD? No OFFSET POLICY? No

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination BAT has been determined to be compliance with the terms and conditions of this permit.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? yes
 OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$ N/A

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? X YES NO

IDENTIFY THE AIR CONTAMINANTS: PM, NOx, CO, HCl

Emissions Unit ID: **P004**

SIC CODE SCC CODE EMISSIONS UNIT ID

EMISSIONS UNIT DESCRIPTION

DATE INSTALLED

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment	0.45 lb PE/hr	2.0 tons PE/yr	0.45 lb PE/hr	2.0 tons PE/yr
PM ₁₀					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? **RRR** NESHAP? no PSD? no OFFSET POLICY? no

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination BAT has been determined to be compliance with the terms and conditions of this permit.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? yes

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? x YES NO

IDENTIFY THE AIR CONTAMINANTS: PM, HCl

