State of Ohio Environmental Protection Agency

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

Street Address: Mailing Address: Lazarus Gov. Center
Lazarus Gov. Center **TELE:** (614) 644-3020 **FAX:** (614) 644-2329

Application No: 03-17316
Fac ID: 0322020149

DATE: 5/3/2007

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 of 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 **$3750** 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

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

CC: **USEPA** **NWDO** **Toledo Metro Area Council of Gov.** **MI**

ERIE COUNTY

PUBLIC NOTICE
ISSUANCE OF DRAFT PERMIT TO INSTALL **03-17316** FOR AN AIR CONTAMINANT SOURCE FOR
Thakar Aluminum Corporation

On 5/3/2007 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **Thakar Aluminum Corporation**, located at **1364 Olds Street, Sandusky**, Ohio.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 03-17316:

Modification of two or three aluminum melting furnaces to include the use of an alternate fuel and all three aluminum melting furnaces for the use of reactive flux and processing of contaminated scrap

Comments concerning this draft action, or a request for a public meeting, must be sent in writing to the address identified below no later than thirty (30) days from the date this notice is published. All inquiries concerning this draft action may be directed to the contact identified below.

Don Waltermeyer, Ohio EPA, Northwest District Office, 347 North Dunbridge Road, Bowling Green, OH 43402 [(419)352-8461]

DRAFT PERMIT TO INSTALL 03-17316

Application Number:	03-17316
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 or three aluminum melting furnaces to include the use of an alternate fuel and all three aluminum melting furnaces for the use of reactive flux and processing of contaminated scrap

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,

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.

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

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

Pollutant	Tons Per Year
HCl	4.9
NOx	27.1
PE	6.0
CO	15.4

Emissions Unit ID: **P001**

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 3745-31-05(A)(3)	0.45 lbs particulate emissions (PE)/hr; 2.0 tons PE/yr 2.2 lbs nitrogen oxides (NOx)/hr; 9.6 tons NOx/yr 1.0 lbs carbon monoxide (CO)/hr; 4.4 tons CO/yr Visible particulate emissions shall not exceed 20% opacity, as a six-minute average. See A.2.a.
ORC 3704.03(E)(4)(c)	26.88 lbs HCl/day for emission units P001, P003, and P004 combined, see A.2.b.
OAC rule 3745-17-11(B)(1)	See A.2.c
OAC rule 3745-17-07(A)	See A.2.d
OAC rule 3745-21-08(B)	See A.2.e
40 CFR Part 63, Subpart RRR	dioxin/furan requirements, See A.2.f. and A.2.g.

2. Additional Terms and Conditions

2.a The Best Available Technology (BAT) for this emissions unit has been determined to be 40 CFR Part 63, Subpart RRR and compliance with the terms and conditions of this permit.

2.b The daily emissions rate is based on an operating schedule of 3.2 cycles, per furnace, per day, and a charge rate of 30 lbs of reactive flux added during one 15-minute period per cycle. This limit is being established to maintain emissions of HCl within the modeled level in section C.5.

2.c 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.d 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.e The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by minimizing emissions in accordance with best current technology.

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.f Thakar Aluminum Corporation is subject to 40 CFR Part 63, Subpart RRR, National Emission Standards for Hazardous Air Pollutants: Secondary Aluminum Production. For the purposes of applying this rule, this facility is an area source of Hazardous Air Pollutants (HAPs) as defined in 40 CFR 63.2. As an area source, this facility is subject to the requirements of 40 CFR Part 63, Subpart RRR which pertain to dioxin and furan emissions.

2.g This emissions unit is defined as a group 1 furnace that processes material other than clean scrap, with reactive flux, and is one of three identical furnaces which comprise a Secondary Aluminum Processing Unit (SAPU) at this facility. The SAPU shall comply with all applicable requirements of 40 CFR Part 63, Subpart RRR (See A.2.f above). All the requirements of 40 CFR Part 63, Subpart RRR are specified in Attachment A.

B. Operational Restrictions

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

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).

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each day for reactive flux usage from emission units P001, P003, and P004:

   a. the company identification for the reactive flux material employed;

   b. the number of pounds of the reactive flux material employed in each furnace;

   c. the total number of pounds of reactive flux material employed in all three furnaces (sum of b.); and,

   d. the total daily HCl emissions for the reactive flux material employed (c. x 0.093 lbs HCl/lb flux).

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 properly install, operate, and maintain a programmable logic controller (PLC) for controlling the percentage of oxygen enrichment employed. The PLC shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). For each operating cycle during which the permittee employs greater than 3% oxygen enrichment, the permittee shall maintain a record of the actual percentage of oxygen enrichment.

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.

5. The permit to install for emissions units P001, P003, and P004 was evaluated based on the actual materials and the design parameters of each 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 to these emission units for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) 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): 1.12

   Predicted 1-Hour Maximum Ground-Level
   Concentration (ug/m3): 127.3

   MAGLC (ug/m3): 131

6. Any significant departure from the operations of the source described in the permit to install application that results in greater emissions than the emissions rate modeled to determine the ground level concentration may be considered a modification requiring

the permittee to submit a permit to installation application for the increased emissions. Changes that could result in greater emissions when applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");

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.).

D. Reporting Requirements

1. The permittee shall submit quarterly deviation reports that identify each day during which the permittee deviated from the HCl emission limitation 26.88 lbs HCl/day. 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 oxygen enrichment employed exceeded 3% (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

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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 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
   If required, compliance with the PE limitation shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A - Methods 1 through 5.

   The annual limitation was established by multiplying the hourly limitation by a maximum operating schedule of 8760 hours per year and dividing by 2000 lbs/ton. Therefore provided compliance is shown with the hourly limitation, compliance with the annual limitation will be assumed.

   b. **Emission Limitation**
   2.2 lbs NOx/hr; 9.6 tons NOx/yr

Emissions Unit ID: **P001**

Applicable Compliance Method
If required, compliance with the NOx limitation shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A - Methods 1 through 4, and 7.

The annual limitation was established by multiplying the hourly limitation by a maximum operating schedule of 8760 hours per year and dividing by 2000 lbs/ton. Therefore provided compliance is shown with the hourly limitation, compliance with the annual limitation will be assumed.

c. **Emission Limitation**
1.0 lbs CO/hr; 4.4 tons CO/yr

Applicable Compliance Method
If required, compliance with the CO limitation shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A - Methods 1 through 4, and 10.

The annual limitation was established by multiplying the hourly limitation by a maximum operating schedule of 8760 hours per year and dividing by 2000 lbs/ton. 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 with the opacity limitation shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A - Method 9.

e. **Emission Limitation**
26.88 lbs HCl/day for P001, P003, and P004, combined

Applicable Compliance Method
Compliance with the daily mass emission limitation shall be demonstrated by the monitoring and record keeping requirements specified in condition C.1. of this permit.

The annual limitation was established by multiplying the daily limitation by a

maximum operating schedule of 365 days per year and dividing by 2000 lbs/ton Therefore, if compliance is shown with the daily limitation, compliance with the annual limitation will be assumed.

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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 -(P003) - aluminum melting furnace

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
ORC 3704.03(T)	See A.2.a.
ORC 3704.03(E)(4)(c)	26.88 lbs HCl/day for P001, P003, and P004, combined , see A.2.b.
OAC rule 3745-17-11(B)(1)	See A.2.d.
OAC rule 3745-17-07(A)	See A.2.d.
40 CFR Part 63, Subpart RRR	dioxin/furan requirements, See A.2.e. and A.2.f.

2. Additional Terms and Conditions

2.a The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PE, NOx and CO emissions from this air contaminant source since the uncontrolled potential to emit for this pollutant is less than ten tons per year. The Best Available Technology (BAT) for this emissions unit has been determined to be 40 CFR Part 63, Subpart RRR and compliance with the terms and conditions of this permit.

2.b The daily emissions rate is based on an operating schedule of 3.2 cycles, per furnace, per day, and a charge rate of 30 lbs of reactive flux added during one 15-minute period per cycle. This limit is being established to maintain emissions of HCl within the modeled level in section C.3.

2.c 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.d 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.e Thakar Aluminum Corporation is subject to 40 CFR Part 63, Subpart RRR, National Emission Standards for Hazardous Air Pollutants: Secondary Aluminum Production. For the purposes of applying this rule, this facility is an area source of Hazardous Air Pollutants (HAPs) as defined in 40 CFR 63.2. As an area source, this facility is subject to the requirements of 40 CFR Part 63, Subpart RRR which pertain to dioxin and furan emissions.

2.f This emissions unit is defined as a group 1 furnace that processes material other than clean scrap, with reactive flux, and is one of three identical furnaces which comprise a Secondary Aluminum Processing Unit (SAPU) at this facility. The SAPU shall comply with all applicable requirements of 40 CFR Part 63, Subpart RRR (See A.2.f above). All the requirements of 40 CFR Part 63, Subpart RRR are specified in Attachment A.

B. Operational Restrictions

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

2. The permittee shall burn only natural gas in this emissions unit, with no oxygen enrichment.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each day for reactive flux usage from emission units P001, P003, and P004:

   a. the company identification for the reactive flux material employed;

   b. the number of pounds of the reactive flux material employed in each furnace;

   c. the total number of pounds of reactive flux material employed in all three furnaces (sum of b.); and,

   d. the total daily HCl emissions for the reactive flux material employed (c. x 0.093 lbs HCl/lb flux).

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 permit to install for emissions units P001, P003, and P004 was evaluated based on the actual materials and the design parameters of each 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 to these emission units for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) 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): 1.12

   Predicted 1-Hour Maximum Ground-Level
   Concentration (ug/m3): 127.3

   MAGLC (ug/m3): 131

4. Any significant departure from the operations of the source described in the permit to install application that results in greater emissions than the emissions rate modeled to determine the ground level concentration may be considered a modification requiring the permittee to submit a permit to installation application for the increased emissions. Changes that could result in greater emissions when applying the "Air Toxic Policy" include the following:

   a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");

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.).

D. Reporting Requirements

1. The permittee shall submit quarterly deviation reports that identify each day during which the permittee deviated from the HCl emission limitation 26.88 lbs HCl/day. 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.

E. Testing Requirements

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

   a. **Emission Limitation**
   26.88 lbs HCl/day and 4.9 tons HCl/yr for P001, P003, and P004, combined

   Applicable Compliance Method
   Compliance with the daily mass emission limitation shall be demonstrated by the monitoring and record keeping requirements specified in condition C.1. of this permit.

   The annual limitation was established by multiplying the daily limitation by a maximum operating schedule of 365 days per year and dividing by 2000 lbs/ton Therefore, if compliance is shown with the daily limitation, compliance with the annual limitation will be assumed.

F. Miscellaneous Requirements

Emissions Unit ID: **P003**

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 PE/yr 2.2 lbs nitrogen oxides (NOx)/hr; 9.64 tons NOx/yr 1.0 lbs carbon monoxide (CO)/hr; 4.38 tons CO/yr Visible particulate emissions shall not exceed 20% opacity, as a six-minute average. See A.2.a.
ORC 3704.03(E)(4)(c)	26.88 lbs HCl/day for P001, P003, and P004, combined, see A.2.b.
OAC rule 3745-17-11(B)(1)	See A.2.c
OAC rule 3745-17-07(A)	See A.2.d
OAC rule 3745-21-08(B)	See A.2.e
40 CFR Part 63, Subpart RRR	dioxin/furan requirements, See A.2.f. and A.2.g.

2. Additional Terms and Conditions

2.a The Best Available Technology (BAT) for this emissions unit has been determined to be 40 CFR Part 63, Subpart RRR and compliance with the terms and conditions of this permit.

2.b The daily emissions rate is based on an operating schedule of 3.2 cycles, per furnace, per day, and a charge rate of 30 lbs of reactive flux added during one 15-minute period per cycle. This limit is being established to maintain emissions

of HCl within the modeled level in section C.5.

2.c 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.d 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.e The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by minimizing emissions in accordance with best current technology.

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.f Thakar Aluminum Corporation is subject to 40 CFR Part 63, Subpart RRR, National Emission Standards for Hazardous Air Pollutants: Secondary Aluminum Production. For the purposes of applying this rule, this facility is an area source of Hazardous Air Pollutants (HAPs) as defined in 40 CFR 63.2. As an area source, this facility is subject to the requirements of 40 CFR Part 63, Subpart RRR which pertain to dioxin and furan emissions.

2.g This emissions unit is defined as a group 1 furnace that processes material other than clean scrap, with reactive flux, and is one of three identical furnaces which comprise a Secondary Aluminum Processing Unit (SAPU) at this facility. The SAPU shall comply with all applicable requirements of 40 CFR Part 63, Subpart RRR (See A.2.f above). All the requirements of 40 CFR Part 63, Subpart RRR are specified in Attachment A.

B. Operational Restrictions

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

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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).

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C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each day for reactive flux usage from emission units P001, P003, and P004:

   a. the company identification for the reactive flux material employed;

   b. the number of pounds of the reactive flux material employed in each furnace;

   c. the total number of pounds of reactive flux material employed in all three furnaces (sum of b.); and,

   d. the total daily HCl emissions for the reactive flux material employed (c. x 0.093 lbs HCl/lb flux).

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 properly install, operate, and maintain a programmable logic controller (PLC) for controlling the percentage of oxygen enrichment employed. The PLC shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). For each operating cycle during which the permittee employs greater than 3% oxygen enrichment, the permittee shall maintain a record of the actual percentage of oxygen enrichment.

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.

5. The permit to install for emissions units P001, P003, and P004 was evaluated based on the actual materials and the design parameters of each 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 to these emission units for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) 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): 1.12

   Predicted 1-Hour Maximum Ground-Level
   Concentration (ug/m3): 127.3

   MAGLC (ug/m3): 131

6. Any significant departure from the operations of the source described in the permit to install application that results in greater emissions than the emissions rate modeled to determine the ground level concentration may be considered a modification requiring the permittee to submit a permit to installation application for the increased emissions. Changes that could result in greater emissions when applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");

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.).

D. Reporting Requirements

1. The permittee shall submit quarterly deviation reports that identify each day during which the permittee deviated from the HCl emission limitation 26.88 lbs HCl/day. 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 oxygen enrichment employed exceeded 3% (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.

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E. Testing Requirements

1. Compliance with the emission limitations 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
   If required, compliance with the PE limitation shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A - Methods 1 through 5.

   The annual limitation was established by multiplying the hourly limitation by a maximum operating schedule of 8760 hours per year and dividing by 2000 lbs/ton. Therefore provided compliance is shown with the hourly limitation, compliance with the annual limitation will be assumed.

   b. **Emission Limitation**
   2.2 lbs NOx/hr; 9.6 tons NOx/yr

Applicable Compliance Method
If required, compliance with the NOx limitation shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A - Methods 1 through 4, and 7.

The annual limitation was established by multiplying the hourly limitation by a maximum operating schedule of 8760 hours per year and dividing by 2000 lbs/ton. Therefore provided compliance is shown with the hourly limitation, compliance with the annual limitation will be assumed.

c. **Emission Limitation**
1.0 lbs CO/hr; 4.4 tons CO/yr

Applicable Compliance Method
If required, compliance with the CO limitation shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A - Methods 1 through 4, and 10.

The annual limitation was established by multiplying the hourly limitation by a maximum operating schedule of 8760 hours per year and dividing by 2000 lbs/ton. 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 with the opacity limitation shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A - Method 9.

e. **Emission Limitation**
26.88 lbs HCl/day for P001, P003, and P004, combined

Applicable Compliance Method
Compliance with the daily mass emission limitation shall be demonstrated by the monitoring and record keeping requirements specified in condition C.1. of this permit.

The annual limitation was established by multiplying the daily limitation by a

maximum operating schedule of 365 days per year and dividing by 2000 lbs/ton Therefore, if compliance is shown with the daily limitation, compliance with the annual limitation will be assumed.

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F. Miscellaneous Requirements

None