



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL
ASHTABULA COUNTY**

CERTIFIED MAIL

Street Address:

122 S. Front Street

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

Mailing Address:

Lazarus Gov. Center
P.O. Box 1049

Application No: 02-16336

DATE: 4/25/2002

General Aluminum Manufacturing Co
James Muchiarone
1043 Chamberlain Blvd
Conneaut, OH 44030

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

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.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
236 East Town Street, Room 300
Columbus, Ohio 43215

Very truly yours,

Thomas G. Rigo, Manager
Field Operations and Permit Section
Division of Air Pollution Control

cc: USEPA

NEDO



**Permit To Install
Terms and Conditions**

**Issue Date: 4/25/2002
Effective Date: 4/25/2002**

FINAL PERMIT TO INSTALL 02-16336

Application Number: 02-16336
APS Premise Number: 0204020428
Permit Fee: **\$400**
Name of Facility: General Aluminum Manufacturing Co
Person to Contact: James Muchiarone
Address: 1043 Chamberlain Blvd
Conneaut, OH 44030

Location of proposed air contaminant source(s) [emissions unit(s)]:
**1043 Chamberlain Blvd
Conneaut, Ohio**

Description of proposed emissions unit(s):
Natural gas fired aluminum reverberatory furnace.

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

Director

Part I - GENERAL TERMS AND CONDITIONS

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 Related to Monitoring and Record keeping Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or record keeping 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 record keeping 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 quarterly, i.e., 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

General Aluminum Manufacturing Co
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Facility ID: 0204020428

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 application must be made to the Director for the installation or modification of any other emissions unit(s).

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 thirty (30) days after commencing operation of the emissions unit(s) covered by this permit.

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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	7.23
NO _x	3.94

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P008 - GIL-MAR No 340 Reverberatory Furnace, 6mmBTU/hr, natural gas fired, maximum capacity of 3,000 lbs per hour.	OAC rule 3745-31-05	Particulate emissions (PE):1.65 lbs/hr, 7.23 tons/year. Visible emissions: not to exceed 5 percent opacity as a six-minute average. Nitrogen oxides (NO _x) from natural gas combustion: 0.9 lb/hr, 3.94 tons/year
	OAC Rule 3745-17-07	The requirements of this rule are less stringent than the requirements of OAC Rule 3745-31-05(A)(3).
	OAC Rule 3745-17-11	The requirements of this rule are less stringent than the requirements than the requirements of OAC Rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

- 2.a None

B. Operational Restrictions

- 1. The permittee shall burn only natural gas fuel in this emissions unit.

2. The following materials are approved for charging into the furnace: clean, pure aluminum ingots; degating material; and rejected molded parts. The degating materials consist of excess aluminum which is removed from the exterior of the molds and used for remelt. Scrap material (other than from the original aluminum ingots) and dross are not permitted to be charged in the furnace.
3. No demagging or degreasing operations shall be performed inside the furnace chambers. Degassing operations may be performed outside of the furnace and inside of a degassing chamber using argon and/or nitrogen gases.

C. Monitoring and/or Record keeping Requirements

1. 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.
2. The permittee shall maintain monthly records of the amount of aluminum charged to P008.
3. The permittee shall record the number of production hours for P008 during each month.
4. The permittee shall maintain annual records of the total amount of aluminum charged to P008.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit quarterly reports that identify deviations (excursions) from the hourly emission limitations and operational restrictions that occurred during each quarter. The reports shall also include the probable cause of such deviations and any corrective actions or preventive measures which have been or will be taken. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.
3. 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 quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.
4. The permittee shall submit annual deviation (excursion) reports which identify any exceedances of

the annual emission limits, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

5. If no deviations of the annual emission limits occurred during a calendar year, the permittee shall submit an annual report which states that no deviations of the annual emission limits occurred during the year. The report shall be submitted annually, i.e., by January 31, of each year and shall cover the previous calendar year.

E. Testing Requirements

- 1. Emissions Limitations:
 PE: 1.65 pounds per hour

Applicable Compliance Method: To determine the actual hourly emissions rate for particulate matter, the following equation shall be used:

$$E(\text{lbs/hr}) = EF(\text{lbs/ton}) \times \frac{\text{Amt of Al charged (lbs)}}{\text{Total \# of production hrs}} \times 1 \text{ ton}/2000 \text{ lbs}$$

where:

E = Particulate emission rate, in pounds per hour

EF = Emission factor of 1.1 pounds of particulate per ton of material processed is taken from the STAPPA and ALAPCO Handbook, Table 11-2 for melting clean aluminum metal.

Amount of aluminum charged to P008 and total number of production hours to be taken from the monthly records as specified in Section C.2 and 3 of these terms and conditions.

- 2. Emissions Limitations:
 PE: 7.23 tons per year

Applicable Compliance Method: To determine the actual annual emissions rate for particulate matter, the following equation shall be used:

$$E(\text{tons/yr}) = EF(\text{lbs/ton}) \times \text{Amt of Al charged (tons/yr)} \times 1 \text{ ton}/2000 \text{ lbs}$$

where:

E = Particulate emissions rate, in tons per year

EF = Emissions factor of 1.1 pounds of particulate per ton of material processed is taken from the STAPPA and ALAPCO Handbook, Table 11-2 for melting clean aluminum metal.

Amount of aluminum charged to P008 each year taken from the annual record as specified

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PTI A

Issued: 4/25/2002

Emissions Unit ID: **P008**

in Section C.4 of these terms and conditions.

3. Emissions Limitations:
VE: Visible particulate emissions shall not exceed 5 percent opacity as a six minute average
- Applicable Compliance Method: Compliance shall be determined through visible emissions observations performed in accordance with 40 CFR part 60, Appendix A, Method 9.

4. Emissions Limitations:
NO_x: 0.9 pound per hour
- Applicable Compliance Method: To determine the actual hourly emissions rate for NO_x from natural gas combustion, the following equation shall be used:

$$E \text{ (lbs/hr)} = \text{Max rating of P008 (mmBtu/hr)} \times \text{EF (lb/mmBtu)}$$

where:

E = NO_x emissions rate, in pounds per hour

EF = Emission factor of 0.150 lb/mmBtu shall be used. This EF is taken from the STAPPA and ALAPCO Handbook.

Maximum rating of P008, as reported on the PTI application, is 6 mmBtu/hr.

5. Emissions Limitations:
NO_x: 3.94 tons per year
- Applicable Compliance Method: To determine the actual annual emissions rate for NO_x from natural gas combustion, the following equation shall be used:

$$E \text{ (tons/yr)} = \text{Max rating of P008 (mmBtu/hr)} \times \text{EF} \times \text{hr/year} \times \text{ton/2000 lbs}$$

where:

E = NO_x emissions rate, in tons per year

EF = Emission factor of 0.150 lb/mmBtu shall be used. This EF is taken from the STAPPA and ALAPCO Handbook.

hr/yr = Total number of production hours per year calculated from the record as specified in Section C.3 of these terms and conditions.

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PTI A

Issued: 4/25/2002

Emissions Unit ID: **P008**

F. Miscellaneous Requirements

None

NEW SOURCE REVIEW FORM B

PTI Number: 02-16336 Facility ID: 0204020428

FACILITY NAME General Aluminum Manufacturing Co

FACILITY DESCRIPTION natural gas fired aluminum reverberatory furnace CITY/TWP Conneaut

SIC CODE 3365 SCC CODE EMISSIONS UNIT ID P008

EMISSIONS UNIT DESCRIPTION GIL-MAR No 340 Reverberatory Furnace, 6mmBTU/hr, natural gas fired, maximum capacity of 3,000 lbs per hour.

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 (process)	1.65 lbs/hr	7.23	1.65 lbs/hr	7.23
PM ₁₀					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides	attainment (combustion)	0.9 lb/hr	3.94	0.9 lb/hr	3.94
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

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

Enter Determination BAT calculated by using EF of 1.1 lbs/ton of charge, max cap of 3000 lbs/hr, and 8760 hrs/year.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? No

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*? YES X NO

IDENTIFY THE AIR CONTAMINANTS: