



State of Ohio Environmental Protection Agency

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

**CERTIFIED MAIL**

Street Address:

50 West Town Street, Suite 700

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

Mailing Address:

Lazarus Gov. Center  
P.O. Box 1049

**Application No: 02-21628**

**Fac ID: 0210000107**

**DATE: 2/20/2007**

Aluminum One  
John Stiefel  
217 Roosevelt Ave  
Minerva, OH 44657

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 of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 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. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00 which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

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

Sincerely,

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

CC: USEPA

NEDO



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**Permit To Install  
Terms and Conditions**

**Issue Date: 2/20/2007  
Effective Date: 2/20/2007**

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**FINAL PERMIT TO INSTALL 02-21628**

Application Number: 02-21628  
Facility ID: 0210000107  
Permit Fee: **\$1000**  
Name of Facility: Aluminum One  
Person to Contact: John Stiefel  
Address: 217 Roosevelt Ave  
Minerva, OH 44657

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

**217 Roosevelt Ave  
Minerva, Ohio**

Description of proposed emissions unit(s):

**Dross cooling and storage area.**

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

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Chris Korleski  
Director

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## 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

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

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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)**

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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.

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**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	3.86

**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 - (F001) - Dross Cooling, Storage, Loading and Trucking**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	Fugitive particulate emissions (PE) shall not exceed 2.69 tons per year from dross cooling. See section A.2.a.  PE from loading dross onto trucks shall be vented to a baghouse and shall not exceed 0.9 lb/truck loaded and 1.17 tpy. See section A.2.b.
OAC rule 3745-17-07(B)(1)	Visible fugitive PE shall not exceed 20% opacity, as a 3-minute average, except as provided by the rule, for dross cooling.
OAC rule 3745-17-08(B)(7)	The permittee shall cover, at all times, open bodied vehicles when transporting materials likely to become airborne.
OAC rule 3745-17-11(B)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
OAC rule 3745-17-07(A)	Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule, for truck loading.

**2. Additional Terms and Conditions**

- 2.a All dross shall be kept dry and under cover, except when moving dross to the storage area and when loading trucks.
- 2.b The emissions resulting from loading dross into trucks shall be vented to an operating baghouse with 90% capture efficiency and 95% control efficiency at all times.

**B. Operational Restrictions**

**Issued: 2/20/2007**

Emissions Unit ID: **F001**

None

Issued: 2/20/2007

**C. Monitoring and/or Record keeping Requirements**

1. The permittee shall perform daily checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from building egress points near any area dross is cooling.  
The permittee shall also perform daily checks, when trucks are being loaded with dross, for any visible emissions from the truck loading of dross. The presence or absence of any visible emissions shall be noted in an operations log for each of these operations. 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 visible emissions.
2. The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the pressure drop across the baghouse during operation of this emissions unit, including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop on weekly basis.

Whenever the monitored value for the pressure drop deviates from the range specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the pressure

Emissions Unit ID: **F001**

drop readings immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The acceptable range for the pressure drop across the baghouse is 2 to 10 inches of water.

This range is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA Northeast District Office. The permittee may request revisions to the range based upon information obtained during future particulate emission tests that demonstrate compliance with the allowable particulate emission rate for this emissions unit. In addition, approved revisions to the range will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

#### **D. Reporting Requirements**

1. The permittee shall submit quarterly written reports that (a) identify all days during which any visible particulate emissions were observed from dross cooling and/or from truck loading of dross and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northeast District Office) by January 31, April 30, July 31 and October 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit: each period of time when the pressure drop across the baghouse was outside of the above range.

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

#### **E. Testing Requirements**

1. Compliance with the emission limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation:

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PE from loading dross onto trucks shall be vented to a baghouse and shall not exceed 0.9 lb/truck loaded.

Applicable Compliance Method:

Compliance with the above limitation has been determined as follows:

$$\text{PET} = 6 \text{ lbs/truck} \times [1 - (\text{CPE} \times \text{CE})]$$

where:

PET = lbs PE per truck loaded;

6 lbs/truck = engineering estimate of uncontrolled PE generated from truck loading;

CPE = capture efficiency of the baghouse, which is estimated to be 90%; and

CE = control efficiency of the baghouse, which is estimated to be 95%.

b. Emission Limitation:

PE from loading dross onto trucks shall be vented to a baghouse and shall not exceed 1.17 tpy.

Applicable Compliance Method:

Compliance with the above limitation has been determined as follows:

$$\text{tpy} = \text{PET} \times 2600 \text{ trucks/year} \times 1 \text{ ton}/2000 \text{ lbs}$$

where:

tpy = tons PE per year from truck loading;

PET = lbs PE per truck loaded; and

2600 = maximum number of trucks loaded with dross per year.

c. Emission Limitation:

Fugitive PE shall not exceed 2.69 tons per year from dross cooling.

Applicable Compliance Method:

**Issued: 2/20/2007**

Compliance with the above limitation was based upon the following calculation:

$$PE = 24,500 \text{ tons aluminum produced/year} \times EF \times (1-0.51) \times \text{ton}/2000 \text{ lbs}$$

where:

PE = tons PE per year;

EF = emission factor of 0.22 lb/ton aluminum produced, from RACM, Table 2.11-1; and

0.51 = estimated % PE control efficiency of building capture and pot design.

d. Emission Limitation:

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

Visible fugitive PE shall not exceed 20% opacity, as a 3-minute average, except as provided by the rule, for dross cooling.

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1) and (B)(3).

**F. Miscellaneous Requirements**

None