



State of Ohio Environmental Protection Agency

Street Address:

1800 WaterMark Drive
Columbus, OH 43215-1099

TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

P.O. Box 1049
Columbus, OH 43216-1049

Stark County

RE: Final Permit to Install

Application No: **15-1385**

DATE: **September 1, 1999**

**Foundry Systems International
Glenn Johnson
4125 Mahoning Road NE
Canton, Ohio 44705**

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 Director's 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

Canton Air Pollution Control



Permit to Install
Terms and Conditions

Application Number: 15-1385

APS Premise Number: 1576000335

Permit Fee: **\$600**

Name of Facility: Foundry Systems International

Person to Contact: Glenn Johnson

Address: 4125 Mahoning Road NE
Canton, Ohio 44705

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

**4125 Mahoning Road NE
Plain Township, Ohio**

Description of proposed emissions unit(s):

8,000 LBS/HR ALUMINUM CHIP DRYER, VIBRATION FEED CONVEYOR, HOPPER AND COOLER SECTION.

Date of Issuance: September 1, 1999

Effective Date: September 1, 1999

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 Recordkeeping 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 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 Environmental Protection Agency if the proposed sources are inadequate 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 prove to be inadequate 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.

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>
CO	2.21
PM/PM ₁₀	6.218
OC	62.65
NO _x	2.64

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

A. Applicable Emissions Limitations and/or Control Requirements

- 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>
8,000 lbs/hr, 16 MMBtu/hr, natural gas-fired, aluminum chip dryer with thermal incinerator and baghouse	OAC rule 3745-31-05	Visible emissions from the stack servicing this emissions unit shall not exceed 10% opacity, as a three-minute average. PM/PM ₁₀ : Stack 0.01 gr/SCF; 1.32 pounds/hour; 5.78 tons/year Fugitive 0.1 pound/hour 0.438 ton/year OC: Stack 11.9 pounds/hour; 52.14 tons/year Fugitive 2.4 pounds/hour 10.51 tons/year NO _x : Stack 0.6 pound/hour; 2.6 tons/year Fugitive 0.01 pound/hour 0.04 ton/year CO: Stack

	0.5 pound/hour; 2.19 tons/year Fugitive 0.005 pound/hour 0.02 ton/year
OAC rule 3745-17-07(A)	BAT is more restrictive
OAC rule 3745-17-07(B)	Visible particulate emissions of fugitive dust shall not exceed twenty percent opacity, as a three-minute average.
OAC rule 3745-17-08	BAT is more restrictive
OAC rule 3745-17-11	BAT is more restrictive
OAC rule 3745-21-07	BAT is more restrictive

2. Additional Terms and Conditions

2.a At least 99% of the emissions from this emissions unit shall be captured and vented to a thermal incinerator and then to a baghouse. The thermal incinerator shall have a destruction efficiency of 90% or better for organic compounds. The baghouse shall have a control efficiency sufficient to reduce PM/PM₁₀ emissions to no more than 0.01 gr/SCF.

B. Operational Restrictions

1. The average combustion temperature within the thermal incinerator, for any three-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.
2. The pressure drop across the baghouse shall be maintained within the range of 1 to 8 inches of water while the emissions unit is in operation.
3. The material charged to this emissions unit shall be adequately screened so that there are no emissions of any air toxic at a rate of more than 1 ton/year. An air toxic is defined as any compound with a threshold limit value (TLV).

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature with the thermal incinerator when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day:

- a. all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance; and
 - b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
2. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. 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 across the baghouse on a daily basis.
 3. The permittee shall maintain monthly records of the amount of aluminum scrap processed in this emissions unit.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator does not comply with the temperature limitation specified above.
2. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

E. Testing Requirements

1. Compliance with the emission limitation(s) of this permit shall be determined in accordance with the following method(s):

a. Emission Limitation:

0.01 gr/SCF, 1.32 lbs PM/PM₁₀/hr in stack emissions

Applicable Compliance Method:

Emissions testing

b. Emission Limitation:

Minimum of 90% control efficiency for the thermal oxidizer

Applicable Compliance Method:

Emission testing

c. Visible Emission Limitation:

Visible emissions from the stack servicing this emissions unit shall not exceed 10% opacity, as a three-minute average.

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with procedures specified in OAC rule 3745-17-03(B)(1) using the methods and procedures specified in USEPA Reference Method 9.

d. Visible Emission Limitation:

Visible particulate emissions of fugitive dust shall not exceed twenty percent opacity, as a three-minute average.

Applicable Compliance Method:

Compliance shall be determined by visible emission evaluations performed in accordance with procedures specified in OAC rule 3745-17-03(B)(1) using the methods and procedures specified in USEPA Reference Method 9.

e. Emission Limitation:

0.1 pound PM/PM₁₀/hr in fugitive emissions

Applicable Compliance Method:

Application contained a one-time calculation of emissions.

f. Emission Limitation:

11.9 pounds OC/hour from stack

Applicable Compliance Method:

Emissions testing

g. Emission Limitation:

2.4 pounds OC/hour in fugitive emissions

Applicable Compliance Method:

Application contains a one-time calculation of emissions.

h. Emission Limitation:

0.6 pound NO_x/hour

Applicable Compliance Method:

0.1 lb/MMCF = emission factor from AP-42 Chapter 1.4 3/98 Edition
0.1 lb/MMCF x 6 MMBtu/hr = 0.6 lb/hr

i. Emission Limitation:

0.01 pound NO_x/hour in fugitive emissions

Applicable Compliance Method:

0.6 lb/hr x 0.01(99% capture) = 0.01 lb/hr

j. Emission Limitation:

0.5 pound CO/hour from stack

Applicable Compliance Method:

0.084 lb/MMBtu = emission factor from AP-42 Chapter 1.4 3/98 Edition
6 MMBtu/hr x 0.084 lb/MMBtu = 0.5 lb/hr

k. Emission Limitation:

0.005 pound CO/hour as fugitive emissions

Applicable Compliance Method:

$$0.5 \text{ lb/hr} \times .01 = 0.005 \text{ lb/hr}$$

1. Emission Limitation:

5.78 tons PM/PM₁₀/yr stack emissions
0.438 ton PM/PM₁₀/yr fugitive emissions
52.14 tons OC/yr stack emissions
10.51 tons OC/yr fugitive emissions
2.6 tons NO_x/yr stack emissions
0.04 ton NO_x/yr fugitive emissions
2.19 tons CO/yr stack emissions
0.02 ton CO/yr fugitive emissions

Applicable Compliance Method:

Multiply the hourly emission allowable times 8,760 hours/yr and then divide by 2,000 lbs/ton.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. the emission testing shall be conducted within 3 months after start-up of this emissions unit;
 - b. the emission testing shall be conducted to demonstrate compliance with the PM/PM₁₀ stack emission limit of 0.01 gr/ACFM. In addition, the control efficiency of the thermal incinerator for OC emissions (i.e., the percent reduction in mass emissions between the inlet and the outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases;
 - c. the following test method(s) shall be employed to demonstrate compliance with the mass emission rate(s):

PM/PM₁₀ Method 5 from 40 CFR Part 60, Appendix A

- d. the test(s) shall be conducted while the emissions is operating at or near its maximum capacity, unless otherwise specified or approved by the Canton local air agency. Maximum capacity shall be defined as a minimum of 8,000 pounds scrap/hour and the scrap shall represent the type of scrap with the maximum contaminants that will be processed by this emissions unit;
- e. the control efficiency (i.e., the percent reduction in mass emissions between the inlet and the outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10 or an approved alternative test protocol. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases; and
- f. not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Canton local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Canton local air agency's refusal to accept the results of the emission test(s).

Personnel from the Canton local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Canton local air agency within 30 days following completion of the test(s).

F. Miscellaneous Requirements

1. Pursuant to Engineering Guide #69, modeling to demonstrate compliance with the Ohio EPA's Air Toxic Policy was not necessary since the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of materials, or use of new materials, that would result in an increase in emissions of any pollutant that has a listed TLV above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.