



MUSKINGUM CO.
BURNHAM FOUNDRY
(FILE P905)

State of Ohio Environmental Protection Agency

Street Address:
Lazarus Gov. Center
122 S. Front Street
Columbus, OH 43215

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

**RE: FINAL PERMIT TO INSTALL
MUSKINGUM COUNTY
Application No: 06-06692**

CERTIFIED MAIL

	TOXIC REVIEW
	PSD
	SYNTHETIC MINOR
	CEMS
	MACT
	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

DATE: 2/19/2002

Burnham Foundry
Paul Spradling
2345 Licking Rd
Zanesville, OH 43702

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

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

CC: USEPA



2002 FEB 21 AM 10:41
O.E.P.A.
S.E.D.O.



Permit To Install
Terms and Conditions

Issue Date: 2/19/2002
Effective Date: 2/19/2002

FINAL PERMIT TO INSTALL 06-06692

Application Number: 06-06692

APS Premise Number: 0660010101

Permit Fee: \$200

Name of Facility: Burnham Foundry

Person to Contact: Paul Spradling

Address: 2345 Licking Rd
Zanesville, OH 43702

Location of proposed air contaminant source(s) [emissions unit(s)]:
2345 Licking Rd
Zanesville, Ohio

Description of proposed emissions unit(s):

Melting foundry returns purchased scrap metal and fluxes Chapter 31 modification built prior to 1972.

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

October 31 of each year and shall cover the previous calendar quarters. See B.10 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
- iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

2. 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, i.e., upset, 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. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to 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 emission unit(s) that is (are) served by such control system(s).

3. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

4. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

5. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition

emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. 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 source(s) covered by this permit.

11. 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.

12. 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.

B. State Only Enforceable 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 of state-only enforceable 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 state-only required 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. 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.

4. 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.

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions

None

B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions

None

OAC rule 3745-18-06(E)

The emission limitation specified by this 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 particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

OAC rule 3745-21-08 (D)

See A.I.2.a below.

OAC rule 3745-31-05(D)

OC emissions shall not exceed 5.13 tons per rolling 12- month period.

NOx emissions shall not exceed 2.85 tons per rolling 12- month period.

SOx emissions shall not exceed 3.89 tons per rolling 12- month period.

Particulate emissions shall not exceed 29.36 tons per rolling 12- month period from the stack.

2. Additional Terms and Conditions

- 2.a The direct flame afterburner or equivalent device shall be installed and operated at all times the cupola is in operation.

II. Operational Restrictions

1. The static pressure drop across the scrubber shall be greater than or equal to 46.0 inches of water.
2. The pH of the scrubber liquor shall be maintained within the range of 5.5 to 9.0.
3. Emissions unit gases shall be burned at 1300 degrees Fahrenheit in a direct flame afterburner or equivalent device, designed for a minimum of 0.3 second residence time.
4. The maximum annual production rate for this emissions unit shall not exceed 57,000 tons of metal charged in any rolling 12 - month period.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following:
 - a. the total weight of metal charged (in tons) in this emissions unit;
 - b. the total weight of metal charged (in tons) in this emissions unit during the previous 12-month period;

The permittee has existing data on which to base the 12-month total at the time this permit is issued.

2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber, pH of the scrubber liquor, and the afterburner temperature while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.
3. The permittee shall collect and record the following information once per shift during each day the emissions unit is in operation:
 - a. the pressure drop across the scrubber, in inches of water column;
 - b. the pH of the scrubber liquor;
 - c. the afterburner temperature, in degrees Fahrenheit; and
 - d. hours of cupola operation.
4. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions and 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 eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the scrubber and afterburner parameters were not maintained at the following levels:

Scrubber Parameters

- a. a static pressure drop across the scrubber of greater than or equal to 46.0 inches of water;
- b. a pH of the scrubber liquor within the range of 5.5 to 9.0.

Afterburner Parameter

- a. 1300 degrees Fahrenheit in a direct flame afterburner or equivalent device, designed for a minimum of 0.3 second residence time.
2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month total metal charged limitation.
 3. If no deviations are observed during a given period, the permittee shall submit a report which states that no deviations were observed during that period. (These reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)
 4. The permittee shall submit semiannual written reports which:
 - a. identify all days during which any visible fugitive particulate emissions and visible particulate emissions were observed from the stack serving this emissions unit; and
 - b. describe any corrective actions taken to eliminate the visible particulate emissions.

These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

23.69 pounds per hour of particulate emissions (stack only)

Applicable Compliance Method:

Compliance shall be demonstrated based upon the stack testing requirements specified in section A.V.2.

b. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

Compliance with the visible emission limit shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996. No visible emission testing is specifically required by this permit, but, if appropriate, it may be requested pursuant to OAC rule 3745-15-04 (A).

c. Emission Limitation:

20% opacity as a 3-minute average

Applicable Compliance Method:

Compliance shall be demonstrated based upon the requirements specified in OAC rule 3745-17-03(B)(3) and the methods and procedures required in 40 CFR Part 60, Appendix A, Method 9. No visible emission testing is specifically required by this permit, but, if appropriate, may be requested pursuant to OAC rule 3745-15-04 (A).

d. Emission Limitation-
4.14 lbs/hr of OCs

Applicable Compliance Method-

Compliance shall be determined by multiplying the actual hourly cupola metal charge rate of 23.0 tons by a OC emission factor of 0.18 lbs/ton. The emission factor was obtained from FIRE version 6.23 for SCC 3-04-003-01 (gray iron cupola).

e. Emission Limitation-
5.13 TPY of OCs as rolling 12 month

Applicable Compliance Method-

Compliance shall be determined by multiplying the actual yearly cupola metal charge rate of 57,000 tons by a OC emission factor of 0.18 lbs/ton divided by 2000 lbs/ton. The emission factor was obtained from FIRE version 6.23 for SCC 3-04-003-01 (gray iron cupola).

- f. Emission Limitation-
2.3 lbs/hr of NOx

Applicable Compliance Method-

Compliance shall be determined by multiplying the actual hourly cupola metal charge rate of 23.0 tons by a NOx emission factor of 0.10 lbs/ton. The emission factor was obtained from FIRE version 6.23 for SCC 3-04-003-01 (gray iron cupola).

- g. Emission Limitation-
2.85 TPY of NOx as rolling 12 month

Applicable Compliance Method-

Compliance shall be determined by multiplying the actual yearly cupola metal charge rate of 57,000 tons by a NOx emission factor of 0.10 lbs/ton divided by 2000 lbs/ton. The emission factor was obtained from FIRE version 6.23 for SCC 3-04-003-01 (gray iron cupola).

- h. Emission Limitation-
3.13 lbs/hr of SOx

Applicable Compliance Method-

Compliance shall be determined as follows:

$$(1.25 \text{ lbs SOx / tons metal charged}) \times (23.0 \text{ tons metal charged / hour}) = 28.75 \text{ lbs SOx / hour}$$

$$(28.75 \text{ lbs SOx / hour}) \times 0.99^* = 28.46 \text{ lbs SOx / hour (captured and vented to control equipment)}$$

$$A. (28.46 \text{ lbs SOx / hour}) \times (1 - 0.90)^{**} = 2.85 \text{ lbs SOx / hour (SOx exiting the control equipment)}$$

$$B. (28.75 \text{ lbs SOx / hour}) \times (1 - 0.99) = 0.288 \text{ lbs SOx / hour (SOx not captured by control equipment)}$$

$$\text{Total Emissions} = A + B$$

$$(2.85 \text{ lbs SOx / hour}) + (0.288 \text{ lbs SOx / hour}) = 3.13 \text{ lbs SOx / hour}$$

The SOx emission factor of 1.25 lbs SOx/ton metal charged is obtained from FIRE version 6.23 for SCC 3-04-003-01 (gray iron cupola).

* 0.99 is the capture efficiency as provided by the applicant.

** 0.90 is the control efficiency as provided by the applicant.

Personnel from the appropriate Ohio EPA District Office or 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 appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

VI. Miscellaneous Requirements

1. This facility is not located in an Appendix A area as described in OAC rule 3745-17-08; therefore, OAC rule 3745-17-07(B) and OAC rule 3745-17-08(B) do not apply to the fugitive particulate emissions from this emissions unit.

