



State of Ohio Environmental Protection Agency

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Street Address:

Lazarus Gov. Center
50 West Town Street, Suite 700
Columbus, OH 43215

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

CANTON CITY HEALTH DEPT
AIR POLLUTION DIVISION
Mailing Address:
Lazarus Gov. Center
P.O. Box 1049
Columbus, OH 43216-1049

CERTIFIED MAIL

RE: FINAL PERMIT TO INSTALL
STARK COUNTY
Application No: 15-01684
Fac ID: 1576050694

DATE: 1/3/2008

Republic Engineered Products Inc.
Eric Howland
2633 Eighth St NW
Canton, OH 44701

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

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

Canton LAA



**Permit To Install
Terms and Conditions**

**Issue Date: 1/3/2008
Effective Date: 1/3/2008**

FINAL PERMIT TO INSTALL 15-01684

Application Number: 15-01684
Facility ID: 1576050694
Permit Fee: **\$4550**
Name of Facility: Republic Engineered Products Inc.
Person to Contact: Eric Howland
Address: 2633 Eighth St NW
Canton, OH 44701

Location of proposed air contaminant source(s) [emissions unit(s)]:
**2633 Eighth St NE
Canton, Ohio**

Description of proposed emissions unit(s):
New annealing furnaces, grinding operations, and ingot torch cutoff operations.

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

Part I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Permit-To-Install General Terms and Conditions

1. Monitoring and Related Recordkeeping and Reporting Requirements

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - i. The date, place (as defined in the permit), and time of sampling or measurements.
 - ii. The date(s) analyses were performed.
 - iii. The company or entity that performed the analyses.
 - iv. The analytical techniques or methods used.
 - v. The results of such analyses.
 - vi. The operating conditions existing at the time of sampling or measurement.
- b. 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.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
 - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written

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. See B.9 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 (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency every six months, 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. If this permit is for an emissions unit located at a Title V facility, then 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.
- d. The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

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 depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

6. General Requirements

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification
- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. 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 or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

7. 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 any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

8. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

9. Compliance Requirements

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
 - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
 - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

10. Permit-To-Operate Application

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the 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 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 ninety (90) 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.

13. Permit-To-Install

A permit-to-install must be obtained pursuant to OAC Chapter 3745-31 prior to "installation" of "any air contaminant source" as defined in OAC rule 3745-31-01, or "modification", as defined in OAC rule 3745-31-01, of any emissions unit included in this permit.

B. State Only Enforceable Permit-To-Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit 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 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 (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. 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. Authorization To Install or Modify

If applicable, authorization to install or modify any new or existing emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit 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.

5. Construction of New Sources(s)

This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. 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 this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit 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.

6. 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.

7. 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).

8. Construction Compliance Certification

If applicable, the applicant shall provide Ohio EPA with a written certification (see enclosed form if applicable) 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.

9. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

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., postmarked), by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

C. 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 /PM10	9.60
SO2	0.12
NOx	22.78
CO	17.66
VOC	1.15

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

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**A. State and Federally Enforceable Section****I. 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 - (P163) - Natural gas fired Annealing Furnace No.1, rated at 20 mmBtu/hr and equipped with low NOx burners

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
ORC rule 3704.03(T)(4)	See Sections A.2.a and A.2.b below.
OAC rule 3745-17-11	See Section A.2.c below.
OAC rule 3745-17-07(A)	Exempt. See Section A.2.d below.
OAC rule 3745-21-08(B)	See Section A.2.e below
OAC rule 3745-18-06(E)(1)	See Section A.2.f below
40 CFR Part 52.1881(b)(9)(viii)	See Section A.2.g below

2. Additional Terms and Conditions

- 2.a All the particulate emissions (PE) from this emissions unit are considered to be PM10 (particulate emissions smaller than 10 microns).
- 2.b The Best Available Technology (BAT) requirements under 3745-31-05(A)(3) do not apply to the particulate emissions (PM10), sulfur dioxide (SO₂), nitrogen oxide (NO_x), volatile organic carbon (VOC), and carbon monoxide (CO) emissions from this air contaminant source since the uncontrolled potential to emit for PM10, SO₂, NO_x, VOC, and CO emissions are each less than ten tons per year.
- 2.c The uncontrolled mass rate of PE from this emissions unit is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II in OAC rule 3745-17-11 does not apply. Also, Table I does not apply since the process weight rate of the material does not cause any emission of particulate matter.
- 2.d This emissions unit is exempt from the visible PE limitation specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.

- 2.e** The design of the emissions unit and the technology associated with the operating practices satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B).

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** Based on a process weight of 9.17 tons/hr of steel annealed, the calculated hourly SO₂ emissions limit of 88.3 lb/hr pursuant to OAC rule 3745-18-06(E)(1) is greater than the uncontrolled potential to emit SO₂. Therefore it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit.

- 2.g** The SO₂ emissions limit of 88 lb/ton pursuant to 40 CFR Part 52.1881(b)(9)(viii) is greater than the uncontrolled potential to emit SO₂. Therefore it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit.

II. Operational Restrictions

1. The permittee shall employ only natural gas as fuel in this emissions unit.

III. Monitoring and/or Recordkeeping 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 in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify each day when a fuel other than natural gas was burned in this emissions unit. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31, April 30, July 31, and October 31, of each year and shall cover the previous three-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I. of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

The uncontrolled potential to emit for PM10, SO2, NOx, VOC, and CO emissions are less than 10 tons per year (tpy).

Applicable Compliance Method:

Compliance with the annual limitations for PM10, SO2, NOx, VOC, and CO emissions is determined by multiplying the maximum natural gas fuel input rate by the appropriate emissions factor (EF) for each pollutant times the maximum operating schedule of 8760 hrs / yr times a conversion factor of 1 ton/2000 lb as follows:

- i. $PM_{10} \text{ (lb/hr)} = 0.02 \text{ mmscf /hr} \times EF \times 8760 \text{ hr/yr} \times 1 \text{ ton/2000 lb} = 0.67 \text{ tpy}$, where

0.02 mmscf /hr is the maximum natural gas fuel input, and EF is the emission factor of 7.6 lb PE / mmscf of natural gas. This emission factor is specified in the U.S. EPA reference document AP-42, Compilation of Air Pollution Emission Factors, Fifth Edition, Section 1.4, Table 1.4-2, dated 7/98.

- ii. $SO_2 \text{ (lb/hr)} = 0.02 \text{ mmscf /hr} \times EF \times 8760 \text{ hr/yr} \times 1 \text{ ton/2000 lb} = 0.05 \text{ tpy}$, where

0.02 mmscf /hr is the maximum natural gas fuel input, and EF is the emission factor of 0.6 lb SO2 / mmscf of natural gas. This emission factor is specified in the U.S. EPA reference document AP-42, Compilation of Air Pollution Emission Factors, Fifth Edition, Section 1.4, Table 1.4-2, dated 7/98.

- iii. $NO_x = 20 \text{ mmBtu/hr} \times EF \times 8760 \text{ hr/yr} \times 1 \text{ ton/2000 lb} = 8.76 \text{ tpy}$, where

20 mmBtu/hr is the maximum heat input from the natural gas fuel, and EF is the burner manufacturer's specified emission factor of 0.10 lb NOx/ mmBtu of heat input.

If required, the permittee shall demonstrate compliance with the EF of 0.10 lb NOx/ mmBtu using emissions testing in accordance with 40 CFR Part 60, Appendix A, Method 7 or 7E. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA's Canton Local Air Agency.

- iv. $VOC \text{ (lb/hr)} = 0.02 \text{ mmscf /hr} \times EF \times 8760 \text{ hr/yr} \times 1 \text{ ton/2000 lb} = 0.48 \text{ tpy}$, where

0.02 mmscf/hr is the maximum natural gas fuel input, and EF is the emission factor of 5.5 lb VOC / mmscf of natural gas. This emission factor is specified in the U.S. EPA reference document AP-42, Compilation of Air Pollution Emission Factors, Fifth Edition, Section 1.4, Table 1.4-2, dated 7/98.

- v. $\text{CO (lb/hr)} = 0.02 \text{ mmscf/hr} \times \text{EF} \times 8760 \text{ hr/yr} \times 1 \text{ ton}/2000 \text{ lb} = 7.36 \text{ tpy}$, where

0.02 mmscf/hr is the maximum natural gas fuel input, and EF is the emission factor of 84 lb VOC / mmscf of natural gas. This emission factor is specified in the U.S. EPA reference document AP-42, Compilation of Air Pollution Emission Factors, Fifth Edition, Section 1.4, Table 1.4-1, dated 7/98.

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. 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 - (P163) - Natural gas fired Annealing Furnace No.1, rated at 20 mmBtu/hr and equipped with low NOx burners

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. 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 - (P164) - Natural gas fired Annealing Furnace No.2, rated at 20 mmBtu/hr and equipped with low NOx burners

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
ORC rule 3704.03(T)(4)	See Sections A.2.a and A.2.b below.
OAC rule 3745-17-11	See Section A.2.c below.
OAC rule 3745-17-07(A)	Exempt. See Section A.2.d below.
OAC rule 3745-21-08(B)	See Section A.2.e below
OAC rule 3745-18-06(E)(1)	See Section A.2.f below
40 CFR Part 52.1881(b)(9)(viii)	See Section A.2.g below

2. Additional Terms and Conditions

- 2.a All the particulate emissions (PE) from this emissions unit are considered to be PM10 (particulate emissions smaller than 10 microns).
- 2.b The Best Available Technology (BAT) requirements under 3745-31-05(A)(3) do not apply to the particulate emissions (PM10), sulfur dioxide (SO2), nitrogen oxide (NOx), volatile organic carbon (VOC), and carbon monoxide (CO) emissions from this air contaminant source since the uncontrolled potential to emit for PM10, SO2, NOx, VOC, and CO emissions are each less than ten tons per year.
- 2.c The uncontrolled mass rate of PE from this emissions unit is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II in OAC rule 3745-17-11 does not apply. Also, Table I does not apply since the process weight rate of the material does not cause any emission of particulate matter.
- 2.d This emissions unit is exempt from the visible PE limitation specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.

- 2.e** The design of the emissions unit and the technology associated with the operating practices satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B).

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** Based on a process weight of 9.17 tons/hr of steel annealed, the calculated hourly SO₂ emissions limit of 88.3 lb/hr pursuant to OAC rule 3745-18-06(E)(1) is greater than the uncontrolled potential to emit SO₂. Therefore it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit.

- 2.g** The SO₂ emissions limit of 88 lb/ton pursuant to 40 CFR Part 52.1881(b)(9)(viii) is greater than the uncontrolled potential to emit SO₂. Therefore it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit.

II. Operational Restrictions

1. The permittee shall employ only natural gas as fuel in this emissions unit.

III. Monitoring and/or Recordkeeping 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 in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify each day when a fuel other than natural gas was burned in this emissions unit. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31, April 30, July 31, and October 31, of each year and shall cover the previous three-month period.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I. of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

The uncontrolled potential to emit for PM10, SO2, NOx, VOC, and CO emissions are less than 10 tons per year (tpy).

Applicable Compliance Method:

Compliance with the annual limitations for PM10, SO2, NOx, VOC, and CO emissions is determined by multiplying the maximum natural gas fuel input rate by the appropriate emissions factor (EF) for each pollutant times the maximum operating schedule of 8760 hrs / yr times a conversion factor of 1 ton/2000 lb as follows:

i. $PM_{10} \text{ (lb/hr)} = 0.02 \text{ mmscf/hr} \times EF \times 8760 \text{ hr/yr} \times 1 \text{ ton/2000 lb} = 0.67 \text{ tpy}$, where

0.02 mmscf/hr is the maximum natural gas fuel input, and EF is the emission factor of 7.6 lb PE / mmscf of natural gas. This emission factor is specified in the U.S. EPA reference document AP-42, Compilation of Air Pollution Emission Factors, Fifth Edition, Section 1.4, Table 1.4-2, dated 7/98.

ii. $SO_2 \text{ (lb/hr)} = 0.02 \text{ mmscf/hr} \times EF \times 8760 \text{ hr/yr} \times 1 \text{ ton/2000 lb} = 0.05 \text{ tpy}$, where

0.02 mmscf/hr is the maximum natural gas fuel input, and EF is the emission factor of 0.6 lb SO2 / mmscf of natural gas. This emission factor is specified in the U.S. EPA reference document AP-42, Compilation of Air Pollution Emission Factors, Fifth Edition, Section 1.4, Table 1.4-2, dated 7/98.

iii. $NO_x = 20 \text{ mmBtu/hr} \times EF \times 8760 \text{ hr/yr} \times 1 \text{ ton/2000 lb} = 8.76 \text{ tpy}$, where

20 mmBtu/hr is the maximum heat input from the natural gas fuel, and EF is the burner manufacturer's specified emission factor of 0.10 lb NOx/ mmBtu of heat input.

If required, the permittee shall demonstrate compliance with the EF of 0.10 lb NOx/ mmBtu using emissions testing in accordance with 40 CFR Part 60, Appendix A, Method 7 or 7E. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA's Canton Local Air Agency.

iv. $VOC \text{ (lb/hr)} = 0.02 \text{ mmscf/hr} \times EF \times 8760 \text{ hr/yr} \times 1 \text{ ton/2000 lb} = 0.48 \text{ tpy}$, where

0.02 mmscf /hr is the maximum natural gas fuel input, and EF is the emission factor of 5.5 lb VOC / mmscf of natural gas. This emission factor is specified in the U.S. EPA reference document AP-42, Compilation of Air Pollution Emission Factors, Fifth Edition, Section 1.4, Table 1.4-2, dated 7/98.

- v. $\text{CO (lb/hr)} = 0.02 \text{ mmscf /hr} \times \text{EF} \times 8760 \text{ hr/yr} \times 1 \text{ ton/2000 lb} = 7.36 \text{ tpy}$, where

0.02 mmscf /hr is the maximum natural gas fuel input, and EF is the emission factor of 84 lb VOC / mmscf of natural gas. This emission factor is specified in the U.S. EPA reference document AP-42, Compilation of Air Pollution Emission Factors, Fifth Edition, Section 1.4, Table 1.4-1, dated 7/98.

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. 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 - (P164) - Natural gas fired Annealing Furnace No.2, rated at 20 mmBtu/hr and equipped with low NOx burners

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**A. State and Federally Enforceable Section****I. 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 - (P165) - No. 1 Round Grinder with dust capture system and settling chamber, exhausting to baghouse BGH05.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(C)	Particulate matter equal to or less than 10 microns in size (PM10) shall not exceed 0.50 pounds per hour and 2.20 tons per year. See Sections A.2.a and A.2.b below.
OAC rule 3745-17-07(A)	Visible particulate emissions from the baghouse outlet stack shall not exceed 20% opacity as a 6-minute average.
OAC rule 3745-17-07(B)	Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.
OAC rule 3745-17-08(B)	See Section A.2.c. below.
OAC rule 3745-17-11	Particulate emissions (PE) shall not exceed 7.2 pounds per hour. See Section A.2.d. below.

2. Additional Terms and Conditions

- 2.a All the particulate emissions (PE) from this emissions unit are considered to be PM10 (particulate emissions smaller than 10 microns).
- 2.b Permit to Install 15-01684 for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):
 - i. This emissions unit shall exhaust to a baghouse through a dust capture system. The PM10 emissions leaving the baghouse shall not exceed 0.50 pounds per hour and 2.20 tons per year.
- 2.c The emissions unit is located in an Appendix A area. Therefore the permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM). The permittee's employment of RACM shall include, but not be limited to, the following:

- i. The installation and use of hoods, fans, and other equipment to adequately capture, vent, and control the fugitive particulate emissions. Such equipment shall meet the following requirements:
 - (a) the collection efficiency is sufficient to minimize or eliminate visible particulate emissions of fugitive particulate emissions at the point(s) of capture to the extent possible with good engineering design; and
 - (b) The control equipment achieves an outlet emission rate of not greater than .030 grain of particulate emissions per dry standard cubic foot of exhaust gases or there are no visible particulate emissions from the exhaust stack, whichever is less stringent.
- 2.d The PE limit of 7.2 lb/hr pursuant to OAC rule 3745-17-11 (using Fig. 2 with an uncontrolled emissions rate of 50 lb/hr) is less stringent than the allowable PE pursuant to OAC rule 3745-31-05(C), which takes into account voluntary restrictions including the use of any applicable air pollution control equipment

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. While the emissions unit is in operation, the pressure drop across the baghouse shall be maintained within the manufacturer's recommended range until a pressure drop range that is more representative of actual operating conditions can be established. The appropriate pressure drop range shall be determined and submitted in writing to the appropriate Ohio EPA District Office of local air agency (Canton City Health Department, Air Pollution Control Division) within 6 months after the emissions unit is first operated.
2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be 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 weekly basis.
3. 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 and for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) 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 location and 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.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission 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.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that:
 - a. identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit,
 - b. identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and
 - c. describe any corrective actions taken to minimize or eliminate the visible particulate emissions and/or visible fugitive dust 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 six-month periods.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I. of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

The PM10 emissions leaving the baghouse shall not exceed 0.50 lb/hr and 2.20 tons per year.

- a. Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the allowable hourly emission rate in accordance with 40 CFR Part 60, Appendix A, Method 5, and the procedures specified in OAC rule 3745-17-03(B)(10).

Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA or the Canton Local Air Agency.

A stack test run shall cover an entire batch cycle of approximately 60 minutes, which includes grinding and non-grinding time (loading and unloading, inspection and wheel changes).

Compliance with the annual PM10 limitation is determined by multiplying the pounds per hour of PM10 by the maximum operating schedule of 8760 hrs / yr times a conversion factor of 1 ton/2000 lb.

b. Emission Limitation

Visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average.

Applicable Compliance Method

If required, 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).

c. Emission Limitation

Visible emissions of fugitive dust shall not exceed 20 percent opacity as a three-minute average.

Applicable Compliance Method

If required, compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9, and the applicable modifications listed in paragraphs (B)(3)(a) through (B)(3)(e) of OAC rule 3745-17-03.

d. Emission Limitation

0.030 grains of particulate emissions per dry standard cubic foot of exhaust gases or there are no visible particulate emissions from the exhaust stack, whichever is less stringent.

Applicable Compliance Method

Compliance is demonstrated by calculation using the following formula:

$$0.50 \text{ lb/hr} \times \frac{7000\text{gr/lb}}{17578 \text{ dscfm}} \times 1\text{hr}/60\text{min} \times \frac{60 \text{ min batch time}}{40 \text{ min grinding}} = 0.005 \text{ gr/dscf}$$

where

0.50 lb/hr is the particulate emissions (PE) rate leaving the baghouse, 7000gr/lb is a factor for converting grains of PE to pounds of PE, 17578 dscfm is the exhaust flow rate leaving the baghouse in units of dry standard cubic feet per minute, and 60 min batch time/40 min grinding is a factor to describe the emissions while the source is actively grinding.

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. 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 - (P165) - No. 1 Round Grinder with dust capture system and settling chamber, exhausting to baghouse BGH05.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**A. State and Federally Enforceable Section****I. 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 - (P166) - No. 2 Round Grinder with dust capture system and settling chamber, exhausting to baghouse BGH06.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(C)	Particulate matter equal to or less than 10 microns in size (PM10) shall not exceed 0.67 pounds per hour and 2.93 tons per year. See Sections A.2.a and A.2.b below.
OAC rule 3745-17-07(A)	Visible particulate emissions from the baghouse outlet stack shall not exceed 20% opacity as a 6-minute average.
OAC rule 3745-17-07(B)	Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.
OAC rule 3745-17-08(B)	See Section A.2.c. below.
OAC rule 3745-17-11	Particulate emissions (PE) shall not exceed 8.7 pounds per hour. See Section A.2.d. below.

2. Additional Terms and Conditions

- 2.a All the particulate emissions (PE) from this emissions unit are considered to be PM10 (particulate emissions smaller than 10 microns).
- 2.b Permit to Install 15-01684 for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):
 - i. This emissions unit shall exhaust to a baghouse through a dust capture system. The PM10 emissions leaving the baghouse shall not exceed 0.67 pounds per hour and 2.93 tons per year.
- 2.c The emissions unit is located in an Appendix A area. Therefore the permittee shall minimize or eliminate visible fugitive particulate emissions through the employment

of reasonably available control measures (RACM). The permittee's employment of RACM shall include, but not be limited to, the following:

- i. The installation and use of hoods, fans, and other equipment to adequately capture, vent, and control the fugitive particulate emissions. Such equipment shall meet the following requirements:
 - (a) the collection efficiency is sufficient to minimize or eliminate visible particulate emissions of fugitive particulate emissions at the point(s) of capture to the extent possible with good engineering design; and
 - (b) The control equipment achieves an outlet emission rate of not greater than .030 grain of particulate emissions per dry standard cubic foot of exhaust gases or there are no visible particulate emissions from the exhaust stack, whichever is less stringent.

2.d The PE limit of 8.7 lb/hr pursuant to OAC rule 3745-17-11 (using Fig. 2 with an uncontrolled emissions rate of 67 lb/hr) is less stringent than the allowable PE pursuant to OAC rule 3745-31-05(C), which takes into account voluntary restrictions including the use of any applicable air pollution control equipment

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. While the emissions unit is in operation, the pressure drop across the baghouse shall be maintained within the manufacturer's recommended range until a pressure drop range that is more representative of actual operating conditions can be established. The appropriate pressure drop range shall be determined and submitted in writing to the appropriate Ohio EPA District Office of local air agency (Ganton City Health Department, Air Pollution Control Division) within 6 months after the emissions unit is first operated.
2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be 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 weekly basis.
3. 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 and for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) 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 location and 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.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission 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.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that:
 - a. identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit,
 - b. identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and
 - c. describe any corrective actions taken to minimize or eliminate the visible particulate emissions and/or visible fugitive dust 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 six-month periods.

V. Testing Requirements

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

The PM10 emissions leaving the baghouse shall not exceed 0.67 lb/hr and 2.93 tons per year.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the allowable hourly emission rate in accordance with 40 CFR Part 60, Appendix A, Method 5, and the procedures specified in OAC rule 3745-17-03(B)(10). Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA or the Canton Local Air Agency.

A stack test run shall cover an entire batch cycle of approximately 60 minutes, which includes grinding and non-grinding time (loading and unloading, inspection and wheel changes).

Compliance with the annual PM10 limitation is determined by multiplying the pounds per hour of PM10 by the maximum operating schedule of 8760 hrs / yr times a conversion factor of 1 ton/2000 lb.

b. Emission Limitation

Visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average.

Applicable Compliance Method

If required, 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).

c. Emission Limitation

Visible emissions of fugitive dust shall not exceed 20 percent opacity as a three-minute average.

Applicable Compliance Method

If required, compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9, and the applicable modifications listed in paragraphs (B)(3)(a) through (B)(3)(e) of OAC rule 3745-17-03.

d. Emission Limitation

0.030 grains of particulate emissions per dry standard cubic foot of exhaust gases or there are no visible particulate emissions from the exhaust stack, whichever is less stringent.

Applicable Compliance Method

Compliance is demonstrated by calculation using the following formula:

$$0.67 \text{ lb/hr} \times \frac{7000 \text{ gr/lb}}{23438 \text{ dscfm}} \times 1 \text{ hr/60 min} \times \frac{60 \text{ min batch time}}{40 \text{ min grinding}} = 0.005 \text{ gr/dscf},$$

where:

0.67 lb/hr is the particulate emissions (PE) rate leaving the baghouse, 7000gr/lb is a factor for converting grains of PE to pounds of PE, 23438 dscfm is the exhaust flow rate leaving the baghouse in units of dry standard cubic feet per minute, and 60 min batch time/40 min grinding is a factor to describe the emissions while the source is actively grinding.

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. 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 - (P166) - No. 2 Round Grinder with dust capture system and settling chamber, exhausting to baghouse BGH06.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05	None

2. **Additional Terms and Conditions**

- 2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. 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 - (P167) - Ingot torch cutoff with dust capture system and settling chamber, exhausting to baghouse BGH07.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(C)	Particulate matter equal to or less than 10 microns in size (PM10) shall not exceed 0.72 pounds per hour and 3.13 tons per year. See Sections A.2.a and A.2.b below.
ORC rule 3704.03(T)(4)	See Section A.2.c below.
OAC rule 3745-17-07(A)	Visible particulate emissions from the baghouse outlet stack shall not exceed 20% opacity as a 6-minute average.
OAC rule 3745-17-07(B)	Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.
OAC rule 3745-17-08(B)	See Section A.2.d. below.
OAC rule 3745-17-11	Particulate emissions (PE) shall not exceed 7.2 pounds per hour. See Section A.2.e. below.
OAC rule 3745-21-08(B)	See Section A.2.f below
OAC rule 3745-18-06(E)(1)	See Section A.2.g below
40 CFR Part 52.1881(b)(9)(viii)	See Section A.2.h below

2. Additional Terms and Conditions

- 2.a All the particulate emissions (PE) from this emissions unit are considered to be PM10.
- 2.b Permit to Install 15-01684 for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):

- i. This emissions unit shall exhaust to a baghouse through a dust capture system. The PM10 emissions leaving the baghouse shall not exceed 0.72 pounds per hour and 3.13 tons per year.

- 2.c** The Best Available Technology (BAT) requirements under 3745-31-05(A)(3) do not apply to the sulfur dioxide (SO₂), nitrogen oxide (NO_x), volatile organic carbon (VOC), and carbon monoxide (CO) emissions from this air contaminant source since the uncontrolled potential to emit for SO₂, NO_x, VOC, and CO emissions are each less than ten tons per year.

- 2.d** The emissions unit is located in an Appendix A area. Therefore the permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM). The permittee's employment of RACM shall include, but not be limited to, the following:
 - i. The installation and use of hoods, fans, and other equipment to adequately capture, vent, and control the fugitive particulate emissions. Such equipment shall meet the following requirements:
 - (a) the collection efficiency is sufficient to minimize or eliminate visible particulate emissions of fugitive particulate emissions at the point(s) of capture to the extent possible with good engineering design; and
 - (b) The control equipment achieves an outlet emission rate of not greater than 0.030 grains of particulate emissions per dry standard cubic foot of exhaust gases or there are no visible particulate emissions from the exhaust stack, whichever is less stringent.

- 2.e** The (PE) limit of 8.7 pounds per hour derived from OAC rule 3745-17-11, using Fig. 2, is less stringent than the allowable PE pursuant to OAC rule 3745-31-05(C), which takes into account voluntary restrictions including the use of any applicable air-pollution control equipment.

- 2.f** The design of the emissions unit and the technology associated with the operating practices satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B).

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.g** Based on a process weight of 54 tons/hr of steel, the calculated hourly SO₂ emissions limit of 290 lb/hr pursuant to OAC rule 3745-18-06(E)(1) is greater than

the uncontrolled potential to emit SO₂. Therefore it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit.

- 2.h The SO₂ emissions limit of 88 lb/ton pursuant to 40 CFR Part 52.1881(b)(9)(viii) is greater than the uncontrolled potential to emit SO₂. Therefore it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit.

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. While the emissions unit is in operation, the pressure drop across the baghouse shall be maintained within the manufacturer's recommended range until a pressure drop range that is more representative of actual operating conditions can be established. The appropriate pressure drop range shall be determined and submitted in writing to the appropriate Ohio EPA District Office of local air agency (Canton City Health Department, Air Pollution Control Division) within 6 months after the emissions unit is first operated.
2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be 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 weekly basis.
3. 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 and for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) 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 location and 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.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission 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.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that:
 - a. identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit,
 - b. identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit, and
 - c. describe any corrective actions taken to minimize or eliminate the visible particulate emissions and/or visible fugitive dust 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 six-month periods.

V. Testing Requirements

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

The PM₁₀ emissions leaving the baghouse shall not exceed 0.72 pounds per hour and 3.13 tons per year.

Applicable Compliance Method:

The total PM₁₀ is the sum of the filterable and condensible PM₁₀.

If required, the permittee shall demonstrate compliance with the lb/hr PM₁₀ limitation through emissions testing. The testing shall be performed in accordance with Methods 201/201A and 202 of 40 CFR, Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA or the Canton Local Air Agency.

A stack test run shall cover an entire batch cycle of approximately 60 minutes, which includes active torch cutting time and torch idle time.

Compliance with the annual PM₁₀ limitation is determined by multiplying the pounds per hour of PM₁₀ by the maximum operating schedule of 8760 hrs / yr times a conversion factor of 1 ton/2000 lb.

b. Emission Limitation:

The uncontrolled potential to emit for SO₂, NO_x, VOC, and CO emissions are less than 10 tons per year (tpy).

Applicable Compliance Method:

Compliance with the annual limitations for SO₂, NO_x, VOC, and CO emissions is demonstrated by multiplying the maximum natural gas fuel input rate by the appropriate emissions factor (EF) for each pollutant times the maximum operating schedule of 8760 hrs / yr times a conversion factor of 1 ton/2000 lb as follows:

i. $SO_2 \text{ (lb/hr)} = 0.008 \text{ mm scf /hr} \times EF \times 8760 \text{ hr/yr} \times 1 \text{ ton/2000 lb} = 0.02 \text{ tpy}$, where

0.008 mm scf/hr is the maximum natural gas fuel input and EF is the emission factor of 0.6 lb SO₂ / mmscf of natural gas. This emission factor is specified in the U.S. EPA reference document AP-42, Compilation of Air Pollution Emission Factors, Fifth Edition, Section 1.4, Table 1.4-2, dated 7/98.

ii. $NO_x = 0.008 \text{ mm scf /hr} \times EF \times 8760 \text{ hr/yr} \times 1 \text{ ton/2000 lb} = 5.26 \text{ tpy}$,

where 0.008 mm scf/hr is the maximum heat input from the natural gas fuel and EF is the emission factor of 150 lb NO_x / mmscf of natural gas. To account for a higher NO_x emission rate because of using oxygen enrichment of the natural gas fuel to the torch, this emission factor is 1.5 times that specified in the U.S. EPA reference document AP-42, Compilation of Air Pollution Emission Factors, Fifth Edition, Section 1.4, Table 1.4-1, dated 7/98.

iii. $VOC \text{ (lb/hr)} = 0.008 \text{ mm scf /hr} \times EF \times 8760 \text{ hr/yr} \times 1 \text{ ton/2000 lb} = 0.19 \text{ tpy}$, where

0.008 mm scf/hr is the maximum natural gas fuel input and EF is the emission factor of 5.5 lb VOC / mmscf of natural gas. This emission factor is specified in the U.S. EPA reference document AP-42, Compilation of Air Pollution Emission Factors, Fifth Edition, Section 1.4, Table 1.4-2, dated 7/98.

iv. $CO \text{ (lb/hr)} = 0.008 \text{ mm scf /hr} \times EF \times 8760 \text{ hr/yr} \times 1 \text{ ton/2000 lb} = 2.94 \text{ tpy}$, where

0.008 mm scf/hr is the maximum natural gas fuel input and EF is the emission factor of 84 lb CO / mmscf of natural gas. This emission factor is specified in the U.S. EPA reference document AP-42, Compilation of Air Pollution Emission Factors, Fifth Edition, Section 1.4, Table 1.4-1, dated 7/98.

c. Emission Limitation

Visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average.

Applicable Compliance Method

If required, 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).

d. Emission Limitation

Visible emissions of fugitive dust shall not exceed 20 percent opacity as a three-minute average.

Applicable Compliance Method

If required, compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9, and the applicable modifications listed in paragraphs (B)(3)(a) through (B)(3)(e) of OAC rule 3745-17-03.

e. Emission Limitation

0.030 grains of particulate emissions per dry standard cubic foot of exhaust gases or there are no visible particulate emissions from the exhaust stack, whichever is less stringent.

Applicable Compliance Method

Compliance is demonstrated by calculation using the following formula:

$$0.67 \text{ lb/hr} \times \frac{7000 \text{ gr/lb}}{23438 \text{ dscfm}} \times 1 \text{ hr/60 min} \times \frac{60 \text{ min batch time}}{40 \text{ min grinding}} = 0.005 \text{ gr/dscf,}$$

where:

0.67 lb/hr is the filterable particulate emissions (PE) rate leaving the baghouse, 7000gr/lb is a factor for converting grains of PE to pounds of PE, 23438 dscfm is the exhaust flow rate leaving the baghouse in units of dry standard cubic feet per minute, and 60 min batch time/40 min cutting is a factor to describe the emissions while the source is actively torch cutting.

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. 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 - (P167) - Ingot torch cutoff with dust capture system and settling chamber, exhausting to baghouse BGH07.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None