State of Ohio Environmental Protection Agency

RE: FINAL PERMIT TO INSTALL MODIFICATION **CERTIFIED MAIL**
CUYAHOGA COUNTY

Street Address:
122 S. Front Street

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

Mailing Address:
Lazarus Gov. Center
P.O. Box 1049

Application No: 13-03665

DATE: 1/22/2004

GE Ivanhoe Road Plant
Timothy Boyd
1099 Ivanhoe Rd.
Cleveland, OH 44110

Enclosed Please find a modification to the Ohio EPA Permit To Install referenced above which will modify the terms and conditions.

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
309 South Fourth Street, Room 222
Columbus, Ohio 43215

Sincerely,

Michael W. Ahern

Michael W. Ahern, Supervisor
Field Operations and Permit Section
Division of Air Pollution Control

cc: **USEPA** **CLAA**

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install **Issue Date: 1/22/2004**
Terms and Conditions **Effective Date: 1/22/2004**

FINAL ADMINISTRATIVE MODIFICATION OF PERMIT TO INSTALL 13-03665

Application Number:	13-03665
APS Premise Number:	1318000156
Permit Fee:	**$800**
Name of Facility:	GE Ivanhoe Road Plant
Person to Contact:	Timothy Boyd
Address:	1099 Ivanhoe Rd. Cleveland, OH 44110

Location of proposed air contaminant source(s) [emissions unit(s)]:
1099 Ivanhoe Rd
Cleveland, **Ohio**

Description of proposed emissions unit(s):
Multiple processes and material handling with fluorescent powder.

The above named entity is hereby granted a modification to the permit to install described above pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this modification 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 source(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 included in the application, the above described source(s) of pollutants will be granted the necessary operating permits.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized

representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

6. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

7. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

8. Termination of Permit to Install

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

9. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio

Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

10. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

11. Applicability

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

12. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

13. Source Operation and Operating Permit Requirements After Completion of Construction

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 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 ninety (90) days after commencing operation of the source(s) covered by this permit.

14. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

15. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

B. Permit to Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

Pollutant	Tons Per Year
PM	**15.05**

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

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Emissions Limitations/Control Measures	Applicable Rules/Requirements
P048: Company ID #685 ACM milling of fluorescent powder associated with the F-1002 with natural gas-fired rotary furnace controlled by a 5750 acfm Pulsaire, Inc. baghouse.	OAC rule 3745-31-05(A)(3)	0.49 lb PE/hr 2.15 tpy PE Visible particulate emissions shall not exceed five (5) percent opacity, as a six-minute average.
	OAC rule 3745-17-11(A)(2)	The emission limitation specified by this rule is less stringent that the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent that the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a None

B. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 2.0 and 6.0 inches

of water, while the emissions unit is in operation.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a weekly basis to ensure compliance with the above-mentioned applicable requirements.

D. Reporting Requirements

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

2. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

1. Compliance with the emissions limitation(s) of these terms and conditions shall be determined in accordance with the following method(s):

   a. Emission Limitation:
   0.49 lb PE/hr
   2.15 tpy PE

   Applicable Compliance Method:
   Compliance with the hourly PE emission limitation shall be determined by multiplying the baghouse exhaust flow rate, 5760 scfm, by the outlet grain loading assumption of 0.01 gr/scfm, and the conversion factors 60 minutes/hr and 7,000 gr/lb.

   Compliance with the yearly PE emission limitation shall be determined by multiplying the above, calculated, hourly emission rate by 8,760 hours per year and the conversion factor of 1.0 ton/2,000 lbs.

2. Emission Limitation:
   Visible particulate emissions shall not exceed five percent opacity, as a six-minute average.

If required, compliance shall be determined through visible emissions 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).

F. Miscellaneous Requirements

None

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

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P049: Company ID #3574 Bead blasting of crucible previously containing fluorescent powder associated with the F-1002 with natural gas-fired rotary furnace controlled by a 2,000 acfm Engineered Abrasives, Inc. baghouse.	OAC rule 3745-31-05(A)(3)	0.17 lb PE/hr 0.75 tpy PE Visible particulate emissions shall not exceed five (5) percent opacity, as a six-minute average.
	OAC rule 3745-17-11(A)(2)	The emission limitation specified by this rule is less stringent that the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent that the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a None

B. Operational Restrictions

Emissions Unit ID: **P049**

1. The pressure drop across the baghouse shall be maintained within the range of 2.0 and 6.0 inches of water, while the emissions unit is in operation.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a weekly basis to ensure compliance with the above-mentioned applicable requirements.

D. Reporting Requirements

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

2. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

1. Compliance with the emissions limitation(s) of these terms and conditions shall be determined in accordance with the following method(s):

   a. Emission Limitation:
   0.17 lb PE/hr
   0.75 tpy PE

   Applicable Compliance Method:
   Compliance with the hourly PE emission limitation shall be determined by multiplying the baghouse exhaust flow rate, 2000 scfm, by the outlet grain loading assumption of 0.01 gr/scfm, and the conversion factors 60 minutes/hr and 7,000 gr/lb.

   Compliance with the yearly PE emission limitation shall be determined by multiplying the above, calculated, hourly emission rate by 8,760 hours per year and the conversion factor of 1.0 ton/2,000 lbs.

2. Emission Limitation:
   Visible particulate emissions shall not exceed five percent opacity, as a six-minute average.

If required, compliance shall be determined through visible emissions 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).

F. Miscellaneous Requirements

None

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

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P050: Company ID #3573 Bead blasting of crucible previously containing fluorescent powder associated with the F-73 with natural gas-fired rotary furnace controlled by a 2,000 acfm Engineered Abrasives, Inc. baghouse.	OAC rule 3745-31-05(A)(3)	0.17 lb PE/hr 0.75 tpy PE Visible particulate emissions shall not exceed five (5) percent opacity, as a six-minute average.
	OAC rule 3745-17-11(A)(2)	The emission limitation specified by this rule is less stringent that the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent that the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a None

B. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 2.0 and 6.0 inches

of water, while the emissions unit is in operation.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a weekly basis to ensure compliance with the above-mentioned applicable requirements.

D. Reporting Requirements

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

2. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

1. Compliance with the emissions limitation(s) of these terms and conditions shall be determined in accordance with the following method(s):

   a. Emission Limitation:
   0.17 lb PE/hr
   0.75 tpy PE

   Applicable Compliance Method:
   Compliance with the hourly PE emission limitation shall be determined by multiplying the baghouse exhaust flow rate, 2000 scfm, by the outlet grain loading assumption of 0.01 gr/scfm, and the conversion factors 60 minutes/hr and 7,000 gr/lb.

   Compliance with the yearly PE emission limitation shall be determined by multiplying the above, calculated, hourly emission rate by 8,760 hours per year and the conversion factor of 1.0 ton/2,000 lbs.

2. Emission Limitation:
   Visible particulate emissions shall not exceed five percent opacity, as a six-minute average.

If required, compliance shall be determined through visible emissions 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).

F. Miscellaneous Requirements

None

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

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P051: Company ID #680 ACM milling of fluorescent powder associated with the F-73 with natural gas-fired rotary furnace controlled by a 5750 acfm Pulsaire, Inc. baghouse.	OAC rule 3745-31-05(A)(3)	0.49 lb PE/hr 2.15 tpy PE Visible particulate emissions shall not exceed five (5) percent opacity, as a six-minute average.
	OAC rule 3745-17-11(A)(2)	The emission limitation specified by this rule is less stringent that the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent that the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a None

B. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 2.0 and 6.0 inches

of water, while the emissions unit is in operation.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a weekly basis to ensure compliance with the above-mentioned applicable requirements.

D. Reporting Requirements

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

2. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

1. Compliance with the emissions limitation(s) of these terms and conditions shall be determined in accordance with the following method(s):

   a. Emission Limitation:
   0.49 lb PE/hr
   2.15 tpy PE

   Applicable Compliance Method:
   Compliance with the hourly PE emission limitation shall be determined by multiplying the baghouse exhaust flow rate, 5750 scfm, by the outlet grain loading assumption of 0.01 gr/scfm, and the conversion factors 60 minutes/hr and 7,000 gr/lb.

   Compliance with the yearly PE emission limitation shall be determined by multiplying the above, calculated, hourly emission rate by 8,760 hours per year and the conversion factor of 1.0 ton/2,000 lbs.

2. Emission Limitation:
   Visible particulate emissions shall not exceed five percent opacity, as a six-minute average.

If required, compliance shall be determined through visible emissions 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).

F. Miscellaneous Requirements

None

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

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P052: Company ID #679 ACM milling of fluorescent powder associated with the F-4 with natural gas-fired rotary furnace controlled by a 5750 acfm Pulsaire, Inc. baghouse.	OAC rule 3745-31-05(A)(3)	0.49 lb PE/hr 2.15 tpy PE Visible particulate emissions shall not exceed five (5) percent opacity, as a six-minute average.
	OAC rule 3745-17-11(A)(2)	The emission limitation specified by this rule is less stringent that the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent that the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a None

B. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 2.0 and 6.0 inches of water, while the emissions unit is in operation.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a weekly basis to ensure compliance with the above-mentioned applicable requirements.

D. Reporting Requirements

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

2. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

1. Compliance with the emissions limitation(s) of these terms and conditions shall be determined in accordance with the following method(s):

   a. Emission Limitation:
   0.49 lb PE/hr
   2.15 tpy PE

   Applicable Compliance Method:
   Compliance with the hourly PE emission limitation shall be determined by multiplying the baghouse exhaust flow rate, 5750 scfm, by the outlet grain loading assumption of 0.01 gr/scfm, and the conversion factors 60 minutes/hr and 7,000 gr/lb.

   Compliance with the yearly PE emission limitation shall be determined by multiplying the above, calculated, hourly emission rate by 8,760 hours per year and the conversion factor of 1.0 ton/2,000 lbs.

2. Emission Limitation:
   Visible particulate emissions shall not exceed five percent opacity, as a six-minute average.

Emissions Unit ID: **P052**

If required, compliance shall be determined through visible emissions 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).

F. Miscellaneous Requirements

None

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

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P901: Company ID# F1002-MH Material handling of fluorescent powder associated with the F-1002-MH natural gas-fired rotary furnace controlled by a 5,750 acfm Pulsaire, Inc. baghouse. The maximum process weight rate is 410 lb/hr.	OAC rule 3745-31-05(A)(3)	0.49 lb PE/hr 2.15 tpy PE Visible particulate emissions from any stack shall not exceed five (5) percent opacity, as a six-minute average. Visible particulate emissions of fugitive dust shall not exceed five (5) percent opacity, as a three-minute average.
	OAC rule 3745-17-07(A)(1)	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(B)(1)	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 3745-17-08(B)	See A.2.a Below.

2. Additional Terms and Conditions

2.a The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM).

At a minimum, the permittee's employment of RACM shall include the following: localized hooding over the emissions unit.

The collection efficiency shall be sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

B. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 2.0 and 6.0 inches of water, while the emissions unit is in operation.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform weekly checks for visible fugitive particulate emissions from the non-stack egress points from the building housing this emissions unit. These egress points shall include, but not be limited to: doorways, windows, and roof monitors. 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.

2. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a weekly basis to ensure compliance with the above-mentioned applicable requirements.

D. Reporting Requirements

1. The permittee shall submit reports which (a) identify all days during which any visible emissions were observed from the non-stack egress points from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions.

2. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

3. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

1. Compliance with the emissions limitation(s) of these terms and conditions shall be determined in accordance with the following method(s):

   a. Emission Limitation:
   0.49 lb PE/hr
   2.15 tpy PE

   Applicable Compliance Method:
   Compliance with the hourly PE emission limitation shall be determined by multiplying the baghouse exhaust flow rate, 5760 scfm, by the outlet grain loading assumption of 0.01 gr/scfm, and the conversion factors 60 minutes/hr and 7,000 gr/lb.

   Compliance with the yearly PE emission limitation shall be determined by multiplying the above, calculated, hourly emission rate by 8,760 hours per year and the conversion factor of 1.0 ton/2,000 lbs.

2. Emission Limitation:
   Visible stack particulate emissions shall not exceed five percent opacity, as a six-minute average. If required, compliance shall be determined through visible emissions 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).

3. Emission Limitation:
   Visible fugitive particulate emissions shall not exceed five percent opacity, as a three (3)-minute average.

   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)(3). The points of observation shall include any non-stack egress points from the building housing of this emissions unit. Such egress points shall include, but are not limited to, doorways, windows and roof monitors.

F. Miscellaneous Requirements

None

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

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P902: Company ID F4-MH Material handling of fluorescent powder associated with the F-4 natural gas-fired rotary furnace controlled by a 7500 acfm Pulsaire, Inc. baghouse. The maximum process weight rate is 410 lb/hr.	OAC rule 3745-31-05(A)(3)	0.64 lb PE/hr 2.80 tpy PE Visible particulate emissions from any stack shall not exceed five (5) percent opacity, as a six-minute average. Visible particulate emissions of fugitive dust shall not exceed five (5) percent opacity, as a three-minute average.
	OAC rule 3745-17-07(A)(1)	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(B)(1)	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 3745-17-08(B)	See A.2.a Below.

2. Additional Terms and Conditions

2.a The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM).

At a minimum, the permittee's employment of RACM shall include the following: localized hooding over the emissions unit.

The collection efficiency shall be sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

B. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 2.0 and 6.0 inches of water, while the emissions unit is in operation.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform weekly checks for visible fugitive particulate emissions from the non-stack egress points from the building housing this emissions unit. These egress points shall include, but not be limited to: doorways, windows, and roof monitors. 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.

2. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a weekly basis to ensure compliance with the above-mentioned applicable requirements.

D. Reporting Requirements

1. The permittee shall submit reports which (a) identify all days during which any visible emissions were observed from the non-stack egress points from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions.

2. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

3. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

1. Compliance with the emissions limitation(s) of these terms and conditions shall be determined in accordance with the following method(s):

   a. Emission Limitation:
   0.64 lb PE/hr
   2.80 tpy PE

   Applicable Compliance Method:
   Compliance with the hourly PE emission limitation shall be determined by multiplying the baghouse exhaust flow rate, 7500 scfm, by the outlet grain loading assumption of 0.01 gr/scfm, and the conversion factors 60 minutes/hr and 7,000 gr/lb.

   Compliance with the yearly PE emission limitation shall be determined by multiplying the above, calculated, hourly emission rate by 8,760 hours per year and the conversion factor of 1.0 ton/2,000 lbs.

2. Emission Limitation:
   Visible stack particulate emissions shall not exceed five percent opacity, as a six-minute average.
   If required, compliance shall be determined through visible emissions 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).

3. Emission Limitation:
   Visible fugitive particulate emissions shall not exceed five percent opacity, as a three (3)-minute average.

   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)(3). The points of observation shall include any non-stack egress points from the building housing of this emissions unit. Such egress points shall include, but are not limited to, doorways, windows and roof monitors.

F. Miscellaneous Requirements

None

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

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P903: Company ID # F73-MH Material handling of fluorescent powder associated with F-73 natural gas-fired rotary furnace controlled by a 5750 acfm Pulsaire, Inc. baghouse. The maximum process weight rate is 410 lb/hr.	OAC rule 3745-31-05(A)(3)	0.49 lb PE/hr 2.15 tpy PE Visible particulate emissions from any stack shall not exceed five (5) percent opacity, as a six-minute average. Visible particulate emissions of fugitive dust shall not exceed five (5) percent opacity, as a three-minute average.
	OAC rule 3745-17-07(A)(1)	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(B)(1)	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 3745-17-08(B)	See A.2.a Below.

2. Additional Terms and Conditions

2.a The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM).

At a minimum, the permittee's employment of RACM shall include the following: localized hooding over the emissions unit.

The collection efficiency shall be sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

B. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 2.0 and 6.0 inches of water, while the emissions unit is in operation.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform weekly checks for visible fugitive particulate emissions from the non-stack egress points from the building housing this emissions unit. These egress points shall include, but not be limited to: doorways, windows, and roof monitors. 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.

2. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a weekly basis to ensure compliance with the above-mentioned applicable requirements.

D. Reporting Requirements

1. The permittee shall submit reports which (a) identify all days during which any visible emissions were observed from the non-stack egress points from the building housing this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions.

2. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

3. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

1. Compliance with the emissions limitation(s) of these terms and conditions shall be determined in accordance with the following method(s):

   a. Emission Limitation:
   0.49 lb PE/hr
   2.15 tpy PE

   Applicable Compliance Method:
   Compliance with the hourly PE emission limitation shall be determined by multiplying the baghouse exhaust flow rate, 5760 scfm, by the outlet grain loading assumption of 0.01 gr/scfm, and the conversion factors 60 minutes/hr and 7,000 gr/lb.

   Compliance with the yearly PE emission limitation shall be determined by multiplying the above, calculated, hourly emission rate by 8,760 hours per year and the conversion factor of 1.0 ton/2,000 lbs.

2. Emission Limitation:
   Visible stack particulate emissions shall not exceed five percent opacity, as a six-minute average.
   If required, compliance shall be determined through visible emissions 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).

3. Emission Limitation:
   Visible fugitive particulate emissions shall not exceed five percent opacity, as a three (3)-minute average.

   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)(3). The points of observation shall include any non-stack egress points from the building housing of this emissions unit. Such egress points shall include, but are not limited to, doorways, windows and roof monitors.

F. Miscellaneous Requirements

None