



State of Ohio Environmental Protection Agency

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

CERTIFIED MAIL

Street Address:

50 West Town Street, Suite 700

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

Mailing Address:

Lazarus Gov. Center
P.O. Box 1049

Application No: 02-22773

Fac ID: 0278000025

DATE: 1/29/2008

Ellwood Engineered Castings Co
Jack Staiger
4158 Hubbard-Masury Rd
Hubbard, OH 44425

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00 which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

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

Sincerely,

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

CC: USEPA

NEDO



STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

FINAL PERMIT TO INSTALL 02-22773

Application Number: 02-22773
Facility ID: 0278000025
Permit Fee: **\$1000**
Name of Facility: Ellwood Engineered Castings Co
Person to Contact: Jack Staiger
Address: 4158 Hubbard-Masury Rd
Hubbard, OH 44425

Location of proposed air contaminant source(s) [emissions unit(s)]:
**7158 Hubbard-Masury Rd
Hubbard, Ohio**

Description of proposed emissions unit(s):
New Sand Coolers and Existing Shakeout with New Baghouse.

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.

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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.

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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.

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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.

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The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

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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

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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 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>
particulate emissions(PE)	67.95
particulate emissions of 10 microns or less (PM10)	39.75 (new)
	58.8
	30.6 (new)

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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 operation(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 - (F004) - existing shakeout deck, tied in to new blue baghouse

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(C)	See sections A.I.2.a, A.I.2.b, A.I.2.c and A.II.1.
OAC rule 3745-17-07(B)	Exempt. See section A.I.2.d.
OAC rule 3745-17-08(B)	Exempt. See section A.I.2.e.
40 CFR Part 64 Compliance Assurance Monitoring (CAM)	See section A.II.2.

2. Additional Terms and Conditions

- 2.a Particulate emissions and particulate emissions less than 10 microns in diameter (PE/PM10) shall not exceed 0.01 grain per dscf of exhaust gas, 8.6 pounds per hour, and 37.7 tons per year from the dust collector exhaust that services both F004 and F010. The pounds per hour and tons per year limitations are based on flow rate from the dust collector, as listed in the permit to install application.
- 2.b Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except for one 6-minute average per hour that does not exceed 27% opacity, from fugitive particulate emissions discharged to the atmosphere from the building or structure housing this emissions unit.
- 2.c Visible particulate emissions from the dust collector exhaust serving this emissions unit shall not exceed 10% opacity as a 6-minute average.
- 2.d This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).
- 2.e The permittee is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained either within the range established during a performance test that demonstrates compliance with the particulate emission limitations while the emissions unit is in operation or the range recommended by the manufacturer.
2. The permittee shall prepare and operate at all times according to a written operation and maintenance plan for the capture and collection system and control device for this emissions unit.

This operation and maintenance plan shall be part of the facilities Title V renewal application. The plan shall be subject to approval by the Ohio EPA, and shall be a part of the facilities Title V permit.

This plan must contain elements described in 40 CFR Part 63.7710, from the National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall 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). For each operating day, the permittee shall record the pressure drop across the baghouse on a daily basis.

IV. 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 established in section A.II.1 above. The report shall include a copy of such record and shall be sent to the Director (the Ohio EPA Northeast District Office) following the end of the quarter.

V. Testing Requirements

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

Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except for one 6-minute average per hour that does not exceed 27% opacity, from fugitive particulate emissions discharged to the atmosphere from

Emissions Unit ID: F004

the building or structure housing this emissions unit.

Applicable Compliance Method:

If required pursuant to OAC rule 3745-15-04, compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

b. Emission Limitation:

Visible particulate emissions from the dust collector exhaust serving this emissions unit shall not exceed 10% as a 6-minute average.

Applicable Compliance Method:

If required pursuant to OAC rule 3745-15-04, compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

c. Emission Limitation:

PE/PM10 shall not exceed 0.01 grain per dscf of exhaust gases and 8.6 pounds per hour from the dust collector exhaust that serves emissions units F004 and F010, combined.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 5.

d. Emission Limitation:

PE/PM10 shall not exceed 37.7 tons per year from the dust collector exhaust that serves emissions units F004 and F010, combined.

Applicable Compliance Method:

Compliance with this emission limitation shall be determined by the following equation:

$$\text{PE/PM10} = (0.01 \text{ gr/dscf}) \times (100,000 \text{ cfm}) \times (60 \text{ min/hr}) \times (8760 \text{ hr/yr}) \times (\text{lb}/7000 \text{ gr}) \times (\text{ton}/2000 \text{ lb})$$

where:

0.01 gr/dscf = the allowable emission rate determined according to OAC

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3745-31-05(A); and

100,000 cfm = the dust collector maximum exhaust flow rate from the PTI application.

VI. Miscellaneous Requirements

None

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B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 - (F004) - existing shakeout deck, tied in to new blue baghouse

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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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 operation(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 - (F010) - sand coolers and elevators Didion Sand System

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)	See sections A.I.2.a, A.I.2.b, A.I.2.c, A.I.2.d and A.II.1.
OAC rule 3745-17-07(B)	Exempt. See section A.I.2.e.
OAC rule 3745-17-08(B)	Exempt. See section A.I.2.f.
40 CFR Part 64 Compliance Assurance Monitoring (CAM)	See section A.II.2.

2. Additional Terms and Conditions

- 2.a Particulate emissions and particulate emissions less than 10 microns in diameter (PE/PM10) shall not exceed 0.01 grain per dscf of exhaust gas, 8.6 pounds per hour, and 37.7 tons per year from the dust collector exhaust that serves emissions units F004 and F010, combined. The pounds per hour and tons per year limitations are based on a flow rate from the dust collector, as listed in the permit to install application.

PE/PM10 attributable to emissions unit F010 is determined to be 9.5 tons per year from the dust collector exhaust. This is based on the facilities determination that approximately 25% of the flow to the dust collector is from the sand system.

- 2.b Fugitive PE shall not exceed 30.25 tons per year and fugitive PM-10 shall not exceed 21.1 tons per year from the Didion sand system.
- 2.c Visible emissions shall not exceed 20% opacity as a 6-minute average, except

Emissions Unit ID: F010

for one 6-minute average per hour that does not exceed 27% opacity, from fugitive particulate emissions discharged to the atmosphere from the building or structure housing this emissions unit.

- 2.d** Visible particulate emissions from the dust collector exhaust serving this emissions unit shall not exceed 10% opacity as a 6-minute average.
- 2.e** This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).
- 2.f** The permittee is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained either within the range established during a performance test that demonstrates compliance with the particulate emission limitations while the emissions unit is in operation or the range recommended by the manufacturer.
2. The permittee shall prepare and operate at all times according to a written operation and maintenance plan for the capture and collection system and control device for this emissions unit.

This operation and maintenance plan shall be part of the facilities Title V renewal application. The plan shall be subject to approval by the Ohio EPA, and shall be a part of the facilities Title V permit.

This plan must contain elements described in 40 CFR Part 63.7710, from the National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall 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). For each operating day, the permittee shall record the pressure drop across the baghouse on a daily basis.

IV. 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

Emissions Unit ID: F010

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comply with the allowable range established in section A.II.1 above. The report shall include a copy of such record and shall be sent to the Director (the Ohio EPA Northeast District Office) following the end of the quarter.

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V. Testing Requirements

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

a. Emission Limitation:

Visible emissions shall not exceed 20% opacity as a 6-minute average, except for one 6-minute average per hour that does not exceed 27% opacity, from fugitive particulate emissions discharged to the atmosphere from the building or structure housing this emissions unit.

Applicable Compliance Method:

If required pursuant to OAC rule 3745-15-04, compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

b. Emission Limitation:

Visible particulate emissions from the dust collector exhaust serving this emissions unit shall not exceed 10% opacity as a 6-minute average.

Applicable Compliance Method:

If required pursuant to OAC rule 3745-15-04, compliance shall be determined by visible emission evaluations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

c. Emission Limitation:

PE/PM10 shall not exceed 0.01 grain per dscf of exhaust gases and 8.6 pounds per hour from the dust collector exhaust that serves emissions units F004 and F010, combined.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 5.

Emissions Unit ID: F010

d. Emission Limitation:

PE/PM10 shall not exceed 37.7 tons per year from the dust collector exhaust that serves emissions units F004 and F010, combined.

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Applicable Compliance Method:

Compliance with this emission limitation shall be determined by the following equation:

$$\text{PE/PM}_{10} = (0.01 \text{ gr/dscf}) \times (100,000 \text{ cfm}) \times (60 \text{ min/hr}) \times (8760 \text{ hr/yr}) \times (\text{lb}/7000 \text{ gr}) \times (\text{ton}/2000 \text{ lb})$$

where:

0.01 gr/dscf = the allowable emission rate determined according to OAC 3745-31-05(A); and

100,000 cfm = the dust collector maximum exhaust flow rate from the PTI application.

e. Emission Limitation:

Fugitive PE shall not exceed 30.25 tons per year and fugitive PM-10 shall not exceed 21.1 tons per year from the Didion sand system.

Applicable Compliance Method:

Compliance with these emission limitations shall be determined by the following equations:

$$\text{i. fugitive PE} = 3.6 \text{ lbs PE/ton of sand} \times 67,200 \text{ tons sand/yr} \times 0.5 \times 0.5 \times (\text{ton}/2000 \text{ lb}) = 30.25 \text{ tons per year}$$

where:

3.6 lbs PE/ton of sand = an uncontrolled emission factor from AP-42, Table 12.10-7;

67,200 tons of sand/yr = the maximum sand usage in the main foundry from the PTI application;

0.5 = the estimated 50% capture efficiency of the control system from the PTI application; and

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0.5 = the estimated 50% control efficiency for fugitive emissions for the building enclosure from the PTI application.

ii. fugitive PM10 = 30.25 tons per year fug. PE x 0.7 = 21.1 tons per year

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where:

0.7 = the fractional amount (70%) of PM10 emissions in uncontrolled foundry PE emissions, obtained from AP-42, Table 12.10-9.

VI. Miscellaneous Requirements

None

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B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 - (F010) - sand coolers and elevators Dldion Sand System

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Issued: 1/29/2008

Emissions Unit ID: F010

NEW SOURCE REVIEW FORM B

PTI Number: 02-22773 Facility ID: 0278000025

FACILITY NAME Ellwood Engineered Castings Co

FACILITY DESCRIPTION Sand Coolers and Existing Shakeout with New Baghouse. CITY/TWP Hubbard

SIC CODE 3321 SCC CODE 30400031 EMISSIONS UNIT ID F004

EMISSIONS UNIT DESCRIPTION existing shakeout deck, tied in to new blue baghouse

DATE INSTALLED 6/1972

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	Attainment	3.0 lbs/hr	9.4	8.6 lbs/hr	37.7
PM ₁₀	Attainment	3.0 lbs/hr	9.4	8.6 lbs/hr	37.7
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?
Enter Determination use of new capture system and new baghouse

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? _____ YES x NO

IDENTIFY THE AIR CONTAMINANTS: _____

NEW SOURCE REVIEW FORM B

PTI Number: 02-22773 Facility ID: 0278000025

FACILITY NAME Ellwood Engineered Castings Co

FACILITY DESCRIPTION Sand Coolers and Existing Shakeout CITY/TWP Hubbard

Emissions Unit ID: F010

SIC CODE 3321 SCC CODE 30400325 EMISSIONS UNIT ID F010

EMISSIONS UNIT DESCRIPTION sand coolers and elevators Dldion Sand System

DESCRIPTION

DATE INSTALLED 8/2006

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	Attainment	3.0 lbs/hr	9.4	8.6 lbs/hr	37.7
PM ₁₀	Attainment	3.0 lbs/hr	9.4	8.6 lbs/hr	37.7
Fugitive PM ₁₀	Attainment		13.9		21.1
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination use of new capture system and new baghouse

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? _____ YES NO

IDENTIFY THE AIR CONTAMINANTS: _____