



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

TO: Interested Parties / Applicant

DATE: October 12, 2012

RE: Cast Metals Technologies, Inc./035-31802-00091

FROM: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FNPER.dot12/03/07



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New Source Review and Minor Source Operating Permit OFFICE OF AIR QUALITY

**Cast Metals Technology
9011 W. Mill Road
Yorktown, Indiana 47396**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a MSOP under 326 IAC 2-6.1.

Operation Permit No.: M035-31802-00091	
Issued by:  Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: October 12, 2012 Expiration Date: October 12, 2017

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 and A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)][326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary aluminum foundry that uses aluminum that is clean charge, internal scrap, or customer returns.

Source Address:	9011 W. Mill Road, Yorktown, Indiana 47396
General Source Phone Number:	(765) 759-6900
SIC Code:	3365 (Aluminum Foundry)
County Location:	Delaware
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Minor Source Operating Permit Program
	Minor Source, under PSD and Emission Offset Rules
	Minor Source, Section 112 of the Clean Air Act
	Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary

This stationary source consists of the following emission units and pollution control devices:

- (a) Five (5) natural gas-fired melt furnaces, identified as EU1 through EU5, constructed in 1967, each with a maximum capacity of 125 lbs (0.0625 tons) of aluminum and 0.23 lbs of Flux per hour with each furnace rated at 2.6 MMBtu per hour, using no controls and exhausting outside the building.
- (b) Five (5) Shell Core Machines, identified as EU6 through EU10, constructed in 1967, with a maximum heat input capacity of 0.75 MMBtu/hr each consisting of:
 - (1) PUCB mixer and sand handling with a maximum capacity of 132 lbs of sand per ton of metal per hour, using no controls and exhausting inside the building.
 - (2) PUCB core with a maximum capacity of 41.25 lbs of sand per hour (with 1.5% of resin by weight of sand and 0.154 lbs of TEA), used with PUCB mixer, using no controls and exhausting inside the building.
- (c) One (1) Greensand Mold System, identified as EU-11, constructed in 1967 and baghouse BH-1 modified in 1995, consisting of:
 - (1) One (1) Muller and Silo, identified as EU11a, with a maximum throughput of 2.55 tons of sand per hour, particulate controlled by a baghouse, identified as BH-1, and exhausting inside the building.
 - (2) One (1) Greensand Mold Line, identified as EU11b, with a maximum throughput capacity of 0.3 tons of metal and 2.55 tons of sand per hour, particulate controlled by a baghouse, identified as BH-1, and exhausting inside the building.

- (3) One (1) mold dump station (shakeout), identified as EU11c, with a maximum throughput 0.3 tons of metal per hour, using no controls and exhausting inside the building.
- (d) One (1) Phenolic Urethane No-Bake (PUNB) Mold System, identified as EU12, constructed in 1967, consisting of:
 - (1) One (1) PUNB Mold Sand Mixer Line (Mixer and Hopper), identified as EU12a, with a maximum throughput capacity of 0.106 tons of sand per hour (combined with 3.19 lbs Resin per hour), using no controls and exhausting inside the building.
 - (2) One (1) PUNB Mold Line, identified as EU12b, with a maximum throughput capacity of 0.0825 tons of metal and 0.106 tons of sand per hour, using no controls and exhausting inside the building.
 - (3) One (1) PUNB Knockout, identified as EU12c, with a maximum throughput capacity of 0.0825 tons of metal per hour, using no controls and exhausting inside the building.
 - (4) One (1) Sand Silo with a maximum throughput capacity of 0.70 tons of sand per hour, using no controls and exhausting inside the building.
- (e) One (1) finishing operation, identified as EU13, constructed in 1967, with a combined capacity of 0.203 tons of metal per hour, consisting of:
 - (1) Two (2) cut-off saws exhausting inside the building;
 - (2) Eight (8) hand grinders exhausting inside the building;
 - (3) Two (2) belt sanders, with particulate controlled by a cyclone, and exhausting inside the building.
- (i) Two (2) shotblasters, identified as SB3 and SB4, constructed in 1967, with a maximum capacity of 0.1 tons of metal per hour and 2.9 lbs of metal shot per hour, each, particulate controlled by one baghouse, identified as BH-2, and exhausting outside the building.
- (j) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour, including the following:
 - (1) One (1) heat treat oven, constructed in 1967, with a maximum heat input capacity of 2.6 MMBtu/hr, using no controls and exhausting inside the building.
 - (2) One (1) aging oven, constructed in 1967, with a maximum heat input capacity of 1.0 MMBtu/hr, using no controls and exhausting inside the building.
- (k) Paved and unpaved roads and parking lots with public access.

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-1.1-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-1.1-1) shall prevail.

B.2 Permit Term [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

-
- (a) This permit, M035-31802-00091, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

B.3 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

- (a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or
- (b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Severability

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege

This permit does not convey any property rights of any sort or any exclusive privilege.

B.7 Duty to Provide Information

-
- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Annual Notification [326 IAC 2-6.1-5(a)(5)]

- (a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) The annual notice shall be submitted in the format attached no later than March 1 of each year to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- (c) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

B.9 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The Permittee shall implement the PMPs.

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions.
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.10 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of permits established prior to M035-31802-00091 and issued pursuant to permitting programs approved into the state implementation plan have been either:
- (1) incorporated as originally stated,
 - (2) revised, or
 - (3) deleted.
- (b) All previous registrations and permits are superseded by this permit.

B.11 Termination of Right to Operate [326 IAC 2-6.1-7(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least one hundred twenty (120) days prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-6.1-7.

B.12 Permit Renewal [326 IAC 2-6.1-7]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-6.1-7. Such information shall be included in the application for each emission unit at this source. The renewal application does require an affirmation that the statements in the application are true and complete by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (b) A timely renewal application is one that is:
- (1) Submitted at least one hundred twenty (120) days prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-6.1 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-6.1-4(b), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.13 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.

- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (c) The Permittee shall notify the OAQ no later than thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

B.14 Source Modification Requirement

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2.

B.15 Inspection and Entry

[326 IAC 2-5.1-3(e)(4)(B)][326 IAC 2-6.1-5(a)(4)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.16 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]

- (a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require an affirmation that the statements in the application are true and complete by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement notice-only changes addressed in the request for a notice-only change immediately upon submittal of the request. [326 IAC 2-6.1-6(d)(3)]

B.17 Annual Fee Payment [326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees due no later than thirty (30) calendar days of receipt of a bill from IDEM, OAQ,.
- (b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.18 Credible Evidence [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Permit Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit to operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-1 (Applicability) and 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

C.6 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.7 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the attached plan as in Attachment A.

C.8 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using ambient air quality modeling pursuant to 326 IAC 1-7-4.

C.9 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
- (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project.

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Licensed Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

Testing Requirements [326 IAC 2-6.1-5(a)(2)]

C.10 Performance Testing [326 IAC 3-6]

- (a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date.
- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date.
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.11 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]

C.12 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.13 Instrument Specifications [326 IAC 2-1.1-11]

- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.
- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

Corrective Actions and Response Steps

C.14 Response to Excursions or Exceedances

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

- (a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:
 - (1) initial inspection and evaluation;
 - (2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system);
or
 - (3) any necessary follow-up actions to return operation to normal or usual manner of operation.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
 - (1) monitoring results;
 - (2) review of operation and maintenance procedures and records; and/or
 - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.

- (e) The Permittee shall record the reasonable response steps taken.

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.
- (b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]

C.16 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.17 General Record Keeping Requirements [326 IAC 2-6.1-5]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of

permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

C.18 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) Reports required by conditions in Section D of this permit shall be submitted to:
- Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit, "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) Five (5) natural gas-fired melt furnaces, identified as EU1 through EU5, constructed in 1967, each with a maximum capacity of 125 lbs (0.0625 tons) of aluminum and 0.23 lbs of Flux per hour with each furnace rated at 2.6 MMBtu per hour, using no controls and exhausting outside the building.
- (b) Five (5) Shell Core Machines, identified as EU6 through EU10, constructed in 1967, with a maximum heat input capacity of 0.75 MMBtu/hr each consisting of:
 - (1) PUCB mixer and sand handling with a maximum capacity of 132 lbs of sand per ton of metal per hour, using no controls and exhausting inside the building.
 - (2) PUCB core with a maximum capacity of 41.25 lbs of sand per hour (with 1.5% of resin by weight of sand and 0.154 lbs of TEA), used with PUCB mixer, using no controls and exhausting inside the building.
- (c) One (1) Greensand Mold System, identified as EU-11, constructed in 1967 and baghouse BH-1 modified in 1995, consisting of:
 - (1) One (1) Muller and Silo, identified as EU11a, with a maximum throughput of 2.55 tons of sand per hour, particulate controlled by a baghouse, identified as BH-1, and exhausting inside the building.
 - (2) One (1) Greensand Mold Line, identified as EU11b, with a maximum throughput capacity of 0.3 tons of metal and 2.55 tons of sand per hour, particulate controlled by a baghouse, identified as BH-1, and exhausting inside the building.
 - (3) One (1) mold dump station (shakeout), identified as EU11c, with a maximum throughput 0.3 tons of metal per hour, using no controls and exhausting inside the building.
- (d) One (1) Phenolic Urethane No-Bake (PUNB) Mold System, identified as EU-12, constructed in 1967, consisting of:
 - (1) One (1) PUNB Mold Sand Mixer Line (Mixer and Hopper), identified as EU12a, with a maximum throughput capacity of 0.106 tons of sand per hour (combined with 3.19 lbs Resin per hour), using no controls and exhausting inside the building.
 - (2) One (1) PUNB Mold Line, identified as EU12b, with a maximum throughput capacity of 0.0825 tons of metal and 0.106 tons of sand per hour, using no controls and exhausting inside the building.
 - (3) One (1) PUNB Knockout, identified as EU12c, with a maximum throughput capacity of 0.0825 tons of metal per hour, using no controls and exhausting inside the building.
 - (4) One (1) Sand Silo with a maximum throughput capacity of 0.70 tons of sand per hour, using no controls and exhausting inside the building.
- (e) One (1) finishing operation, identified as EU13, constructed in 1967, with a combined capacity of 0.203 tons of metal per hour, consisting of:

- (1) Two (2) cut-off saws exhausting inside the building;
 - (2) Eight (8) hand grinders exhausting inside the building;
 - (3) Two (2) belt sanders, with particulate controlled by a cyclone, and exhausting inside the building.
- (i) Two (2) shotblasters, identified as SB3 and SB4, constructed in 1967, with a maximum capacity of 0.1 tons of metal per hour and 2.9 lbs of metal shot per hour, each, particulate controlled by one baghouse, identified as BH-2, and exhausting outside the building.
 - (j) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour, including the following:
 - (1) One (1) heat treat oven, constructed in 1967, with a maximum heat input capacity of 2.6 MMBtu/hr, using no controls and exhausting inside the building.
 - (2) One (1) aging oven, constructed in 1967, with a maximum heat input capacity of 1.0 MMBtu/hr, using no controls and exhausting inside the building.
 - (k) Paved and unpaved roads and parking lots with public access.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

D.1.1 Particulate [326 IAC 6-3-2]

(Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) the particulate from the processes listed in the table below shall be limited by the following:

Equipment I.D.	Process Weight Rate (ton/hr)	Allowable Emission Rate (lb/hr)
Melt Furnace (EU1)	0.06	0.623
Melt Furnace (EU2)	0.06	0.623
Melt Furnace (EU3)	0.06	0.623
Melt Furnace (EU4)	0.06	0.623
Melt Furnace (EU5)	0.06	0.623
Shell Core Machine (EU6)	0.056	0.597
Shell Core Machine (EU7)	0.056	0.597
Shell Core Machine (EU8)	0.056	0.597
Shell Core Machine (EU9)	0.056	0.597
Shell Core Machine (EU10)	0.056	0.597
Greensand Muller and Silo (EU11a)	2.55	7.67
Greensand Mold Line (EU11b)	2.85	8.27
Greensand Mold Dump Station (EU11c)	0.3	1.83
Shotblast (SB-3)	0.103	0.89
Shotblast (SB-4)	0.103	0.89

The pound per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

D.1.2 Secondary Aluminum Production [40 CFR 63.1500]

The Permittee shall melt only clean charge, customer returns, or internal scrap in Five (5) natural gas-fired melt furnaces (EU1 through EU5). Compliance with the above Condition renders the provisions of 40 CFR 63.1505, and 326 IAC 2-2-1(gg), not applicable to the source.

Clean charge means furnace charge materials, including molten aluminum; T-bar; sow; ingot; billet; pig; alloying elements; aluminum scrap known by the owner or operator to be entirely free of paints, coatings, and lubricants; uncoated/unpainted aluminum chips that have been thermally dried or treated by a centrifugal cleaner; aluminum scrap dried at 343 °C (650 °F) or higher; aluminum scrap delacquered/decoated at 482 °C (900 °F) or higher, and runaround scrap (40 CFR 63.1503 (Definitions)) (National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production).

D.1.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan is required for these facilities and any corresponding control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.1.4 Particulate Control

- (a) In order to comply with Condition D.1.1, the baghouses for particulate control shall be in operation and control emissions from the Greensand Mold System's Muller and Silo EU11a (baghouse BH-1) and shotblast SB-3 and SB-4 (baghouse BH-2) are in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]

D.1.5 Visible Emissions Notations

- (a) Visible emissions notations of the shotblast exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. An abnormal visible emission notation is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

D.1.6 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the Greensand Mold System's Muller and Silo (baghouse BH1). All defective bags shall be replaced.

D.1.7 Broken or Failed Bag Detection

- (a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section C - Response to Excursions or Exceedances).
- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section C - Response to Excursions or Exceedances).

Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]

D.1.8 Record Keeping Requirement

- (a) To document the compliance status with Condition D.1.5, the Permittee shall maintain a daily record of visible emission notations of the shotblast's exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (e.g. the process did not operate that day).
- (b) To document the compliance status with Condition D.1.6, the Permittee shall maintain a record of quarterly baghouse inspections of Baghouse BH1 controlling the Greensand Mold System's Muller and Silo.
- (c) Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH**

**MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

Company Name:	Cast Metals Technology
Address:	9011 W. Mill Road
City:	Yorktown, Indiana 47396
Phone #:	(765) 759-6900
MSOP #:	M035-31802-00091

I hereby certify that Cast Metals Technology is:

still in operation.

no longer in operation.

I hereby certify that Cast Metals Technology is:

in compliance with the requirements of MSOP M035-31802-00091.

not in compliance with the requirements of MSOP M035-31802-00091.

Authorized Individual (typed):
Title:
Signature:
Date:

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

MALFUNCTION REPORT
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
FAX NUMBER: (317) 233-6865

**This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6
and to qualify for the exemption under 326 IAC 1-6-4.**

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?_____, 25 TONS/YEAR SULFUR DIOXIDE ?_____, 25 TONS/YEAR NITROGEN OXIDES?_____, 25 TONS/YEAR VOC ?_____, 25 TONS/YEAR HYDROGEN SULFIDE ?_____, 25 TONS/YEAR TOTAL REDUCED SULFUR ?_____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?_____, 25 TONS/YEAR FLUORIDES ?_____, 100 TONS/YEAR CARBON MONOXIDE ?_____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?_____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?_____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?_____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?_____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF "MALFUNCTION" AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY: _____ PHONE NO. () _____
LOCATION: (CITY AND COUNTY) _____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP: _____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: _____

DATE/TIME MALFUNCTION STARTED: ____/____/20____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE ____/____/20____ _____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER: _____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: _____

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: _____

INTERIM CONTROL MEASURES: (IF APPLICABLE) _____

MALFUNCTION REPORTED BY: _____ TITLE: _____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

*SEE PAGE 2

Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

**Indiana Department of Environmental Management
Office of Air Quality**

Technical Support Document (TSD) for a New Source Review and Minor
Source Operating Permit (MSOP)

Source Description and Location
--

Source Name:	Cast Metals Technology
Source Location:	9011 W. Mill Road, Yorktown, Indiana 47396
County:	Delaware
SIC Code:	3365 (Aluminum Foundries)
Operation Permit No.:	035-31802-00091
Permit Reviewer:	Bruce Farrar

On May 1, 2012, the Office of Air Quality (OAQ) received an application from Cast Metals Technology related to the operation of an existing stationary aluminum foundry.

Existing Approvals

There have been no previous approvals issued to this source.

County Attainment Status

The source is located in Delaware County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Attainment effective January 3, 2006, for the Muncie area, including Delaware County, for the 8-hour ozone standard. ¹
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.
¹ Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005. Unclassifiable or attainment effective April 5, 2005, for PM _{2.5} .	

- (a) **Ozone Standards**
 Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Delaware County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

- (b) **PM_{2.5}**
 Delaware County has been classified as attainment for PM_{2.5}. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM_{2.5} emissions. These rules became effective on July 15, 2008. On May 4, 2011 the air pollution control board issued an emergency rule establishing the direct PM_{2.5} significant level at ten (10) tons per year. This rule became effective, June 28, 2011. Therefore, direct PM_{2.5} and SO₂

emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.

- (c) Other Criteria Pollutants
Delaware County has been classified as attainment or unclassifiable in Indiana for all pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

- (a) The fugitive emissions of criteria pollutants and hazardous air pollutants are counted toward the determination of 326 IAC 2-6.1 (Minor Source Operating Permits) applicability.
- (b) Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

The source would be considered one of twenty-eight listed sources, however, the source uses aluminum that is clean charge, internal scrap, or customer returns.

Unpermitted Emission Units and Pollution Control Equipment

The source consists of the following unpermitted emission units:

- (a) Five (5) natural gas-fired melt furnaces, identified as EU1 through EU5, constructed in 1967, each with a maximum capacity of 125 lbs (0.0625 tons) of aluminum and 0.23 lbs of Flux per hour with each furnace rated at 2.6 MMBtu per hour, using no controls and exhausting outside the building.
- (b) Five (5) Shell Core Machines, identified as EU6 through EU10, constructed in 1967, with a maximum heat input capacity of 0.75 MMBtu/hr each consisting of:
- (1) PUCB mixer and sand handling with a maximum capacity of 132 lbs of sand per ton of metal per hour, using no controls and exhausting inside the building.
 - (2) PUCB core with a maximum capacity of 41.25 lbs of sand per hour (with 1.5% of resin by weight of sand and 0.154 lbs of TEA (7.5 lbs of TEA per ton of core), used with PUCB mixer, using no controls and exhausting inside the building.
- (c) One (1) Greensand Mold System, identified as EU-11, constructed in 1967 and baghouse BH-1 modified in 1995, consisting of:
- (1) One (1) Muller and Silo, with a maximum throughput of 2.55 tons of sand per hour, particulate controlled by a baghouse, identified as BH-1, and exhausting inside the building.
 - (2) One (1) Greensand Mold Line, with a maximum throughput capacity of 0.3 tons of metal and 2.55 tons of sand per hour, particulate controlled by a baghouse, identified as BH-1, and exhausting inside the building.
 - (3) One (1) mold dump station (shakeout), with a maximum throughput 0.3 tons of metal per hour, using no controls and exhausting inside the building.
- (d) One (1) Phenolic Urethane No-Bake (PUNB) Mold System, identified as EU-12, constructed in 1967, consisting of:

- (1) One (1) PUNB Mold Sand Mixer Line with a maximum throughput capacity of 0.70 tons of sand per hour (combined with TEA and Resin), 3.19 lbs of resin per hour and 1.18 lbs of TEA per hour, using no controls and exhausting inside the building.
 - (2) One (1) PUNB Mold Line with a maximum throughput capacity of 0.0825 tons of metal and 0.70 tons of sand per hour, using no controls and exhausting inside the building.
 - (3) One (1) PUNB Knockout with a maximum throughput capacity of 0.0825 tons of metal per hour, using no controls and exhausting inside the building.
 - (4) One (1) Sand Silo with a maximum throughput capacity of 0.70 tons of sand per hour, using no controls and exhausting inside the building.
- (e) One (1) finishing operation, identified as EU-13, constructed in 1967, with a combined capacity of 0.203 tons of metal per hour, consisting of:
- (1) Two (2) cut-off saws exhausting inside the building;
 - (2) Eight (8) hand grinders exhausting inside the building;
 - (3) Two (2) belt sanders, with particulate controlled by a cyclone, and exhausting inside the building.
- (i) Two (2) shotblasters, identified as SB-3 and SB-4, constructed in 1967, with a maximum capacity of 0.1 tons of metal per hour and 2.9 lbs of metal shot per hour, each, particulate controlled by one baghouse, identified as BH-2, and exhausting outside the building.
- (j) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour, including the following:
- (1) One (1) heat treat oven, constructed in 1967, with a maximum heat input capacity of 2.6 MMBtu/hr, using no controls and exhausting inside the building.
 - (2) One (1) aging oven, constructed in 1967, with a maximum heat input capacity of 1.0 MMBtu/hr, using no controls and exhausting inside the building.

Enforcement Issues

IDEM is aware that equipment has been operated prior to receipt of the proper permit. IDEM is reviewing this matter and will take the appropriate action. This proposed approval is intended to satisfy the requirements of the construction permit rules.

Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

Permit Level Determination – MSOP

The following table reflects the unlimited potential to emit (PTE) of the entire source before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	89.76
PM10 ⁽¹⁾	19.61
PM2.5	19.08
SO ₂	0.05
NO _x	8.74
VOC	6.46
CO	7.34
GHGs as CO ₂ e	10,550

(1) Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".

HAPs	Potential To Emit (tons/year)
TEA	5.15
HF	0.32
HCL	0.25
Hexane	0.16
TOTAL HAPs	5.89

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) of PM10 and PM2.5 are each less than one hundred (100) tons per year, but greater than or equal to twenty-five (25) tons per year. The PTE of all other regulated criteria pollutants are less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. A Minor Source Operating Permit (MSOP) will be issued.
- (b) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) of any single HAP is less than ten (10) tons per year and the PTE of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-7.
- (c) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) greenhouse gases (GHGs) is less than the Title V subject to regulation threshold of one hundred thousand (100,000) tons of CO₂ equivalent emissions (CO₂e) per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

Note: The source had requested a Permit by Rule (PBR) to be issued. However, pursuant to 326 IAC 2-10-1(a), a source must obtain all construction approvals prior to operating under this rule. The source is currently unpermitted and has been operating before December 25, 1998. Based on calculations sent by the source, the permit level for this source is a Minor Source Operating Permit (MSOP). Pursuant to 326 IAC 2-6.1-2, a source that meets the applicability criteria of 326 IAC 2-5.1-3(a)(1) and is not exempted under 326 IAC 2-6.1-1 shall apply for an air operating permit as described in this rule.

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

- (a) The requirements of the New Source Performance Standard for Primary Aluminum Reduction Plants, 40 CFR Part 60, Subpart S (326 IAC 12), are not included in the permit because this source is not a primary aluminum reduction plant.

- (b) The requirements of the New Source Performance Standard for Ferroalloy Production Facilities, 40 CFR 60, Subpart Z (326 IAC 12), are not included in the permit because this source does not operate an electric submerged arc furnace.
- (c) The requirements of the New Source Performance Standard for Calciners and Dryers in Mineral Industries, 40 CFR Part 60.730, Subpart UUU, are not included in the permit since Cast Metals Technology uses mechanical sand reclamation and not thermal sand reclamation in their two (2) sand systems (Greensand Mold and PUNB Mold Lines). Pursuant to EPA's Applicability Determination Index (ADI) database posting dated April 29, 2004 (Control Number: 0500056), emission units used in the reclamation of foundry sand that remove water through direct or indirect heating meet the definition of calciners and dryers as defined in 40 CFR 60.731. However, mechanical sand reclamation does not meet this definition since heat is not being added for the reclamation of the sand.
- (d) There are no other New Source Performance Standards (NSPS)(40 CFR Part 60 and 326 IAC 12) included in the permit.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (e) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Primary Aluminum Reduction Plants, 40 CFR 63, Subpart LL (326 IAC 20), are not included in the permit because this source is not a primary aluminum reduction plant.
- (f) The requirements of the New Source Performance Standard for National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production (40 CFR 63, Subpart RRR) (326 IAC 20), are not included in the permit, since this source melts only clean charge, internal scrap, or customer returns and does not operate a sweat furnace, thermal chip dryer or scrap dryer/delacquering kiln/decoating kiln.

Clean charge means furnace charge materials, including molten aluminum; T-bar; sow; ingot; billet; pig; alloying elements; aluminum scrap known by the owner or operator to be entirely free of paints, coatings, and lubricants; uncoated/unpainted aluminum chips that have been thermally dried or treated by a centrifugal cleaner; aluminum scrap dried at 343 °C (650 °F) or higher; aluminum scrap delacquered/decoated at 482 °C (900 °F) or higher, and runaround scrap (40 CFR 63.1503 (Definitions)).
- (g) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Iron and Steel Foundries (40 CFR 63 Subpart EEEEE (5E)) (326 IAC 20-92)) are not included in the permit, since this source is not a iron and steel foundry and is not a major source of HAPs.
- (h) The requirements of the National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources (40 CFR 63, Subpart ZZZZZ (5Z)), are not included in the permit because this source is not an iron and steel foundry.
- (i) The requirements of the National Emission Standards for Hazardous Air Pollutants for Primary Copper Smelting Area Sources, (40 CFR 63 Subpart EEEEEEE (6E)), are not included in the permit, since this source is not a primary copper smelter.
- (j) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Secondary Copper Smelting Area Sources (40 CFR 63 Subpart FFFFFFF (6F)) are not included in the permit, since this source is not a secondary copper smelter.
- (k) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Secondary Nonferrous Metals Processing Area Sources (40 CFR 63, Subpart TTTTTT (6T)) (326 IAC 20), are not included in the permit, because this source is not a secondary nonferrous metals processing facility (as defined in §63.11472).

- (l) The requirements of the National Emission Standards for Hazardous Air Pollutants for Area Source Standards for Nine Metal Fabrication and Finishing Source Categories (40 CFR 63, Subpart XXXXXX (6X)), are not included in the permit, because this source's SIC is not listed.
- (m) The requirements of the National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries (40 CFR 63, Subpart ZZZZZZ (6Z)), are not included in the permit, because although this source operates an aluminum foundry; its annual metal melt production is less than 600 tons per year.

Pursuant to 40 CFR 63.11544(a)(4)(iii), if the source increases production such that the annual metal melt production equals or exceeds 600 tpy, the source must submit a written notification of applicability to the Administrator within 30 days after the end of the calendar year and comply within 2 years after the date of the notification.

- (n) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAPs) (40 CFR Part 63, 326 IAC 14, and 326 IAC 20) included in the permit.

Compliance Assurance Monitoring (CAM)

- (o) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the unlimited potential to emit of the source is less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

State Rule Applicability Determination

The following state rules are applicable to the source:

- (a) 326 IAC 2-6.1 (Minor Source Operating Permits (MSOP))
MSOP applicability is discussed under the Permit Level Determination – MSOP section above.
- (b) 326 IAC 2-2 (Prevention of Significant Deterioration(PSD))
This source is not a major stationary source, under PSD (326 IAC 2-2), because the potential to emit of all attainment regulated criteria pollutants are less than 250 tons per year, the potential to emit greenhouse gases (GHGs) is less than 100,000 tons of CO₂e per year, and this source is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1). Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.
- (c) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The potential to emit of any single HAP is less than ten (10) tons per year and the potential to emit of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-4.1.
- (d) 326 IAC 2-6 (Emission Reporting)
Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.
- (e) 326 IAC 5-1 (Opacity Limitations)
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (1) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
- (f) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)
 Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4.

Melt Furnaces (EU1 through EU5)

- (g) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
 Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) the particulate from the processes listed in the table below shall be limited by the following:

Equipment I.D.	Process Weight Rate (ton/hr)	Allowable Emission Rate (lb/hr)
Melt Furnace (EU1)	0.06	0.623
Melt Furnace (EU2)	0.06	0.623
Melt Furnace (EU3)	0.06	0.623
Melt Furnace (EU4)	0.06	0.623
Melt Furnace (EU5)	0.06	0.623

Note: All the furnaces use small amounts of flux to reduce the formation of oxides during the melting process and for cleaning purposes. The amount of flux uses is 0.23 lbs per hour. Flux usage has not been incorporated into the process weight rate for each melting operation because the amount is very small and the effect is negligible.

The pound per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and } P = \text{process weight rate in tons per hour}$$

Based on calculations, controls are not needed to comply with this limit.

- (h) There are no 326 IAC 8 Rules that are applicable to the facility.

Shell Core Machines, (EU6 through EU10)

- (i) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
 Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) the particulate from the processes listed in the table below shall be limited by the following:

Equipment I.D.	Process Weight Rate (ton/hr)*	Allowable Emission Rate (lb/hr)
Shell Core Machine (EU6)	0.056	0.597
Shell Core Machine (EU7)	0.056	0.597
Shell Core Machine (EU8)	0.056	0.597
Shell Core Machine (EU9)	0.056	0.597
Shell Core Machine (EU10)	0.056	0.597

The pound per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

Based on calculations, a control device is not needed to comply with this limit.

* PWR = 0.056 ton/hr each = 563lbs/5 = (212.5 + 41.25 + 309.38)/5 (assume total PUNB mixer and PUCB core capacity per hour is used use by the 5 shell core machines)

- (j) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
 Each of the shell core machines is not subject to the requirements of 326 IAC 8-1-6, since the unlimited VOC potential emissions from each unit is less than twenty-five (25) tons per year.
- (k) There are no other 326 IAC 8 Rules that are applicable to these units.

Greensand Mold System (EU11)

- (l) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
 Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) the particulate from the processes listed in the table below shall be limited by the following:

Equipment I.D.	Process Weight Rate (ton/hr)	Allowable Emission Rate (lb/hr)
Muller and Silo (EU11a)	2.55	7.67
Greensand Mold Line (EU11b)	2.85	8.27
Mold Dump Station (EU11c)	0.3	1.83

The pound per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The baghouse (BH1) shall be in operation at all times the Muller and Silo is in operation, in order to comply with this limit.

Based on calculations, a control device is not needed to comply with this limit for the Greensand Mold Line and the Mold Dump Station.

Phenolic Urethane No-Bake (PUNB) Mold System (EU12)

- (m) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
 Pursuant to 326 IAC 6-3-1(14), manufacturer processes with potential emissions less than 0.551 lbs/hour are exempt from 326 IAC 6-3-2. The PUNB Mold Line particulate emissions are:

Emission Unit	PM PTE (lbs/hr)
PUNB Sand System (Mixer and hopper) (EU12a)	0.38
PUNB Mold Line (EU12b)	0.05
PUNB Knockout (EU12c)	0.26

- (n) There are no 326 IAC 8 Rules that are applicable to these units.

Finishing Operations

- (o) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
 Pursuant to 326 IAC 6-3-1(14), manufacturer processes with potential emissions less than 0.551 lbs/hour are exempt from 326 IAC 6-3-2. The individual units (cut-off saws, hand grinders and belt sanders are less than 0.551 lbs of particulate per hour.
- (p) There are no 326 IAC 8 Rules that are applicable to these units.

Shotblast SB3 and SB4

- (q) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
 Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) the particulate from the processes listed in the table below shall be limited by the following:

Equipment I.D.	Process Weight Rate (ton/hr)	Allowable Emission Rate (lb/hr)
Shotblast (SB3)	0.103	0.89
Shotblast (SB4)	0.103	0.89

The process weight rate was calculated for each shotblast unit as follows:

$$PWR = 0.10 \text{ tons per hour of metal throughput plus } 2.9 \text{ lb per hour (or } 0.003 \text{ tons per hour) of shot throughput, for a total process weight rate of } 0.103 \text{ tons per hour.}$$

The pound per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and } P = \text{process weight rate in tons per hour}$$

The baghouse (BH2) shall be in operation at all times the shotblasts (SB3 and SB4) are in operation, in order to comply with this limit.

- (r) There are no 326 IAC 8 Rules that are applicable to these units.

Compliance Determination, Monitoring and Testing Requirements

- (a) The compliance determination and monitoring requirements applicable to this source are as follows:

Emission Unit/Control	Parameters	Frequency	Range	Excursions and Exceedances
Greensand Mold System's Muller and Silo (EU11a)/BH1	Bag inspection	Quarterly	Normal-Abnormal	Response Steps
Shotblast (SB3 and SB4)/BH2	Visible Emissions	Once per day	Normal-Abnormal	Response Steps

The baghouses (BH1 and BH2) controlling particulate emissions from the Greensand Mold System's Muller and Silo and the Shotblast Units SB3 and SB4 must operate properly to ensure compliance with 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes).

- (b) There are no testing requirements applicable to this source.
- (1) IDEM OAQ has accepted the emission factor for PM/PM10/PM2.5 of 1.1 lbs/ton for clean charge aluminum (permits: 31263, 31508, 31568, 30757, and 20368). The Source has used a more conservative number of 1.5 lbs/ton. The 1.1 lb/ton emission factor is from STAPPA/ALAPCO Handbook, Vol. I, Section 11 (Aluminum-Melting Reverberatroy Furnaces). The emission factor is based on "clean" charge aluminum. AP-42 emission factor is from Chapter 12.8 (Secondary Aluminum Operations) and is based on "not clean" charge aluminum. Therefore, testing is not required for the melt furnaces (EU1 through EU5).
- (1) IDEM has reviewed the uncontrolled potential PM emissions from the Muller and Silo and determined that since the source is minor for PSD, it would only require a 16.45% control efficiency for the baghouse Bh-1 to meet the 326 IAC 6-3 allowable emissions for the unit, and because the unit exhausts inside the building, testing is not required.
 Control Efficiency (%) = 1 - (PM allowable lbs/hr 326 IAC 6-3)/(uncontrolled PM lbs/hr)
 = 1 - (7.67/9.18)
 = (1 - 0.836) = 0.164 = 16.4%
- (2) IDEM has reviewed the uncontrolled potential PM emissions from the Shotblast (SB-3 and SB-4) and determined that since the source is minor for PSD, it would only require a 48.4% control efficiency for the baghouse BH-1 to meet the 326 IAC 6-3 allowable emissions for the unit, testing is not required.
 Control Efficiency (%) = 1 - (PM allowable lbs/hr 326 IAC 6-3)/(uncontrolled PM lbs/hr)
 = 1 - (0.89/1.725)
 = (1 - 0.51.6) = 0.484 = 48.4%
- (4) IDEM has reviewed the uncontrolled VOC emissions from mold and core resin (Shell Core Machines) and has determined testing is not required, because the VOC emissions are very small compared to the threshold for the next higher permit level (FESOP).

Conclusion and Recommendation

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on May 1, 2012.

The operation of this source shall be subject to the conditions of the attached proposed New Source Review and MSOP No. 035-31802-00091. The staff recommends to the Commissioner that this New Source Review and MSOP be approved.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Bruce Farrar at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-5401 or toll free at 1-800-451-6027 extension 4-5401.
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.in.gov/idem

**Appendix A: Emissions Calculations
Emission Summary**

Company Name: Cast Metals Technology, Inc.
Address City IN Zip: 9011 W. Mill Road, Yorktown, IN 47936
Permit No: M035-31802-00091
Plt ID: 035-0091
Reviewer: Bruce Farrar
Date: May 1, 2012

Unlimited/Uncontrolled Potential Emissions (tons/year)										
Emission Units	Pollutant									
	PM	PM10	PM2.5	SO2	NOx	VOC	CO	CO2e	Total HAPs	Single HAP
Melt Furnaces (EU1 thru EU-5)	2.56	2.32	2.32	-	-	-	-	-	0.57	0.32 HF
Casting	5.75	2.82	2.82	-	-	-	-	-	-	-
Mold and Core Production	47.57	10.08	10.08	-	-	-	-	-	-	-
Mold and Core Resin	-	-	-	-	-	5.98	-	-	5.15	5.15 Tea
Finishing Operations	15.12	1.51	1.51	-	-	-	-	-	-	-
Shotblasters	15.12	1.51	1.51							
Natural Gas Combustion	0.17	0.66	0.66	0.05	8.74	0.48	7.34	10,550	0.16	0.16 Hexane
Roads	3.48	0.70	0.17	-	-	-	-	-	-	-
Total:	89.76	19.61	19.08	0.05	8.74	6.46	7.34	10,550	5.89	

Appendix A: Emissions Calculations
Particulate
Melt Furnaces

Company Name: Cast Metals Technology, Inc.
Address City IN Zip: 9011 W. Mill Road, Yorktown, IN 47936
Permit No: M035-31802-00091
Pit ID: 035-0091
Reviewer: Bruce Farrar
Date: May 1, 2012

Emission Units (ID)	Process Rate (ton/hr)	PM Emission Factor (lb/ton) ¹	PM10/PM2.5 Emission Factor (lb/ton) ¹	Number Furnaces	PM Emissions (lb/hour)	PM Emissions (ton/year)	PM10/PM2.5 Emissions (lb/hour)	PM10/PM2.5 Emissions (ton/year)
NG-Fired Melt Furnaces (EU-1 thru EU-5)	0.06	1.5	1.5	5	0.47	2.05	0.47	2.05
Totals:					0.47	2.05	0.47	2.05

	Flux Usage (lbs/hr)	PM Emission Factor (lb/lbs flux) ²	PM10/PM2.5 Emission Factor (lb/lbs flux) ³	HF Emission Factor (lb/lbs flux) ⁴	HCl Emission Factor (lb/lbs flux) ⁴	PM Emissions (ton/year)	PM10/PM2.4 Emissions (ton/year)	HF Emissions (ton/year)	HCl Emissions (ton/year)
Fluxing	0.23	1000	532	0.315	0.253	0.50	0.27	0.32	0.25

1. Emission factors of 1.1 lbs/ton for clean charge aluminum accepted by OAQ IDEM (permits: 31263, 31508, 31568, 30757, 20368). Source has used a more conservative number of 1.5 lbs/ton.
2. Emission factor is from AP42, Chapter 12.8 (Secondary Aluminum Operations) (1/95), Table 12.8-2, SCC 3-04-001-04 Fluxing Chlorination
3. PM10 Emission Factor from WebFire, SCC 3-04-001-04 (Secondary Aluminum Production)
4. Emission factors from Mass Balance supplied by the source in calculations. MSDS does not include HAP percentages. IDEM accepts sources mass balance calculations.

Methodology:

PM/PM10/PM2.5 emissions lb/hr = Capacity (tons/hour) * emission factor (lbs/ton)

PM/PM10/PM2.5 emissions tons/yr = Capacity (tons/hour) * emission factor (lbs/ton) * (8760 hr/1 yr) * (1 ton/2000 lbs)

Flux PM/PM2.5/HF/HCL emissions lb/hour= Flux usage (lbs/hr) * emission factor (lb/lbs Flux)

Flux PM/PM2.5/HF/HCL emissions ton/year = Flux usage (lbs/hr) * emission factor (lb/lbs Flux) * (8760 hr/1 yr) * (1 ton/2000 lbs)

Molecular Weight Formulas

Asbury Flux Master

Calcium Fluoride

Potassium Aluminum Fluoride

Magnesium Chloride

Flux 839

Sodium Florosilicate

Sodium Fluoride

	MW	F(19)	Cl (35.4)	F wt %	Cl wt %	HF wt %	HCL wt %	HF, lbs/lb	HCL, lbs/Lb
CaF2	78	38		48.7%		50.0%			
K3ALF6	258	114		44.2%		45.3%		0.314651163	
MgCl2	95.1		70.8		74.45%		76.6%		0.2526183
Na2SiF6	188	38		20.2%		20.7%			
NaF	42	19		45.2%		46.4%		0.335866261	

**Appendix A: Emission Calculations
PM/PM10 Emissions
Casting (Greensand & PUNB) Mold Line**

**Company Name: Cast Metals Technology, Inc.
Address City IN Zip: 9011 W. Mill Road, Yorktown, IN 47936
Permit No: M035-31802-00091
Plt ID: 035-0091
Reviewer: Bruce Farrar
Date: May 1, 2012**

Emission Unit	Maximum Capacity (tons/hour)	PM Emission Factor ¹ (lb/ton)	PM10/PM2.5 Emission Factor ² (lb/ton)	Uncontrolled PM Emissions (lbs/hour)	Uncontrolled PM Emissions (ton/yr)	Uncontrolled PM10 Emissions (lbs/hour)	Uncontrolled PM10 Emissions (ton/yr)
Greensand Mold Line (EU-11b)	0.30	4.20	2.06	1.26	0.62	5.52	2.71
PUNB Mold Line (EU-12b)	0.01	4.20	2.06	0.05	0.03	0.23	0.11
total:				1.31	0.64	5.75	2.82

1. PM Emission Factor from AP-42, Chapter 12 (Gray Iron Foundries), Table 12.10-7 (01/1995) SCC 3-04-003-18.
2. PM10 Emission Factor from WebFire, SCC 3-04-003-18 (downloaded July 6, 2012).

Methodology:

PM/PM10/PM2.5 emissions lb/hr = Capacity (tons/hour) * emission factor (lbs/ton)

PM/PM10/PM2.5 emissions tons/yr = Capacity (tons/hour) * emission factor (lbs/ton) * (8760 hr/1 yr) * (1 ton/2000 lbs)

Assume PM10 = PM2.5

Appendix A: Emission Calculations

**PM/PM10 Emissions
Mold and Core Production**

Company Name: Cast Metals Technology, Inc.
Address City IN Zip: 9011 W. Mill Road, Yorktown, IN 47936
Permit No: M035-31802-00091
Plt ID: 035-0091
Reviewer: Bruce Farrar
Date: May 1, 2012

Emission Unit	Maximum Capacity (tons/hour)	PM Emission Factor ¹ (lb/ton)	PM10/PM2.5 Emission Factor ² (lb/ton)	Uncontrolled PM Emissions (lbs/hour)	Uncontrolled PM Emissions (ton/yr)	Uncontrolled PM10 Emissions (lbs/hour)	Uncontrolled PM10 Emissions (ton/yr)
Greensand Mold System (Muller and Silo) (EU-11a) ^{1,2}	2.55	3.60	0.54	9.18	40.21	1.38	6.03
Greensand Mold Dump Station(Shakeout) (EU-11c) ^{3,4}	0.30	3.20	2.24	0.96	4.20	0.67	2.94
PUNB Sand Mixer Line (Mixer and hopper) (EU-12b) ^{1,2}	0.11	3.60	0.54	0.38	1.68	0.06	0.25
PUNB Knockout (EU-12c) ^{3,4}	0.08	3.20	2.24	0.26	1.16	0.18	0.81
PUCB Mixer and Sand Handling	0.02	3.60	0.54	0.07	0.33	0.01	0.05
total:				10.86	47.57	2.30	10.08

1. PM Emission Factor from AP-42, Chapter 12 (Gray Iron Foundries), Table 12.10-7 (01/1995) SCC 3-04-003-50.
2. PM10 Emission Factor from WebFire, SCC 3-04-003-50 (downloaded July 6, 2012).
3. PM Emission Factor from AP-42, Chapter 12 (Gray Iron Foundries), Table 12.10-7 (01/1995) SCC 3-04-003-31.
4. PM10 Emission Factor from WebFire, SCC 3-04-003-50 (downloaded July 6, 2012).

Methodology:

PM/PM10/PM2.5 emissions lb/hr = Capacity (tons/hour) * emission factor (lbs/ton)

PM/PM10/PM2.5 emissions tons/yr = Capacity (tons/hour) * emission factor (lbs/ton) * (8760 hr/1 yr) * (1 ton/2000 lbs)

Assume PM10=PM2.5

**Appendix A: Emissions Calculations
VOC and HAP
Mold and Core Resins (EU6-EU10)**

**Company Name: Cast Metals Technology, Inc.
Address City IN Zip: 9011 W. Mill Road, Yorktown, IN 47936
Permit No: M035-31802-00091
Plt ID: 035-0091
Reviewer: Bruce Farrar
Date: May 1, 2012**

Process	Capacity (lbs sand/hr)	PUNB Resin % (by weight of Sand) ¹	PUCB Resin % (by weight of Sand) ¹	TEA Resin % (by weight of Sand) ¹	Resin or TEA Capacity (lbs/hr)	VOC Emission Factor (lbs/lbs) ²	VOC Emissions (lbs/hr)	VOC Emissions (lbs/hr)	TEA (HAP) Emissions (lbs/hr)	TEA (HAP) Emissions (tons/yr)
PUNB Mixer (EU-12a) (Part I & II Resins)	212.5	1.5%	-	-	3.19	0.05	0.16	0.70	-	-
PUCB Core Making (Part I & II Resins)	41.25	-	1.5%	-	0.62	0.05	0.03	0.14	-	-
PUCB Core Making (TEA)	309.38	-	-	0.38%	1.18	1.00	1.18	5.15	1.18	5.15
Totals:							1.37	5.98	1.18	5.15

1. Percentage from source.
2. VOC emission factor from CERP Report: "Emissions from Shell Core Making and Storage", September 2007, Publication # 1413-122 HN.

Methodology:

VOC emissions lb/hr = Capacity (lbs/hour) * emission factor (lbs/lbs)
VOC emissions tons/yr = Capacity (lbs/hour) * emission factor (lbs/lbs) * (8760 hrs/1 yr) * (1 ton/2000 lbs)
Resin & TEA emissions lb/hr = Capacity (lbs/hour) * % Resin (wt of sand)
Resin & TEA emissions tons/yr = Capacity (lbs/hour) * % Resin (wt of sand) * (8760 hr/1 yr) * (1 ton/2000 lbs)

Appendix A: Emission Calculations

**PM/PM10 Emissions
Finishing Operations**

Company Name: Cast Metals Technology, Inc.
Address City IN Zip: 9011 W. Mill Road, Yorktown, IN 47936
Permit No: M035-31802-00091
Plt ID: 035-0091
Reviewer: Bruce Farrar
Date: May 1, 2012

Emission Unit	Total Maximum Capacity (tons/hour)	PM Emission Factor ¹ (lb/ton)	PM10 Emission Factor ² (lb/ton)	Uncontrolled PM Emissions (lbs/hour)	Uncontrolled PM Emissions (ton/yr)	Uncontrolled PM10* Emissions (lbs/hour)	Uncontrolled PM10* Emissions (ton/yr)
Finishing Operations	0.20	17.00	1.70	3.45	15.12	0.35	1.51
Total:				3.45	15.12	0.35	1.51

1. PM Emission Factor from AP-42, Chapter 12 (Gray Iron Foundries), table 12.10-7, SCC3-04-003-40, (01/95).

2. PM10 Emission Factor from WebFire, SCC 3-04-003-40 (downloaded July 6, 2012).

* Assume PM2.5 = PM10.

Methodology:

PM/PM10/PM2.5 emissions lb/hr = Capacity (tons/hour) * emission factor (lbs/ton)

PM/PM10/PM2.5 emissions tons/yr = Capacity (tons/hour) * emission factor (lbs/ton) * (8760 hr/1 yr) * (1 ton/2000 lbs)

**Appendix A: Emissions Calculations
Shot Blasting (EU-3 and EU-4)**

Company Name: Cast Metals Technology, Inc.
Address City IN Zip: 9011 W. Mill Road, Yorktown, IN 47936
Permit No: M035-31802-00091
Plt ID: 035-0091
Reviewer: Bruce Farrar
Date: May 1, 2012

Emission Unit	Maximum Capacity (tons/hour)	PM Emission Factor ¹ (lb/ton)	PM10/PM2.5 Emission Factor ² (lb/ton)	Uncontrolled PM Emissions (lbs/hour)	Uncontrolled PM Emissions (ton/yr)	Uncontrolled PM10/PM2.5 Emissions (lbs/hour)	Uncontrolled PM10/PM2.5 Emissions (ton/yr)	Control Efficiency	Controlled PM Emissions (lbs/hour)	Controlled PM Emissions (ton/yr)
Shot Blasters (SB-3 and SB-4)	0.20	17.00	1.70	3.45	15.12	0.35	1.51	90.00%	0.35	1.51

1. Emission Factor from AP-42, Chapter 12.10, table 12.10-7, SCC 3-04-003-40 (dated January 1995).

2. Emission Factor from FIRE, SCC 3-04-003-40 (downloaded June, 2012).

Methodology:

PM/PM10/PM2.5 uncontrolled emissions lb/hr = Capacity (tons/hour) * emission factor (lbs/ton)

PM/PM10/PM2.5 uncontrolled emissions tons/yr = Capacity (tons/hour) * emission factor (lbs/ton) * (8760 hr/1 yr) * (1 ton/2000 lbs)

326 IAC 6-3-2 PM Process Weight Limitations

Emission Unit	Maximum Capacity (tons/hour)	PM Emission Limit (lb/hr)
Shot Blaster (SB-3)	0.103	0.894
Shot Blaster (SB-4)	0.103	0.894

Methodology:

PM Emission Limit = Maximum Capacity^{0.67} * 4.10

Appendix A: Emissions Calculations

Natural Gas Combustion Only

MM BTU/HR <100

Company Name: Cast Metals Technology, Inc.
Address City IN Zip: 9011 W. Mill Road, Yorktown, IN 47936
Permit No: M035-31802-00091
Plt ID: 035-0091
Reviewer: Bruce Farrar
Date: May 1, 2012

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr	Emission Unit
13			natural gas-fired melt furnaces (EU-1 thru EU-5) rated @ 2.6 MMBtu/hr each
3.75			shell core machines (EU-6 thru EU-10) rated @ 0.75 MMBtu/hr, each
2.6			heat treat oven rated @ 2.6 MMBtu/hr
1			aging oven rated @ 1.0 MMBtu/hr
20.4	1020	174.8	

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx 100 **see below	VOC	CO
Potential Emission in tons/yr	0.17	0.66	0.66	0.05	8.74	0.48	7.34

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
 PM2.5 emission factor is filterable and condensable PM2.5 combined.
 **Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
 MMBtu = 1,000,000 Btu
 MMCF = 1,000,000 Cubic Feet of Gas
 Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
 Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
 Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations**Natural Gas Combustion Only****MM BTU/HR <100****HAPs Emissions****Company Name: Cast Metals Technology, Inc.****Address City IN Zip: 9011 W. Mill Road, Yorktown, IN 47936****Permit No: M035-31802-00091****Plt ID: 035-0091****Reviewer: Bruce Farrar****Date: May 1, 2012**

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	1.835E-04	1.049E-04	6.554E-03	1.573E-01	2.971E-04

HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	4.369E-05	9.612E-05	1.223E-04	3.321E-05	1.835E-04

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

See Page 3 for Greenhouse Gas calculations.

Appendix A: Emissions Calculations**Natural Gas Combustion Only****MM BTU/HR <100****Greenhouse Gas Emissions****Company Name: Cast Metals Technology, Inc.****Address City IN Zip: 9011 W. Mill Road, Yorktown, IN 47936****Permit No: M035-31802-00091****Plt ID: 035-0091****Reviewer: Bruce Farrar****Date: May 1, 2012**

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	10,486	0.2	0.2
Summed Potential Emissions in tons/yr	10,487		
CO2e Total in tons/yr	10,550		

Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.

Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

**Appendix A: Emission Calculations
Fugitive Dust Emissions - Paved Roads**

Company Name: Cast Metals Technology, Inc.
Address City IN Zip: 9011 W. Mill Road, Yorktown, IN 47936
Permit No: M035-31802-00091
Plt ID: 035-0091
Reviewer: Bruce Farrar
Date: May 1, 2012

Paved Roads at Industrial Site

The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (1/2011).

Vehicle Information (provided by source)

Type	Maximum number of vehicles per day	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Vehicle (entering plant)	5.0	1.0	5.0	22.5	112.5	5280	1.000	5.0	1825.0
Vehicle (leaving plant) (d	5.0	1.0	5.0	22.5	112.5	5280	1.000	5.0	1825.0
Totals			10.0		225.0			10.0	3650.0

Vehicle Weight Per Trip =

22.5

 tons/trip
 Average Miles Per Trip =

1.00

 miles/trip

Emission Factor, Ef = [k * (sL)^0.91 * (W)^1.02] (Equation 1 from AP-42 13.2.1)

	PM	PM10	PM2.5	
where k =	0.011	0.0022	0.00054	lb/VMT = particle size multiplier (AP-42 Table 13.2.1-1)
W =	22.5	22.5	22.5	tons = average vehicle weight (provided by source)
sL =	9.7	9.7	9.7	g/m^2 = silt loading value for paved roads at iron and steel production facilities - Table 13.2.1-3)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = E * [1 - (p/4N)] (Equation 2 from AP-42 13.2.1)

Emission Factor, Eext = Ef * [1 - (p/4N)]
 where p =

125

 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)
 N =

365

 days per year

	PM	PM10	PM2.5	
Emission Factor, Ef =	2.082	0.416	0.1022	lb/mile
Emission Factor, Eext =	1.904	0.381	0.0935	lb/mile
Dust Control Efficiency =	50%	50%	50%	(pursuant to control measures outlined in fugitive dust control plan)

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10 (tons/yr)	Controlled PTE of PM2.5 (tons/yr)
Vehicle (entering plant) (one-way trip)	1.90	0.38	0.09	1.74	0.35	0.09	0.87	0.17	0.04
Vehicle (leaving plant) (one-way trip)	1.90	0.38	0.09	1.74	0.35	0.09	0.87	0.17	0.04
Totals	3.80	0.76	0.19	3.48	0.70	0.17	1.74	0.35	0.09

Methodology

Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] * [Maximum trips per day (trip/day)]
 Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip)] / [5280 ft/mile]
 Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] * [Maximum one-way distance (mi/trip)]
 Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]
 Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]
 Unmitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] * [Unmitigated Emission Factor (lb/mile)] * (ton/2000 lbs)
 Mitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] * [Mitigated Emission Factor (lb/mile)] * (ton/2000 lbs)
 Controlled PTE (tons/yr) = [Mitigated PTE (tons/yr)] * [1 - Dust Control Efficiency]

Abbreviations

PM = Particulate Matter
 PM10 = Particulate Matter (<10 um)
 PM2.5 = Particle Matter (<2.5 um)



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Brad Holland
Cast Metals Technologies, Inc.
9011 W Mill Road
Yorktown, IN 47396-1337

DATE: October 12, 2012

FROM: Matt Stuckey, Branch Chief
Permits Branch
Office of Air Quality

SUBJECT: Final Decision
Minor Source Operating Permit (MSOP)
035-31802-00091

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:
Ryan Olney, Responsible Official
Tom Rarick, ERM, Consultant
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Final Applicant Cover letter.dot 11/30/07



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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Indianapolis, Indiana 46204
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Toll Free (800) 451-6027
www.idem.IN.gov

October 12, 2012

TO: Yorktown-Mt. Pleasant Twp Public Library

From: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: Cast Metals Technologies, Inc.
Permit Number: 035-31802-00091

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures
Final Library.dot 11/30/07

Mail Code 61-53

IDEM Staff	PWAY 10/12/2012 Cast Metals Technologies, Inc 035-31802-00091 (final)		Type of Mail: CERTIFICATE OF MAILING ONLY	AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204		

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		Brad Holland Cast Metals Technologies, Inc 9011 W Mill Rd Yorktown IN 47396-1337 (Source CAATS)										
2		Ryan Olney Operations Mgr Cast Metals Technologies, Inc 550 Liberty Rd Delaware OH 43015 (RO CAATS)										
3		Delaware County Health Department 200 W Main St, County Bldg Room 207-309 Muncie IN 47305-2874 (Health Department)										
4		Delaware County Commissioners 100 West Main Street Muncie IN 47305 (Local Official)										
5		Tom Rarick Environmental Resources Management (ERM) 11350 N Meridian Suite 320 Carmel IN 46032 (Consultant)										
6		Yorktown-Mt. Pleasant Twp Public Library 8920 West Adaline Yorktown IN 47936 (Library)										
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Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is \$50,000 per piece subject to a limit of \$50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is \$500. The maximum indemnity payable is \$25,000 for registered mail, sent with optional postal insurance. See Domestic Mail Manual R900, S913, and S921 for limitations of coverage on inured and COD mail. See International Mail Manual for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
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