



*Mitchell E. Daniels, Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

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

TO: Interested Parties / Applicant  
DATE: March 25, 2008  
RE: Howmet LaPorte Casting / 091-26166-00047  
FROM: Matthew Stuckey, Deputy Branch Chief  
Permits Branch  
Office of Air Quality

### Notice of Decision – Approval

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 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires 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 from 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-AM.dot12/3/07



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
Governor

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100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

Mr. Mitch M. Bowling
Howmet LaPorte Casting
1110 East Lincolnway
LaPorte, Indiana 46350

March 25, 2008

Re: 091-26166-00047
Third Notice-Only Change to
M091-21153-00047

Dear Mitch M. Bowling:

Howmet LaPorte Casting (Howmet) was issued a Minor Source Operating Permit (MSOP) Renewal No. M091-21153-00047 on September 21, 2006, for a stationary metal alloy casting source, located at 1110 East Lincolnway, LaPorte, Indiana 46350. On February 26, 2008, the Office of Air Quality (OAQ) received a letter from the source requesting that the permit be updated to indicate that nine (9) Farr Dust collections Units were removed from nine (9) of the grinding booths, and the nine (9) grinding booths have been connected to the existing Carter Day baghouse. This change at the source is considered a "minor physical change" as defined in 326 IAC 2-1.1-1(6). Pursuant to 326 IAC 2-1.1-3(h)(2), minor physical changes to a source do not require a permit revision under 326 IAC 2-6.1-6, if the minor physical change does not increase potential emissions from the source. This change to the permit is considered a notice-only change pursuant to 326 IAC 2-6.1-6(d)(2).

Additionally, an existing Chemical Shell removal operation, identified as LOW-TEMP 01, which had been scheduled for removal as per MSOP Second Notice-Only Change #091-25514-00047, issued 12/19/2007, has not yet been removed, and isn't expected to be removed until the end of the current year. Howmet has requested that this emission unit be added back into the permit, and will submit a new revision request to remove the facility when they are ready to do so. Attachment A illustrates the unlimited potential to emit (PTE) of the Chemical Shell removal operation, identified as LOW-TEMP 01, and controlled PTE of the entire source after issuance of this notice only change. The addition of this unit to the permit is considered a notice-only change, because the potential emissions of regulated criteria pollutants and hazardous air pollutants are less than the ranges specified 326 IAC 2-6.1-6(g)(4) and 326 IAC 2-6.1-6(d)(10), respectively. The uncontrolled/unlimited potential to emit of the entire source will continue to be less than the threshold levels specified in 326 IAC 2-7. The addition of these units will not cause the source's potential to emit to be greater than the threshold levels specified in 326 IAC 2-2 or 326 IAC 2-3.

Finally, Howmet has indicated that a change in company name from Howmet Casting and Services, Incorporated to Howmet LaPorte Casting has occurred. This change to the permit is considered a notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).

Pursuant to the provisions of 326 IAC 2-6.1-6, the permit is hereby revised as follows with the deleted language as ~~strikeouts~~ and new language **bolded**.

...

A.2 Emissions Units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emissions units and pollution control devices:

...

- (b) Finished casting line, with a maximum capacity of 3.0 tons per hour of unfinished castings and ceramic shells, consisting of the following:
  - (2) **Forty six (46) Fifty-five (55)** grinding booths, identified as DUST-COLL-FARR-PORTABLE-001, DUST-COLL-MONO-FARR, DUST-COLL-FARR-001 through **DUST-COLL-FARR-008**, DUST-COLL-FARR-010 002, **DUST-COLL-FARR-016 through DUST-COLL-FARR-022, DUST-COLL-FARR-024, DUST-COLL-FARR-025, DUST-COLL-FARR-027 through DUST-COLL-FARR-040** and DUST-COLL-FARR-043 004 through DUST-COLL-FARR-054, with a maximum combined capacity of 3.0 tons per hour of metal, with particulate controlled by a primary and secondary (HEPA) filter system on each, with each exhausting to the interior of the building;
  - (6) **Nine (9) grinding booths, identified as Stator Cell 01 through 09, with particulate controlled by the Carter Day baghouse and exhausting to stacks ZK1, ZK2, ZK3, and ZK4; and**
  - (7) **One (1) Chemical Shell removal operation, identified as LOW-TEMP 01, equipped with two (2) burners rated at a combined maximum capacity of 2.70 MMBtu/hr, with particulate controlled by a wet scrubber, exhausting to stack Scrubber 03.**

...  
**SECTION D.1**

**FACILITY OPERATION CONDITIONS**

Facility Description:

- ...
- (b) Finished casting line, with a maximum capacity of 3.0 tons per hour of unfinished castings and ceramic shells, consisting of the following:
    - (2) **Forty six (46) Fifty-five (55)** grinding booths, identified as DUST-COLL-FARR-PORTABLE-001, DUST-COLL-MONO-FARR, DUST-COLL-FARR-001 through **DUST-COLL-FARR-008**, DUST-COLL-FARR-010 002, **DUST-COLL-FARR-016 through DUST-COLL-FARR-022, DUST-COLL-FARR-024, DUST-COLL-FARR-025, DUST-COLL-FARR-027 through DUST-COLL-FARR-040** and DUST-COLL-FARR-043 004 through DUST-COLL-FARR-054, with a maximum combined capacity of 3.0 tons per hour of metal, with particulate controlled by a primary and secondary (HEPA) filter system on each, with each exhausting to the interior of the building;
    - (6) **Nine (9) grinding booths, identified as Stator Cell 01 through 09, with particulate controlled by the Carter Day baghouse and exhausting to stacks ZK1, ZK2, ZK3, and ZK4; and**
    - (7) **One (1) Chemical Shell removal operation, identified as LOW-TEMP 01, equipped with two (2) burners rated at a combined maximum capacity of 2.70 MMBtu/hr, with particulate controlled by a wet scrubber, exhausting to stack Scrubber 03.**

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

...

This existing source has the potential to emit PM before control greater than 250 tons per year. The source has been using baghouses and filters to control the PM emissions from the entire source to less than 250 tons per year. Therefore this existing source is a PSD Minor source.

The potential to emit of all criteria pollutants of this revision is less than 250 tons per year. Combined with the PM emissions from the existing emissions units, the PM emissions from the entire source are still

limited to less than 250 tons per year. Therefore, this source will remain a PSD Minor source after this revision and the requirements of 326 IAC 2-2 (PSD) are not applicable.

**D.1.2 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]**

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**The particulate matter emissions from the Aluminum Oxide Blasting Operations to the Carter Day Baghouse & Post Cast Filter shall not exceed 8.56 pounds per hour. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.**

**Compliance Determination Requirements**

**D.1.32** Particulate Control

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...

**Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]**

**D.1.43** Broken or Failed Bag Detection

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...

...

The company name change has been updated throughout the in permit, as follows;

~~Howmet Casting and Services, Incorporated~~  
**Howmet LaPorte Casting**

IDEM, OAQ has decided to make additional revisions to the permit as described below. The permit is revised as follows with deleted language as ~~strikeouts~~ and new language **bolded**:

- (a) Section A.1 is revised to indicate that LaPorte County is now in attainment for the 8-hour ozone standard. Section A.1 is updated as follows:

Source Location Status: ~~Nonattainment area for 8-hour ozone~~  
Attainment area for all ~~other~~ criteria pollutants

All other conditions of the permit shall remain unchanged and in effect. Attached please find the entire revised permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Hannah Desrosiers, of my staff, at 317-234-5374 or 1-800-451-6027, and ask for extension 4-5374.

Original signed by,

Iryn Calilung, Section Chief  
Permits Branch  
Office of Air Quality

Attachments: Updated Permit

IC/hd

cc: File - LaPorte County  
LaPorte County Health Department  
U.S. EPA, Region V

Air Compliance Section  
IDEM Northwest Regional Office  
Compliance Data Section  
Technical Support and Modeling  
Permits Administrative and Development  
Billing, Licensing and Training Section



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MINOR SOURCE OPERATING PERMIT RENEWAL
OFFICE OF AIR QUALITY

Howmet LaPorte Casting
1110 East Lincolnway
LaPorte, Indiana 46350

(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.

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 an MSOP under 326 IAC 2-6.1.

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.

Table with 2 columns: Issuance/Expiration Dates and Signatory Information (Nisha Sizemore, Chief Permits Branch).

First Notice-Only Change No. 091-23654-00047, issued January 26, 2007
Second Notice-Only Change: 091-25514-00047, issued December 19, 2007

Table with 2 columns: Issuance/Expiration Dates and Signatory Information (Iryn Calilung, Section Chief Permits Branch).

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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)]

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The Permittee owns and operates a stationary metal alloy casting plant.

Source Address:	1110 East Lincolnway, LaPorte, Indiana, 46350
Mailing Address:	Same
General Source Phone:	(219) 326-7400
SIC Code:	3324
County Location:	LaPorte
Source Location Status:	Attainment area for all criteria pollutants
Source Status:	Minor Source Operating Permit Program Minor Source, under PSD Rules Not 1 of 28 Source Categories

### A.2 Emissions Units and Pollution Control Equipment Summary

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This stationary source is approved to operate the following emissions units and pollution control devices:

- (a) One (1) Ceramic Mold Operation, with a maximum capacity of 0.66 tons of metal and ceramic molds per hour, consisting of the following:
  - (1) One dewax furnace, identified as DEWAX-BIG-BERTHA, with a maximum rated heat capacity of 5.75MMBtu/hr, equipped with one (1) natural gas-fired afterburner rated at 1.2 MMBtu/hr as control, exhausting to stack DW1A;
  - (2) Sanding towers, identified as STUCCO-TWR-7, STUCCO-TWR-9 thru 22 & STUCCO-TWR-24 thru STUCCO-TWR-30, with a combined maximum capacity of 0.66 tons per hour of sand, with particulate controlled by a baghouse with High Efficiency Particulate Air (HEPA) filters, exhausting back into the Monoshell Department;
  - (3) Dip Manufacturing operation, using a maximum of 30 bags of Zircon flour per hour, with particulate controlled by a baghouse rated at 1,500 cfm, exhausting to stack DMBH-1; and
  - (4) One (1) barrel sander, with a maximum capacity of 0.6 tons per year of aluminum oxide, with particulate emissions exhausting back into the Monoshell Department.
- (b) Finished casting line, with a maximum capacity of 3.0 tons per hour of unfinished castings and ceramic shells, consisting of the following:
  - (1) Aluminum oxide blasting process, with particulate controlled by baghouses (Carter Day & Post Cast Filter), exhausting to stacks ZK1, ZK2, ZK3, and ZK4;
  - (2) Forty six (46) grinding booths, identified as DUST-COLL-FARR-PORTABLE-001, DUST-COLL-MONO-FARR, DUST-COLL-FARR-001 through DUST-COLL-FARR-008, DUST-COLL-FARR-010, DUST-COLL-FARR-016 through DUST-COLL-FARR-022, DUST-COLL-FARR-024, DUST-COLL-FARR-025, DUST-COLL-FARR-027 through DUST-COLL-FARR-040 and DUST-COLL-FARR-043 through DUST-COLL-FARR-054, with a maximum combined capacity of 3.0 tons per hour of metal, with particulate controlled by a primary and secondary (HEPA) filter system on each, with each exhausting to the interior of the building;

- (3) Acid etching process, equipped with a scrubber and demister for particulate control of HCl, exhausting to stack Scrubber 02;
  - (4) Pneumatic Shell Removal, identified as KNOCKOUT-01 and KNOCKOUT-02, with a maximum capacity of 0.45 tons per hour each of casting shells, with particulate controlled by a baghouse rated at 8,966 acfm, exhausting to stack KOBH-1.
  - (5) Plasma Arc Cutter with an integral downdraft filter unit, identified as PLASMA-CUTTER, with a maximum metal cutting rate of 30,910 inches per minute, exhausting to the dock area.
  - (6) Nine (9) grinding booths, identified as Stator Cell 01 through 09, with particulate controlled by the Carter Day baghouse and exhausting to stacks ZK1, ZK2, ZK3, and ZK4;and
  - (7) One (1) Chemical Shell removal operation, identified as LOW-TEMP 01, equipped with two (2) burners rated at a combined maximum capacity of 2.70 MMBtu/hr, with particulate controlled by a wet scrubber, exhausting to stack Scrubber 03.
- (c) Metal Melting and Auxiliary Operations, with a maximum capacity of 3.0 tons per hour of metal, consisting of:
- (1) Nine (9) Shell Preheater Ovens, identified as PREHEAT-02, JR PREHEAT-02, PREHEAT-04, PREHEAT-05, PREHEAT-06, JR PREHEAT-06, PREHEAT-09, PREHEAT-10, and JR PREHEAT-10, each with maximum rated heat inputs of 6.8, 0.75, 6.8, 6.8, 6.8, 0.75, 6.8, 6.8 and 0.75 MMBtu/hr, respectively, exhausting to stacks 2P, 2P1, 4P, 5P, 6P, 6P1, 9P, 10P, 10P1, respectively;
  - (2) Six (6) Electric Induction Ovens, identified as VACUUM-CAST-02, ROLLOVER-CAST-05, VACUUM-CAST-06, VACUUM-CAST-08, VACUUM-CAST-09, & VACUUM-CAST -10; and
  - (3) One (1) mold hot topping process.
- (d) Three (3) natural gas-fired boilers, identified as BOILER-HUMIDITY, BOILER-EAST, & BOILER-DEGREASE, constructed in 1991, 1991 and 1994, respectively, with maximum rated heat inputs of 2.0, 4.2 and 1.4 MMBtu/hr, respectively, exhausting to stacks B1, B3 and O4H, respectively;
- (e) One (1) natural gas-fired hot water heater, with a maximum rated heat input of 0.65 MMBtu/hr, exhausting to stack HW01;
- (f) Two (2) standby diesel generators, identified as GEN-AUXPWR-01 & GEN-AUXPWR-02, with maximum capacities of 315 hp and 375 hp, respectively;
- (g) One (1) monoshell latex surface coating booth, identified as Monoshell, with a maximum capacity of 15 wax forms per hour, equipped with dry filters to control particulate, exhausting to stack MS1;
- (h) One (1) natural gas-fired boiler, identified as Superior Boiler #3, constructed in 1957, with a maximum rated heat input of 13.4 MMBtu/hr, exhausting to stack B2.
- (i) Three (3) potassium hydroxide storage tanks, approved for installion in 2007, identified as Electric Low Temp 01, Electric Low Temp 02 and Electric Low Temp 03, equipped with a wet scrubber to control particulate in an air stream with a volumetric flow rate of 2,800 acfm and an inlet grain loading of 0.01 gr/acf of particulate, exhausting to stacks T1 and T2, respectively.
- (j) Miscellaneous natural gas-fired space heaters totaling a maximum of 0.10 MMBtu/hr heat input.

## SECTION B

## GENERAL CONDITIONS

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

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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 13-15-3-2]

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- (a) This permit, 091-21153-00047, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-3-2. Subsequent revisions 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]

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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

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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

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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

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

### B.7 Duty to Provide Information

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- (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. The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). 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 Certification

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- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an "authorized individual" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal

requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

- (c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

**B.9 Annual Notification [326 IAC 2-6.1-5(a)(5)]**

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- (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:
- Compliance Branch, Office of Air Quality  
Indiana Department of Environmental Management  
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.10 Preventive Maintenance Plan [326 IAC 1-6-3]**

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- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) 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.
- (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 or potential to emit. The PMPs do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**B.11 Prior Permits Superseded [326 IAC 2-1.1-9.5]**

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- (a) All terms and conditions of permits established prior to 091-21153-00047 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.12 Termination of Right to Operate [326 IAC 2-6.1-7(a)]**

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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 ninety (90) days prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-6.1-7.

**B.13 Permit Renewal [326 IAC 2-6.1-7]**

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- (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 the certification 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  
Permits Branch, 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 ninety (90) 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 in writing by IDEM, OAQ, any additional information identified as being needed to process the application.

**B.14 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]**

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- (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  
Permits Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

**B.15 Source Modification Requirement**

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

**B.16 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] [IC13-17-3-2] [IC 13-30-3-1]**

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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.17 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6(d)(3)]

- (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  
Permits Branch, 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 the certification 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.18 Annual Fee Payment [326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing.
- (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.19 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
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**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 5-1-3 (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 non-overlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

**C.4 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.5 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.

**C.6 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]**

The Permittee shall comply with the applicable requirements of 326 IAC 14-10, 326 IAC 18, and 40 CFR 61.140.

**Compliance Requirements [326 IAC 2-1.1-11]**

**C.7 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.8 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.9 Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]**

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60, Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

### **Corrective Actions and Response Steps**

#### **C.10 Response to Excursions or Exceedances**

- (a) Upon detecting an excursion or exceedance, the Permittee shall 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 emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
  - (1) initial inspection and evaluation
  - (2) recording that operations returned 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 within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (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;
  - (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 maintain the following records:
  - (1) monitoring data;
  - (2) monitor performance data, if applicable; and
  - (3) corrective actions taken.

## **Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(c)(2)] [326 IAC 2-6.1-5(a)(2)]**

### **C.11 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 attached 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.12 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, all record keeping requirements not already legally required shall be implemented when operation begins.

### **C.13 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 Data Section, 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) Unless otherwise specified in this permit, any report(s) required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) 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**

**FACILITY OPERATION CONDITIONS**

Facility Description:

- (a) One (1) Ceramic Mold Operation, with a maximum capacity of 0.66 tons of metal and ceramic molds per hour, consisting of the following:
  - (1) One dewax furnace, identified as DEWAX-BIG-BERTHA, with a maximum rated heat capacity of 5.75 MMBtu/hr, equipped with one (1) natural gas-fired afterburner rated at 1.2 MMBtu/hr as control, exhausting to stack DW1A;
  - (2) Sanding towers, identified as STUCCO-TWR-7, STUCCO-TWR-9 thru 22 & STUCCO-TWR-24 thru STUCCO-TWR-30, with a combined maximum capacity of 0.66 tons per hour of sand, with particulate controlled by a baghouse with High Efficiency Particulate Air (HEPA) filters, exhausting back into the Monoshell Department;
  - (3) Dip Manufacturing operation, using a maximum of 30 bags (1500 lbs) of Zircon flour per hour, with particulate controlled by a baghouse rated at 1,500 cfm, exhausting to stack DMBH-1; and
  - (4) One (1) barrel sander, with a maximum capacity of 0.6 tons per year of aluminum oxide, with particulate emissions exhausting back into the Monoshell Department.
- (b) Finished casting line, with a maximum capacity of 3.0 tons per hour of unfinished castings and ceramic shells, consisting of the following:
  - (1) Aluminum oxide blasting process, with particulate controlled by baghouses (Carter Day & Post Cast Filter), exhausting to stacks ZK1, ZK2, ZK3, and ZK4;
  - (2) Forty six (46) grinding booths, identified as DUST-COLL-FARR-PORTABLE-001, DUST-COLL-MONO-FARR, DUST-COLL-FARR-001 through DUST-COLL-FARR-008, DUST-COLL-FARR-010, DUST-COLL-FARR-016 through DUST-COLL-FARR-022, DUST-COLL-FARR-024, DUST-COLL-FARR-025, DUST-COLL-FARR-027 through DUST-COLL-FARR-040 and DUST-COLL-FARR-043 through DUST-COLL-FARR-054, with a maximum combined capacity of 3.0 tons per hour of metal, with particulate controlled by a primary and secondary (HEPA) filter system on each, with each exhausting to the interior of the building;
  - (3) Acid etching process, equipped with a scrubber and demister for particulate control of HCl, exhausting to stack Scrubber 02;
  - (4) Pneumatic Shell Removal, identified as KNOCKOUT-01 and KNOCKOUT-02, with a maximum capacity of 0.45 tons per hour each of casting shells, with particulate controlled by a baghouse rated at 8,966 acfm, exhausting to stack KOBH-1;
  - (5) Plasma Arc Cutter with an integral downdraft filter unit, identified as PLASMA-CUTTER, with a maximum metal cutting rate of 30,910 inches per minute, exhausting to the dock area;
  - (6) Nine (9) grinding booths, identified as Stator Cell 01 through 09, with particulate controlled by the Carter Day baghouse and exhausting to stacks ZK1, ZK2, ZK3, and ZK4; and
  - (7) One (1) Chemical Shell removal operation, identified as LOW-TEMP 01, equipped with two (2) burners rated at a combined maximum capacity of 2.70 MMBtu/hr, with particulate controlled by a wet scrubber, exhausting to stack Scrubber 03.

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

## Emission Limitations and Standards

### D.1.1 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3]

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Pursuant to 326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies), the allowable particulate emission rate from the:

- (a) sanding towers (STUCCO-TWR-7, STUCCO-TWR-9 to 22 & STUCCO-TWR-24 to STUCCO-TWR-30) shall not exceed 3.1 pounds per hour when operating at a process weight rate of 1320 (0.66 t/hr) pounds per hour.
- (b) dip manufacturing process shall not exceed 3.38 pounds per hour when operating at a process weight rate of 1500 pounds per hour.
- (c) aluminum oxide blasting process shall not exceed 8.56 pounds per hour when operating at a process weight rate of 6000 pounds per hour.
- (d) pneumatic Shell Removal (KNOCKOUT-01 and KNOCKOUT-02) shall not exceed 2.4 pounds per hour when operating at a process weight rate of 903 (0.45 t/hr) pounds per hour.
- (e) The plasma cutter, identified as PLASMA-CUTTER, shall not exceed the amount indicated by the equation below.

The pounds per hour limitations were calculated with the following equation:

Interpolation of the data for the process weight rate up to 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 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

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The particulate matter emissions from the Aluminum Oxide Blasting Operations to the Carter Day & Post Cast Filter shall not exceed 8.56 pounds per hour. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

## Compliance Determination Requirements

### D.1.3 Particulate Control

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- (a) The baghouses for particulate control shall be in operation at all times when the Aluminum Oxide Blasting process (Carter Day & Post Cast Filter), Pneumatic Shell Removal (KNOCKOUT-01 and KNOCKOUT-02), and Sanding Towers (STUCCO-TWR-7, STUCCO-TWR-9 to 22, and STUCCO-TWR-24 to 30) units 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.
- (c) The downdraft filter unit for particulate control shall be operation at all times when the plasma arc cutter, identified as PLASMA-CUTTER, is in operation.

## **Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]**

### **D.1.4 Broken or Failed Bag Detection**

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In the event that bag failure has been observed:

- (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.
- (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.

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.

## SECTION D.2 FACILITY OPERATION CONDITIONS

### Facility Description:

- (c) Metal Melting and Auxiliary Operations, with a maximum capacity of 3.0 tons per hour of metal, consisting of:
  - (1) Nine (9) Shell Preheater Ovens, identified as PREHEAT-02, JR PREHEAT-02, PREHEAT-04, PREHEAT-05, PREHEAT-06, JR PREHEAT-06, PREHEAT-09, PREHEAT-10, and JR PREHEAT-10, each with maximum rated heat inputs of 6.8, 0.75, 6.8, 6.8, 6.8, 0.75, 6.8, 6.8 and 0.75 MMBtu/hr, respectively, exhausting to stacks 2P, 2P1, 4P, 5P, 6P, 6P1, 9P, 10P, 10P1, respectively;
  - (2) Six (6) Electric Induction Ovens, identified as VACUUM-CAST-02, ROLLOVER-CAST-05, VACUUM-CAST-06, VACUUM-CAST-08, VACUUM-CAST-09, & VACUUM-CAST -10; and
  - (3) One (1) mold hot topping process.
- (d) Three (3) natural gas-fired boilers, identified as BOILER-HUMIDITY, BOILER-EAST, & BOILER-DEGREASE, constructed in 1991, 1991 and 1994, respectively, with maximum rated heat inputs of 2.0, 4.2 and 1.4 MMBtu/hr, respectively, exhausting to stacks B1, B3 and O4H, respectively;
- (e) One (1) natural gas-fired hot water heater, with a maximum rated heat input of 0.65 MMBtu/hr, exhausting to stack HW01;
- (f) Two (2) standby diesel generators, identified as GEN-AUXPWR-01 & GEN-AUXPWR-02, with maximum capacities of 315 hp and 375 hp, respectively;
- (g) One (1) monoshell latex surface coating booth, identified as Monoshell, with a maximum capacity of 15 wax forms per hour, equipped with dry filters to control particulate, exhausting to stack MS1;
- (h) One (1) natural gas-fired boiler, identified as Superior Boiler #3, constructed in 1957, with a maximum rated heat input of 13.4 MMBtu/hr, exhausting to stack B2.
- (i) Three (3) potassium hydroxide storage tanks, approved for installation in 2007, identified as Electric Low Temp 01, Electric Low Temp 02, and Electric Low Temp 03, equipped with a wet scrubber to control particulate in an air stream with a volumetric flow rate of 2,800 acfm and an inlet grain loading of 0.01 gr/acf of particulate, exhausting to stacks T1 and T2, respectively.
- (j) Miscellaneous natural gas-fired space heaters totaling a maximum of 0.10 MMBtu/hr heat input.

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

## Emission Limitations and Standards

### D.2.1 Particulate Matter Limitation (PM) [326 IAC 6-2]

- (a) Pursuant to 326 IAC 6-2-3(d) (Particulate emission limitations for sources of indirect heating) particulate emissions from Superior Boiler #3, with rated capacity of 13.4 MMBtu/hr shall be limited to 0.8 lb/MMBtu.
- (b) Pursuant to 326 IAC 6-2-4(a) (Particulate emission limitations for sources of indirect heating), particulate emissions from BOILER-HUMIDITY and BOILER-EAST shall be limited to 0.50 lb/MMBtu each, based on a total source rated capacity of 19.6 MMBtu/hr.
- (c) Pursuant to 326 IAC 6-2-4(a) (Particulate emission limitations for sources of indirect heating), particulate emissions from BOILER-DEGREASE shall be limited to 0.49 lb/MMBtu each, based on a total source rated capacity of 21.0 MMBtu/hr.

The emission rates in (b) and (c) above were calculated using the following equation:

$$Pt = \frac{1.09}{Q^{0.26}} \quad \text{where: } Q = \text{total source rated capacity in MMBtu/hr}$$

#### D.2.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3]

---

Pursuant to 326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies), the allowable PM emission rate from the Melted Metal Operation, shall not exceed 8.56 pounds per hour when operating at a process weight rate of 6000 pounds per hour (3 ton/hr).

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.2.3 Natural Gas Fuel

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The natural gas-fired boilers (BOILER-HUMIDITY, BOILER-EAST, BOILER-DEGREASE, and Superior Boiler #3) shall combust only natural gas as fuel.

#### **Compliance Determination Requirements**

There are no Compliance Determination Requirements applicable to these emission units.

#### **Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]**

There are no Compliance Monitoring Requirements applicable to these emission units.

#### **Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]**

There are no Record Keeping and Reporting Requirements applicable to these emission units.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE 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).

<b>Company Name:</b>	<b>Howmet LaPorte Casting</b>
<b>Address:</b>	<b>1110 East Lincolnway, LaPorte, Indiana 46350</b>
<b>County:</b>	<b>LaPorte</b>
<b>Phone #:</b>	<b>219/326-7400</b>
<b>MSOP #:</b>	<b>091-21153-00047</b>

I hereby certify that **Howmet LaPorte Casting** is  still in operation.  
 no longer in operation.

I hereby certify that **Howmet LaPorte Casting** is  in compliance with the requirements of MSOP **091-21153-00047**.  
 not in compliance with the requirements of MSOP **091-21153-00047**.

<b>Authorized Individual (typed):</b>
<b>Title:</b>
<b>Signature:</b>
<b>Date:</b>

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.

<b>Noncompliance:</b>

**MALFUNCTION REPORT**

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
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 ?\_\_\_\_\_, 100TONS/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: Howmet LaPorte Casting PHONE NO. (219) 326-7400  
LOCATION: (CITY AND COUNTY) LaPorte, LaPorte County  
PERMIT NO. 091-21153-00047 AFS PLANT ID: 091-00047 AFS POINT ID: \_\_\_\_\_ INSP: Rick Massoels  
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:

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### Appendix A: Emission Calculations Summary Entire Source Summary

**Company Name:** Howmet LaPorte Casting  
**Address City IN Zip:** 1110 E. Lincoln Highway Laporte, IN 46350  
**Renewal Operating Permit:** MSOP 091-21153-00047  
**Revision No.:** M 091-26166-00047  
**Reviewer Name:** Hannah L. Desrosiers  
**Date Received:** February 26, 2008

#### Unrestricted (Uncontrolled) Potential Emissions (tons/year)

Pollutant	Natural Gas Combustion	Electric Induction Ovens	Dewax Furnace	Sanding & Dip Mfg.	Pneumatic Shell Removal	Grinding/Finishing	Aluminum Oxide Blasting	Welding/Flame Cutting Operations	Barrel Sander	Hot Topping	Acid Etch	Emer. Gen. (Diesel)	Plasma Arc Cutting	New Unit Natural Gas Combustion (Low Temp 01)	TOTAL
PM	0.62	11.83	3.56	17.17	12.61	0.13	223.38	0.98	0.01	0.00	0.00	0.38	1.58	0.02	272.27
PM10	2.48	11.83	3.56	8.32	8.83	0.06	22.34	0.98	0.00	0.00	0.00	0.38	1.58	0.09	60.45
SO2	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.01	0.56
NOx	32.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.35	0.00	1.18	39.14
VOC	1.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.43	0.00	0.07	2.30
CO	27.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.15	0.00	0.99	29.53
total HAPs	0.62	1.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.36	0.02	3.31
worst case single HAP	(hexane) 0.59	(lead) 1.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(HF) 7.98	(HCL) 1.40	0.00	(Nickel) 1.17	(Hexane) 0.21	(HF) 7.98

Total emissions based on rated capacity at 8,760 hours/year.

#### Restricted (Controlled) Potential Emissions (tons/year)

Pollutant	* Natural Gas Combustion	* 6 Electric Induction Ovens	* Dewax Furnace	Sanding & Dip bag-houses	**Pneumatic Shell Removal Baghouse	Grinding/Finishing & Post Cast Filter Baghouse	***Aluminum Oxide Blasting & Baghouses	* Welding/Flame Cutting Operations	* Barrel Sander	Hot Topping	* Acid Etch	* Emer. Gen. (Diesel)	*Plasma Arc Cutting	New Unit *Natural Gas Combustion (Low Temp 01)	TOTAL
PM	0.62	11.83	3.56	0.071	1.06	0.01	6.76	0.98	0.01	0.00	0.00	0.38	1.58	0.02	26.88
PM10	2.48	11.83	3.56	0.068	2.08	0.01	6.76	0.98	0.00	0.00	0.00	0.38	1.58	0.09	29.82
SO2	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.01	0.56
NOx	32.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.35	0.00	1.18	39.14
VOC	1.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.43	0.00	0.07	2.30
CO	27.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.15	0.00	0.99	29.53
total HAPs	0.62	1.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.36	0.02	3.31
worst case single HAP	(hexane) 0.59	(lead) 1.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(HF) 7.98	(HCL) 1.40	0.00	(Nickel) 1.17	(Hexane) 0.21	(HF) 7.98

Total emissions based on rated capacity at 8,760 hours/year, after control.

The list of units that combust natural gas is found on page 1.

\* In cases where a unit does not have control equipment, its potential to emit is also used as the controlled potential emissions.

\*\* Number is from stack test results. Because only one unit was operating during the test, the results are multiplied by two for a worst case controlled potential emissions.

\*\*\* The Aluminum Oxide Blasting Operations are controlled by the Carter Day Baghouse & Post Cast Filter, which are required to maintain the PSD Minor status and to render the requirements of 326 IAC 2-2 (PSD), not applicable.

**Appendix A: Emissions Calculations  
Natural Gas Combustion Only  
MM BTU/HR <100**

**Company Name:** Howmet LaPorte Casting  
**Address City IN Zip:** 1110 E. Lincoln Highway Laporte, IN 46350  
**Renewal Operating Permit:** MSOP 091-21153-00047  
**Revision No.:** M 091-26166-00047  
**Reviewer Name:** Hannah L. Desrosiers  
**Date Received:** February 26, 2008

Heat Input Capacity  
MMBtu/hr  
2.70

Potential Throughput  
MMCF/yr  
23.65

**Particulate Emissions**

Emission Factor in lb/MMCF	Pollutant					
	PM* 1.9	PM10* 7.6	SO2 0.6	NOx 100.0 **see below	VOC 5.5	CO 84.0
Potential Emission in tons/yr	0.022	0.090	0.007	1.18	0.07	0.99

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**HAPs Emissions**

Emission Factor in lb/MMcf	HAPs - Organics				
	Benzene 2.10E-03	Dichlorobenze 1.20E-03	Formaldehyde 0.08	Hexane 1.80	Toluene 3.40E-03
Potential Emission in tons/yr	2.48E-05	1.42E-05	8.87E-04	0.021	4.02E-05

Emission Factor in lb/MMcf	HAPs - Metals				
	Lead 5.00E-04	Cadmium 1.10E-03	Chromium 1.40E-03	Manganese 3.80E-04	Nickel 2.10E-03
Potential Emission in tons/yr	5.91E-06	1.30E-05	1.66E-05	4.49E-06	2.48E-05

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Total HAPs = 0.022 tons/yr

Worst Single HAP = 0.021 tons/yr

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

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 (SUPPLEMENT D 3/98).

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

### Appendix A: Emission Calculations Summary Existing Emission Unit Summary

**Company Name:** Howmet LaPorte Casting  
**Address City IN Zip:** 1110 E. Lincoln Highway Laporte, IN 46350  
**Renewal Operating Permit:** MSOP 091-21153-00047  
**Revision No.:** M 091-26166-00047  
**Reviewer Name:** Hannah L. Desrosiers  
**Date Received:** February 26, 2008

#### Unrestricted (Uncontrolled) Potential Emissions (tons/year)

Pollutant	Natural Gas Combustion	Electric Induction Ovens	Dewax Furnace	Sanding & Dip Mfg.	Pneumatic Shell Removal	Grinding/ Finishing	Aluminum Oxide Blasting	Welding/ Flame Cutting Operations	Barrel Sander	Hot Topping	Acid Etch	Emer. Gen. (Diesel)	Plasma Arc Cutting	TOTAL
PM	0.60	11.83	3.56	17.17	12.61	0.13	223.38	0.98	0.01	0.00	0.00	0.38	1.58	272.22
PM10	2.39	11.83	3.56	8.32	8.83	0.06	22.34	0.98	0.00	0.00	0.00	0.38	1.58	60.27
SO2	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.54
NOx	31.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.35	0.00	36.78
VOC	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.43	0.00	2.17
CO	26.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.15	0.00	27.55
total HAPs	0.59	1.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.36	3.26
worst case single HAP	(hexane) 0.57	(lead) 1.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(HF) 7.98	(HCL) 1.40	0.00	(Nickel) 1.17	(HF) 7.98

Total emissions based on rated capacity at 8,760 hours/year.

#### Restricted (Controlled) Potential Emissions (tons/year)

Pollutant	* Natural Gas Combustion	* Electric Induction Ovens	* Dewax Furnace	Sanding & Dip bag-houses	**Pneumatic Shell Removal Baghouse	Grinding/ Finishing & Post Cast Filter Baghouse	Aluminum Oxide Blasting & Baghouses	* Welding/ Flame Cutting Operations	* Barrel Sander	Hot Topping	* Acid Etch	* Emer. Gen. (Diesel)	Plasma Arc Cutting	TOTAL
PM	0.60	11.83	3.56	0.071	1.06	0.01	6.76	0.98	0.01	0.00	0.00	0.38	1.58	26.83
PM10	2.39	11.83	3.56	0.068	2.08	0.01	6.76	0.98	0.00	0.00	0.00	0.38	1.58	29.64
SO2	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.54
NOx	31.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.35	0.00	36.78
VOC	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.43	0.00	2.17
CO	26.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.15	0.00	27.55
total HAPs	0.59	1.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.36	3.26
worst case single HAP	(hexane) 0.57	(lead) 1.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(HF) 7.98	(HCL) 1.40	0.00	(Nickel) 1.17	(HF) 7.98

Total emissions based on rated capacity at 8,760 hours/year, after control.

The list of units that combust natural gas is found on page 1.

\* In cases were a unit does not have control equipment, its potential to emit is also used as the controlled potential emissions.

\*\* Number is from stack test results. Because only one unit was operating during the test, the results are multiplied by two for a worst case controlled potential emissions.