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TO: Interested Parties / Applicant  
RE: Thomas & Skinner, Inc. / M097-21860-00570  
FROM: Felicia A. Robinson  
Administrator

## 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, Room 1049, Indianapolis, IN 46204, **within fifteen (15) calendar days of the receipt 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 Indianapolis Office of Environmental Services, Air Permits at (317) 327-2234.

Enclosures



Department of Public Works  
Office of Environmental Services

2700 Belmont Avenue  
Indianapolis, IN 46221

317-327-2234  
Fax 327-2274  
TDD 327-5186  
indygov.org/dpw



## MINOR SOURCE OPERATING PERMIT (MSOP)

### Indiana Department of Environmental Management Office of Air Quality and City of Indianapolis, Office of Environmental Services

**Thomas & Skinner, Inc.  
1120 East 23rd Street  
Indianapolis, Indiana 46205**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the emission units 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. This permit to operate does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated there under, as well as other applicable local, state, and federal requirements.

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.: MSOP 097-21860-00570	
Issued by:  Original Signed by Felicia A. Robinson  Felicia R. Robinson Administrator	Issuance Date: May 4, 2007  Expiration Date: May 4, 2012



Air Quality Hotline: 317-327-4AIR | [knozone.com](http://knozone.com)

An Equal Opportunity Employer

**Department of Public Works  
Office of Environmental Services**

2700 Belmont Avenue  
Indianapolis, IN 46221

317-327-2234  
Fax 327-2274  
TDD 327-5186  
[indygov.org/dpw](http://indygov.org/dpw)

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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) and City of Indianapolis, Office of Environmental Services. 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 alnico magnet foundry.

Source Address: 1120 East 23<sup>rd</sup> Street, Indianapolis, Indiana 46205  
Mailing Address: 1120 East 23<sup>rd</sup> Street, Indianapolis, Indiana 46205  
General Source Phone: (317) 923-2501  
SIC Code: 3499  
County Location: Marion  
Source Location Status: Nonattainment area for 8-hour ozone standard  
Nonattainment area for PM2.5 standard  
Attainment area for all other criteria pollutants  
Source Status: Minor Source Operating Permit  
Minor Source, under PSD and Emission Offset  
Minor Source, Section 112 of the Clean Air Act  
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) rail and truck unloading operation and silo for unloading and storing yellow, resin-coated sand, constructed in 1980, identified as T4, with a maximum storage capacity of 750 tons, with a maximum annual throughput of 275 tons per year, with a maximum throughput capacity of 3.5 tons per hour, using an enclosed bucket elevator to lift coated sand into the silo, using no controls and exhausting to the atmosphere.
- (b) One (1) rail and truck unloading operation and silo for unloading and storing white, uncoated sand, constructed in 1980, identified as T3, with a maximum storage capacity of 240 tons, with a maximum annual throughput of 81 tons per year and a maximum throughput capacity of 2 tons per hour, using pneumatic conveyance to lift uncoated sand into the silo, using a bin filter to control particulate, and exhausting to the atmosphere.
- (c) One (1) natural gas-fired Sutter Mold Machine, constructed in 1989, identified as 01SU1, consisting of 18 stations, with a maximum heat input capacity of 0.2 MMBtu per hour, with a total maximum capacity of 1,296 pounds of resin-coated sand per hour, with particulate emissions controlled by Baghouse 2, and exhausting to stack BH2.
- (d) One (1) electric-heated Shell Mold Machine, constructed in 1940, identified as 01SM1, consisting of 6 stations, with a total maximum capacity of 360 pounds of resin-coated sand per hour, and exhausting to stack S2.
- (e) One (1) Pour Cup Molding, constructed in 1945, identified as 01CM1, and exhausting to stacks V2 and V3, consisting of:
  - (1) One (1) White Sand and Corosil GU sand system, for mixing white, uncoated sand with Corosil GU binder and curing with CO<sub>2</sub> gas to form cores and pour

cups, with a maximum capacity of 80 pounds of white, uncoated sand and 0.88 pounds of Corosil GU binder per hour.

- (2) One (1) White Sand and Core Oil sand system, for mixing white, uncoated sand with Core Oil binder and curing with heat from the Core Drying Ovens to form cores and pour cups, with a total maximum capacity of 140 pounds of white uncoated sand and 1.26 pounds of Core Oil per hour.
- (f) One (1) natural gas-fired Core Drying Oven (North), constructed in 1945, identified as 01OV1, with a maximum heat input capacity of 0.02 MMBtu per hour, with a total maximum capacity of 140 pounds of cores per hour, and exhausting to stack V3.
- (g) One (1) natural gas-fired Core Drying Oven (South), constructed in 1945, identified as 01OV2, with a maximum heat input capacity of 0.02 MMBtu per hour, with a total maximum capacity of 140 pounds of cores per hour, and exhausting to stack V2.
- (h) One (1) 400 kW Induction Melt Furnace, constructed in 1988, identified as 01LF1, with a maximum melt capacity of 740 pounds (0.37 tons) of metal per hour, with emissions from melting, pouring and cooling exhausting to roof vents XF1, XF2, and XF3.
- (i) One (1) 200 kW Induction Melt Furnace, constructed in 1979, identified as 01SF1, with a maximum melt capacity of 360 pounds (0.18 tons) of metal per hour, with emissions from melting, pouring and cooling exhausting to roof vents XF1, XF2, and XF3.
- (j) One (1) Breakout Area and Sand Pulverizer for separating castings from sand molds, identified as 01PV1, constructed in 1981, with a maximum capacity of 1,860 pounds of castings and sand per hour, with particulate emissions controlled by Baghouse 1, and exhausting to stack BH1.
- (k) One (1) Conveyor Shot Blaster, constructed in 1988, identified as 01SB1, with a maximum capacity of 900 pounds of castings per hour, with particulate emissions controlled by Baghouse 5, and exhausting to stack S1.
- (l) One (1) Table Shot Blaster, constructed in 1988, identified as 01TB1, with a maximum capacity of 740 pounds of castings per hour, with particulate emissions controlled by Baghouse 5, and exhausting to stack S1.
- (m) One (1) Tumbler (Small), constructed in 1989, identified as 21ST1, with a maximum capacity of 180 pounds of castings per hour, with particulate emissions controlled by Baghouse 4, and exhausting to stack BH4.
- (n) One (1) Tumbler (Large), constructed in 1961, identified as 21LT1, with a maximum capacity of 250 pounds of castings per hour, with particulate emissions controlled by Baghouse 4, and exhausting to stack BH4.
- (o) One (1) Hand Snag Grind Area, constructed in 1940, identified as 01SG1, consisting of 21 pedestal grinders, with a total maximum capacity of 1,000 pounds of castings per hour, with particulate emissions controlled by Baghouse 3, and exhausting to stack BH3.
- (p) One (1) Finish Grind Area, constructed in 1940, identified as 01FG1, with a maximum capacity of 1,000 pounds of castings per hour, using wet grinding methods, and exhausting inside the building.
- (q) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour, consisting of:

- (1) Thirty-two (32) space heaters, identified as SH1 through SH32, each with a maximum heat input capacity of 0.1 MMBtu per hour, and exhausting to stacks SH1 through SH32, respectively.
  - (2) One (1) Hot Mold Furnace, identified as 01HM1, with a maximum heat input capacity of 0.4 MMBtu per hour, and exhausting to stack HM1.
  - (3) One (1) #12 Heat Treat Furnace, identified as 04F12, with a maximum heat input capacity of 0.017 MMBtu per hour, and exhausting to stack HT1.
- (r) One (1) maintenance oxy-acetylene cutting and stick welding operation, constructed in 1980, identified as 01MW1, with a maximum cutting capacity of 2 feet of ¼ inch steel per hour and a maximum welding capacity of 0.27 pounds of electrode per hour, with uncontrolled emissions exhausting inside the building.

## **SECTION B GENERAL CONDITIONS**

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

### **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 13-15-3-6(a)]**

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- (a) This permit, M097-21860-00570, 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, and City of Indianapolis, Office of Environmental Services 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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- (a) 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, City of Indianapolis, Office of Environmental Services, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.
- (b) Unless otherwise stated, all terms and conditions in this permit that are local requirements, including any provisions designed to limit the source's potential to emit, are enforceable by City of Indianapolis, Office of Environmental Services.

### **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, and City of Indianapolis, Office of Environmental Services within a reasonable time, any information that IDEM, OAQ, and City of Indianapolis, Office of Environmental Services 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. Upon

request, the Permittee shall also furnish to IDEM, OAQ, and City of Indianapolis, Office of Environmental Services 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 IDEM, OAQ, and City of Indianapolis Office of Environmental Services 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

And

City of Indianapolis  
Office of Environmental Services  
Air Quality Management Section, Permits  
2700 South Belmont Avenue  
Indianapolis, Indiana 46221

- (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, and City of Indianapolis, Office of Environmental Services 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 prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, 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 Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

and

City of Indianapolis  
Office of Environmental Services  
Air Quality Management Section, Permits  
2700 South Belmont Avenue  
Indianapolis, Indiana 46221

The PMP extension notification does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1(1).

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ, and City of Indianapolis, Office of Environmental Services upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ, and City of Indianapolis, Office of Environmental Services. IDEM, OAQ, and City of Indianapolis, Office of Environmental Services 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).
- (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.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 097-21860-00570 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 nine (9) months 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 City of Indianapolis, Office of Environmental Services 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

and

City of Indianapolis  
Office of Environmental Services  
Air Quality Management Section, Permits  
2700 South Belmont Avenue  
Indianapolis, Indiana 46221

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months 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, and City of Indianapolis, Office of Environmental Services 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, and City of Indianapolis, Office of Environmental Services 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, and City of Indianapolis, Office of Environmental Services, 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

and

City of Indianapolis  
Office of Environmental Services  
Air Quality Management Section, Permits  
2700 South Belmont Avenue  
Indianapolis, Indiana 46221

Any such application shall be certified by the "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 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] [IC 13-17-3-2][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, and City of Indianapolis, Office of Environmental Services, 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 this title or the conditions of this permit or any operating permit revisions;
- (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 processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;
- (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 Operation [326 IAC 2-6.1-6]**

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- (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

and

City of Indianapolis  
Office of Environmental Services  
Air Quality Management Section, Permits  
2700 South Belmont Avenue  
Indianapolis, Indiana 46221

The application which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment 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]**

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- (a) The Permittee shall pay annual fees to City of Indianapolis, Office of Environmental Services within thirty (30) calendar days of receipt of a billing.
  
- (b) The Permittee may call the following telephone number: (317)327-2234 (ask for the Annual Billing Section), to determine the appropriate permit fee.

**B.19 Credible Evidence [326 IAC 1-1-6]**

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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

### 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 and City of Indianapolis, Office of Environmental Services, 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 thirty percent (30%) 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 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(3)]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2.

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

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

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- (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  
Asbestos Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-52 IGCN 1003  
Indianapolis, Indiana 46204-2251

and

City of Indianapolis  
Office of Environmental Services  
Air Quality Management Section, Permits  
2700 South Belmont Avenue  
Indianapolis, Indiana 46221

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. The notifications do not require a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (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 Accredited 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 Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

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

#### **C.8 Performance Testing [326 IAC 3-6]**

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- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in 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

and

City of Indianapolis  
Office of Environmental Services  
Air Quality Management Section, Permits  
2700 South Belmont Avenue  
Indianapolis, Indiana 46221

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ, and City of Indianapolis, Office of Environmental Services not later than forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, and City of Indianapolis, Office of Environmental Services, 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.9 Compliance Requirements [326 IAC 2-1.1-11]**

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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**

#### **C.10 Compliance Monitoring [326 IAC 2-1.1-11]**

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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.11 Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]**

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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.

#### **C.12 Instrument Specifications [326 IAC 2-1.1-11]**

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- (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 have a scale such that the expected normal reading 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.13 Response to Excursions or Exceedances**

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- (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**

### **C.14 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.15 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 or City of Indianapolis, Office of Environmental Services makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or City of Indianapolis, Office of Environmental Services 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.16 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-5] [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

and

City of Indianapolis  
Office of Environmental Services  
Air Quality Management Section, Permits  
2700 South Belmont Avenue  
Indianapolis, Indiana 46221

- (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, and City of Indianapolis, Office of Environmental Services on or before the date it is due.
- (c) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1(1).
- (d) The first report shall cover the period commencing on the date of issuance of this permit 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 [326 IAC 2-6.1-5(a)(1)]:

- (a) One (1) rail and truck unloading operation and silo for unloading and storing yellow, resin-coated sand, constructed in 1980, identified as T4, with a maximum storage capacity of 750 tons, with a maximum annual throughput of 275 tons per year, with a maximum throughput capacity of 3.5 tons per hour, using an enclosed bucket elevator to lift coated sand into the silo, using no controls and exhausting to the atmosphere.
- (b) One (1) rail and truck unloading operation and silo for unloading and storing white, uncoated sand, constructed in 1980, identified as T3, with a maximum storage capacity of 240 tons, with a maximum annual throughput of 81 tons per year and a maximum throughput capacity of 2 tons per hour, using pneumatic conveyance to lift uncoated sand into the silo, using a bin filter to control particulate, and exhausting to the atmosphere.
- (c) One (1) natural gas-fired Sutter Mold Machine, constructed in 1989, identified as 01SU1, consisting of 18 stations, with a maximum heat input capacity of 0.2 MMBtu per hour, with a total maximum capacity of 1,296 pounds of resin-coated sand per hour, with particulate emissions controlled by Baghouse 2, and exhausting to stack BH2.
- (d) One (1) electric-heated Shell Mold Machine, constructed in 1940, identified as 01SM1, consisting of 6 stations, with a total maximum capacity of 360 pounds of resin-coated sand per hour, and exhausting to stack S2.
- (e) One (1) Pour Cup Molding, constructed in 1945, identified as 01CM1, and exhausting to stacks V2 and V3, consisting of:
  - (1) One (1) White Sand and Corosil GU sand system, for mixing white, uncoated sand with Corosil GU binder and curing with CO<sub>2</sub> gas to form cores and pour cups, with a maximum capacity of 80 pounds of white, uncoated sand and 0.88 pounds of Corosil GU binder per hour.
  - (2) One (1) White Sand and Core Oil sand system, for mixing white, uncoated sand with Core Oil binder and curing with heat from the Core Drying Ovens to form cores and pour cups, with a total maximum capacity of 140 pounds of white uncoated sand and 1.26 pounds of Core Oil per hour.
- (f) One (1) natural gas-fired Core Drying Oven (North), constructed in 1945, identified as 01OV1, with a maximum heat input capacity of 0.02 MMBtu per hour, with a total maximum capacity of 140 pounds of cores per hour, and exhausting to stack V3.
- (g) One (1) natural gas-fired Core Drying Oven (South), constructed in 1945, identified as 01OV2, with a maximum heat input capacity of 0.02 MMBtu per hour, with a total maximum capacity of 140 pounds of cores per hour, and exhausting to stack V2.
- (h) One (1) 400 kW Induction Melt Furnace, constructed in 1988, identified as 01LF1, with a maximum melt capacity of 740 pounds (0.37 tons) of metal per hour, with emissions from melting, pouring and cooling exhausting to roof vents XF1, XF2, and XF3.
- (i) One (1) 200 kW Induction Melt Furnace, constructed in 1979, identified as 01SF1, with a maximum melt capacity of 360 pounds (0.18 tons) of metal per hour, with emissions from melting, pouring and cooling exhausting to roof vents XF1, XF2, and XF3.
- (j) One (1) Breakout Area and Sand Pulverizer for separating castings from sand molds, identified as 01PV1, constructed in 1981, with a maximum capacity of 1,860 pounds of castings and sand per hour, with particulate emissions controlled by Baghouse 1, and exhausting to stack BH1.

- (k) One (1) Conveyor Shot Blaster, constructed in 1988, identified as 01SB1, with a maximum capacity of 900 pounds of castings per hour, with particulate emissions controlled by Baghouse 5, and exhausting to stack S1.
- (l) One (1) Table Shot Blaster, constructed in 1988, identified as 01TB1, with a maximum capacity of 740 pounds of castings per hour, with particulate emissions controlled by Baghouse 5, and exhausting to stack S1.
- (m) One (1) Tumbler (Small), constructed in 1989, identified as 21ST1, with a maximum capacity of 180 pounds of castings per hour, with particulate emissions controlled by Baghouse 4, and exhausting to stack BH4.
- (n) One (1) Tumbler (Large), constructed in 1961, identified as 21LT1, with a maximum capacity of 250 pounds of castings per hour, with particulate emissions controlled by Baghouse 4, and exhausting to stack BH4.
- (o) One (1) Hand Snag Grind Area, constructed in 1940, identified as 01SG1, consisting of 21 pedestal grinders, with a total maximum capacity of 1,000 pounds of castings per hour, with particulate emissions controlled by Baghouse 3, and exhausting to stack BH3.
- (p) One (1) Finish Grind Area, constructed in 1940, identified as 01FG1, with a maximum capacity of 1,000 pounds of castings per hour, using wet grinding methods, and exhausting inside the building.

(The information describing the process contained in this facility 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), when operating at the process weight rate listed below, the particulate emissions from the emissions units at this source shall be limited as shown in the following table:

Emission Unit	Emission Unit ID	Maximum Process Weight Rate (tons/hour)	PM Emission Limit (lbs/hour)
Sand Unloading and Storage	T4	3.5	9.49
Sand Unloading and Storage	T3	2.0	6.52
Sutter Mold Machine	01SU1	0.648	3.07
Shell Mold Machine	01SM1	0.18	1.30
Melt Furnace	01LF1	0.37	2.11
Melt Furnace	01SF1	0.18	1.30
Breakout Area and Sand Pulverizer	01PV1	0.93	3.91
Conveyor Shot Blaster	01SB1	0.45	2.40
Table Shot Blaster	01TB1	0.37	2.11
Tumbler (Small)	21ST1	0.09	0.82
Tumbler (Large)	21LT1	0.125	1.02
Hand Snag Grind Area	01SG1	0.50	2.58

The pounds per hour limitation was 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:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour;  
and P = process weight rate in tons per hour

## **Compliance Determination Requirements**

### **D.1.2 Particulate Control**

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In order to comply with Condition D.1.1, the bin vent filters (T3 Sand Unloading and Storage), Baghouse 1 (Breakout Area and Sand Pulverizer), Baghouse 4 (Small Tumbler and Large Tumbler), and Baghouse 5 (Conveyor Shot Blaster and Table Shot Blaster) shall be in operation at all times that these facilities are in operation, in order to comply with these limits.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH  
AND  
CITY OF INDIANAPOLIS  
OFFICE OF ENVIRONMENTAL SERVICES**

**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>Thomas &amp; Skinner, Inc.</b>
<b>Address:</b>	<b>1120 East 23<sup>rd</sup> Street</b>
<b>City:</b>	<b>Indianapolis, Indiana 46205</b>
<b>Phone #:</b>	<b>317-923-2501</b>
<b>MSOP #:</b>	<b>M097-21860-00570</b>

I hereby certify that Thomas & Skinner, Inc. is

- still in operation.
- no longer in operation.

I hereby certify that Thomas & Skinner, Inc. is

- in compliance with the requirements of MSOP 097-21860-00570.
- not in compliance with the requirements of MSOP 097-21860-00570.

<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  
AND  
CITY OF INDIANAPOLIS  
OFFICE OF ENVIRONMENTAL SERVICES**

**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 PERM 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:

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**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
AND  
CITY OF INDIANAPOLIS  
OFFICE OF ENVIRONMENTAL SERVICES**

**MINOR SOURCE OPERATING PERMIT (MSOP)  
CERTIFICATION**

Source Name: Thomas & Skinner, Inc  
Source Address: 1120 East 23<sup>rd</sup> Street, Indianapolis, Indiana 46205  
Mailing Address: 1120 East 23<sup>rd</sup> Street, Indianapolis, Indiana 46205  
MSOP No.: 089-21860-00570

**This certification shall be included when submitting any application form, report, compliance monitoring, or other documents as required by the applicable requirements in this permit.**

Please check what document is being certified:

- Annual Compliance Certification Letter
- Test Result (specify) \_\_\_\_\_
- Report (specify) \_\_\_\_\_
- Notification (specify) \_\_\_\_\_
- Affidavit (specify) \_\_\_\_\_
- Other (specify) \_\_\_\_\_

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

**Indiana Department of Environmental Management  
Office of Air Quality  
and  
City of Indianapolis  
Office of Environmental Services**

Addendum to the Technical Support Document  
for a Minor Source Operating Permit

Source Name:	Thomas & Skinner, Inc.
Source Location:	1120 East 23rd Street, Indianapolis, Indiana 46205
County:	Marion
SIC Code:	3499
Operation Permit No.:	M097-21860-00570
Permit Reviewer:	ERG/ST

On March 29, 2007, the Office of Air Quality (OAQ) and the Office of Environmental Services (OES) had a notice published in the Indianapolis Star, Indianapolis, Indiana, stating that Thomas & Skinner, Inc. had applied for a Minor Source Operating Permit to operate a stationary alnico magnet foundry. The notice also stated that OAQ and OES proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Upon further review, the OAQ and OES have decided to make the following revisions to the Minor Source Operating Permit. The TSD will remain as it originally appeared when published. Changes to the permit or technical support material that occur after the permit has published for public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision. Bolded language has been added and the language with strikethrough has been deleted. The Table of Contents has been modified to reflect these changes.

No comments were received. IDEM and OES have decided to make the following changes:

Change 1:

IDEM has decided to include Mail Codes in their mailing addresses. The following changes have been made throughout the permit:

Indiana Department of Environmental Management  
Asbestos Section, Office of Air Quality  
100 North Senate Avenue  
**MC 61-52 IGCN 1003**  
Indianapolis, Indiana 46204-2251

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

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

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

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

Change 2.

OES performs the billing for sources at the Minor Source Operating Permit level. Therefore, the Permittee should call OES for fee information. The following change has been made to Condition B.18 Annual Fee Payment:

B.18 Annual Fee Payment [326 IAC 2-1.1-7]

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- (a) The Permittee shall pay annual fees to City of Indianapolis, Office of Environmental Services 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~~ **(317)327-2234** (ask for ~~OAQ, Billing, Licensing, and Training Section~~ **the Annual Billing Section**), to determine the appropriate permit fee.

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

**and**

**City of Indianapolis  
Office of Environmental Services**

**Technical Support Document (TSD) for a  
Minor Source Operating Permit (MSOP)**

**Source Background and Description**

Source Name:	Thomas & Skinner, Inc.
Source Location:	1120 East 23rd Street, Indianapolis, Indiana 46205
County:	Marion
SIC Code:	3499
Operation Permit No.:	M097-21860-00570
Permit Reviewer:	ERG/ST

IDEM, Office of Air Quality (OAQ) and the City of Indianapolis (OES) have reviewed an application from Thomas & Skinner, Inc. relating to the operation of a stationary alnico magnet foundry.

**Unpermitted Emission Units and Pollution Control Equipment**

The source consists of the following unpermitted emission units:

- (a) One (1) rail and truck unloading operation and silo for unloading and storing yellow, resin-coated sand, constructed in 1980, identified as T4, with a maximum storage capacity of 750 tons, with a maximum annual throughput of 275 tons per year, with a maximum throughput capacity of 3.5 tons per hour, using an enclosed bucket elevator to lift coated sand into the silo, using no controls and exhausting to the atmosphere.
- (b) One (1) rail and truck unloading operation and silo for unloading and storing white, uncoated sand, constructed in 1980, identified as T3, with a maximum storage capacity of 240 tons, with a maximum annual throughput of 81 tons per year and a maximum throughput capacity of 2 tons per hour, using pneumatic conveyance to lift uncoated sand into the silo, using a bin filter to control particulate, and exhausting to the atmosphere.
- (c) One (1) natural gas-fired Sutter Mold Machine, constructed in 1989, identified as 01SU1, consisting of 18 stations, with a maximum heat input capacity of 0.2 MMBtu per hour, with a total maximum capacity of 1,296 pounds of resin-coated sand per hour, with particulate emissions controlled by Baghouse 2, and exhausting to stack BH2.
- (d) One (1) electric-heated Shell Mold Machine, constructed in 1940, identified as 01SM1, consisting of 6 stations, with a total maximum capacity of 360 pounds of resin-coated sand per hour, and exhausting to stack S2.
- (e) One (1) Pour Cup Molding, constructed in 1945, identified as 01CM1, and exhausting to stacks V2 and V3, consisting of:

- (1) One (1) White Sand and Corosil GU sand system, for mixing white, uncoated sand with Corosil GU binder and curing with CO<sub>2</sub> gas to form cores and pour cups, with a maximum capacity of 80 pounds of white, uncoated sand and 0.88 pounds of Corosil GU binder per hour.
  - (2) One (1) White Sand and Core Oil sand system, for mixing white, uncoated sand with Core Oil binder and curing with heat from the Core Drying Ovens to form cores and pour cups, with a total maximum capacity of 140 pounds of white uncoated sand and 1.26 pounds of Core Oil per hour.
- (f) One (1) natural gas-fired Core Drying Oven (North), constructed in 1945, identified as 01OV1, with a maximum heat input capacity of 0.02 MMBtu per hour, with a total maximum capacity of 140 pounds of cores per hour, and exhausting to stack V3.
  - (g) One (1) natural gas-fired Core Drying Oven (South), constructed in 1945, identified as 01OV2, with a maximum heat input capacity of 0.02 MMBtu per hour, with a total maximum capacity of 140 pounds of cores per hour, and exhausting to stack V2.
  - (h) One (1) 400 kW Induction Melt Furnace, constructed in 1988, identified as 01LF1, with a maximum melt capacity of 740 pounds (0.37 tons) of metal per hour, with emissions from melting, pouring and cooling exhausting to roof vents XF1, XF2, and XF3.
  - (i) One (1) 200 kW Induction Melt Furnace, constructed in 1979, identified as 01SF1, with a maximum melt capacity of 360 pounds (0.18 tons) of metal per hour, with emissions from melting, pouring and cooling exhausting to roof vents XF1, XF2, and XF3.
  - (j) One (1) Breakout Area and Sand Pulverizer for separating castings from sand molds, identified as 01PV1, constructed in 1981, with a maximum capacity of 1,860 pounds of castings and sand per hour, with particulate emissions controlled by Baghouse 1, and exhausting to stack BH1.
  - (k) One (1) Conveyor Shot Blaster, constructed in 1988, identified as 01SB1, with a maximum capacity of 900 pounds of castings per hour, with particulate emissions controlled by Baghouse 5, and exhausting to stack S1.
  - (l) One (1) Table Shot Blaster, constructed in 1988, identified as 01TB1, with a maximum capacity of 740 pounds of castings per hour, with particulate emissions controlled by Baghouse 5, and exhausting to stack S1.
  - (m) One (1) Tumbler (Small), constructed in 1989, identified as 21ST1, with a maximum capacity of 180 pounds of castings per hour, with particulate emissions controlled by Baghouse 4, and exhausting to stack BH4.
  - (n) One (1) Tumbler (Large), constructed in 1961, identified as 21LT1, with a maximum capacity of 250 pounds of castings per hour, with particulate emissions controlled by Baghouse 4, and exhausting to stack BH4.
  - (o) One (1) Hand Snag Grind Area, constructed in 1940, identified as 01SG1, consisting of 21 pedestal grinders, with a total maximum capacity of 1,000 pounds of castings per hour, with particulate emissions controlled by Baghouse 3, and exhausting to stack BH3.
  - (p) One (1) Finish Grind Area, constructed in 1940, identified as 01FG1, with a maximum capacity of 1,000 pounds of castings per hour, using wet grinding methods, and exhausting inside the building.

- (q) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour, consisting of:
  - (1) Thirty-two (32) space heaters, identified as SH1 through SH32, each with a maximum heat input capacity of 0.1 MMBtu per hour, and exhausting to stacks SH1 through SH32, respectively.
  - (2) One (1) Hot Mold Furnace, identified as 01HM1, with a maximum heat input capacity of 0.4 MMBtu per hour, and exhausting to stack HM1.
  - (3) One (1) #12 Heat Treat Furnace, identified as 04F12, with a maximum heat input capacity of 0.017 MMBtu per hour, and exhausting to stack HT1.
- (r) One (1) maintenance oxy-acetylene cutting and stick welding operation, constructed in 1980, identified as 01MW1, with a maximum cutting capacity of 2 feet of ¼ inch steel per hour and a maximum welding capacity of 0.27 pounds of electrode per hour, with uncontrolled emissions exhausting inside the building.

**Existing Approvals**

This is the first approval to be issued to this source at this location.

**Enforcement Issue**

- (a) IDEM, OAQ and OES are aware that equipment has been constructed and operated prior to receipt of the proper permit. The subject equipment is listed in this Technical Support Document under the condition entitled “Unpermitted Emission Units and Pollution Control Equipment”.
- (b) IDEM, OAQ and OES are reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

**Stack Summary**

Stack ID	Operation	Flow Rate (acfm)	Temperature (°F)
S2	Shell Mold	200	150
V1 [XF1-XF3]	Furnaces, Pouring, Cooling	65,000	100
V2	South Core Drying Oven	200	150
V3	North Core Drying Oven	200	150
BH1	Shakeout, Sand Pulverizer	1,200	ambient
BH2	Sutter Mold Machine	600	ambient
BH3	Snag Grind Area	6,500	ambient
BH4	Tumblers	1,000	ambient
BH5 / S1	Shot Blasters	3,200	ambient
SH1-SH32	Space Heaters	varies	150
HM1	Hot Mold Furnace	200	200
HT1	#12 Heat Treat Furnace	200	200

**Recommendation**

The staff recommends to the Administrator that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on October 25, 2005. Additional information was received May 2, 2006.

### Emission Calculations

See Appendix A, pages 1 through 8, of this document for detailed emission calculations.

### Potential to Emit of the Source Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential to Emit (tons/yr)
PM	61.7
PM10	15.8
SO <sub>2</sub>	0.20
VOC	10.9
CO	11.2
NO <sub>x</sub>	2.73

HAPs	Potential to Emit (tons/yr)
Nickel	5.09
Cobalt	8.89
All Others	Negligible
Total	14.0

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of all regulated pollutants is less than 100 tons per year. The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM is greater than 25 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. A MSOP will be issued.
- (b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-1.1-1(16)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (c) **Fugitive Emissions**  
This type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2. This source does not recover metal and melt it for re-use. This source melts metal ingots and other clean charge. Therefore, this source is not a secondary metal production source. There are no applicable New Source Performance Standards that were in effect on August 7, 1980. Therefore, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

### County Attainment Status

The source is located in Marion County.

Pollutant	Status
PM10	Attainment
PM2.5	Nonattainment
SO <sub>2</sub>	Attainment
NO <sub>2</sub>	Attainment
8-hour Ozone	Basic Nonattainment
CO	Attainment
Lead	Attainment

**Note:** On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.

- (a) Marion County has been classified as nonattainment for PM2.5 in 70 FR 943 dated January 5, 2005. Until U.S. EPA adopts specific New Source Review rules for PM2.5 emissions, it has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions pursuant to the nonattainment new source review requirements. See the State Rule Applicability for the source section.
- (b) 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 the ozone standards. Marion County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the Emission Offset requirements.
- (c) Marion County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

### Source Status

New Source PSD and Emission Offset Definition (emissions after controls, based on 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/yr)
PM	20.8
PM10	8.98
SO <sub>2</sub>	0.20
VOC	10.9
CO	11.2
NO <sub>x</sub>	2.73
Single HAP (Cobalt)	2.11
Combination HAPs	3.36

This source is not a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater, no nonattainment pollutant is emitted at a rate of 100 tons per year or greater, and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2 and 326 IAC 2-3, the PSD and Emission Offset requirements do not apply.

## Part 70 Permit Determination

### 326 IAC 2-7 (Part 70 Permit Program)

This new source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons per year.

This is the first air approval issued to this source.

## Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in this permit.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14, 20 and 40 CFR Part 61, 63) included in this permit.
- (c) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Iron and Steel Foundries (40 CFR 63, Subpart EEEEE) are not included in this permit for the magnet casting operations because this source is not a major source of hazardous air pollutants (HAPs). The potential to emit of the source, as defined in 40 CFR 63.2, is less than 10 tons per year of a single HAP and less than 25 tons per year of a combination of HAPs.

## State Rule Applicability – Entire Source

### 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) and 326 IAC 2-3 (Emission Offset)

This source is not one (1) of the twenty-eight (28) listed source categories. This source was originally constructed in 1945. Various emission units have been replaced or added between the original construction date and the present. The potential to emit of the entire source is less than 250 tons per year for any regulated pollutant. This source is a minor source under 326 IAC 2-2 (PSD).

This source is located in Marion County. On June 15, 2004, Marion County was designated as nonattainment for the 8-hour ozone standard. The potential to emit of the entire source is less than 100 tons per year for VOC and NOx. This source is a minor source under 326 IAC 2-3 (Emission Offset).

On January 5, 2005, Marion County was designated as nonattainment for the PM2.5 standard. The potential to emit of the PM10 for the entire source is less than 100 tons per year. Therefore, assuming that PM10 emissions represent PM2.5 emissions, this source is a minor source under Nonattainment New Source Review.

### 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of this source will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

### 326 IAC 2-6 (Emission Reporting)

This source is located in Marion County, the potential to emit of all regulated pollutants is less than one hundred (100) tons per year and the potential to emit of lead is less than five (5) tons per year. Therefore, 326 IAC 2-6 does not apply.

#### 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 the permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) 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.

#### 326 IAC 6-4 (Fugitive Dust Emissions)

Pursuant to 326 IAC 6-4, the Permittee shall not generate fugitive dust to the extent that some portion of the material escapes 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.

#### 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

- (a) Although this source is located in a nonattainment area for particulate matter (Marion County, Center Township), it does not have potential fugitive particulate matter emissions of 25 tons per year or greater. Pursuant to 326 IAC 6-5-1(a), this source is not subject to the requirements of 326 IAC 6-5.
- (b) This source did not receive all of the necessary preconstruction approvals prior to December 13, 1985. However, the fugitive particulate emissions from the source are negligible. Pursuant to 326 IAC 6-5-1(b), this source is not subject to the requirements of 326 IAC 6-5.

#### 326 IAC 6.5 (Particulate Matter Limitations: Except Lake County)

This source is located in Marion County, but is not specifically listed in 326 IAC 6.5-6. The potential to emit of particulate matter is less than one-hundred (100) tons per year and the actual emissions of particulate matter are less than ten (10) tons per year. Therefore, the requirements of 326 IAC 6.5 do not apply to this source.

#### 326 IAC 7 (Sulfur Dioxide Emission Limitations)

This source is located in Marion County. The potential to emit of sulfur dioxide from each of the emissions units at this source is less than twenty-five (25) tons per year and less than ten (10) pounds per hour. Therefore, the requirements of 326 IAC 7-1.1-2, 326 IAC 7-2, and 326 IAC 7-4-2 do not apply.

#### 326 IAC 8-1-6 (General Reduction Requirements for VOC Emissions)

The potential to emit of volatile organic compounds (VOC) from the entire source is less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 8-1-6 do not apply to the facilities at this source.

#### 326 IAC 8-6 (Organic Solvent Emissions Limitations)

This source is located in Marion County and was constructed prior to January 1, 1980. However, the potential to emit of volatile organic compounds (VOC) from the entire source is less than one-hundred (100) tons per year. Therefore, the requirements of 326 IAC 8-6 do not apply to this source.

**326 IAC 9-1 (Carbon Monoxide)**

This source commenced operation prior to March 12, 1972, and this source does not operate any of the source types listed in 326 IAC 9-1-2(a). Therefore, the requirements of 326 IAC 9-1 are not applicable.

**326 IAC 11-1 (Emissions Limitations for Foundries)**

This source is a foundry and was originally constructed prior to December 6, 1968. However, the furnaces at this source used for melting metal alloy are electric induction furnaces, not cupola furnaces. Therefore, the requirements of 326 IAC 11-1-2 do not apply.

**State Rule Applicability – Individual Facilities**

**326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)**

(a) Pursuant to 326 IAC 6-3-2, when operating at the process weight rate listed below, the particulate emissions from the emissions units at this source shall be limited as shown in the following table:

Emission Unit	Emission Unit ID	Maximum Process Weight Rate (tons/hour)	PM Emission Limit (lbs/hour)	PTE After Controls (lbs/hour)
Sand Unloading and Storage	T4	3.5	9.49	1.26
Sand Unloading and Storage	T3	2.0	6.52	0.72
Sutter Mold Machine	01SU1	0.648	3.07	0.004
Shell Mold Machine	01SM1	0.18	1.30	0.65*
Melt Furnace	01LF1	0.37	2.11	1.47
Melt Furnace	01SF1	0.18	1.30	0.71
Breakout Area and Sand Pulverizer	01PV1	0.93	3.91	0.15
Conveyor Shot Blaster	01SB1	0.45	2.40	0.03
Table Shot Blaster	01TB1	0.37	2.11	0.03
Tumblaster (Small)	21ST1	0.09	0.82	0.01
Tumblaster (Large)	21LT1	0.125	1.02	0.01
Hand Snag Grind Area	01SG1	0.50	2.58	0.02

Maximum Process Weight Rate is based on theoretical maximum throughput for each emission unit. PTE After Controls for all units is based on bottlenecked throughput. (See Appendix A, pages 1 - 5)

\* Particulate emissions from Shell Mold Machine are uncontrolled.

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 bin vent filters (T3 Sand Unloading and Storage), Baghouse 1 (Breakout Area and Sand Pulverizer), Baghouse 4 (Small Tumblaster and Large Tumblaster), and Baghouse 5 (Conveyor Shot Blaster and Table Shot Blaster) shall be in operation at all times that these facilities are in operation, in order to comply with these limits.

The resin coating on the sand loaded into silo T4 acts to control particulate emissions, therefore, no particulate control device is needed for silo T4. The potential to emit before controls for the Sutter Mold Machine (01SU1), the shell mold machine (01SM1), and the

Melt Furnaces (01LF1 and 01SF1) is less than the allowable emissions under 326 IAC 6-3-2. Therefore, no particulate control device is needed for these facilities.

- (b) The Finish Grind Area (01FG1) does not have the potential to emit particulate because an aqueous coolant floods the machining surface. Therefore, the requirements of 326 IAC 6-3-2 do not apply.
- (c) The Pour Cup Molding/Core Molding (01CM1), and the Core Drying Ovens (01OV1 and 01OV2) are exempt from the requirements of 326 IAC 6-3-2 because the potential to emit of these facilities is less than 0.551 pound per hour.

### **State Rule Applicability – Trivial Activities – Welding**

#### **326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)**

The maintenance cutting and welding activities consume less than six hundred twenty-five (625) pounds of rod or wire per day and cut less than three thousand, four hundred inches (3,400) of 1 inch thick steel per hour. Pursuant to 326 IAC 6-3-1(b)(9) and (10), the requirements of 326 IAC 6-3-2 do not apply to this facility.

### **Testing Requirements**

The sand handling operations, electric induction furnaces, shakeout, sand pulverizing, shot blast machines, tumblasters, and grinders do not have a testing requirement for PM or PM10 because each of these emissions units has low emissions.

### **Compliance Monitoring Requirements**

There are no compliance monitoring requirements applicable to this source. The rail and truck unloading operation and silo (T4), Shell Mold Machine (01SM1), Pour Cup Molding (01CM1), Melt Furnaces (01LF1, 01SF1), and the Finish Grind Area (01FG1) do not use a control device and are able to meet the emission limits without control. The rail and truck unloading operation (T3), Sutter Mold Machine (01SU1), Breakout Area and Sand Pulverizer (01PV1), Conveyor Shot Blaster (01SB1), Table Shot Blaster (01TB1), Tumbler (Small) (21ST1), and Tumbler (Large) (21LT1), and the Hand Snag Grind Area (01SG1) utilize control devices, but these emission units have low emissions.

### **Conclusion**

The operation of this stationary alnico magnet foundry shall be subject to the conditions of the Minor Source Operating Permit M097-21860-00570.

**Appendix A: Emissions Calculations  
PM and PM10 Emissions from Sand Unloading to Silos**

**Company Name:** Thomas & Skinner, Inc.  
**Address:** 1120 East 23rd Street, Indianapolis, Indiana 46205  
**MSOP:** 097-21860-00570  
**Reviewer:** ERG/ST  
**Date:** March 19, 2007

Emission Unit ID	Maximum Throughput (tons/hour)	Maximum Throughput (tons/year)	PM Emission Factor (lbs/ton)	PM10 Emission Factor (lbs/ton)	PTE of PM Before Controls (lbs/hour)	PTE of PM Before Controls (tons/year)	PTE of PM10 Before Controls (tons/year)	Control Device	Control Efficiency	PTE of PM After Controls (lbs/hour)
Resin Coated Sand Silo (T4)	3.5	275	3.6	0.54	12.6	0.50	0.07	Resin Coating	90%	1.26
White Uncoated Sand Silo (T3)	2.0	81	3.6	0.54	7.20	0.15	0.02	Vent Filters	90%	0.72
<b>Totals</b>						<b>0.64</b>	<b>0.10</b>			<b>1.98</b>

Emission factors for sand handling are from FIRE 6.24 (SCC 3-04-003-50).

**Methodology**

PTE of PM/PM10 Before Controls (tons/year) = Maximum Throughput (tons/year) x Emission factor (lbs/ton) x 1 ton/2,000 lbs

PTE of PM/PM10 After Controls (tons/year) = PTE of PM/PM10 Before Controls (tons/year) x (1 - Control Efficiency %)

**Appendix A: Emissions Calculations**  
**PM and PM10 Emissions from Molding and Core Making Operations**

**Company Name: Thomas & Skinner, Inc.**  
**Address: 1120 East 23rd Street, Indianapolis, Indiana 46205**  
**MSOP: 097-21860-00570**  
**Reviewer: ERG/ST**  
**Date: March 19, 2007**

Emission Unit	Maximum Capacity (tons/hour)	Pollutant	Emission Factor (lbs/ton)	Source of Emission Factor	Potential to Emit Before Controls (tons/year)					
					PM	PM10	SOx	NOx	VOC	CO
Sutter Mold Machine and Shell Mold Machine (Mold Sand Handling) (SCC 3-04-003-50)	0.56 sand	PM	3.60	FIRE 6.24	8.82					
		PM10	0.54	FIRE 6.24		1.32				
		VOC	*							
Mold Machines and Core Machines (Mold and Core Ovens) (SCC 3-04-003-53)	0.37 metal	PM	0.90	FIRE 6.01	1.47					
		PM10	0.90	FIRE 6.02		1.47				
		NOx	0.50	FIRE 6.03				0.82		
Pour Cup Molding and Core Molding (Core Sand Handling) White uncoated sand	0.040 white sand	PM	1.10	FIRE 6.24	0.19					
		PM10	0.54	FIRE 6.24		0.09				
		VOC **	1600	MSDS					3.08	
Emission Factors: PM: (SCC 3-04-003-19) VOC: from MSDS All Others: (SCC 3-04-003-50)	0.00044 Corosil GU Binder	NOx	0.50	FIRE 6.24				0.09		
		SO <sub>2</sub>	0.32	FIRE 6.24			0.06			
		PM	1.10	FIRE 6.24	0.34					
white sand	0.070	PM10	0.54	FIRE 6.24		0.17				
		VOC **	2000	MSDS					5.52	
		NOx	0.50	FIRE 6.24				0.15		
Core Oil	0.00063	SO <sub>2</sub>	0.32	FIRE 6.24			0.10			
		<b>Totals</b>			<b>10.8</b>	<b>3.05</b>	<b>0.16</b>	<b>1.06</b>	<b>8.60</b>	<b>0.00</b>

The Shell Mold Machine is used for small production runs. The Shell Mold Machine and Sutter Mold Machine can operate simultaneously. Additional combustion emissions from the Core Drying Ovens are on page 6.

The maximum metal melting rate for the electric induction furnaces is 0.373 tons of metal per hour. The metal melting capacity acts as a bottleneck to the maximum mold sand throughput at the Sutter Mold Machine and Shell Mold Machine. The required mold sand to metal ratio of 1.5:1 limits sand throughput to 0.56 tons per hour. [ 0.56 / 0.373 = 1.5

\* VOC emissions from resin-coated molding sand are accounted for in pouring/cooling and shakeout on page 3. Coated sand is 1.28% resin by weight.

\*\* The Corosil GU binder is 80% VOC/organics. The Core Oil is 100% VOC/organics. Assume all organic content is volatilized during core making or pouring/cooling/shakeout. There are no HAP in the sand resin, Corosil GU binder or the Core Oil. HAPs are formed during combustion. See page 7 for HAPs calculations.

**Methodology**

PTE (tons/year) = Maximum Capacity (tons/hour) x Emission Factor (lbs/ton) x 8760 (hours/year) x 1 ton/2,000 lbs

**Appendix A: Emissions Calculations  
PM and PM10 Emissions from Foundry Operations**

**Company Name:** Thomas & Skinner, Inc.  
**Address:** 1120 East 23rd Street, Indianapolis, Indiana 46205  
**MSOP:** 097-21860-00570  
**Reviewer:** ERG/ST  
**Date:** March 19, 2007

Emission Unit	Maximum Capacity (tons/hour)	Pollutant	Emission Factor (lbs/ton)	Source of Emission Factor	Potential to Emit Before Controls (tons/year)					
					PM	PM10	SOx	NOx	VOC	CO
Electric Induction Furnaces 01LF1 and 01SF1 (SCC 3-04-003-03)	0.37 metal	PM	0.90	FIRE 6.24	1.47					
		PM10	0.86	FIRE 6.24		1.41				
Pouring/Cooling (SCC 3-04-003-18)	0.37 metal	PM	4.20	FIRE 6.24	6.86					
		PM10	2.06	FIRE 6.24		3.37				
		SOx	0.02	FIRE 6.24			0.03			
		NOx	0.01	FIRE 6.24				0.02		
		VOC	0.14	FIRE 6.24					0.23	
		CO	6.00	**					9.80	
Break Out Area (Shakeout) (SCC 3-04-003-31)	0.37 metal	PM	3.20	FIRE 6.24	5.23					
		PM10	2.24	FIRE 6.24		3.66				
		VOC	1.20	FIRE 6.24					1.96	
Sand Pulverizer (SCC 3-04-003-50)	0.56 sand	PM	3.60	FIRE 6.24	8.83					
		PM10	0.54	FIRE 6.24		1.32				
					<b>22.4</b>	<b>9.75</b>	<b>0.03</b>	<b>0.02</b>	<b>2.19</b>	<b>9.80</b>

Clean charge is used in the foundry.

The maximum metal melting rate for the electric induction furnaces is 0.373 tons of metal per hour. The metal melting capacity acts as a bottleneck to the maximum mold sand throughput at the Sutter Mold Machine and Shell Mold Machine, and thus, at the Sand Pulverizer. The required mold sand to metal ratio of 1.5:1 limits sand throughput to 0.56 tons per hour. [ 0.56 / 0.373 = 1.5 ]

\*\* The CO emission factor is for combined CO emissions from the pouring, cooling and shakeout operations and is based on best available information for CO emissions from foundry operations.

**Methodology**

PTE (tons/year) = Maximum Capacity (tons metal or sand/hour) x 8760 (hours/year) x Emission Factor (lbs/ton) x 1 ton/2,000 lbs

**Appendix A: Emissions Calculations**  
**PM and PM10 Emissions from Grinding and Finishing Operations**

**Company Name:** Thomas & Skinner, Inc.  
**Address:** 1120 East 23rd Street, Indianapolis, Indiana 46205  
**MSOP:** 097-21860-00570  
**Reviewer:** ERG/ST  
**Date:** March 19, 2007

Emission Unit	Portion of Total Castings Processed (%) *	Maximum Capacity (tons metal /hour)	Pollutant	Emission Factor (lbs/ton)	Source of Emission Factor	Potential to Emit Before Controls (tons/year)	
						PM	PM10
Conveyor Shot Blaster (SCC 3-04-003-40)	30%	0.11	PM PM10	17.00 1.70	FIRE 6.24 FIRE 6.24	8.33	0.83
Table Shot Blaster (SCC 3-04-003-40)	10%	0.037	PM PM10	17.00 1.70	FIRE 6.24 FIRE 6.24	2.78	0.28
Large Tumbler (SCC 3-04-003-40)	30%	0.11	PM PM10	17.00 1.70	FIRE 6.24 FIRE 6.24	8.33	0.83
Small Tumbler (SCC 3-04-003-40)	30%	0.112	PM PM10	17.00 1.70	FIRE 6.24 FIRE 6.24	8.33	0.83
Hand Snag Grind Area (SCC 3-04-003-40)	100%	0.50	PM PM10	0.0045 0.0045	FIRE 6.24 FIRE 6.24	0.010	0.010
Finish Grind (wet) (SCC 3-04-003-60)	100%	0.50	PM PM10	0.0045 0.0045	FIRE 6.24 FIRE 6.24	0.010	0.010
<b>Totals</b>						<b>27.8</b>	<b>2.80</b>

\* Not all castings are processed in each shotblaster. Information on percentage of total castings processed at a particular facility is provided by source and is based on production records.

The maximum metal melting rate for the electric induction furnaces is 0.373 tons of metal per hour. The metal melting capacity acts as a bottleneck to the maximum metal throughput in shotblasters, grinders and finish grinders. Maximum metal throughput is 0.373 tons per hour. The shot blasters and grinders each process only a portion of the total castings produced.

**Methodology**

PTE for PM/PM10 (tons/year) = Maximum Capacity (tons metal/hour) x 8760 (hours/year) x Emission Factor (lbs/ton) x 1 ton/2,000 lbs

**Appendix A: Emission Calculations**  
**Particulate Emissions From Baghouses and 326 IAC 6-3-2 Limits**

**Company Name:** Thomas & Skinner, Inc.  
**Address:** 1120 East 23rd Street, Indianapolis, Indiana 46205  
**MSOP:** 097-21860-00570  
**Reviewer:** ERG/ST  
**Date:** March 19, 2007

Emission Unit ID(s)	Baghouse ID	Stack ID	Air Flow Rate (acfm)	Outlet Grain Loading (grain/dscf)	Controlled PTE of PM/PM10 (tons/year)	Controlled PTE of PM/PM10 (lbs/hour)
Breakout and Sand Pulverizer	1	BH1	1,200	0.015	0.68	0.15
Sutter Mold Machine	2	BH2	600	0.0007	0.02	0.004
Hand Snag Grinder Area	3	BH3	6,500	0.0004	0.10	0.02
Tumblasters (Large, Small)	4	BH4	1,000	0.001	0.04	0.01
Foundry Blasters (Conveyor, Table)	5	S1	3,200	0.001	0.12	0.03
<b>Total</b>					<b>0.95</b>	<b>0.22</b>

Emission Unit ID(s)	Maximum Process Weight Rate (ton/hr)	326 IAC 6-3-2 Allowable Emissions (lb/hr)
Resin Coated Sand Silo (T4)	3.5	9.49
White Uncoated Sand Silo (T3)	2.0	6.52
Sutter Mold Machine (O1SU1)	0.648	3.07
Shell Mold Machine (O1SM1)	0.18	1.30
Melt Furnace (OFLF1)	0.37	2.11
Melt Furnace (OFSF1)	0.18	1.30
Breakout and Sand Pulverizer (O1PV1)	0.93	3.91
Conveyor Shot Blaster (O1SB1)	0.45	2.40
Table Shot Blaster (O1TB1)	0.37	2.11
Tumbler (Small) (21ST1)	0.09	0.82
Tumbler (Large) (21LT1)	0.125	1.02
Hand Snag Grind Area (21LT1)	0.50	2.58

Maximum Process Weight Rate is based on theoretical maximum throughput. PTE calculations on pages 1 - 4 are based on bottlenecked throughput.

**Methodology**

Controlled PTE (ton/yr) = Air Flow Rate (acfm) x Outlet Grain Loading (gr/scf) x 60 (min/hr) x 8760 hr/yr x 1/7000 (lb/gr) x 1 ton/2000 lb

Controlled PTE (lb/hr) = Air Flow Rate (acfm) x Outlet Grain Loading (gr/scf) x 60 (min/hr) x 1/7000 (lb/gr)

326 IAC 6-3-2 Allowable Emissions (lb/hr) = 4.1 x Max. Process Weight Rate (ton/hr) ^ 0.67

**Appendix A: Emission Calculations**  
**Combustion Emissions from the Natural Gas-fired Boiler and Space Heaters**

**Company Name:** Thomas & Skinner, Inc.  
**Address:** 1120 East 23rd Street, Indianapolis, Indiana 46205  
**MSOP:** 097-21860-00570  
**Reviewer:** ERG/ST  
**Date:** March 19, 2007

Emission Unit	Heat Input Capacity (MMBtu/hour)	Max. Potential Throughput (MMCF/year)
Space Heaters (32)	3.20	27.5
Sutter Mold Machine	0.20	1.72
North Core Drying Oven	0.02	0.17
South Core Drying Oven	0.02	0.17
Hot Mold Furnace	0.40	3.44
# 12 Heat Treat Furnace	0.017	0.15

Pollutant Emission Factors (lbs/MMCF)						
PM*	PM10*	SO <sub>2</sub>	NO <sub>x</sub> **	CO	VOC	HAPs
1.9	7.6	0.6	100	84.0	5.5	1.89

Potential To Emit (tons/year)							
Emission Unit ID	PM	PM10	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC	HAPs
Space Heaters (32)	0.026	0.104	0.008	1.374	1.154	0.076	0.026
Sutter Mold Machine	0.002	0.007	0.001	0.086	0.072	0.005	0.002
North Core Drying Oven	0.000	0.001	0.000	0.009	0.007	0.000	0.000
South Core Drying Oven	0.000	0.001	0.000	0.009	0.007	0.000	0.000
Hot Mold Furnace	0.003	0.013	0.001	0.17	0.14	0.009	0.003
# 12 Heat Treat Furnace	0.000	0.001	0.000	0.007	0.006	0.000	0.000
<b>Totals</b>	<b>0.031</b>	<b>0.126</b>	<b>0.010</b>	<b>1.66</b>	<b>1.39</b>	<b>0.091</b>	<b>0.031</b>

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

\*\*Emission Factors for NO<sub>x</sub>: Uncontrolled = 100

Emission Factors from AP-42, Chapter 1.4 - Natural Gas Combustion, Tables 1.4-1, 1.4-2, 1.4-3 and 1.4-4. SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03. (AP-42 Supplement D 7/98)

All Emission factors are based on normal firing.

1 MMCF = 1,000 MMBtu

**Methodology**

Max. Potential Throughput (MMCF/year) = Heat Input Capacity (MMBtu/hour) x 8,760 hours/year x 1 MMCF/1,000 MMBtu.

PTE (tons/year) = Throughput (MMCF/year) x Emission Factor (lbs/MMCF) x 1 ton/2,000 lbs

**Appendix A: Emissions Calculations**  
**HAP Emissions from the Foundry and Molding Operations**

**Company Name:** Thomas & Skinner, Inc.  
**Address:** 1120 East 23rd Street, Indianapolis, Indiana 46205  
**MSOP:** 097-21860-00570  
**Reviewer:** ERG/ST  
**Date:** March 19, 2007

<b>Metallic HAPs</b>	Maximum Capacity	PTE of PM Before Controls	PTE of Nickel Before Controls	PTE of Cobalt Before Controls	PTE of PM After Controls	PTE of Nickel After Controls	PTE of Cobalt After Controls
Process:	(tons Alnico metal/year)	(tons/year)	(tons/year)	(tons/year)	(tons/year)	(tons/year)	(tons/year)
Electric Induction Furnaces <sup>b</sup>	3,267	1.47	0.21	0.36	1.47	0.21	0.36
Pouring/Cooling <sup>b</sup>	3,267	6.86	0.97	1.69	6.86	0.97	1.69
Castings Cleaning and Finishing <sup>b</sup>	3,267	27.8	3.92	6.84	0.26	0.04	0.06
<b>Total</b>		<b>36.1</b>	<b>5.09</b>	<b>8.89</b>	<b>8.59</b>	<b>1.21</b>	<b>2.11</b>

<b>All Other HAPs</b>	Maximum Capacity	HAP Emission Factor	PTE	Total Misc. HAP
Process:	(tons resin, Corosil binder and Core Oil/year)	(lbs HAP/lb material)	(tons/year)	(tons/year)
Pouring/Cooling & Break Out Area (Shakeout) <sup>a</sup>	0.04	0.01121 lbs Benzene/lb	4.0E-04	0.0006
Pouring/Cooling & Break Out Area (Shakeout) <sup>a</sup>	0.04	0.000975 lbs Phenol/lb	3.5E-05	
Pouring/Cooling & Break Out Area (Shakeout) <sup>a</sup>	0.04	0.003989 lbs other HAPs/lb	1.4E-04	

<sup>a</sup> Emission factor for Pouring/Cooling & Shakeout is from Modern Casting: "Calculating Emission Factors for Pouring, Cooling and Shakeout" Table 1: Phenolic Nobake Binder, October 1994. HAPs include benzene, phenol, toluene, aldehydes, and others in trace amounts.

<sup>b</sup> PTE for metallic HAPs is based on percentage of HAPs in casting metal. Assume all PM/PM10 emitted from these processes is from metallic castings. Castings metal is 50.1% iron, 24.6% cobalt, 14.1% nickel, 8.2% aluminum, and 3.0% copper.

**Methodology**

PTE of Metallic HAPs Before Controls (tons/year) = PTE of PM Before Controls (tons/year) x Weight % HAPs (%)

PTE of Metallic HAPs After Controls (tons/year) = PTE of PM After Controls (tons/year) x Weight % HAPs (%)

PTE of Misc. Combustion HAPs (tons/yr) = Maximum Capacity (tons/year) x Emission Factor (lbs HAP/lb material)

**Appendix A: Emission Calculations  
Emissions Summary**

**Company Name: Thomas & Skinner, Inc.  
Address: 1120 East 23rd Street, Indianapolis, Indiana 46205  
MSOP: 097-21860-00570  
Reviewer: ERG/ST  
Date: March 19, 2007**

Emissions Unit	Potential to Emit Before Controls (tons/year)							Potential to Emit After Controls (tons/year)		
	PM	PM10	SO <sub>2</sub>	NOx	VOC	CO	HAPs	PM	PM10	HAPs
Resin Coated Sand Silo (T4)	0.50	0.07						0.50	0.07	
White Uncoated Sand Silo (T3)	0.15	0.02						0.15	0.02	
Sutter Mold/Shell Mold Machines	10.3	2.79		0.82				0.02	0.02	
Pour Cup Molding	0.53	0.26	0.16	0.24	8.60			0.53	0.26	
Electric Induction Furnaces	1.47	1.41					0.57	1.47	1.41	0.57
Pouring/Cooling	6.86	3.37	0.03	0.02	0.23	9.80	2.66	6.86	3.37	2.66
Break Out Area (Shakeout)	5.23	3.66			1.96			0.68	0.68	
Sand Pulverizer	8.83	1.32								
Conveyor Shot Blaster	8.33	0.83					10.76	0.12	0.12	0.10
Table Shot Blaster	2.78	0.28								
Large Tumbler	8.33	0.83						0.04	0.04	
Small Tumbler	8.33	0.83						0.10	0.10	
Hand Snag Grind Area	0.0	0.01						0.00	0.00	
Finish Grind (wet)	0.01	0.01								
All Natural Gas Combustion	0.031	0.126	0.010	1.66	0.09	1.39	0.031	0.126	0.031	
<b>Totals</b>	<b>61.7</b>	<b>15.8</b>	<b>0.20</b>	<b>2.73</b>	<b>10.9</b>	<b>11.2</b>	<b>14.0</b>	<b>10.5</b>	<b>6.20</b>	<b>3.36</b>