



Joseph E. Kernan  
Governor

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Commissioner

April 26, 2004

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TO: Interested Parties / Applicant  
RE: INTAT Precision, Inc / 139-18320-00011  
FROM: Paul Dubenetzky  
Chief, Permits Branch  
Office of Air Quality

**Notice of Decision: Approval – Effective Immediately**

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-17-3-4 and 326 IAC 2, this permit modification is effective immediately, unless a petition for stay of effectiveness is filed and granted, 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 4-21.5-3-7 and IC 13-15-7-3 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 Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of a Title V operating permit or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impracticable to raise such issues, or if the grounds for such objection arose after the comment period.

To petition the U.S. EPA to object to the issuance of a Title V operating permit, contact:

U.S. Environmental Protection Agency  
401 M Street  
Washington, D.C. 20406

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

# PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY

**INTAT Precision, Inc.  
2148 State Road 3 North  
Rushville, Indiana 46173**

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

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T139-7531 -00011	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: September 2, 2003 Expiration Date: September 2, 2008

PSD First Significant Permit Modification No.: T139-18320-00011	
Issued by: Original Signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: April 26, 2004

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**Emergency Occurrence Report**

**Quarterly Deviation Report**

## SECTION A

## SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 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 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

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The Permittee owns and operates a stationary gray iron foundry.

Responsible Official:	Gary Moore, Assistant General Manager
Source Address:	2148 State Road 3 North, Rushville, Indiana 46173
Mailing Address:	P.O.Box 488, Rushville, Indiana 46173
General Source Phone Number:	317-932-5323
SIC Code:	3321
County Location:	Rush
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD 1 of 28 Source Categories

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

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This stationary gray iron foundry operation consists of the following emission units and pollution control devices:

(a) Core production facilities consisting of:

- (1) Three (3) core sand bins and four (4) isocure cold box core machines, identified as P4, P5, P6 and P7, with P4, P5, and P6 constructed in 1988 and P7 constructed in 1994, each with a maximum capacity of processing 0.5 ton of core sand per hour, 8.0 pounds of resin per ton of core sand per hour and 1.12 pounds of TEA catalyst per ton of core sand, utilizing a cartridge collector for particulate control, exhausting to stack ID No. 9 and (1) scrubber (ID Scrubber #1) for control of triethylamine (TEA) emissions from core machines P4 and P5, exhausting through stack ID No.10A and (1) one scrubber (ID Scrubber #2) for control of TEA emissions from core machines P6 and P7, exhausting through stack ID No.10B.

The source voluntarily utilizes two (2) TEA scrubbers.

(b) Two (2) gray iron foundry lines, constructed in 1988, consisting of the following:

- (1) Plant 1 Melting Operations originally constructed in 1988 and to be modified in 2004, consisting of:
  - (A) One (1) indoor charge handling system for the three (3) electric induction furnaces, with a total maximum throughput capacity of 20 tons of metal per hour, consisting of three (3) units, identified as P1, P2, and P3, each with a maximum throughput capacity of 10 tons of metal per hour;

Note: The power control system at the plant limits the total maximum throughput of the charge handling system to 20 tons of metal per hour.

- (B) One (1) melting system, identified as P8, with a maximum capacity of 20 tons of metal per hour, consisting of three (3) electric induction furnaces, each with a melting capacity of 10 tons per hour, utilizing two (2) cartridge collectors for particulate control, exhausting to stack ID Nos. 3A and 3B;

- Note: The maximum throughput of metal for the melting system is limited to 20 tons per hour by the maximum throughput from the charge handling system of 20 tons of metal per hour.
- (C) One (1) holding system consisting of the following equipment:
- (1) Two (2) electric holding furnaces, identified as P9, each with a holding capacity of 50 tons and a total maximum throughput capacity of 100 tons of metal per hour, utilizing two (2) cartridge collectors for particulate control, exhausting to stack ID Nos. 3A and 3B;
  - (2) Six (6) ladle heaters to be replaced in 2004, identified as P10, each with a heating capacity of 2.3 million British thermal units (MMBtu) per hour, each combusting natural gas, exhausting to stacks 12A, 12B and 12C.
- (D) One (1) inoculation system consisting of two (2) metal treatment ladles to be replaced in 2004 identified as P11, each with a maximum throughput capacity of 10 tons of metal per hour, controlled by Dust Collectors DC-3A and DC-3B for particulate control, exhausting to a common stack 3B.
- (c) Plant 1 Casting Line 1 constructed in 1988 with a capacity of 10 tons of metal and 75 tons of sand per hour, whose total capacity is further restricted by the overall melt capacity of 20 tons of metal/hour for both Lines 1 and 2, consisting of the following equipment:
- (1) One (1) sand system consisting of units identified as P32A, P33A, P34A, P35A, P36A, P37A, and P39A, controlled by baghouses DC2 and DC3A, exhausting to stacks 2 and 3A.
  - (2) One (1) pouring station, identified as P13A controlled by dust collector DC2, exhausting to stack 2.
  - (3) One (1) cooling line identified as P14A, controlled by dust collector DC1B, exhausting to stack 1B.
  - (4) One (1) shakeout unit identified as P16A, controlled by dust collectors DC1B and DC2, exhausting to stacks 1B and 2.
  - (5) Casting conveyors identified as P17A, P18A, P19A, P20A, P21A, P22A controlled by baghouse DC-6A exhausting through stack 6A.
  - (6) Shot blast processes consisting of two shot blast units identified as P26, and P27 with a total capacity of 12 tons of metal/hour, controlled by dust collector DC-8A, exhausting to stack 8A.
  - (7) Grinding processes identified as P29 and P30, with a total capacity of 12 tons of metal/hour, controlled by dust collector DC-8A, exhausting to stack 8A.
- (d) Plant 1, Casting Line 2 to be constructed in 2004, with a capacity of 15 tons of metal per hour and 70 tons of sand per hour consisting of the following equipment:
- (1) One (1) sand system consisting of units identified as P32B, P33B, P34B, P35B, P36B, P37B and P39B, controlled by baghouses BH1-6200, BH1-6300 and BH1- 6400, and exhausting to stacks 1-6200 and 1- 6300/6400 (1-6300/6400 is a single stack).
  - (2) One (1) pouring station identified as P13B controlled by dust collector DC3B, exhausting to stack 3B.

- (3) One (1) cooling line identified as P14B, controlled by baghouse BH1-6200, exhausting to stack 1-6200.
  - (4) One (1) shakeout unit identified as P16B, controlled by baghouse BH1-6200, exhausting to stack 1-6200.
  - (5) One (1) bad heat shakeout unit controlled by dust collector DC-5, exhausting to stack 5.
  - (6) Casting conveyors identified as P17B, P18B, P19B, P20B, P21B, P22B, controlled by cartridge collectors DC-6B, and DC-8B, exhausting inside the building and to stacks 6B and 7 and controlled by cartridge collector DC-7 which vents inside the building.
  - (7) One (1) Plant 1, Line 2 shot blast process consisting of three shot blast units identified as P40, P41 and P42 each with a maximum capacity of 5.3 tons of metal per hour and with a combined maximum capacity for all three of 11.3 tons of metal per hour, controlled by dust collector DC-8B, exhausting inside the building.
- (e) Plant 2, grey iron foundry line, constructed in 1997, consisting of the following:
- (1) One (1) indoor charge handling system, identified as ID # 1000A, with a maximum capacity of 10 tons of metal per hour;
  - (2) One (1) melting and pouring system, identified as ID # 1000, with a maximum capacity of 10 tons of metal per hour, utilizing a baghouse (ID # BH6100) for particulate control, exhausting to stack ID # 6100, consisting of the following equipment:
    - (A) Two (2) electric induction furnaces, each with a maximum capacity of 10 tons of metal per hour;
    - (B) One (1) electric holding furnace;
    - (C) Two (2) natural gas-fired ladle heaters, identified as ID # 6600 and 6610, each with a maximum heat input rate of 2 MMBtu per hour;
- Note: The maximum throughput of metal for the melting and pouring system is limited to 10 tons per hour by the maximum throughput from the charge handling system of 10 tons of metal per hour and the power control systems at the plant.
- (3) One (1) mold/casting cooling system, identified as ID # 2000, with a maximum capacity of 10 tons of metal per hour and 70 tons of sand per hour, utilizing one (1) baghouse (ID # BH6200) for particulate control, exhausting to stack ID #s 6200A and 6200B;
  - (4) One (1) casting shakeout system, identified as ID # 3000, with a maximum capacity of 10 tons of metal per hour and 70 tons of sand per hour, utilizing one (1) baghouse (ID # BH6200) for particulate control, exhausting to stack ID #s 6200A and 6200B;
  - (5) One (1) sand and waste sand handling system, identified as ID # 4000, with a maximum capacity of 70 tons of sand per hour, utilizing two (2) baghouses (BH6300 and BH6400) for particulate control, exhausting to stack ID #s 6300 and 6400;
  - (6) One (1) finishing operation, identified as ID # 8000, with a maximum capacity of 5.5 tons of metal per hour, consisting of trim presses, uncontrolled, and six (6) bench grinders, utilizing fabric filters (FFA, FFB, and FFC) for control.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)][326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units (Btu) per hour;
  - (1) Two (2) boilers, identified as P40 and P41, with a maximum heat capacity of 0.9 and 1.2 million British units per hour, respectively, each combusting natural gas;
- (b) Combustion source flame safety purging on startup;
- (c) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids;
- (d) Refractory storage not requiring air pollution control equipment;
- (e) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings;
- (f) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6 (Maintenance parts cleaner using mineral spirits solvent that is 100% recycled, with a maximum throughput of 120 gallons per 12 months); [326 IAC 8-3-2]
- (g) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;
- (h) Paved and unpaved roads and parking lots with public access;
- (i) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations; [326 IAC 6-3-2]
- (j) Filter or coalescer media change out;
- (k) Other activities or categories not previously identified:
  - (1) Six (6) scrap bays, identified as P47 through P52, each with PM emissions of approximately 0.16 pound per hour; [326 IAC 6-3-2]
  - (2) Two (2) sand towers, identified as P55 and P56, for the grey iron foundry line constructed in 1988 (emissions are included in sand handling calculations);
  - (3) Maintenance shop operations, identified as P58 and P59, each with PM emissions of approximately 0.1 pounds per hour; [326 IAC 6-3-2]
  - (4) Two (2) collector penthouses, identified as P53 and P54, each with PM emissions of approximately 0.16 pounds per hour; [326 IAC 6-3-2]
  - (5) One (1) material separator (cartridge filter fallout collection) with PM emissions approximately 0.6 pounds per hour; [326 IAC 6-3-2]
  - (6) One (1) paint booth, identified as ID # 6601, used for machine part maintenance coating operations, with a maximum throughput rate of 90 metal units per hour, utilizing dry filters for particulate control, exhausting to stacks ID # SNP-1 and SNP-2. Potential VOC emissions are approximately 0.08 pounds per hour; [326 IAC 6-3-2]
  - (7) One (1) scrap yard.
- (l) Three (3) sand towers for the grey iron foundry line constructed in 1997, which house the sand silos, bond silos, sand mullers, and sand conveyors used with the sand handling operations; and
- (m) Unvented trim press operations for pinching or cleaving protruding metal from castings with no emissions.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

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This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

## SECTION B

## GENERAL CONDITIONS

### B.1 Definitions [326 IAC 2-7-1]

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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 2-7) shall prevail.

### B.2 Permit Term [326 IAC 2-7-5(2)] [326 IAC 2-1.1-9.5]

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This permit 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.

### B.3 Enforceability [326 IAC 2-7-7]

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

### B.4 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(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 2-7-3 and 326 IAC 2-7-4(a).

### B.5 Severability [326 IAC 2-7-5(5)]

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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 [326 IAC 2-7-5(6)(D)]

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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 [326 IAC 2-7-5(6)(E)]

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- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

### B.8 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]

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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 a responsible official 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.

- (c) A responsible official is defined at 326 IAC 2-7-1(34).

B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
- (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent;
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
  - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ, may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) 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, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

The PMP extension notification does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall implement the PMPs, including any required record keeping, as necessary to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ,. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) 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 Emergency Provisions [326 IAC 2-7-16]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
  - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
  - (2) The permitted facility was at the time being properly operated;
  - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
  - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality,  
Compliance Section), or  
Telephone Number: 317-233-5674 (ask for Compliance Section)  
Facsimile Number: 317-233-5967

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
  - (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
  - (e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.
  - (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
  - (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
  - (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed in compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced 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 Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
- (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
  - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
  - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
  - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

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

**B.14 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]**

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- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

**B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]**

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- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, determines any of the following:
- (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those

parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

**B.16 Permit Renewal [326 IAC 2-7-4]**

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- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) Timely Submittal of Permit Renewal [326 IAC 2-7-4(a)(1)(D)]
  - (1) A timely renewal application is one that is:
    - (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
    - (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
  - (2) If IDEM, OAQ, upon receiving a timely and complete 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, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.
- (c) Right to Operate After Application for Renewal [326 IAC 2-7-3]  
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 2-7 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as being needed to process the application.
- (d) United States Environmental Protection Agency Authority [326 IAC 2-7-8(e)]  
If IDEM, OAQ, fails to act in a timely way on a Part 70 permit renewal, the U.S. EPA may invoke its authority under Section 505(e) of the Clean Air Act to terminate or revoke and reissue a Part 70 permit.

B.17 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 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, P.O. Box 6015  
Indianapolis, Indiana 46206-6015
- Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request [326 IAC 2-7-11(c)(3)].
- (d) No permit amendment or modification is required for the addition, operation or removal of a nonroad engine, as defined in 40 CFR 89.2.

B.18 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12 (b)(2)]

- (a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.
- (b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.19 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), without a prior permit revision, if each of the following conditions is met:
- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
- (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015

Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Regulation Development Branch - Indiana  
(AR-18J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-7-20(b), (c), or (e) and makes such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-7-20(b)(1), (c)(1), and (e)(2).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) Emission Trades [326 IAC 2-7-20(c)]  
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

#### B.20 Source Modification Requirement [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.

B.21 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2][IC 13-30-3-1]

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

- (a) Enter upon the Permittee's premises where a Part 70 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 any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor 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.22 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 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, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ, the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.

- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, I/M & Billing Section), to determine the appropriate permit fee.

**SECTION C**

**SOURCE OPERATION CONDITIONS**

Entire Source

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

- C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [40 CFR 52 Subpart P][326 IAC 6-3-2]
- (a) Pursuant to 40 CFR 52 Subpart P, particulate matter emissions from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.
  - (b) 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. This condition is not federally enforceable.
- C.2 Opacity [326 IAC 5-1]
- Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
  - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
- C.3 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. 326 IAC 4-1-3 (a)(2)(A) and (B) are not federally enforceable.
- C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]
- The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2. 326 IAC 9-1-2 is not federally enforceable.
- C.5 Fugitive Dust Emissions [326 IAC 6-4]
- The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.
- C.6 Operation of Equipment [326 IAC 2-7-6(6)]
- Except as otherwise provided by statute or rule, or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment is are in operation.
- C.7 Stack Height [326 IAC 1-7]
- The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326

IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4(d), (e), and (f), and 326 IAC 1-7-5(d) are not federally enforceable.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

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

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
Asbestos Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

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 the "responsible official" as defined by 326 IAC 2-7-1(34).
- (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 2-7-6(1)]**

#### **C.9 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, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (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 "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source 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.10 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 [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]**

#### **C.11 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]**

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Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the

Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

**C.12 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]**

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

**C.13 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]**

- (a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ( $\pm 2\%$ ) of full scale reading.
- (b) Whenever a condition in this permit requires the measurement of a (temperature or flow rate), the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ( $\pm 2\%$ ) of full scale reading.
- (c) The Preventive Maintenance Plan for the pH meter shall include calibration using known standards. The frequency of calibration shall be adjusted such that the typical error found at calibration is less than one pH point.
- (d) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

**Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]**

**C.14 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]**

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on December 9, 1996.
- (b) Upon direct notification by IDEM, OAQ, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level.

[326 IAC 1-5-3]

C.15 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

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If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the source must comply with the applicable requirements of 40 CFR 68.

C.16 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-7-5] [326 IAC 2-7-6]

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(a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. **If a Permittee is required to have an Operation, Maintenance and Monitoring (OMM) Plan (or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan) under 40 CFR 60/63, such plans shall be deemed to satisfy the requirements for a CPR for those compliance monitoring conditions.** A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:

- (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.
- (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan **or Operation, Maintenance and Monitoring (OMM) Plan (or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan)** and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.

**The OMM) Plan (or Parametric Monitoring and SMM Plan) shall be submitted within the time frames specified by the applicable 40 CFR60/63 requirements.**

(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:

- (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan **or Operation, Maintenance and Monitoring (OMM) Plan (or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan)**; or
- (2) If none of the reasonable response steps listed in the Compliance Response Plan **or Operation, Maintenance and Monitoring (OMM) Plan (or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan)** is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
- (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.

- (4) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
  - (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
  - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for a minor permit modification to the permit, and such request has not been denied.
  - (3) An automatic measurement was taken when the process was not operating.
  - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.
- (e) The Permittee shall record all instances when, in accordance with Section D, response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5]  
[326 IAC 2-7-6]

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- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

## **Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

### **C.18 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6]**

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- (a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:
- (1) Indicate estimated actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);
  - (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(32) ("Regulated pollutant which is used only for purposes of Section 19 of this rule") from the source, for purposes of Part 70 fee assessment.
- (b) The annual emission statement covers the twelve (12) consecutive month time period starting January 1 and ending December 31. The annual emission statement must be submitted to:
- Indiana Department of Environmental Management  
Technical Support and Modeling Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015
- The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

### **C.19 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]**

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

### **C.20 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]**

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- (a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The report required in (a) of this condition and 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, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) 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 the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) Reporting periods are based on calendar years.

### **Stratospheric Ozone Protection**

#### **C.21 Compliance with 40 CFR 82 and 326 IAC 22-1**

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Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

## SECTION D.1

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

(a) Core production facilities consisting of:

- (1) Three (3) core sand bins and four (4) isocure cold box core machines, identified as P4, P5, P6 and P7, with P4, P5, and P6 constructed in 1988 and P7 constructed in 1994, each with a maximum capacity of processing 0.5 ton of core sand per hour, 8.0 pounds of resin per ton of core sand per hour and 1.12 pounds of TEA catalyst per ton of core sand, utilizing a cartridge collector for particulate control, exhausting to stack ID No. 9 and (1) scrubber (ID Scrubber #1) for control of triethylamine (TEA) emissions from core machines P4 and P5, exhausting through stack ID No.10A and (1) one scrubber (ID Scrubber #2) for control of TEA emissions from core machines P6 and P7, exhausting through stack ID No.10B.

The source voluntarily utilizes two (2) TEA scrubbers.

(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 2-7-5(1)]

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the coremaking operation shall not exceed 6.52 pounds per hour when operating at a process weight rate of 4,000 pounds per hour.

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:

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

#### D.1.2 PSD Minor Limit [326 IAC 2-2]

Total PM and PM10 emissions from the coremaking operation shall each not exceed 0.41 pound per ton of core sand throughput or 0.82 pound per hour.

This emission limit, in addition to the emission limits listed in conditions D.2.1 and D.2.2, yield PM and PM10 emissions from the two (2) gray iron foundry lines constructed in 1988, that are each less than 100 tons per year. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable

#### D.1.3 Volatile Organic Compounds (VOC) [326 IAC 8-1-6][326 IAC 2-2]

In order to render the requirements of 326 IAC 8-1-6 (BACT) not applicable, the following conditions shall apply:

- (a) The total resin usage for core machines P4, P5, and P6, all constructed in 1988, shall not exceed 263,150 pounds of resin per 12 consecutive month period. The total amine gas catalyst usage for core machines P4, P5, and P6 shall not exceed 36,841 pounds of amine gas catalyst per 12 consecutive month period.
- (b) The VOC emissions (not including amine gas catalyst emissions) from each of the Isocure cold box core machines P4, P5, and P6 shall not exceed 0.05 pound per pound of resin.

This will limit the total VOC emissions from core machines P4, P5, and P6 to less than 25 tons per year before controls. Therefore, the three (3) isocure cold box core machines are not subject to the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements). Compliance with these limits is also necessary to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

- (c) Any change or modification which increases emissions of VOC from core machine P7 to greater than 25 tons per year must be approved by the Office of Air Quality before change can occur.

The VOC emission limits and usage limits shall also render the requirements of 326 IAC 2-2 (PSD) not applicable.

#### D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and the cartridge collector for particulate control.

### **Compliance Determination Requirements**

#### D.1.5 Particulate Control

In order to comply with conditions D.1.1 and D.1.2, the cartridge collector for particulate control shall be in operation and control emissions from the coremaking process at all times that the coremaking process is in operation.

### **Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

#### D.1.6 Visible Emissions Notations

- (a) Visible emission notations of the stack exhaust for the cartridge collector controlling the coremaking operation shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

#### D.1.7 Parametric Monitoring

The Permittee shall record the total static pressure drop across the cartridge collector used in conjunction with the coremaking operation, at least once per shift when the coremaking process is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the cartridge collector is outside the normal range of 1.0 and 6.0

inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C -Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

#### D.1.8 Cartridge Collector and Baghouse Inspections

An inspection shall be performed each calendar quarter of all cartridges and baghouses controlling the coremaking operation when venting to the atmosphere. Inspections required by this condition shall not be performed in consecutive months. All defective cartridges shall be replaced.

#### D.1.9 Broken or Failed Cartridge Collector and Baghouse Detection

In the event that cartridge collector or baghouse failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit. If operations continue after the bag failure is observed and it will be 10 days or more after the failure is observed before the failed units can be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.
- (b) For single compartment cartridge collectors or baghouses, if failure is indicated by a significant drop in the cartridge collector's or baghouses pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if cartridge or baghouse failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

### **Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

#### D.1.10 Record Keeping Requirements

- (a) To document compliance with Condition D.1.3 (a), the Permittee shall maintain records of the total amine gas catalyst and resin usages for the isocure cold box core machines P4, P5, and P6 each month. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

- (b) To document compliance with Condition D.1.3 (b) and (c), the Permittee shall maintain records of the type of binders used for all of the Isocure cold box core machines each month in order to demonstrate that the type of binder used has not changed. INTAT Precision, Inc. is permitted to use the following binders: Isocure Part I polymeric resin and Isocure Part II polymeric MDI type diisocyanate.
- (c) To document compliance with Condition D.1.6, the Permittee shall maintain records of visible emission notations of the coremaking operation cartridge collector stack exhaust.
- (d) To document compliance with Condition D.1.7, the Permittee shall maintain once per shift records of the total static pressure drop during normal operation when venting to the atmosphere.
- (e) To document compliance with Condition D.1.8, the Permittee shall maintain records of the results of the inspections required under Condition D.1.8.
- (f) To document compliance with Condition D.1.4, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.
- (g) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.1.11 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.3(a) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

## SECTION D.2

### Facility Description [326 IAC 2-7-5(15)]:

(b) One (1) gray iron foundry line, constructed in 1988, consisting of the following:

(1) Plant 1 Melting Operations originally constructed in 1988 and to be modified in 2004, consisting of:

(A) One (1) indoor charge handling system for the three (3) electric induction furnaces, with a total maximum throughput capacity of 20 tons of metal per hour, consisting of three (3) units, identified as P1, P2, and P3, each with a maximum throughput capacity of 10 tons of metal per hour;

Note: The power control system at the plant limits the total maximum throughput of the charge handling system to 20 tons of metal per hour.

(B) One (1) melting system, identified as P8, with a maximum capacity of 20 tons of metal per hour, consisting of three (3) electric induction furnaces, each with a melting capacity of 10 tons per hour, utilizing two (2) cartridge collectors for particulate control, exhausting to stack ID Nos. 3A and 3B;

Note: The maximum throughput of metal for the melting system is limited to 20 tons per hour by the maximum throughput from the charge handling system of 20 tons of metal per hour.

(C) One (1) holding system consisting of the following equipment:

(1) Two (2) electric holding furnaces, identified as P9, each with a holding capacity of 50 tons and a total maximum throughput capacity of 100 tons of metal per hour, utilizing two (2) cartridge collectors for particulate control, exhausting to stack ID Nos. 3A and 3B;

(2) Six (6) ladle heaters to be replaced in 2004, identified as P10, each with a heating capacity of 2.3 million British thermal units (MMBtu) per hour, each combusting natural gas, exhausting to stacks 12A, 12B and 12C.

(D) One (1) inoculation system consisting of two (2) metal treatment ladles to be replaced in 2004 identified as P11, each with a maximum throughput capacity of 10 tons of metal per hour, controlled by Dust Collectors DC-3A and DC-3B for particulate control, exhausting to a common stack 3B.

(c) Plant 1 Casting Line 1 constructed in 1988 with a capacity of 10 tons of metal and 75 tons of sand per hour, whose total capacity is further restricted by the overall melt capacity of 20 tons of metal/hour for both Lines 1 and 2, consisting of the following equipment:

(1) One (1) sand system consisting of units identified as P32A, P33A, P34A, P35A, P36A, P37A and P39A, controlled by baghouses DC2 and DC3A, exhausting to stacks 2 and 3A.

(2) One (1) pouring station identified as P13A controlled by dust collector DC2, exhausting to stack 2.

(3) One (1) cooling line identified as P14A, controlled by dust collector DC1B, exhausting to stack 1B.

(4) One (1) shakeout unit identified as P16A, controlled dust collectors DC1B and DC2, exhausting to stacks 1B and 2.

(5) Casting conveyors identified as P17A, P18A, P19A, P20A, P21A, P22A, controlled by baghouses DC-6A stack 6A.

(6) Shot blast processes consisting of two shot blast units identified as P26, and P27

with a total capacity of 12 tons of metal/hour, controlled by dust collector DC-8A, exhausting to stack 8A.

(7) Grinding processes identified as P29 and P30, with a total capacity of 12 tons of metal/hour, controlled by dust collector DC-8A, exhausting to stack 8A .

(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 2-7-5(1)]**

**D.2.1 BACT for PM<sub>10</sub>**

(a) Pursuant to 326 IAC 2-2-3, the Permittee shall comply with the following BACT required emission limits for PM<sub>10</sub> from the Plant 1, Line 1 processes (PM<sub>10</sub> limits include both filterable and condensable).

Process	Stack No.	PM <sub>10</sub> Emission Limitation (gr/dscf)	PM <sub>10</sub> Limitation (lb/hr)
2 Metal Treatment Ladles	3B	0.003	1.70

(b) Pursuant to 326 IAC 2-2-3, opacity for stacks No. 3A, and 3B shall not exceed ten percent (10%) for more than three (3) consecutive six (6) minute averaging periods.

(c) The ladle heaters are exclusively natural gas fired and are therefore considered to meet the requirements for BACT.

**D.2.2 PSD Minor Limit [326 IAC 2-2]**

The charge handling operation (P1, P2, P3) shall comply with the following limits:

(a) Emissions of PM and PM<sub>10</sub> shall each not exceed 0.24 pound per hour.

(b) Opacity shall not exceed an average of three percent (3%) based on four (4) consecutive readings using 40 CFR 60, Appendix A, Method 9.

This emission limit, yields PM and PM<sub>10</sub> emissions from the gray iron foundry line 1, constructed in 1988, that is less than 100 tons per year. Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable to this line.

**D.2.3 PSD Minor Limit [326 IAC 2-2]**

Emissions of PM and PM<sub>10</sub> and the throughput of metal and sand for Plant 1, Line 1 constructed in 1988, shall be limited as follows:

Process	Material	PM Emission Limitation (Lb/ton material)	Throughput Limit (Tons/12 consecutive month period)
6 Ladles Heaters	Metal	0.20	90,000
2 Metal Treatment Inoculation Ladles	Metal	0.20	90,000

Process	Material	PM/PM10 Emission Limitation (Lb/ton material)	Throughput Limit (Tons/12 consecutive month period)
Melting System (P8) and Holding Furn. (P9)	Metal Melted	0.20	90,000
Inoculation (P11)	Metal	0.20	90,000
Pouring (P13A)	Metal Poured	0.17	90,000
Casting Cooling (P14A)	Metal	0.17	90,000
Shakeout (P16A)	Metal	0.20	90,000
Conveying (P17A - P22A)	Metal	0.16	90,000
Shotblast Operations (P26 & P27)	Metal	0.20	90,000
Sand Handling	Mold Sand	0.05	777,600
Grinding (P29 - P30)	Metal	0.20	90,000

Compliance with the throughput limits shall be determined at the end of each month.

These emission limits and the throughput limits, combined with limited PM and PM10 emissions from the charge handling operation, the core making operation, the melt system and inoculation process yield PM and PM10 emissions from the grey iron foundry line 1 constructed in 1988 that are less than 100 tons per year. Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable.

**D.2.4 Particulate [326 IAC 6-3-2]**

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rates from the Plant 1, Line 1 grey iron foundry line shall be limited as follows:

Unit	Stack ID	Process Weight Rate (ton per hour)	Allowable Emissions (pounds per hour)
Charge Handling (P1, P2, P3)	N/A	20.0	30.51
Melting System - Electric Induction Furnace (P8) and Holding Furnaces (P9)	3A, 3B	20.0	30.51
Pouring (P13A)*	2	85.0	49.67
Casting Cooling (P14A)*	1B	85.0	49.67
Shakeout (P16A)*	1B	85.0	49.67

Unit	Stack ID	Process Weight Rate (ton per hour)	Allowable Emissions (pounds per hour)
Conveying (P17A - P22A)	6B, 7	5.0	12.05
Grinding (P29 - P30)	8A	3.0	8.56
Sand Handling (P32 - P39)	2, 3A	75.00	48.43

\* Includes metal and sand throughput.

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

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

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

or

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and } P = \text{process weight rate in tons per hour}$$

**D.2.5 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]**

- (a) VOC emissions from the inoculation operation (P11) shall not exceed 0.005 pound of VOC per ton of metal throughput.
- (b) VOC emissions from the pouring operation (P13A), cooling operation (P14A) and shakeout (P16A) combined shall not exceed 0.8 pound of VOC per ton of metal throughput.
- (c) The throughput of metal to each of the inoculation (P11), pouring (P13A), and shakeout operations (P16A) shall not exceed 61,500 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

The metal throughput limit and the VOC emission limits yield VOC emissions from the foundry operations constructed in 1988 that are less than 25 tons per year. Therefore, the requirements of 326 IAC 8-1-6 (New Facilities, General Reduction Requirements) do not apply.

**D.2.6 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.

**Compliance Determination Requirements**

**D.2.7 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]**

- (a) Within 60 days after achieving maximum capacity but no later than 180 days after startup, in order to demonstrate compliance with Conditions D.2.1, the Permittee shall perform PM<sub>10</sub> testing (for both filterable and condensible PM<sub>10</sub>) for the following facilities utilizing methods as approved by the Commissioner
  - (1) the cartridge collector controlling the ladle heaters (P10) exhausting to stack 3A.

- (2) the baghouse controlling the metal inoculation heaters (P11) exhausting to stack 3B.
- (b) Within 180 days after issuance of this Part 70 permit, in order to demonstrate compliance with Conditions D.2.3 and D.2.4, the Permittee shall perform PM and PM<sub>10</sub> testing for the following facilities utilizing methods as approved by the Commissioner:
- (1) the cartridge collectors controlling the melting system (P8), (P9) and the inoculation operation (P11) exhausting to stacks 3A and 3B;
  - (2) the cartridge collector controlling the pouring operation (P13A) exhausting to stack 2;
  - (3) the cartridge collector controlling the cooling line, P14A, of the casting cooling operation exhausting to stack 1A . Testing will be required on the cartridge collector;
  - (4) the cartridge collectors controlling the shakeout operation (P16A) exhausting to stack 1B;
  - (5) the cartridge collectors controlling the conveying operation (P17A - P22A) exhausting to stack 6A;
  - (6) the cartridge collectors controlling the shotblast (P26 & P27) and grinding operations (P29 & P30) exhausting to stack 7 and 8A ; and
  - (7) the cartridge collectors controlling the sand handling operations (P32A - P37A, & P39A) exhausting to stacks 3A and 2.

These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM<sub>10</sub> includes filterable and condensable PM<sub>10</sub>. Testing shall be conducted in accordance with Section C- Performance Testing.

#### D.2.8 Particulate Control

In order to comply with conditions D.2.3 and D.2.4, the cartridge collectors for particulate control shall be in operation and control emissions from the melting, ladle heaters, inoculation, pouring, cooling, shakeout, conveying, shotblasting, grinding, and sand handling processes at all times that these facilities are in operation.

### **Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

#### D.2.9 Visible Emissions Notations

- (a) Visible emission notations of the charge handling operation and the stack exhausts for the melting, ladle heating, inoculation, pouring, cooling, shakeout, conveying, shotblasting, grinding, and sand handling processes shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

#### D.2.10 Parametric Monitoring

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The Permittee shall record the total static pressure drop across each of the baghouses and cartridge collectors used in conjunction with the melting, ladle heating, inoculation, pouring, cooling, shakeout, conveying, shotblasting, grinding, and sand handling processes, at least once per shift when the melting, inoculation, pouring, cooling, shakeout, conveying, shotblasting, grinding, and sand handling processes are in operation when venting to the atmosphere. When for any one reading, the pressure drop across any of the cartridge collectors is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

#### D.2.11 Baghouse and Cartridge Collector Inspections

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An inspection shall be performed each calendar quarter of all baghouses and cartridges controlling the melting, ladle heating, inoculation, pouring, cooling, shakeout, conveying, shotblasting, grinding, and sand handling processes when venting to the atmosphere. Inspections required by this condition shall not be performed in consecutive months. All defective cartridges shall be replaced.

#### D.2.12 Broken or Failed Baghouse and Cartridge Collector Detection

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In the event that cartridge collector failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit. If operations continue after the bag failure is observed and it will be 10 days or more after the failure is observed before the failed units can be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.
- (b) For single compartment baghouses and cartridge collector, if failure is indicated by a significant drop in the collector's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if collector failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

### **Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

#### D.2.13 Record Keeping Requirements

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- (a) To document compliance with Condition D.2.3, the Permittee shall maintain the following records:

- (1) The metal throughput to the melting, inoculation, pouring, cooling, shakeout, conveying, shotblasting, and grinding operations for each month.
- (2) The sand throughput to the sand handling operation for each month.

Records of metal throughput to the inoculation, pouring, cooling, and shakeout operations shall also be used to document compliance with condition D.2.5(d). Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

- (b) To document compliance with Condition D.2.9, the Permittee shall maintain records of visible emission notations of the charge handling operation and the stack exhausts for the melting, inoculation, pouring, cooling, shakeout, conveying, shotblasting, grinding, and sand handling processes once per shift.
- (c) To document compliance with Condition D.2.10, the Permittee shall maintain once per shift records of the total static pressure drop during normal operation when venting to the atmosphere.
- (d) To document compliance with Condition D.2.11, the Permittee shall maintain records of the results of the inspections required under Condition D.2.11.
- (e) To document compliance with Condition D.2.6, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.
- (f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.2.14 Reporting Requirements

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A quarterly summary of the information to document compliance with Conditions D.2.3 and D.2.5(d) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

## SECTION D.3

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

One (1) gray iron foundry line, constructed in 1988, consisting of the following:

- (d) Plant 1, Casting Line 2 to be constructed in 2004, with a capacity of 15 tons of metal and 70 tons of sand per hour consisting of the following equipment:
  - (1) One (1) sand system consisting of units identified as P32B, P33B, P34B, P35B, P36B, P37B and P39B, controlled by baghouses BH1-6200, BH1-6300 and BH1-6400, and exhausting to stacks 1-6200 and 1- 6300/6400 (1-6300/6400 is a single stack).
  - (2) One (1) pouring station identified as P13B controlled by baghouse DC3B, exhausting to stack 3B.
  - (3) One (1) cooling line identified as P14B, controlled by baghouse BH1-6200, exhausting to stack 1-6200.
  - (4) One (1) shakeout unit identified as P16B, controlled by baghouse BH1-6200, exhausting to stack 1-6200.
  - (5) One (1) bad heat shakeout unit controlled by cartridge collector DC-5, exhausting to stack 5.
  - (6) Casting conveyors identified as P17B, P18B, P19B, P20B, P21B, P22B, controlled by baghouses DC-6B, and DC-8B, exhausting inside the building and to stacks 6B and 7 and controlled by cartridge collector DC-7 which vents inside the building.
  - (7) One (1) Plant 1, Line 2 shot blast process consisting of three shot blast units identified as P40, P41 and P42 with a maximum capacity of 5.3 tons of metal per hour and with a combined maximum capacity for all three of 11.3 tons of metal per hour, controlled by cartridge collector DC-8B, 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 2-7-5(1)]

#### D.3.1 BACT for PM<sub>10</sub>

- (a) Pursuant to 326 IAC 2-2-3, the Permittee shall comply with the following BACT required emission limits for PM<sub>10</sub> from the Plant 1, Line 2 processes (PM<sub>10</sub> limits include both filterable and condensable).
  - (b) The OAQ may revise this permit to adjust the total PM<sub>10</sub> condensable limitation based on the results of stack test required in Condition D.3.6. The Department will provide an opportunity for public notice and comment prior to finalizing any permit revision.
  - (c) Total PM<sub>10</sub> (including filterable and condensable) emissions from melting, pouring, cooling, shakeout, conveying, shotblast, sand handling and bad heat shakeout operations of Plant 1, Line 2 shall not exceed 1.813 pounds per ton of metal.

Stack No.	Process	Collector Air Flow Rate (cuft /min)	Filterable PM10 Emission Limitation (gr/dscf) / (lb/hr)	Total PM10 Emission Limitation(lb/ton) Filterable & Condensable
3B	Pouring, Melt & Metal Treatment	66,225	0.003/ 1.7	0.633
1-6300 & 1-6400	Sand Handling (P32B-P37B & P39B)	44,000	0.003/ 1.13	0.02
1-6200	Casting Cool (P14B), Shakeout (P16B) & Sand Handling (P32B-P37B & P39B)	111,000	0.003/ 2.85	1.045
6B	Shotblast (P40, 41, & 42)	40,000	0.003/ 1.03	0.085
5	Bad Heat Shakeout	17,400	0.003 0.45	0.03
Total				1.813

(d) Pursuant to 326 IAC 2-2-3, opacity for stacks No. 3B, 1-6200, 6B, 1-6300/6400 and 5 shall not exceed ten percent (10%) for more than three (3) consecutive six (6) minute averaging periods.

**D.3.2 PM Emissions**

In order to render PSD not applicable for PM the following limits shall apply:

- (a) PM filterable emissions from pouring, cooling, shakeout, conveying, shotblast, sand handling and bad heat shakeout operations of Plant 1, Line 2 shall not exceed 0.003 gr/dscf equivalent to 0.38 pounds per ton of metal.
- (b) Metal throughput to Plant 1, casting Line 2 shall not exceed 61,500 tons per 12 consecutive month period with compliance determined at the end of each month. During the first 12 months of operation the limit shall be 5,125 tons per month.
- (c) Sand throughput to Plant 1, casting Line 2 shall not exceed 215,230 tons per 12 consecutive month period with compliance determined at the end of each month. During the first 12 months of operation the limit shall be 17,935 tons per month.

**D.3.3 Particulate [326 IAC 6-3-2]**

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rates from the Line 2 grey iron foundry line shall be limited as follows:

Unit	Stack ID	Process Weight Rate (ton per hour)	Allowable Emissions (pounds per hour)
Pouring (P13B)*	3B	85.0	49.67
Casting Cooling (P14B)*	1-6200	85.0	49.67
Shakeout (P16B)*	1-6200	85.0	49.67
Conveying (P17B - P22B)	6B & 8B	15.0	25.16
Shotblast Operations (P40,41 & 42)	6B	9.0	17.87

Unit	Stack ID	Process Weight Rate (ton per hour)	Allowable Emissions (pounds per hour)
Sand Handling (P32B - P37B & P39B)	1-6200 & 1-6300/6400	70.0	47.76

\* Includes metal and sand throughput

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

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

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

or

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

**D.3.4 VOC Emissions [326 IAC 2-2] [326 IAC 8-1-6]**

In order to render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 8-1-6(BACT) not applicable for VOC's, the following conditions shall apply:

- (a) The metal throughput to Line 2 of the Plant 1 process shall not exceed 61,500 tons per 12 consecutive month period, with compliance determined at the end of each month.
- (b) VOC emissions shall not exceed 0.8 lb/ ton of metal from the pouring, cooling, shakeout and bad heat shakeout combined.
- (c) The sand throughput to Line 2 of the Plant 1 process shall not exceed 215,230 tons per 12 consecutive month period, with compliance determined at the end of each month.

These limits will equate to a total VOC emission level from the Plant 1 operations of less than 25 tons of VOC per 12 consecutive month period, therefore the requirements of PSD and 326 IAC 8-1-6 will not apply.

**D.3.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.

**Compliance Determination Requirements**

**D.3.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]**

(a) Within 60 days after achieving maximum capacity but no later than 180 days after startup, in order to demonstrate compliance with Conditions D.3.1 and D.3.2, D.3.3 the Permittee shall perform PM and PM<sub>10</sub> testing (for both filterable and condensable PM<sub>10</sub>) for the following facilities utilizing methods as approved by the Commissioner

- (1) the baghouse, DC3B, controlling the pouring operation (P13B) exhausting to stack 3B.
- (2) the baghouse BH1-6200 controlling the cooling operation (P14B) and the shakeout process (P16B) exhausting to stack 1- 6200.
- (3) the cartridge collectors DC 6B and DC8B controlling the casting conveyor and the shotblast system, exhausting to stack 6B.
- (4) baghouses BH 1-6300 and BH 1-6400 controlling the sand handling system exhausting to stack 1-6300/6400.

(5) the cartridge collector DC5, controlling the bad heat shakeout operation exhausting to stack 5.

(b) Within 60 days after achieving maximum capacity but no later than 180 days after startup of the Line 2 modifications, in order to demonstrate compliance with Condition D.3.4, the Permittee shall perform VOC testing for the pouring (P13B), cooling (P14B), shakeout (P16B), and the bad heat shakeout operations exhausting to stacks 3B, 5 and 1-6200 utilizing methods as approved by the Commissioner.

These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

#### D.3.7 Particulate Control

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Pursuant to CP-139-8845-00011, issued on December 10, 1997, and in order to comply with conditions D.3.1 and D.3.2, the cartridge collectors and baghouses for particulate control shall be in operation and control emissions from the pouring, cooling, shakeout, conveying, shotblasting, and sand handling processes at all times that these facilities are in operation.

### **Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

#### D.3.8 Visible Emissions Notations

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- (a) Visible emission notations of the stack exhausts for the pouring, cooling, shakeout, conveying, shotblasting bad heat shakeout and sand handling processes shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

#### D.3.9 Parametric Monitoring

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The Permittee shall record the total static pressure drop across each of the baghouses and cartridge collectors used in conjunction with the pouring, cooling, shakeout, conveying, shotblasting and sand handling processes, at least once per shift when the pouring, cooling, shakeout, conveying, shotblasting and sand handling processes are in operation when venting to the atmosphere. When for any one reading, the pressure drop across any of the baghouses is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

#### D.3.10 Baghouse and Cartridge Collector Inspections

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An inspection shall be performed each calendar quarter of all baghouses and cartridges controlling the pouring, cooling, shakeout, conveying, shotblasting and sand handling processes when venting to the atmosphere. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.

#### D.3.11 Broken or Failed Baghouse and Cartridge Collector Detection

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In the event that a baghouse or cartridge collector failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit. If operations continue after the bag failure is observed and it will be 10 days or more after the failure is observed before the failed units can be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.
- (b) For single compartment cartridge collectors, if failure is indicated by a significant drop in the cartridge collector's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if cartridge failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

### **Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

#### D.3.12 Record Keeping Requirements

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- (a) To document compliance with Condition D.3.2, the Permittee shall maintain records of the amount of sand and metal throughput of the operation.
- (b) To document compliance with Condition D.3.5, the Permittee shall maintain records of any additional inspections prescribed by the Preventative Maintenance Plan.
- (c) To document compliance with Condition D.3.9, the Permittee shall maintain once per shift records of the static pressure drop during normal operation when venting to the atmosphere.
- (d) To document compliance with Condition D.3.10, the Permittee shall maintain records of the results of the inspections required under Condition D.2.10.
- (e) To document compliance with Condition D.3.8, the Permittee shall maintain records of visible emission notations of the charge handling operation and the stack exhausts for the melting, inoculation, pouring, cooling, shakeout, conveying, shotblasting and sand handling processes taken once per shift.
- (f) All records shall be maintained in accordance with Section C- General Record Keeping Requirements, of this permit.

#### D.3.13 Reporting Requirements

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A quarterly summary of the information to document compliance with Condition D.3.4 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

## SECTION D.4 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

(c) Plant 2, one (1) grey iron foundry line, constructed in 1997, consisting of the following:

- (1) One (1) indoor charge handling system, identified as ID # 1000A, with a maximum capacity of 10 tons of metal per hour;
- (2) One (1) melting and pouring system, identified as ID # 1000, with a maximum capacity of 10 tons of metal per hour, utilizing a baghouse (ID # BH6100) for particulate control, exhausting to stack ID # 6100, consisting of the following equipment:
  - (A) Two (2) electric induction furnaces, each with a maximum capacity of 10 tons of metal per hour;
  - (B) One (1) electric holding furnace;
  - (C) Two (2) natural gas-fired ladle heaters, identified as ID # 6600 and 6610, each with a maximum heat input rate of 2 MMBtu per hour;

Note: The maximum throughput of metal for the melting and pouring system is limited to 10 tons per hour by the maximum throughput from the charge handling system of 10 tons of metal per hour and the power control systems at the plant.

- (3) One (1) mold/casting cooling system, identified as ID # 2000, with a maximum capacity of 10 tons of metal per hour and 70 tons of sand per hour, utilizing one (1) baghouse (ID # BH6200) for particulate control, exhausting to stack ID #s 6200A and 6200B;
- (4) One (1) casting shakeout system, identified as ID # 3000, with a maximum capacity of 10 tons of metal per hour and 70 tons of sand per hour, utilizing one (1) baghouse (ID # BH6200) for particulate control, exhausting to stack ID #s 6200A and 6200B;
- (5) One (1) sand and waste sand handling system, identified as ID # 4000, with a maximum capacity of 70 tons of sand per hour, utilizing two (2) baghouses (BH6300 and BH6400) for particulate control, exhausting to stack ID #s 6300 and 6400;
- (6) One (1) finishing operation, identified as ID # 8000, with a maximum capacity of 5.5 tons of metal per hour, consisting of trim presses, uncontrolled, and six (6) bench grinders, utilizing fabric filters (FFA, FFB, and FFC) for control.

(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 2-7-5(1)]

#### D.4.1 PSD Minor Limit [326 IAC 2-2]

The charge handling operation (1000A) shall comply with the following limits:

- (a) Emissions of PM and PM10 shall each not exceed 0.12 pound per hour.
- (b) Opacity shall not exceed an average of three percent (3%) based on four (4) consecutive readings using 40 CFR 60, Appendix A, Method 9.

This emission limit, in addition to the emission limits listed in condition D.3.2, yield PM and PM10 emissions from the one (1) gray iron foundry line, constructed in 1997, that are each less than 100 tons per year. Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable.

#### D.4.2 PSD Minor Limit [326 IAC 2-2]

Emissions of PM and PM10 and the throughput of metal and sand for the one (1) grey iron foundry line, constructed in 1997, shall be limited as follows:

Process	Material	PM/PM10 Emission Limitation (lb/ton material)	Throughput Limit (tons per 12 consecutive month period)
Melting & Pouring (1000)	Metal	0.70	70,000
Mold/Casting Cooling (2000)	Metal	0.60	70,000
Shakeout (3000)	Metal	0.80	70,000
Sand & Waste Sand Handling System (4000)	Mold Sand	0.10	490,000
Grinding/Cleaning (8000)	Metal	0.03	48,180 (Maximum throughput)

Compliance with the throughput limits shall be determined at the end of each month.

These emission limits and the throughput limits, combined with limited PM and PM10 emissions from the charge handling operation, yield PM and PM10 emissions from the one (1) grey iron foundry line constructed in 1997 that are each less than 100 tons per year. Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable. Any emissions from the electric holding furnace are accounted for in the emissions from melting in the electric induction furnaces.

D.4.3 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rates from the one (1) grey iron foundry line shall be limited as follows:

Unit	Stack ID	Process Weight Rate (ton per hour)	Allowable Emissions (pounds per hour)
Charge Handling (1000A)	NA	10.0	19.18
Melting & Pouring (1000)	6100	10.0	19.18
Mold/Casting Cooling (2000)*	6200A	80.0	49.06
Casting Shakeout (3000)*	6200B	80.0	49.06
Sand & Waste Sand Handling (4000)	6300	70.0	47.77
Grinding/Cleaning (8000)	FFA, FFB, FFC	5.50	12.85

\* Includes metal and sand throughput.

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

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

or

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40$$

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

**D.4.4 Volatile Organic Compounds (VOC)[326 IAC 2-2-3] [326 IAC 8-1-6]**

- (a) VOC emissions from the pouring operation (1000) and cooling operation (2000) and shakeout operation (3000) combined shall not exceed 0.8 pound of VOC per ton of metal throughput;
- (b) The throughput of metal to each of the pouring (1000), cooling (2000), and shakeout operation (3000) shall not exceed 61,500 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

The metal throughput limit and the VOC emission limits yield VOC emissions from the one (1) foundry line constructed in 1997 that are less than 25 tons per year. Therefore, the requirements of 326 IAC 8-1-6 (New Facilities, General Reduction Requirements) do not apply.

**D.4.5 Hazardous Air Pollutants (HAPs) [326 IAC 2-4.1-1]**

Emissions of manganese for the one (1) grey iron foundry line, constructed in 1997, shall be limited as follows:

Process	Manganese Emission Limitation (lb/hr)
Melting & Pouring (1000)	1.92
Mold/Casting Cooling (2000)	0.01
Shakeout (3000)	0.28
Grinding/Cleaning (8000)	0.06

These emission limits yield manganese emissions from the one (1) grey iron foundry line constructed in 1997 that are less than 10 tons per year. Therefore, the requirements of 326 IAC 2-4.1-1 (New Source Toxics Control) are not applicable.

**D.4.6 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.

**Compliance Determination Requirements**

**D.4.7 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]**

- (a) During the period between January, 2005 and June, 2005, in order to demonstrate compliance with Conditions D.4.2, D.4.3, and D.4.5, the Permittee shall perform PM, PM-10, and manganese testing for the following facilities utilizing methods as approved by the Commissioner:

- (1) the baghouse controlling the melting & pouring operation (1000) exhausting to stack 6100;
- (2) the baghouse controlling the mold/casting cooling system (2000) exhausting to stack 6200A;

- (3) the baghouse controlling the shakeout operation (3000) exhausting to stack 6200B;
- (4) the baghouse controlling the sand handling system (4000) exhausting to stack 6300 (PM and PM10 testing only);
- (5) the baghouse controlling the waste sand handling system (7000) exhausting to stack 6400 (PM and PM-10 testing only); and
- (6) the baghouse controlling the grinding/cleaning operation (8000) exhausting to stacks FFA, FFB, and FFC.

These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensable PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

- (b) Within 180 days after issuance of this Part 70 permit, in order to demonstrate compliance with Condition D.4.4, the Permittee shall perform VOC testing for the pouring (1000), cooling (2000), and shakeout operation (3000) utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

#### D.4.8 Particulate Control

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Pursuant to CP-139-8845-00011, issued on December 10, 1997, and in order to comply with conditions D.4.2 and D.4.3, the baghouses and fabric filters for particulate and metallic HAP control shall be in operation and control emissions from the melting, pouring, cooling, shakeout, sand handling, waste sand handling, and grinding/cleaning processes at all times that these facilities are in operation.

### **Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

#### D.4.9 Visible Emissions Notations

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- (a) Visible emission notations of the charge handling operation and the stack exhausts for the melting, pouring, cooling, shakeout, sand handling, waste sand handling, and grinding/cleaning processes shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

#### D.4.10 Parametric Monitoring

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The Permittee shall record the total static pressure drop across each of the baghouses used in conjunction with the melting, pouring, cooling, shakeout, sand handling, waste sand handling, and grinding/cleaning processes, at least once per shift when the melting, pouring, cooling, shakeout, sand handling, waste sand handling, and grinding/cleaning processes are in operation when venting

to the atmosphere. When for any one reading, the pressure drop across any of the baghouses is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

#### D.4.11 Baghouse and Cartridge Collector Inspections

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An inspection shall be performed each calendar quarter of all baghouses and cartridges controlling the melting, pouring, cooling, shakeout, sand handling, waste sand handling, and grinding/cleaning processes when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.

#### D.4.12 Broken or Failed Bag and Cartridge Collector Detection

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In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit. If operations continue after the bag failure is observed and it will be 10 days or more after the failure is observed before the failed units can be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.
- (b) For single compartment cartridge collectors, if failure is indicated by a significant drop in the cartridge collector's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if cartridge failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

### **Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

#### D.4.13 Record Keeping Requirements

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- (a) To document compliance with Condition D.4.9, the Permittee shall maintain records of visible emission notations of the charge handling operation and the stack exhausts for the melting, inoculation, pouring, cooling, shakeout, conveying, shotblasting and sand handling processes taken once per shift.
- (b) To document compliance with Condition D.4.10, the Permittee shall maintain once per shift records of the static pressure drop during normal operation when venting to the atmosphere.
- (c) To document compliance with Condition D.4.11, the Permittee shall maintain records of the

results of the inspections required under Condition D.4.11.

- (d) To document compliance with Condition D.4.6, the Permittee shall maintain records of any additional inspections prescribed by the Preventative Maintenance Plan.
- (e) All records shall be maintained in accordance with Section C- General Record Keeping Requirements, of this permit.

#### D.4.14 Reporting Requirements

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A quarterly summary of the information to document compliance with Condition D.4.4 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

## SECTION D.5 FACILITY CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

#### Insignificant Activities:

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units (Btu) per hour;
  - (1) Two (2) boilers, identified as P40 and P41, with a maximum heat capacity of 0.9 and 1.2 million British units per hour, respectively, each combusting natural gas;
- (b) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6 (Maintenance parts cleaner using mineral spirits solvent that is 100% recycled, with a maximum throughput of 120 gallons per 12 months); [326 IAC 8-3-2]
- (c) Other activities or categories not previously identified:
  - (1) One (1) paint booth, identified as ID # 6601, used for machine part maintenance coating operations, with a maximum throughput rate of 90 metal units per hour, utilizing dry filters for particulate control, exhausting to stacks ID # SNP-1 and SNP-2. Potential VOC emissions are approximately 0.08 pounds per hour; [326 IAC 6-3-2]

(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 2-7-5(1)]

#### D.5.1 Particulate Matter (PM) [326 IAC 6-2]

Pursuant to 326 IAC 6-2-4(a) (Particulate Emission Limitations for Sources of Indirect Heating), for Q less than 10 MMBtu per hour, the pounds of PM emitted per million Btu heat input shall not exceed 0.6 pound per MMBtu. Therefore, PM emissions from each of the boilers, identified as P40 and P41, shall not exceed 0.6 pound per MMBtu heat input.

#### D.5.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations constructed after January 1, 1980, the Permittee shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

#### D.5.3 Particulate Matter (PM) [40 CFR 52 Subpart P]

Pursuant to 40 CFR 52 Subpart P, the PM from the one (1) paint booth, identified as #6601, shall not exceed the pound per hour emission rate established as E in the following formula:

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:

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

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

#### D.5.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the one (1) paint booth and its control device.

### Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

#### D.5.5 Particulate [326 IAC 6-3-2(d)]

Pursuant to 326 IAC 6-3-2(d), particulate from the one (1) paint booth, identified as #6601, shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications. This requirement to operate the control is not federally enforceable.

#### D.5.6 Monitoring

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stacks (SNP-1 and SNP-2) while the one (1) paint booth is in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

### Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

#### D.5.7 Record Keeping Requirements

- (a) To document compliance with Condition D.5.6, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

### PART 70 OPERATING PERMIT CERTIFICATION

Source Name: INTAT Precision Inc.  
Source Address: State Road 3 North, Rushville, Indiana 46173  
Mailing Address: P.O. Box 488, Rushville, Indiana 46173  
Part 70 Permit No.: T139-17898-00011

**This certification shall be included when submitting monitoring, testing reports/results or other documents as required by 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:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH  
100 North Senate Avenue  
P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
Phone: 317-233-5674  
Fax: 317-233-5967**

**PART 70 OPERATING PERMIT  
EMERGENCY OCCURRENCE REPORT**

Source Name: INTAT Precision Inc.  
Source Address: State Road 3 North, Rushville, Indiana 46173  
Mailing Address: P.O. Box 488, Rushville, Indiana 46173  
Part 70 Permit No.: T139-17898-00011

**This form consists of 2 pages**

**Page 1 of 2**

- ☛ This is an emergency as defined in 326 IAC 2-7-1(12)
  - The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
  - The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16.

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency:

Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

**Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency?    Y    N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF AIR QUALITY  
 COMPLIANCE DATA SECTION**

**Part 70 Quarterly Report**

Source Name: INTAT Precision Inc.  
 Source Address: State Road 3 North, Rushville, Indiana 46173  
 Mailing Address: P.O. Box 488, Rushville, Indiana 46173  
 Part 70 Permit No.: T139-17898-00011  
 Facility: core machines P4, P5, P6  
 Parameter: VOC emissions  
 Limit: The total resin usage for core machines P4, P5, and P6, all constructed in 1988, shall not exceed 263,150 pounds of resin per 12 consecutive month period. The total amine gas catalyst usage for core machines P4, P5, and P6 shall not exceed 36,841 pounds of amine gas catalyst per 12 consecutive month period.

YEAR: \_\_\_\_\_

Month	Core Machine ID	Column 1		Column 2		Column 1 + Column 2	
		Resin Usage This Month (lbs)	Amine gas Catalyst Usage This Month (lbs)	Resin Usage for Previous 11 Months (lbs)	Amine gas Catalyst Usage for Previous 11 Months (lbs)	12 Month Total Resin Usage (lbs)	12 Month Total Amine gas Catalyst Usage (lbs)
	P4, P5, P6						
	P4, P5, P6						
	P4, P5, P6						

- 9 No deviation occurred in this quarter.
- 9 Deviation/s occurred in this quarter.  
 Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
 Title / Position: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF AIR QUALITY  
 COMPLIANCE DATA SECTION**

**Part 70 Quarterly Report**

Source Name: INTAT Precision Inc.  
 Source Address: State Road 3 North, Rushville, Indiana 46173  
 Mailing Address: P.O. Box 488, Rushville, Indiana 46173  
 Part 70 Permit No.: T139-17898-00011  
 Facility: Line 1 of two (2) grey iron foundry lines constructed in 1988  
 Parameter: PM and PM10 emissions and VOC emissions  
 Limit: The throughput of metal to each of the melting (P8 & P9), ladle (P10), inoculation (P11), pouring ( P13A), cooling (P14A), shakeout operations (P16A), conveying (P17A-P22A), shotblast (P26 & P27) and Grinding (P29&P30) shall not exceed 37,023 tons per twelve (12) consecutive month period.

YEAR: \_\_\_\_\_

Month	Facility ID	Column 1	Column 2	Column 1 + Column 2
		Metal Throughput This Month (tons)	Metal Throughput for Previous 11 Months (tons)	12 Month Total Metal Throughput (tons)
	P8, P9			
	P10, P11			
	P13A			
	P14A			
	P16A			
	P17A - P22A			
	P26 & P27			
	P29 & P30			
	P8, P9			
	P10, P11			
	P13A			
	P14A			
	P16A			
	P17A - P22A			
	P26 & P27			
	P29 & P30			
	P8, P9			

Month	Facility ID	Column 1	Column 2	Column 1 + Column 2
		Metal Throughput This Month (tons)	Metal Throughput for Previous 11 Months (tons)	12 Month Total Metal Throughput (tons)
	P10, P11			
	P13A			
	P14A			
	P16A			
	P17A- P22A			
	P26 & P27			
	P29 & P30			

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF AIR QUALITY  
 COMPLIANCE DATA SECTION**

**Part 70 Quarterly Report**

Source Name: INTAT Precision Inc.  
 Source Address: State Road 3 North, Rushville, Indiana 46173  
 Mailing Address: P.O. Box 488, Rushville, Indiana 46173  
 Part 70 Permit No.: T139-17898-00011  
 Facility: Line 2 of two (2) grey iron foundry lines constructed in 1988  
 Parameter: PM and PM10 emissions and VOC emissions  
 Limit: The throughput of metal to each of the following facilities shall not exceed 61,500 tons per twelve (12) consecutive month period: melting (P8,P9), ladle (P10), inoculation (P11), pouring (P13B), cooling (P14B), shakeout (P16B), conveying (P17B -P22B), shotblasting (P40 - P42) and grinding (P29 -P30).

YEAR: \_\_\_\_\_

Month	Facility ID	Column 1	Column 2	Column 1 + Column 2
		Metal Throughput This Month (tons)	Metal Throughput for Previous 11 Months (tons)	12 Month Total Metal Throughput (tons)
	P8, P9			
	P10, P11			
	P13B			
	P14B			
	P16B			
	P17B - P22B			
	P40 - P42			
	P29 - P30			
	P8, P9			
	P10, P11			
	P13B			
	P14B			
	P16B			
	P17B - P22B			
	P40 - P42			
	P29 - P30			
	P8, P9			
	P10, P11			
	P13B			

Month	Facility ID	Column 1	Column 2	Column 1 + Column 2
		Metal Throughput This Month (tons)	Metal Throughput for Previous 11 Months (tons)	12 Month Total Metal Throughput (tons)
	P14B			
	P16B			
	P17B - P22B			
	P40 - P42			
	P29 - P30			

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**Part 70 Quarterly Report**

Source Name: INTAT Precision Inc.  
Source Address: State Road 3 North, Rushville, Indiana 46173  
Mailing Address: P.O. Box 488, Rushville, Indiana 46173  
Part 70 Permit No.: T139-17898-00011  
Facility: Line 2 of two (2) grey iron foundry lines constructed in 1988  
Parameter: PM and PM10 emissions and VOC emissions  
Limit: The throughput of metal to Plant 1, Line 2 shall not exceed 5,125 tons per month during the first 12 months of operation.

YEAR: \_\_\_\_\_

Month	Metal throughput this month (tons)
1	
2	
3	

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

### Part 70 Quarterly Report

Source Name: INTAT Precision Inc.  
Source Address: State Road 3 North, Rushville, Indiana 46173  
Mailing Address: P.O. Box 488, Rushville, Indiana 46173  
Part 70 Permit No.: T139-17898-00011  
Facility: two (2) grey iron foundry lines constructed in 1988  
Parameter: PM and PM10 emissions  
Limit: The throughput of sand to the sand handling operation (P32A&B- P37A&B, P39A&B) shall not exceed 777,600 tons per twelve (12) consecutive month period.

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	Sand Throughput This Month (tons)	Sand Throughput for Previous 11 Months (tons)	12 Month Total Sand Throughput (tons)

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

### Part 70 Quarterly Report

Source Name: INTAT Precision Inc.  
 Source Address: State Road 3 North, Rushville, Indiana 46173  
 Mailing Address: P.O. Box 488, Rushville, Indiana 46173  
 Part 70 Permit No.: T139-17898-00011  
 Facility: One (1) grey iron foundry line constructed in 2004, Plant 1, Line 2  
 Parameter: PM and PM10 emissions  
 Limit: The throughput of sand to the sand handling operation (P32B- P37B, P39B) shall not exceed 215,230 tons per twelve (12) consecutive month period.

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	Sand Throughput This Month (tons)	Sand Throughput for Previous 11 Months (tons)	12 Month Total Sand Throughput (tons)

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
 Title / Position: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**Part 70 Quarterly Report**

Source Name: INTAT Precision Inc.  
Source Address: State Road 3 North, Rushville, Indiana 46173  
Mailing Address: P.O. Box 488, Rushville, Indiana 46173  
Part 70 Permit No.: T139-17898-00011  
Facility: Line 2 of two (2) grey iron foundry lines constructed in 1988  
Parameter: PM and PM10 emissions and VOC emissions  
Limit: The throughput of sand to Plant 1, Line 2 shall not exceed 17,935 tons per month during the first 12 months of operation.

YEAR: \_\_\_\_\_

Month	Sand throughput this month (tons)
1	
2	
3	

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF AIR QUALITY  
 COMPLIANCE DATA SECTION**

**Part 70 Quarterly Report**

Source Name: INTAT Precision Inc.  
 Source Address: State Road 3 North, Rushville, Indiana 46173  
 Mailing Address: P.O. Box 488, Rushville, Indiana 46173  
 Part 70 Permit No.: T139-17898-00011  
 Facility: one (1) grey iron foundry line constructed in 1997  
 Parameter: PM, PM10, and manganese emissions and VOC emissions  
 Limit: (a) The throughput of metal to each of the following facilities shall not exceed 48,180 tons per twelve (12) consecutive month period: melting and pouring (1000), mold/casting cooling (2000), and shakeout (3000).  
 (b) The throughput of metal to each of the pouring (1000), cooling (2000), and shakeout operations (3000) shall not exceed 37,164 tons per twelve (12) consecutive month period.

YEAR: \_\_\_\_\_

Month	Facility ID	Column 1	Column 2	Column 1 + Column 2
		Metal Throughput This Month (tons)	Metal Throughput for Previous 11 Months (tons)	12 Month Total Metal Throughput (tons)
	1000A			
	Melting (1000)			
	Pouring (1000)			
	2000			
	3000			
	1000A			
	Melting (1000)			
	Pouring (1000)			
	2000			
	3000			
	1000A			
	Melting (1000)			
	Pouring (1000)			
	2000			
	3000			

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

### Part 70 Quarterly Report

Source Name: INTAT Precision Inc.  
Source Address: State Road 3 North, Rushville, Indiana 46173  
Mailing Address: P.O. Box 488, Rushville, Indiana 46173  
Part 70 Permit No.: T139-17898-00011  
Facility: one (1) grey iron foundry line constructed in 1997  
Parameter: PM and PM10 emissions  
Limit: The throughput of sand to the sand & waste sand handling operation (4000) shall not exceed 490,000 tons per twelve (12) consecutive month period.

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	Sand & Waste Sand Throughput This Month (tons)	Sand & Waste Sand Throughput for Previous 11 Months (tons)	12 Month Total Sand & Waste Sand Throughput (tons)

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**PART 70 OPERATING PERMIT  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: INTAT Precision Inc.  
Source Address: State Road 3 North, Rushville, Indiana 46173  
Mailing Address: P.O. Box 488, Rushville, Indiana 46173  
Part 70 Permit No.: T139-17898-00011

Months: \_\_\_\_\_ to \_\_\_\_\_ Year: \_\_\_\_\_

Page 1 of 2

<p>This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".</p>	
<p><input checked="" type="radio"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.</p>	
<p><input checked="" type="radio"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD</p>	
<p><b>Permit Requirement</b> (specify permit condition #)</p>	
<p><b>Date of Deviation:</b></p>	<p><b>Duration of Deviation:</b></p>
<p><b>Number of Deviations:</b></p>	
<p><b>Probable Cause of Deviation:</b></p>	
<p><b>Response Steps Taken:</b></p>	
<p><b>Permit Requirement</b> (specify permit condition #)</p>	
<p><b>Date of Deviation:</b></p>	<p><b>Duration of Deviation:</b></p>
<p><b>Number of Deviations:</b></p>	
<p><b>Probable Cause of Deviation:</b></p>	
<p><b>Response Steps Taken:</b></p>	

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

Form Completed By: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

## **Air Quality Analysis**

### **Introduction**

INTAT Precision has applied for a PSD Permit to revise their transfer and treatment ladles, pouring, cooling and shakeout system, sand handling system, conveyor system, and shot blast units. The facility is located at Rushville in Rush County, Indiana. This source is currently considered a major source under Prevention of Significant Deterioration (PSD) regulations.

On August 29, 2003, INTAT submitted an application for a PSD Significant Source Modification to the Office of Air Quality. (QAQ) KERAMIDA Environmental performed the modeling for INTAT. This document provides an air quality analysis performed by OAQ.

### **Air Quality Impact Objectives**

The air quality impact analysis of the permit application is to accomplish the following objectives and are individually addressed in this document in each section outlined below.

- A. Establish which pollutants require an air quality analysis.
- B. Determine the significant impact level.
- C. Demonstrate that the source will not cause or contribute to a violation of the National Ambient Air Quality Standard (NAAQS) or Prevention of Significant Deterioration (PSD) increment if the applicant exceeds significant impact levels.
- D. Perform analysis of any air toxic compound for a health risk factor on the general population.
- E. Perform a qualitative analysis of the source's impact on general growth, soils, vegetation and visibility in the impact area.
- F. Summary of Air Quality Analysis

### **Analysis Summary**

ISCST3 modeling results showed the INTAT facility would not violate either the NAAQS or the PSD increment. HAP concentrations were below .5% of the PEL, except for benzene. There were no HAPs above the representative health risk NATA/CEP benchmarks, except for benzene.

### **Section A**

#### **Pollutants Analyzed for Air Quality Impact**

The PSD requirements, 326 IAC 2-2, apply in attainment and unclassifiable areas and require an air quality impact analysis of each regulated pollutant emitted in significant amounts by a major stationary source or modification. Significant emission levels for each pollutant are defined in 326 IAC 2-2-1. Particulate Matter less than 10 microns (PM10) is the pollutant that will be emitted above significant emission levels from the plant expansion. Therefore, an air quality analysis is required for this pollutant which exceeded significant emission rates as shown in Table 1:

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**TABLE 1**  
**Significant Emission Rates for PSD**

<b>POLLUTANT</b>	<b>SOURCE EMISSION RATE<sup>1</sup></b> (Facility Totals)	<b>MODELING THRESHOLD</b> <b>EMISSION RATE</b>	<b>PRELIMINARY AQ ANALYSIS</b> <b>REQUIRED</b>
	(tons/year)	(tons/year)	
PM10	16.2	15	Yes
VOCs (O <sub>3</sub> )	24.9	100	No
NOx	6.04	40	No
SO2	0.04	40	No
CO	5.08	100	No
Lead	0.00003	0.6	No
Beryllium	0.0000007	0.0004	No
Mercury	0.000016	0.1	No

<sup>1</sup>Taken from the TSD for a Prevention of Significant Deterioration (PSD) and Part 70 Significant Source Modification.

## **Section B**

### **Significant Impact Level/Significant Impact Area (SIA)**

The OAQ review used the Industrial Source Complex Short Term (ISCST3) model, BEEST Version 9.2 to determine maximum off-property concentrations or impacts for PM<sub>10</sub> and each HAP. All regulatory default options were utilized in the United States Environmental Protection Agency (U.S. EPA) approved model, as listed in the 40 Code of Federal Register Part 51, Appendix W, Guideline on Air Quality Models. The area is considered primarily rural with a portion of the area classified as industrial, therefore a rural classification was used. The model also utilized the Schulman-Scire algorithm to account for building downwash effects. The stacks associated with the proposed facility are below the Good Engineering Practice (GEP) formula for stack heights. This indicates wind flow over and around surrounding buildings can influence the dispersion of concentrations from the stack. 326 IAC 1-7-3 requires a study to demonstrate that excessive modeled concentrations will not result from stacks with heights less than the GEP stack height formula. The aerodynamic downwash parameters were calculated using U.S. EPA's Building Profile Input Program (BPIP).

The meteorological data used in the ISCST3 model consisted of the latest five years of available surface data from the Indianapolis, Indiana Airport National Weather Service station merged with the mixing heights from Dayton, Ohio National Weather Service station. The meteorological data was preprocessed into ISCST3-ready format with U.S. EPA's PCRAMMET.

Ground-level points (receptors) surrounding the source are input into the model to determine the maximum modeled concentrations that would occur at each point. OAQ modeling utilized a Cartesian

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receptor grid out to 5 kilometers for all pollutants with receptors placed at distances of 100 meter intervals which includes fenceline receptors.

The consultant performed an air quality modeling analysis to determine if the source exceeded the significant impact levels (concentrations). If the source's concentrations exceed these levels, IDEM and USEPA guidance requires further air quality analysis. Significant impact levels are defined by the time periods presented in the following Table as well as all maximum modeled concentrations from the worst case operating scenarios.

Since PM<sub>10</sub> exceeded the significant impact level, further modeling was performed to insure the increment and the NAAQS were maintained. The source impact is above significance level so refined modeling analysis is required.

Modeling was performed assumed 34.6 tons per year increase despite the lowered modification emission level of 16.5 tons per year based on lowered production rates. The higher limits are conservative.

**Table 2  
Significant Impact Analysis**

<b>POLLUTANT</b>	<b>TIME AVERAGING PERIOD</b>	<b>MAXIMUM MODELED IMPACTS (ug/m<sup>3</sup>)</b>	<b>SIGNIFICANT IMPACT LEVEL (ug/m<sup>3</sup>)</b>	<b>REFINED AQ ANALYSIS REQUIRED</b>
PM <sub>10</sub>	Annual	2.09	1	Yes
PM <sub>10</sub>	24 Hour	23.2	5	Yes

**Section C**

**NAAQS and PSD Analysis**

Maximum allowable increases (PSD increments) are established by 326 IAC 2-2 for NO<sub>2</sub>, SO<sub>2</sub> and PM<sub>10</sub>. This rule limits a source to no more than 80 percent of the available PSD increment to allow for future growth. 326 IAC 2-2-6 describes the availability of PSD increment and maximum allowable increases as increased emissions caused by the proposed major PSD source will not exceed 80 percent of the available maximum allowable increases over the baseline concentrations for sulfur dioxide, and nitrogen dioxide. Table 4 shows the results of the PSD increment analysis for PM<sub>10</sub>. No violations of 80 percent of the PSD increment for PM<sub>10</sub> occurred and no further modeling was required.

**Table 3  
Increment Analysis**

<b>POLLUTANT</b>	<b>TIME AVERAGING PERIOD</b>	<b>MAXIMUM MODELED IMPACTS (ug/m<sup>3</sup>)</b>	<b>CLASS II INCREMENT (ug/m<sup>3</sup>)</b>	<b>80% of CLASS II INCREMENT (ug/m<sup>3</sup>)</b>
PM <sub>10</sub>	Annual	2.4	17	13.6
			30	

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PM <sub>10</sub>	24 Hour	22.3		24
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Emission inventories of PM<sub>10</sub> sources in Indiana within a 50 kilometer radius of the site were taken from the OAQ emission statement database. OAQ NAAQS modeling results are shown in Table 3. Maximum concentrations of PM<sub>10</sub> for the 24-hour and annual time-averaged periods were below their respective NAAQS limit and further modeling was not required.

**Table 3  
NAAQS Analysis**

POLLUTANT	TIME AVERAGING PERIOD	YEAR	MAXIMUM MODELED IMPACTS (ug/m <sup>3</sup> )	MONITORING BACKGROUND (ug/m <sup>3</sup> )	TOTAL (ug/m <sup>3</sup> )	NAAQS STANDARD (ug/m <sup>3</sup> )
PM <sub>10</sub>	Annual	1993	2.7	24	26.7	50
PM <sub>10</sub>	24 Hour	1994	25.1	41.7	66.8	150

## **Section D**

### **Hazardous Air Pollutant Analysis and Results**

As part of the air quality analysis, OAQ requests data concerning the emission of 188 Hazardous Air Pollutants (HAPs) listed in the 1990 Clean Air Act Amendments which are either carcinogenic or otherwise considered toxic. These substances are listed as air toxic compounds on construction permit application. Any HAP emitted from a source will be subject to toxic modeling analysis. The modeled emissions for each HAP are the total emissions, based on assumed operation of 8760 hours per year.

Maximum 8-hour concentrations were determined and the concentrations were recorded as a percentage of each HAP Permissible Exposure Limit (PEL). The PELs were established by the Occupational Safety and Health Administration (OSHA) and represent a worker's exposure to a pollutant over an 8-hour workday or a 40-hour workweek. In Table 5 below, the results of the HAP analysis with the emission rates, modeled concentrations and the percentages of the PEL for each HAPs are listed. All HAP concentrations were modeled below 0.5% of their respective PEL, except for benzene. The 0.5% of the PEL represents a safety factor of 200 taken into account when determining the health risk of the general population.

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**TABLE 5 – Hazardous Air Pollutant Analysis**

<u>Hazardous Air Pollutants</u>	<u>HAP Emissions</u>	<u>Maximum 8-hour impacts</u>	<u>Maximum annual impacts</u>	<u>PEL</u>	<u>% of PEL</u>	<u>CEP</u>	<u>% of CEP</u>
	(tons/year)	(ug/m3)	(ug/m3)	(ug/m3)	(%)	(ug/m3)	(%)
<b>Lead</b>	0.00003	0.00084	0.00084	50	0.0017	0.083	1.01
<b>Beryllium</b>	0.0000007	0.000015	0.000015	2	0.00075	0.00042	.001
<b>Mercury</b>	0.000016	0.000334	0.0003344	100	0.00033	N/A	.010
<b>Manganese</b>	0.55	10.87	10.87	5000	0.217	N/A	N/A
<b>Benzene</b>	18.5	124.2	5.38	3200	3.88	0.13	4140

A health risk-based analysis was not performed for all of the HAP's because some of them did not have a NATA/CEP cancer benchmark associated with it. Only benzene was above the CEP.

**Section E**

**Additional Impact Analysis**

PSD regulations require an additional impact analysis be conducted to show that impacts associated with the facility would not adversely affect the surrounding area.

**Economic Growth and Impact of Construction Analysis**

INTAT will employ no additional people due to the modification. Secondary emissions are not expected. Industrial and residential growth would be none. There will be no adverse impact in the area due to industrial, residential or commercial growth.

**Soils Analysis**

Secondary NAAQS limits were established to protect general welfare, which includes soils, vegetation, animals and crops. Soil types in Rush County are of the Miami-Crosby silt loam deposits. The general landscape consists of gently rolling terrain (1816-1966 Natural Features of Indiana - Indiana Academy of Science). According to the modeled concentrations of PM<sub>10</sub> and HAPs analysis, the soils will not be adversely affected by the facility.

**Vegetation Analysis**

Due to the agricultural nature of the land, crops in the Rush County area consist mainly of corn, wheat and soybeans (1997 Agricultural Census for Rush County). The maximum modeled concentrations of INTAT for PM<sub>10</sub> are well below the threshold limits necessary to have adverse impacts on surrounding vegetation such as autumn bent, nimblewill, barnyard grass, bishopscap and horsetail milkweed (Flora of Indiana - Charles Deam). Livestock in Rush County consist mainly of hogs, beef and milk cows (1992 Agricultural Census for Rush County) and will not be adversely impacted from the facility. Trees in the

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area are mainly hardwoods. These are hardy trees and no significant adverse impacts are expected due to modeled concentrations.

### **Federal and State Endangered Species Analysis**

Federally endangered or threatened species as listed in the U.S. Fish and Wildlife Service, Division of Endangered Species for Indiana includes 12 species of mussels, 4 species of birds, 2 species of bat and butterflies and 1 species of snake. The agricultural nature of the land overall has disturbed the habitats of the butterflies and snake and the proposed modification is not expected to impact the area further. The mussels and birds listed are commonly found along major rivers and lakes while the bats are found near caves. A detailed listing of Federal and State endangered species for Indiana can be found on the internet at [www.in.gov/dnr/naturepr/species/](http://www.in.gov/dnr/naturepr/species/). The impacts from INTAT's facility expansion are not expected to adversely impact these species.

Federally endangered or threatened plants as listed in the U.S. Fish and Wildlife Service, Division of Endangered Species for Indiana list two threatened and one endangered species of plants. The endangered plant is found along the sand dunes in northern Indiana while the two threatened species do not thrive on cultivated or grazing land. The proposed modification is not expected to impact the area further.

The state of Indiana list of endangered, special concern and extirpated nongame species, as listed in the Department of Natural Resources, Division of Fish and Wildlife, contains species of birds, amphibians, fish, mammals, mollusks and reptiles which may be found in the area. However, the impacts are not expected to have any additional adverse effects on the habitats of the species than what has already occurred from the agricultural activity in the area.

### **Additional Analysis Conclusions**

The nearest Class I area to INTAT is the Mammoth Cave National Park located approximately 250 kilometers to the south in Kentucky. The proposed facility will not adversely affect the visibility at this Class I area. INTAT is located well beyond 100 kilometers from Mammoth Cave National Park and will not have a significant impact on the Class I area. The results of the additional impact analysis conclude the INTAT's facility's modification will have no adverse impact on economic growth, soils, vegetation, and endangered or threatened species.

## **Part F**

### **Summary of Air Quality Analysis**

INTAT Precision has applied for a PSD permit. KERAMIDA Environmental prepared the application. Rush County is attainment for all pollutants. PM10 emission rates exceeded significant emission rates. Modeling results were above significance levels, but refined modeling showed that the PSD increment for PM10 and the NAAQS for PM10 was maintained. An air toxic analysis was performed as a precautionary measure and no pollutant was above 0.5% of PEL or the NATA/CEP benchmark except for benzene. The nearest Class I area is Mammoth Cave National Park in Kentucky about 250 kilometers to the south. Additional analysis showed no significant impact on soils vegetation or visibility in the surrounding area.

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

Appendix B - - PSD BACT Evaluations - - for a Prevention of Significant Deterioration (PSD) and Part 70 Significant Source Modification (SSM) and Part 70 Significant Permit Modification (SPM)

**Source Background and Description**

Source Name:	INTAT Precision, Inc.
Source Location:	State Road 3 North, Rushville, IN 46173
Mailing Address:	P.O. Box 488, Rushville, IN 46173
General Telephone Number:	317/932-5323
Responsible Official:	Gary Moore
County:	Rush
SIC Code:	3321 (Gray Iron Foundry)
Source Categories:	1 of 28 Listed Source Categories Major PSD Source Major Source under Section 112 of the CAA
Significant Source Modification:	PSD 139-17898-00011
Significant Permit Modification:	PSD 139-18320-00011
Operation Permit No.:	T139-7531-00011

**History**

On August 29, 2003, INTAT Precision, Inc., Rushville, Indiana submitted an application to the OAQ proposing to modify their process in the following manner.

Plant 1 presently consist of two Lines (1 and 2). The proposed modifications to plant 1 consist of the removal and replacement of the existing Line 2 pouring, cooling, shakeout, and casting conveyance processes. The new Line 2 will have the capability to process larger castings and will therefore have a higher hourly capacity at 15 tons of metal and 70 tons of sand/hour. The two Lines combined will continue to have a maximum capacity of 20 tons of metal per hour, based on the limitations on melt rate of the melt system. Essentially, when the new Line 2 is operating at capacity, Line 1 will only be able to process 5 tons/hour, and in fact, Line 1's use will diminish significantly once the new Line 2 is operational.

Other changes that will occur as part of this project include the replacement of the six transfer ladles, the replacement of the ladles used for metal (Magnesium) treatment with two ladles with a capacity of 20 tons/hour. Three new shotblast units will be installed as part of Line 2, and two existing shotblast units will be removed. The remaining existing shotblast units will be used for Plant 1 production. All of the new systems will be controlled by new fabric filter baghouses.

Plant 1 was initially permitted and operated under CP139-1725-00011 and plant 2 was permitted under CP139-8845-00011. All terms and conditions from these approvals have been incorporated into the Part 70 operating permit. With the addition of plant 2 the source became a major source under PSD regulations. Based upon the emissions calculations (see Appendix A), the proposed modification exceeds the PSD significant threshold levels stated in 326 IAC 2-2-1 for PM10 Therefore, the pollutant PM10 was reviewed under the PSD Program (326 IAC 2-2).

**PSD BACT Overview**

The Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ), has

performed the following federal BACT review for the Line 2 operations which are owned and operated by INTAT Precision, Inc. The source is located in Rush County which is designated as attainment for all criteria pollutants. The PSD Program requires a BACT review and an air quality analysis. BACT is an emission limitation based on the maximum degree of reduction of each pollutant subject to the PSD requirements. IDEM conducts BACT analyses in accordance with the *"Top-Down" Best Available Control Technology Guidance Document* outlined in the 1990 draft USEPA *New Source Review Workshop Manual*, which outlines the steps for conducting a top-down BACT analysis. Those steps are listed below.

- (1) Identify all potentially available control options;
- (2) Eliminate technically infeasible control options;
- (3) Rank remaining control technologies by control effectiveness;
- (4) Evaluate the most effective controls and document the results; and
- (5) Select BACT.

Also in accordance with the *"Top-Down" Best Available Control Technology Guidance Document* outlined in the 1990 draft USEPA *New Source Review Workshop Manual*, BACT analyses take into account the energy, environmental, and economic impacts on the source. These reductions may be determined through the application of available control techniques, process design, and/or operational limitations. Such reductions are necessary to demonstrate that the emissions remaining after application of BACT will not cause or contribute to air pollution thereby protecting public health and the environment.

BACT determinations are based on the following information:

- (1) The BACT analysis submitted by INTAT Precision, Inc. on August 29, 2003;
- (2) Information IDEM gained from other regulatory agencies;
- (3) Other IDEM permits and permits from other regulatory agencies; and
- (4) The EPA RACT/BACT/LAER (RBLCL) Clearinghouse.

### **BACT Analysis for PM<sub>10</sub>**

A search was conducted of the RBLCL Clearinghouse to obtain the best available technologies for control of PM<sub>10</sub> from the iron foundries transfer ladles, metal treatment ladles, pouring, cooling, shakeout, sand handling, and finishing operations. INTAT has proposed the use of a fabric filter baghouses meeting an emission limit of 0.003 gr/dscf for all of the above operations. The following discussion details BACT review of proposed methods of PM<sub>10</sub> control of iron foundry operations.

#### **Step 1 - Identify Control Options**

Two (2) available technologies were evaluated to control PM<sub>10</sub> emissions from the iron foundries transfer ladles, metal treatment ladles, pouring, cooling, shakeout, and finishing operations. They are:

- (1) Baghouse
- (2) High energy venturi wet scrubber system

**Step 2 - Evaluate options and eliminate technically infeasible control options.**

**Baghouse**

A baghouse consists of a number of filtering elements (bags) along with a bag cleaning system contained in a main shell structure incorporating dust hoppers. The efficiency of the system is dependent on particle and operational characteristics such as particle size distribution, air to cloth ratio, pressure loss, cleaning method and cleaning intensity. Collection efficiencies of baghouses can be as high as 99.9 percent.

**High energy venturi wet scrubber system**

High energy venturi wet scrubbers work by spraying water into the flue gas thereby entraining the particles in the water drops. The particles are then collected by cyclone separator action and mist eliminators.

Both of these options are technically feasible.

**Step 3 - Rank the remaining control technologies by control effectiveness.**

Venturi scrubber systems are used in the foundry industry but are considered less effective than a baghouse for controlling particulate emissions. Baghouse technology has been used extensively in the foundry industry and has been proven to control outlet particulate emission concentrations to 0.01 gr/dscf or less. Therefore, the baghouse will be considered the most effective option for control of particulate emissions.

**Step 4 - Evaluate the most effective controls and document the results.**

Evaluation of emission limit

The EPA (RBLC) Clearinghouse is a database system that provides emission limit data for industrial processes throughout the United States. The RBLC has an extensive list of entries for foundry operations with controls for PM10 emissions. The following table summarizes the more stringent previous BACT determinations for PM10 emissions for foundry operations.

**BACT Determinations for PM10 from Iron Foundries -Transfer and Metal Treatment Ladles**

Facility	Process	PM10 Emission Level	Control
Ardmore Foundry OK 0077	Melt Area	0.0045 gr/dscf	Baghouse
Ardmore Foundry OK 0087	Melt Area	0.0045 gr/dscf	Baghouse

**BACT Determinations for PM<sub>10</sub> from Iron Foundries - Pouring / Mold Cooling**

Facility	Process	PM <sub>10</sub> Emission Level	Control
Waupaca Foundry Plt 1 WI 0184	Line 2 - Pour/ Mold Cool	0.005 gr/dscf	Baghouse
Waupaca Foundry Plt 1 WI 0190	Line 4 Pour/ Mold Cool	0.005 gr/dscf	Baghouse
Waupaca Foundry Plt 3 WI 0160	Line 2 Pour/ Mold Cool	0.005 gr/dscf	Baghouse
Waupaca Foundry Plt 6 TN 0063	Pour/Mold Cooling	0.005 gr/dscf	Baghouse
Waupaca Foundry Plt 6 TN 0131, Lines 1&2	Pour/Mold Cooling	each 0.005 gr/dscf line	Baghouse
Waupaca Foundry Plt 6 TN 0131, Lines 3&4	Pour/Mold Cooling	0.005 gr/dscf each line	Baghouse

**BACT Determinations for PM<sub>10</sub> from Iron Foundries - Shakeout**

Facility	Process	PM <sub>10</sub> Emission Level	Control
Waupaca Foundry Plt 1 WI0184	Line 2 Shakeout	0.007 gr/dscf	Baghouse
Waupaca Foundry Plt 1 WI 0190	Line 4 Shakeout	0.007 gr/dscf	Baghouse
Waupaca Foundry Plt 2 WI 0160	Line 2 Shakeout	0.005 gr/dscf	Baghouse
Waupaca Foundry Plt 6 TN 0063	Shakeout	0.005 gr/dscf	Baghouse
Waupaca Foundry Plt 6 TN 0131, Line 1 & 2	Shakeout	0.005 gr/dscf each line	Baghouse
Waupaca Foundry Plt 6 TN 0131, Lines 3 & 4	Shakeout	0.005 gr/dscf each line	Baghouse
Waupaca Foundry IN-0078	Shakeout	0.005 gr/dscf	Baghouse, 10% opacity
Ravenna Casting Ctr. MI-0274	Shakeout	0.0052 gr/dscf	Baghouse

**BACT Determinations for PM10 from Iron Foundries -Sand Handling**

Facility	Process	PM10 Emission Level	Control
Waupaca Foundry Plt 1 WI 0184	Sand Handling	0.005 gr/dscf	Baghouse
Waupaca Foundry Plt 1 TN 0067	Sand Handling	0.005 gr/dscf	Baghouse
Waupaca Foundry IN 0078	Sand Handling	0.005 gr/dscf	Baghouse, 10% opacity
Waupaca Foundry Plt 6 IN 0157	Sand Handling	0.005 gr/dscf	Baghouse, 10% opacity

**BACT Determinations for PM10 from Iron Foundries -Shotblasting**

Facility	Process	PM10 Emission Level	Control
Waupaca Foundry Plt 3 WI 0160	Shotblasting	0.005 gr/dscf	Baghouse
Waupaca Foundry Plt6 TN 0063	Shotblasting	0.005 gr/dscf	Baghouse
Ravenna Casting Ctr. MI 0272	Shotblasting	0.005 gr/dscf	Baghouse

Evaluation of the PM10 emission levels from the table indicate that the lowest limit achieved in existing practice at a foundry operation is 0.0045 gr/dscf using a baghouse.

**Step 5 - Select BACT**

INTAT has proposed the use of a fabric filter baghouse for a PM10 limit of 0.003 gr/dscf. This limit is lower than the 0.005 gr/dscf BACT limit of existing foundries included in the above table. Therefore, this limit is determined to be BACT.

Pursuant to 326 IAC 2-2-3, opacity from all the baghouses controlling these operations shall not exceed ten percent (10%) for more than three (3) consecutive six (6) minute averaging periods.

**BACT Analysis for PM10 (condensable)**

A search was conducted of the RBLC to obtain the best available technologies for control of PM<sub>10</sub> (condensable) from the iron foundries metal melting, pouring, cooling and shakeout operations. The following discussion details a BACT review of proposed methods of PM<sub>10</sub> (condensable) control of iron foundry operations.

**Step 1 - Identify Control Options**

Review of the RBLC Clearinghouse revealed there are not currently any technologies in use with the specific purpose of controlling PM<sub>10</sub> (condensable) emissions from the iron foundries metal melting, pouring, cooling and shakeout operations.

A record of stack test results from other similar iron foundries was compiled (see table below).

**PM<sub>10</sub> Condensable Test Results (using Method 202)**

Company	Process (Test Date)	PM <sub>10</sub> Condensable (lb/ton)
Atlas Foundry	Pour, Cool, Cast, Sand H (8/01)	0.051
Auburn Foundry P2	Pouring Line 3&4 (9/99)	0.15
	Pouring Line 3&4 (2/02)	0.18
Auburn Foundry P2	Shakeout Line 3&4 (9/99)	1.26
	Shakeout Line 3&4 (2/02)	1.28
Auburn Foundry P2	Shakeout Line 1&2 (9/99)	0.58
Auburn Foundry P2	Cooling Line 3&4 (2/02)	0.51
Auburn Foundry P2	Melt System 2 (2/02)	0.26
Dalton	Pouring (6/01)	0.015
Dalton	Cooling (6/01)	0.037
Rochester	Pouring & Cooling (8/00)	0.14
Waupaca	Melt System (4/02)	0.053

An average was calculated from the Method 202 test results above the results are shown below:

Process	PM <sub>10</sub> Condensable (lb/ton)
Melting / Pouring	0.27
Cooling / Shakeout	1.22
Total	1.49

INTAT has proposed emissions for PM<sub>10</sub> (condensable) for the above operations of:

<b>Stack - Operation</b>	<b>PM10 Condensable Emission (lb/hr)</b>	<b>PM10 Condensable Emission (lb/ton)</b>
3B - Melting/Pouring	6.8	0.453
1-6200 - Cooling/Shakeout	11.4	0.76
Total	18.2	1.213

Step 2 - Make a selection

INTAT proposes to meet PM<sub>10</sub> condensable emissions limits of 0.453 lb/ ton of metal from Stack 3B and 0.76 lb/ton of metal from Stack 1-6200 for a total limit of 1.213 lb/ton of metal. The total emissions limits that INTAT proposed are less than the total average emissions from IDEM's test results. Also there are not currently any technologies in use for PM<sub>10</sub> condensable therefore these values will be accepted as limits from Stacks 3B and 1-6200. The OAQ may revise these permit limits based on results of stack test required in Condition D.3.6 of the permit.

INTAT Precision, Inc.  
Rushville, Indiana  
Permit Reviewer: Walter Habeeb

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PSD SSM 139-17898-00011  
PSD SSM 139-18320-00011

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

**Addendum to the  
Technical Support Document (TSD), for Prevention of Significant Deterioration  
(PSD)  
Significant Source Modification and Significant Permit Modification for a Part 70  
Operating Permit**

**Source Background and Description**

Source Name:	INTAT Precision, Inc.
Source Location:	State Road 3 North, Rushville, Indiana 46173
County:	Rush
SIC Code:	3321
Operation Permit No.:	T139-7531-00011
Permit Reviewer:	Walter Habeeb
Significant Source Modification:	PSD/SSM 139-17898-00011
Significant Permit Modification:	PSD/SPM 139-18320-00011

On January 21, 2004, the Office of Air Quality (OAQ) had a notice published in the Rushville Republican, Rushville, Indiana, stating that INTAT Precision, Inc. had applied for Significant Source and Significant Permit Modifications to a Part 70 source for the modification of their Plant 1, Line 2 operation. The notice also stated that OAQ 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.

On February 11, 2004, INTAT Precision, Inc., submitted written comments on the proposed Significant Source and Significant Permit Modifications to the Part 70 permit. A summary of the comments and responses follows (new language is bolded for emphasis and old language is struck out).

Comment 1

Section A.2 (a)(1) should include a notation that the acid scrubber used to control TEA emissions is voluntary and is not required to meet a specific emission limitation. This same change should be reflected in Section D.1 of the permit as well.

Response 1

The IDEM, OAQ will change Section A.2 (a)(1) and D.1(a)(1 ) to include the sentence:

**The source voluntarily utilizes two (2)TEA scrubbers.**

Comment 2

Section A.2(c)(3) and the corresponding D.2.Section should be modified to identify the dust collector as DC1(B) exhausting to stack 1B, rather than to DC1A exhausting to stack 1A.

Response 2

Sections A.2(c)(3), D.2(c)(3) and table in D.2.4 (shown below) will be amended to read as follows:

- (c)(3) One (1) cooling line identified as P14A, controlled by dust collector DC1A-B, exhausting to stack 1A B.

Comment 3

Sections A.2(c)(7) and D.2 (c)(7) should be amended to indicate that the grinding operations are controlled by dust collector DC-8A only, reference to DC-8B should be removed.

Response 3

Sections A.2(c)(7), D.2 (c)(7) and the table in D.2.4 will be amended to read as follows:

- (c)(7) Grinding processes identified as P29 and P30, with a total capacity of 12 tons of metal/hour, controlled by dust collector DC-8A., exhausting to stack 8A. and dust collector DC-8B, exhausting inside the building.

D.2.4 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rates from the Plant 1, Line 1 grey iron foundry line shall be limited as follows:

Unit	Stack ID	Process Weight Rate (ton per hour)	Allowable Emissions (pounds per hour)
Charge Handling (P1, P2, P3)	N/A	20.0	30.51
Melting System - Electric Induction Furnace (P8) and Holding Furnaces (P9)	3A, 3B	20.0	30.51
Pouring (P13A)*	2	10.0	19.18
Casting Cooling (P14A)*	1A B	10.0	19.18
Shakeout (P16A)*	1B	10.0	19.18
Conveying (P17A - P22A)	6A 6B, 7	5.0	12.05
Shotblast Operations (P26 - P27)	8A	3.0	8.56
Grinding (P29 - P30)	7, 8A, 8B	3.0	8.56
Sand Handling (P32 - P39)	2, 3A	75.00	48.43

#### Comment 4

Section A.2(d)(6) and D.3 (d)(6) should be amended to indicate that the casting conveyor units are exhausting to dust collectors DC6B, DC7 and DC-8B, exhausting to stacks 6B, 7 and inside the building.

#### Response 4

Section A.2(d)(6) and D.3 (d)(6) will be amended to read as follows:

- (d)(6) Casting conveyors identified as P17B, P18B, P19B, P20B, P21B, P22B, controlled by cartridge collectors DC-6B, DC7 and DC-8B, exhausting to stacks 6B, 7 and 8B-also inside the building.

#### Comment 5

Sections A.2(d)(7) and D.3 (d)(7) should be amended to indicate that the shotblasting units are controlled by dust collector DC-8B only, exhausting inside the building. Reference to DC-6B should be removed.

#### Response 5

Section A.2(d)(7) and D.3 (d)(7) will be amended to read as follows (table D.2.4 will also be amended to reflect this change):

- (d)(7) One (1) Plant 1, Line 2 shot blast process consisting of three shot blast units identified as P40, P41 and P42 each with a maximum capacity of 5.3 tons of metal per hour and with a combined maximum capacity for all three of 11.3 tons of metal per hour, controlled by dust collector ~~DC-6B~~, **DC-8B**, exhausting to ~~stack 6B~~ **inside the building and general ventilation.**

#### Comment 6

Conditions D.2.1 and D.3.1, BACT for PM<sub>10</sub>. Both of these conditions indicate that the BACT limit for PM<sub>10</sub> is 0.003 gr/dscf and that the limits include both filterable and condensable material. The proposed limit is consistent with limit we proposed to meet with the use of fabric filter collectors, but our proposed limit does not include condensable PM<sub>10</sub>. Fabric filters are designed to control solid or liquid droplets and would have no benefit for the control of condensable PM<sub>10</sub>, which would be exhausted as a gas. The manufacturer of fabric filter collectors design and guarantee their control systems for filterable only. Additionally, we would point out that the recently finalized MACT standard for iron and steel foundries clearly specifies that the PM emission limits for similar types of facilities are to be verified by testing for filterable emissions only. As such condition D.3.6 should also be modified to require testing for filterable PM<sub>10</sub> only.

Condition D.2.1 also specifies that the 0.003 gr/dscf limit would apply to the 6 natural gas fired ladle heaters. We would request that this limit be removed. Natural gas emits very low levels of PM<sub>10</sub>, but since these heaters are not vented to a specific control device or stack, we do not know how this limit can be verified. We do not believe that it is appropriate to include a specific limit, but we would not object to a condition stating that the requirement for BACT for these small heaters is satisfied through the use of natural gas.

#### Response 6

OAQ recognizes fabric filters can not collect condensable PM<sub>10</sub>. However, condensable PM<sub>10</sub> is an integral part of overall PM<sub>10</sub> emissions and therefore is included in the PM<sub>10</sub> emission limitation given in Section D.2.1. Therefore, the emission limit of 0.003 gr/dscf for PM<sub>10</sub> (both filterable and condensable) will remain.

Section A.2 (b)(C)(2), D.2 (b)(1)(C)(2) and D.2.1 BACT for PM<sub>10</sub> will be amended to read as follows:

- (2) Six (6) ladle heaters to be replaced in 2004, identified as P10, each with a heating capacity of 2.3 million British thermal units (MMBtu) per hour, each combusting natural gas, ~~exhausting to baghouse DC3A~~ **exhausting to stacks 3A, 12A, 12B and 12C .**

IDEM will consider the 6 ladle heaters to meet the requirement for BACT by the exclusive use of natural gas as their fuel. D.2.1 BACT for PM10 will be changed to read:

Process	Stack No.	PM10 Emission Limitation (gr/dscf)	PM10 Limitation (lb/hr)
6 Ladle Heaters	3A	0.003	1.70
2 Metal Treatment Inoculation Ladles	3B	0.003	1.70

**(c) The 6 ladle heaters are exclusively natural gas fired and are therefore considered to meet the requirements for BACT.**

Comment 7

Condition D.2.4, process weight PM emission limitations. This condition establishes process weight based emission limits for PM based on the requirements of 326 IAC 6-3-2. The limitations should be based on the total weight of the materials processed and we believe several of the limits are incorrectly calculated because they do not include the total weight of the process materials. Specifically, the limits for pouring (P13A), casting cooling (P14A) and shakeout (P16A) should be based on the total weight of the material and sand through the unit. In each case this would be 85 tons per hour and the emission limit would be 49.67 lbs/hour. This limit is clearly much less stringent than the limits established in D.2.2, but we believe they should be based on the correct interpretation of 326 IAC 6-3-2.

Response 7

The weight of the material processed for the pouring (P13A), casting cooling (P14A) and shakeout (P16A) should be based on the total weight of the material and sand through the unit. In each case this would be 85 tons per hour and the new emission limit would be 49.67 lbs/hour. The table in condition D.2.4 will be changed to the new values.

D.2.4 Particulate [326 IAC 6-3-2]

Unit	Stack ID	Process Weight Rate (ton per hour)	Allowable Emissions (pounds per hour)
Charge Handling (P1, P2, P3)	N/A	20.0	30.51
Melting System - Electric Induction Furnace (P8) and Holding Furnaces (P9)	3A, 3B	20.0	30.51
Pouring (P13A)*	2	<del>10.0</del> <b>85.0</b>	<del>19.18</del> <b>49.67</b>
Casting Cooling (P14A)*	1A	<del>10.0</del> <b>85.0</b>	<del>19.18</del> <b>49.67</b>
Shakeout (P16A)*	1B	<del>10.0</del> <b>85.0</b>	<del>19.18</del> <b>49.67</b>
Conveying (P17A - P22A)	B, 7	5.0	12.05
Grinding (P29 - P30)	8A	3.0	8.56
Sand Handling (P32 - P39)	2, 3A	75.00	48.43

## Comment 8

Conditions D.2.5 and D.4.4 volatile organic compound(VOC) limitations. These conditions established an overall limitation equivalent to 25 tons/year of VOC's from pouring, cooling and shakeout emissions from Plant 1, line 1, and from Plant 2, line 3 respectively, and as such the requirements of 326 IAC 8-1-6 do not apply. As noted in our appeal of the Title V permit issued in December of 2003 we believe that the VOC emissions limit should be expressed as a total limit on pouring, cooling and shakeout emissions, and not as separate limits on pouring and shakeout only. In addition we believe that the total limit should be 0.8 pounds/ton, consistent with stack testing data provided during the review of this permit modification. In fact, condition D.3.4 contains similar limits for the proposed Plant 1 line 2 and the limits are based on 0.8 pounds per ton of metal poured. We would request that conditions D.2.5 and D.4.4 be modified to be consistent with condition D.3.4 limiting VOC emissions from the pouring, cooling and shakeout processes to 0.8 pounds per ton of metal and limiting the total metal poured on each of the lines to 61,500 tons per 12 month period.

## Response 8

IDEM, OAQ agrees with the 0.8 pound per hour VOC emission limitation from the pouring, cooling and shakeout operation and with limiting the total metal poured on each of the lines to 61,500 tons per 12 consecutive month period. Conditions in D.2.5 and D.4.4 will be changed to reflect these new values.

### D.2.5 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

- (a) VOC emissions from the inoculation operation (P11) shall not exceed 0.005 pound of VOC per ton of metal throughput.
- ~~(b) VOC emissions from the pouring operation (P13A) and cooling operation (P14A) combined shall not exceed 0.14 pound of VOC per ton of metal throughput.~~
- ~~(c) VOC emissions from the shakeout operation (P16A) shall not exceed 1.2 pounds of VOC per ton of metal throughput.~~
- (b) VOC emissions from the pouring operation (P13A), cooling operation (P14A) and shakeout (P16A) combined shall not exceed 0.8 pound of VOC per ton of metal throughput.**
- ~~(d c)~~ **(c)** The throughput of metal to each of the inoculation (P11), pouring (P13A), and shakeout operations (P16A) shall not exceed ~~37,023~~ **61,500** tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

### D.4.4 Volatile Organic Compounds (VOC)[326 IAC 2-2-3] [326 IAC 8-1-6]

- ~~(a) VOC emissions from the pouring operation (1000) and cooling operation (2000) combined shall not exceed 0.14 pound of VOC per ton of metal throughput;~~
- ~~(b) VOC emissions from the shakeout operation (3000) shall not exceed 1.2 pounds of VOC per ton of metal throughput;~~
- (a) VOC emissions from the pouring operation (1000), cooling operation (2000) and Shakeout operation (3000) combined shall not exceed 0.8 pound of VOC per ton of metal throughput;**
- ~~(b)~~ **(b)** The throughput of metal to each of the pouring (1000), cooling (2000), and shakeout operations (3000) shall not exceed ~~37,164~~ **61,500** tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

#### Comment 9

Condition D.2.7(c), VOC testing. This condition requires that we test plant 1 line 1 VOC emissions to verify compliance with the limits in condition D.2.5. Consistent with our comments on the Title V permit, we would request that this condition be removed for the following reasons. All three of our production lines use the same raw materials, and as such the VOC emissions from all three lines should be consistent. We have already tested Plant 2 line 3 and shown that the VOC emissions rate is below 0.5 pounds per ton of metal. We believe this should be adequate to validate the use of 0.8 pounds/ton of metal as the emissions limit for this line as well. Plant 1 line 1 will be phased out after Plant 1 line 2 is constructed and placed in operation. Given the further limited use of line 1 we do not believe that additional testing is warranted. We will also be testing line 2 to verify the VOC emission rate as well pursuant to condition D.3.6(b). Lastly, Plant 1 line 1 provides some challenges to obtain accurate emission test results, due the configuration of processes and control systems.

#### Response 9

Results of testing on Plant 2, Line 3 (verified by Compliance Section) have shown the VOC emissions rate to be below the 0.8 pounds per ton of metal limit required for Plant 1, Line 1. INTAT Precision, Inc. has stated they plan to phase out Plant 1, Line 1 after Plant 1 Line 2 is constructed. Therefore, IDEM, OAQ will agree to not require testing to verify VOC emissions compliance on Plant 1, Line 1 and D.2.7 Testing Requirements will be removed.

#### D.2.7 Testing Requirements [326 IAC 2-7-6(1)] [326 IAC 2-1.1-11]

- ~~(c) — Within 180 days after issuance of this Part 70 permit, in order to demonstrate compliance with Condition D.2.5 and D.2.1, the Permittee shall perform VOC testing for the pouring (P12 and P13), cooling (P14 or P15 since both cooling lines are identical), and shakeout operation (P16) and PM<sub>10</sub> testing for the ladle heaters (P9) and the metal inoculation ladles (P11) utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C – Performance Testing.~~

#### Comment 10

Condition D.3.1, BACT for PM<sub>10</sub>. This condition includes both a grain loading limit in gr/dscf as well as limits in pounds per hour for each of the units. It is unclear whether the pound per hour limits are additive for the collectors or are per collector. For example our assessment of the hourly rate for baghouse BH1-6200 would be 2.85 and this collector would control cooling, shakeout and a portion of the sand system, and the limit for all processes controlled by BH1-6200 would be 2.85 lbs/hour at a grain loading of 0.003 gr/dscf. We would suggest that the pound per hour limits be eliminated from the permit in order to avoid any confusion as to the correct limit.

#### Response 10

The table for Condition D.3.1 has been reconstructed so the PM 10 stack Emissions Limitations (lb/hr) equal the total emissions from all processes venting through each individual stack.

D.3.1 BACT for PM10

Process	Stack No.	PM10 Emission Limitation (gr/dscf)	PM10 Emission Limitation (lb/hr)
Pouring (P13B)	3B	0.003	1.70
Casting-Cooling (P14B)	1-6200	0.003	2.85
Shakeout (P16B)	1-6200	0.003	2.85
Conveying (P17B-P22B)	6B	0.003	2.74
Shotblast Operations (P40, 41 & 42)	6B	0.003	1.03
Sand Handling (P32B-P37B & P39B)	1-6200 & 1-6300/6400	0.003	1.13
Bad Heat Shakeout	5	0.003	0.45

D.3.1 BACT for PM10

Stack No.	Process	Collector Air Flow Rate (cuft /min)	PM10 Emission Limitation (gr/dscf)	PM10 Emission Limitation (lb/hr)
3B	Pouring, Melt & Metal Treatment	66,225	0.003	1.70
1-6300 & 1-6400	Sand Handling (P32B-P37B & P39B)	44,000	0.003	1.13
1-6200	Casting Cool (P14B), Shakeout (P16B) & Sand Handling (P32B-P37B & P39B)	111,000	0.003	2.85
6B	Shotblast (P40, 41, & 42)	40,000	0.003	1.03
5	Bad Heat Shakeout	17,400	0.003	0.45

Comment 11

Condition D.3.3, particulate limits pursuant to 326 IAC 6-3-2. Similar to our previous comment on condition D.2.4, the process weight limits for the pouring, cooling and shakeout processes should be based on the total material processed (metal and sand) through these processes. This total process weight for these units is 85 tons/hour and the process weight limit should be 49.67 pound/hour. Again the limits in conditions D.3.1 and D.3.2 are far more restrictive and would be the controlling limits.

The weight of the material processed for the pouring (P13B), casting cooling (P14B) and shakeout (P16B) in the original permit T 139-7531-00011 were based on the total weight of the material and sand through the unit. The new permit will be amended to reflect the total weight of the material and the sand. In each case this would be 85 tons per hour and the new emission limit would be 49.67 lbs/hour. The table in condition D.3.3 will be changed to the new values.

**D.3.3 Particulate [326 IAC 6-3-2]**

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rates from the Line 2 grey iron foundry line shall be limited as follows:

Unit	Stack ID	Process Weight Rate (ton per hour)	Allowable Emissions (pounds per hour)
Pouring (P13B)*	3B	<del>15.0</del> <b>85.0</b>	<del>25.16</del> <b>49.67</b>
Casting Cooling (P14B)*	1-6200	<del>15.0</del> <b>85.0</b>	<del>25.16</del> <b>49.67</b>
Shakeout (P16B)*	1-6200	<del>15.0</del> <b>85.0</b>	<del>25.16</del> <b>49.67</b>
Conveying (P17B - P22B)	6B & 8B	15.0	25.16
Shotblast Operations (P40,41 & 42)	6B	9.0	17.87
Sand Handling (P32B - P37B & P39B)	1-6200 & 1-6300/6400	70.0	47.76

After further review, the OAQ as re-evaluated the draft permit and decided to make the following changes (new language is bolded for emphasis and old language is struck out).

For clarity the following has been added.

Section D.3.6 Testing Requirements [326 IAC 2-7-6(1)] [326 IAC 2-1.1-11] shall be changed to read:

- (a) Within 60 days after achieving maximum capacity but no later than 180 days after startup, in order to demonstrate compliance with Conditions D.3.1, D.3.2 and **D.3.3**, the Permittee shall perform PM and PM<sub>10</sub> testing (for both filterable and condensable PM<sub>10</sub>) for the following facilities utilizing methods as approved by the Commissioner.

Section D.3.4 shall have the following added:

- (c) **The sand throughput to Line 2 of the Plant 1 process shall not exceed 215,230 tons per 12 consecutive month period, with compliance determined at the end of each month.**

On March 11, 2004, INTAT Precision, Inc., submitted the following additional written comments on the proposed Significant Source and Significant Permit Modifications to the Part 70 permit. A summary of the comments and responses follows (new language is bolded for emphasis and old language is struck out).

**Comment 12**

We would request that equipment descriptions found in Sections A.2.(d)(6) and D.3(d)(6) be modified to indicate cartridge collector DC-7 is vented to the building rather than to stack 7. Also we want to clarify that the stack designated as 1-6300/6400 is a single stack and collectors DC3A and DC3B also have a common stack.

## Response 12

Sections A.2(d)(6), D.3(d)(6) and A.2(d)(1), D.3(d)(1) will be amended to read as follows:

- (d)(6) Casting conveyors identified as P17B, P18B, P19B, P20B, P21B, P22B, controlled by cartridge collectors DC-6B, ~~DC-7~~ and DC-8B, exhausting **inside the building and** to stacks 6B and 7 ~~and 8B and controlled by cartridge collector DC- 7 which vents inside the building.~~
- (d)(1) One (1) sand system consisting of units identified as P32B, P33B, P34B, P35B, P36B, P37B and P39B, controlled by baghouses BH1-6200, BH1-6300 and BH1-6400, and exhausting to stacks 1-6200 and 1- 6300/6400 **(1-6300/6400 is a single stack).**

Section A.2 (b)(1), D.2(b)(1) will be amended to read as follows:

- (b)(1)(D) One (1) inoculation system consisting of two (2) metal treatment ladles to be replaced in 2004 identified as P11, each with a maximum throughput capacity of 10 tons of metal per hour, controlled by Dust Collectors **DC-3A and DC-3B** for particulate control, exhausting to a **common** stack 3B.

## Comment 13

Regarding PM<sub>10</sub> condensable limits for the pouring, cooling, shakeout and melting processes that vent through collectors DC-3B and BN1-6200. With reservations (see March 11, 2004 letter), INTAT makes the following proposal to meet IDEM's need to include a limit for condensable PM<sub>10</sub> on the permit:

- 1) The limit would be an additional not a replacement limit to the 0.003 gr/dscf limit proposed as BACT for filterable PM<sub>10</sub>. The 0.003 gr/dscf limit would remain in the permit, but compliance would only be based on testing the filterable portion.
- 2) We would propose that the additional limit be a combined filterable and condensable limit, and be a combined limit for the pouring, cooling and shakeout processes. As such compliance with the limit would be determined based on testing the outlet from the DC-3B and BH1-6200 collectors, which control the pouring, cooling and shakeout processes as well as the melt process and a portion of the sand system.
- 3) We would propose that the combined limit be established as a limit of 2.6 pounds per ton of metal. This is based on the sum of the filterable portion at 0.38 pounds per ton (equivalent to 0.003 gr/dscf) and the condensable portion at 2.19 pounds per ton (based on the Auburn Foundry test results for pouring, cooling, shakeout and melt).
- 4) Given the uncertainty regarding the entire issue, we also believe that it would be appropriate to include a provision in the permit to reconsider the BACT determination as it relates to this combined limit following the compliance tests.

## Response 13

IDEM agrees to consider the PM<sub>10</sub> condensable limit to be an additional limit to the filterable limit with compliance based on the filterable limit plus PM<sub>10</sub> condensable limits established in the BACT analysis (Appendix B).

Separate limits need to be established for the total PM<sub>10</sub>(filterable plus condensable) emissions from pouring, melting, cooling and shakeout. IDEM will agree to combined testing of the pouring and melting operations and of the combined testing of the cooling and shakeout operations at the outlet from the DC-3B and BH1-6200 collectors.

The individual PM<sub>10</sub> condensable limits should be as follows (see Appendix B, PSD BACT Evaluations - BACT Analysis for PM<sub>10</sub> (condensable) for this determination:

- 1) Melting / Pouring - 0.453 lb/ton-metal
- 2) Cooling / Shakeout - 0.76 lb/ton-metal

Appendix A and Sections D.3.1 and D.3.2 will be modified to reflect the above changes.  
 Appendix A (page 1)

**Uncontrolled Emission - PM<sub>10</sub> Condensable**

Stack - Operation	PM <sub>10</sub> Condensable Emission (lb/hr)	PM <sub>10</sub> Condensable Emission (lb/ton)
<b>3B - Melting/Pouring</b>	<b>6.8</b>	<b>0.453</b>
<b>1-6200 - Cooling/Shakeout</b>	<b>11.4</b>	<b>0.76</b>
<b>Total</b>	<b>18.2</b>	<b>1.213</b>

**D.3.1 BACT for PM<sub>10</sub>**

- (a) Pursuant to 326 IAC 2-2-3, the Permittee shall comply with the following BACT required emission limits for PM<sub>10</sub> from the Plant 1, Line 2 processes (PM<sub>10</sub> limits include both filterable and condensable).
- (b) The OAQ may revise this permit to adjust the total PM<sub>10</sub> (filterable and condensable) limitation based on the results of stack test required in Condition D.3.6. The Department will provide an opportunity for public notice and comment prior to finalizing any permit revision.**
- (c) Total PM<sub>10</sub> (including filterable and condensable) emissions from melting, pouring, cooling, shakeout, conveying, shotblast, sand handling and bad heat shakeout operations of Plant 1, Line 2 shall not exceed 1.813 pounds per ton of metal.**

Stack No.	Process	Collector Air Flow Rate (cu/min)	Filterable PM <sub>10</sub> Emission Limitation (gr/dscf) / (lb/hr)	Total PM <sub>10</sub> Emission Limitation (lb/ton) <b>Filterable &amp; Condensable</b>
DC- 3B	Pouring, Melt & Metal Treatment	66,225	0.003/ 1.7	<b>0.633</b>
1-6300 & 1-6400	Sand Handling (P32B- P37B & P39B)	44,000	0.003/ 1.13	0.02
1-6200	Casting Cool (P14B), Shakeout (P16B) & Sand Handling (P32B- P37B & P39B)	111,000	0.003/ 2.85	<b>1.045</b>
6B	Shotblast (P40, 41, & 42)	40,000	0.003/ 1.03	0.085
5	Bad Heat Shakeout	17,400	0.003/ 0.45	0.03
<b>Total</b>				<b>1.813</b>

- (b)(d) Pursuant to 326 IAC 2-2-3, opacity for stacks No. 3B, 1-6200, 6B, 1-6300/6400 and 5 shall not exceed ten percent (10%) for more than three (3) consecutive six (6) minute averaging periods.

D.3.2 PM<sub>10</sub> Emissions

In order to render PSD not applicable for PM<sub>10</sub> the following limits shall apply:

- (a) PM<sub>10</sub> **filterable** emissions from pouring, cooling, shakeout, conveying, shotblast, sand handling and bad heat shakeout operations of Plant 1, Line 2 shall not exceed 0.003 gr/dscf **equivalent to 0.38 pounds per ton of metal.**
- (b) Metal throughput to Plant 1, casting Line 2 shall not exceed 61,500 tons per 12 consecutive month period with compliance determined at the end of each month. During the first 12 months of operation the limit shall be 5,125 tons per month.
- (c) Sand throughput to Plant 1, casting Line 2 shall not exceed 215,230 tons per 12 consecutive month period with compliance determined at the end of each month. During the first 12 months of operation the limit shall be 17,935 tons per month.

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

**Technical Support Document (TSD), for Prevention of Significant Deterioration  
(PSD)  
Significant Source Modification and Significant Permit Modification for a Part 70  
Operating Permit**

Source Background and Description

Source Name:	INTAT Precision, Inc.
Source Location:	State Road 3 North, Rushville, Indiana 46173
County:	Rush
SIC Code:	3321
Operation Permit No.:	T139-7531-00011
Permit Reviewer:	Walter Habeeb
Significant Source Modification:	PSD/SSM 139-17898-00011
Significant Permit Modification:	PSD/SPM 139-18320-00011

The Office of Air Quality (OAQ) has reviewed a Part 70 Prevention of Significant Deterioration PSD permit application from INTAT Precision, Inc. relating to the operation of a grey iron foundry.

**History**

This grey iron foundry company consists of two (2) plants:

- (a) Plant 1 is located at State Road 3 North, Rushville, Indiana 46173; and
- (b) Plant 2 is located at State Road 3 North, Rushville, Indiana 46173.

Since the two (2) plants are located in contiguous properties, have the same SIC codes and are owned by one (1) company, they will be considered one (1) source.

INTAT Precision, Inc. is proposing to modify their process in the following manner. Plant 1 presently consist of two Lines (1 and 2). The proposed modifications to plant 1 consist of the removal and replacement of the existing Line 2 pouring, cooling, shakeout, and casting conveyance processes. The new Line 2 will have the capability to process larger castings and will therefore have a higher hourly capacity at 15 tons of metal and 70 tons of sand/hour. The two Lines combined will continue to have a maximum capacity of 20 tons of metal per hour, based on the limitations on melt rate of the melt system. Essentially, when the new Line 2 is operating at capacity, Line1 will only be able to process 5 tons/hour, and in fact, Line 1's use will diminish significantly once the new Line 2 is operational.

Other changes that will occur as part of this project include the replacement of the six transfer ladles, the replacement of the ladles used for Magnesium treatment with two ladles with a capacity of 20 tons/hour. Three new shotblast units will be installed as part of Line 2, and two existing shotblast units will be removed. The remaining existing shotblast units will be used for Plant 1 production. All of the new systems will be controlled by new fabric filter baghouses. The capacity of the grinding units are to be corrected to 12 tons/hour from 20 tons/hour stated in permit T139-7531-00011 and the reclaim sand mill and screen will be removed from the sand systems serving Lines 1 and 2.

## Permitted Emission Units and Pollution Control Equipment

This stationary source consists of the following emission units and pollution control devices. The permitted emission units and pollution control equipment will change as follows (language with a strikeout has been removed and bold has been added).

Plant 1, Casting Line 2 to be constructed in 2004, with a capacity of 15 tons of metal per hour and 70 tons of sand per hour consisting of the following equipment:

(b)(1)(C) One (1) holding system consisting of the following equipment:

- (2) Six (6) ladle heaters to be replaced in 2004, identified as P10, each with a heating capacity of 2.3 million British thermal units (MMBtu) per hour, each combusting natural gas, exhausting to the building.

(b)(1)(D) NOne (1) inoculation system consisting of two (2) ladles to be replaced in 2004 identified as P11, each with a maximum throughput capacity of 10 tons of metal per hour, controlled by Dust Collectors DC-3A and DC-3B for particulate control, exhausting to stack ID Nos. 3A and 3B.

(d) Plant 1, Casting Line 2 to be constructed in 2004, with a capacity of 15 tons of metal per hour and 70 tons of sand per hour consisting of the following equipment:

- (1) One (1) sand system consisting of units identified as P32B, P33B, P34B, P35B, P36B, P37B and P39B, controlled by baghouses BH1-6200, BH1-6300 and BH1- 6400, and exhausting to stacks 1-6200 and 1- 6300/6400.
- (2) One (1) pouring station identified as P13B controlled by dust collector DC3B, exhausting to stack 3B.
- (3) One (1) cooling line identified as P14B, controlled by baghouse BH1-6200, exhausting to stack 1-6200.
- (4) One (1) shakeout unit identified as P16B, controlled by baghouse BH1-6200, exhausting to stack 1-6200.
- (5) One (1) bad heat shakeout unit controlled by dust collector DC-5, exhausting to stack 5.
- (6) Casting conveyors identified as P17B, P18B, P19B, P20B, P21B, P22B, controlled by baghouses DC-6B, and DC-8B exhausting to stacks 6B and 8B.
- (7) One (1) Plant 1, Line 2 shot blast process consisting of three shot blast units identified as P40, P41 and P42 with a total capacity of 9.0 tons of metal/hour, controlled by dust collector DC-8B, exhausting to stack 6B.

## Recommendation

The staff recommends to the Commissioner that the Part 70 Prevention of Significant Deterioration (PSD) permit 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.

An administratively complete Part 70 PSD permit modification application for the purposes of this

review was received on August 29, 2003. Additional information was received on October 13, 2003.

This source was issued a Title V permit (T139-7531-00011) on September 2, 2003.

**Emission Calculations**

See Appendix A of this document for detailed emissions calculations (pages 1 through 4) and Appendix B for BACT analysis.

**Uncontrolled Potential To Emit**

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source 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.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	greater than 250
PM-10	greater than 250
SO <sub>2</sub>	less than 100
VOC	less than 100
CO	less than 100
NO <sub>x</sub>	less than 100

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
Mercury	less than 10
Beryllium	less than 10
Manganese	less than 10
Lead	less than 10
Organic HAPs	less than 10
TOTAL	less than 25

**Potential to Emit of the Modification**

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 operating permit.

Process/facility	Potential to Emit (tons/year)						
	PM	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Modified Plant 1 Units	24.36	24.36	0.04	24.60 *	5.08	6.04	2.48
Nat. Gas	0.10	0.50	-	0.30	5.10	6.00	0.11
Total Emissions	24.46	24.86	0.04	24.90	10.18	12.0	2.59
PSD Threshold	25	15	40	40	100	40	25

\* Based on a production limit of 61,500 tons per year of metal produced and maximum VOC emissions of 0.8 lb per ton of metal produced.

The table above shows that this modification is considered a PSD major modification for PM10 because PM10 exceeds the PSD significant threshold levels. The source is a minor source for PM.

### Justification for the Modification

The Part 70 source is being modified through a Part 70 Significant Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5 (f)(1) because this modification is major for 326 IAC 2-2 (Prevention of Significant Deterioration). This modification is major for PSD review, because the net emissions increase from this modification is greater than significant thresholds under 326 IAC 2-2-1.

### County Attainment Status

The source is located in Rush County.

Pollutant	Status
PM-10	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Rush county has been designated as attainment or unclassifiable for ozone. Therefore, VOC 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.
- (b) Rush County has been classified as attainment or unclassifiable for PM10. 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.

### Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2001 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	not reported
PM-10	30.0
SO <sub>2</sub>	1.0
VOC	32.0
CO	not reported
NO <sub>x</sub>	1.0
HAP (specify)	not reported

### Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet the following:

- (a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.
- (b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

### Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source as a result of this modification.
- (b) The INTAT Line 2 is subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs), Subpart EEEEE, for Iron and Steel Foundries. The modification to Line 2 does not trigger the NEW source requirements of the NESHAP because it does not constitute a reconstruction of the emission unit. However, Line 2 is subject to the existing source requirements of the NESHAP.

The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to Line 2 except when otherwise specified in 40 CFR 63 Subpart EEEEE. The detailed requirements of this rule will be included in the Part 70 permit.

- (a) The affected source, the iron foundry, is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Iron and Steel Foundries, (40 CFR 63, Subpart EEEEE), effective the date the rule is published in the Federal Register. Pursuant to this rule, the Permittee must comply with 40 CFR 63, Subpart EEEEE on and after the date that is three years after the effective date of the rule, or accept and meet an enforceable HAP emissions limit below the major source threshold prior to three years after the effective date of the rule.
- (b) The following emissions units comprise the affected source that is subject to 40 CFR 63, Subpart EEEEE:
  - (1) Line 2 pouring and melting furnaces;
  - (2) Fugitive emissions from foundry operations.

- (c) The definitions of 40 CFR 63, Subpart EEEEE at 40 CFR 63.7765 are incorporated by reference.
- (d) Pursuant to 40 CFR 63.7700(a) and 40 CFR 63.7683(b), the Permittee shall comply with the certification requirements in 40 CFR 63.7700(b) or prepare and implement a plan for the selection and inspection of scrap according to the requirements in 40 CFR 63.7700(c) no later than one year after the effective date of 40 CFR 63, Subpart EEEEE.
- (e) The Permittee shall submit:
  - (1) An Initial Notification containing the information specified in 40 CFR 63.9(b)(2) no later than 120 days after the effective date of 40 CFR 63, Subpart EEEEE.
  - (2) A Notification of Compliance Status containing the information required by 40 CFR 63.9(h) in accordance with 40 CFR 63.7750(e). The Notification of Compliance Status must be submitted:
    - (A) Before the close of business on the 30th calendar day following completion of the initial compliance demonstration for each initial compliance demonstration that does not include a performance test; and
    - (B) Before the close of business on the 60th calendar day following the completion of the performance test according to the requirement specified in 40 CFR 63.10(d)(2) for each initial compliance demonstration that does include a performance test.
  - (3) If required to conduct a performance test, a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required by 40 CFR 63.7(b)(1) and 40 CFR 63.7750(d).
  - (4) If required to use a continuous monitoring system (CMS), notifications, if required, as specified in 40 CFR 63.9(g), by the date of submission of the notification of intent to conduct a performance test.
  - (5) If required to conduct opacity or visible emissions observations, the anticipated date for conducting the opacity or visible emission observations specified in 40 CFR 63.6(h)(5) in accordance with the appropriate schedule specified in 40 CFR 63.9(f) as required by 40 CFR 63.7750(a).
- (f) The notifications required by paragraph (a) shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V  
Director, Air and Radiation Division  
77 West Jackson Boulevard

Chicago, Illinois 60604-3590

The notifications require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (g) The Permittee shall submit an application for a significant permit modification to IDEM, OAQ to include information from the notification of compliance status in the Title V permit.
- (1) The significant permit modification application shall be consistent with 326 IAC 2-7-12, including information sufficient for IDEM, OAQ to incorporate into the Title V permit the applicable requirements of 40 CFR 63, Subpart EEEEE, a description of the affected source and activities subject to the standard, and a description of how the Permittee will meet the applicable requirements of the standard.
- (2) The significant permit modification application shall be submitted no later than the date that the notification of compliance status is due.
- (3) The significant permit modification application shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

### **State Rule Applicability - Entire Source**

#### **326 IAC 5-1 (Opacity Limitations)**

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

- (a) Opacity shall not exceed an average of forty percent (40%) 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 2-2 (Prevention of Significant Deterioration (PSD)) and 326 IAC 8-1-6 (BACT)**

### **VOC**

INTAT Precision, Inc. has taken a production limit of 61,500 tons per year and will operate the sand system, pouring, cooling, shakeout, conveyor, shot blast and grinding equipment of Plant 1 at a VOC emission level that is under 0.8 lb per ton of metal produced. This will limit VOC to 24.6 tons per year; therefore PSD for VOC will not apply.

### **PM10**

The INTAT Line 2 sand pouring, mold cooling, shakeout, sand handling and finishing operations are subject to the requirements of 326 IAC 2-2 (PSD) for PM10 emissions. The BACT analysis is included in Appendix B of this document. The BACT establishes PM10 emission limits of 0.003 gr/dscf for the combined pouring, mold cooling, shakeout, sand handling and finishing operations. The Permittee shall meet this limit by the use of a fabric filter baghouse. More detailed information is included in the BACT analysis in Appendix B.

**Other Pollutants**

The INTAT Line 2 emits PM, SO<sub>2</sub> and NO<sub>x</sub> in amounts less than the PSD significance levels; therefore, the Line 2 is not subject to the requirements of PSD for any other pollutant.

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

(a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate from charge handling, melting and pouring/cooling, mold castings, casting shakeout, sand handling, waste sand handling, grinding/cleaning, coremaking, holding, and inoculation processes for all three grey iron foundry lines shall be limited by the following:

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:

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

and

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

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

Unit	Stack ID	Process Weight Rate (TPH)	Allowable Emission (lb/hr)	PSD Limitation (TPY)
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**GREY IRON FOUNDRY LINES CONSTRUCTED IN 1988**

Coremaking (P4, P5, P6, P7)	9, 10A, 10B	2.0	6.52	3.58
Charge Handling (P1, P2, P3)	N/A	20.0	30.51	26.19
Melting System - Electric Induction Furnace (P8) and Holding Furnaces (P9)	3A, 3B	20.0	30.51	8.21
Inoculation (P11)	3A, 3B	20.0	30.51	8.21
Pouring (P13A and P13B)	2,3B	20.0	30.51	5.49
Casting Cooling (P14A and P14B)	1A, 1-6200	20.0	30.51	3.90
Shakeout (P16A,16B)	1B, 2, 1-6200	20.0	30.51	5.53

Conveying System (P17A - P22A)	6A, 6B, 8B	20.0	30.51	5.19
Shotblast Operation P26, P27,P40,P41, P42	8A, 6B	20.0	30.51	8.63
Grinding (P29 & P30)	8A	20.0	30.51	8.63
Sand Handling (P32a - P37A & P39A)	2, 3A, 1-6200, 1- 6300/6400	150.0	55.44	9.75
Subtotal	--	--	--	93.31

**GREY IRON FOUNDRY LINE CONSTRUCTED IN 1997**

Charge Handling (1000A)	NA	10.0	19.18	21.00
Melting & Pouring (1000)	6100	10.0	19.18	17.40
Mold/Casting Cooling (2000)	6200A	10.0	19.18	17.78
Casting Shakeout (3000)	6200B	10.0	19.18	17.78
Sand Handling (4000)	6300	70.0	47.77	17.99

The baghouses shall be in operation at all times the INTAT sand pouring, mold cooling, shakeout, sand handling and finishing operations, in order to comply with the limits.

**Compliance Requirements**

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time

period.

The compliance monitoring requirements applicable to this modification are as follows:

The INTAT Plant 1 Melting and Casting operations has applicable compliance monitoring conditions as specified below:

- (a) Visible emission notations of each baghouse stack exhausts shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal. For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.
- (b) The Permittee shall record the total static pressure drop across all baghouses used in conjunction with the Plant 1 process listed in this section, at least once per shift when the processes is in operation. When for any one reading, the pressure drop across a baghouse is outside the normal range of 4.0 and 10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

- (c) An inspection shall be performed each calendar quarter of all bags controlling the processes at this source. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.
- (d) In the event that bag failure has been observed:
  - (1) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be 10 days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

- (2) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, or dust traces, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (e) Records shall be kept of the sand and metal throughputs to the Line 2 each month. A report of this information shall be submitted each calendar quarter.
- (f) Within 180 days after commencing operation of the modified Line 2, the Permittee shall conduct VOC stack tests on the Line 2 cooling, shakeout and sand handling operations. Within 180 days after commencing operation of the modified Line 2, the Permittee shall conduct PM and PM10 stack tests (and PM10 BACT test) on the Line 2 sand pouring, cooling, shakeout and shotblasting operations. The PM and PM10 and VOC tests shall be repeated at least once every 5 years.

### Proposed Changes

The following changes in the sections below are descriptive changes only and not physical changes. The exception being the modifications described in (b)(1)(B) and (b)(1)(D). Language with a strikeout has been removed and bold has been added.

~~(a) Two (2) gray iron foundry lines, constructed in 1988, consisting of the following:~~

**(a) Core production facilities consisting of:**

~~One (1) coremaking system, including~~

- (1) three (3) core sand bins and four (4) isocure **cold box** core machines, identified as P4, P5, P6 and P7, with P4, P5, and P6 constructed in 1988 and P7 constructed in 1994, each with a maximum capacity of processing 0.5 ton of cores **sand per hour, 8.0 pounds** of resin per ~~hour~~ **ton of core sand** per hour and **1.12 pounds** of TEA ~~per hour~~ **catalyst per ton of core sand**, utilizing a cartridge collector for particulate control, exhausting to stack ID No. 9 and ~~a~~ **(1) scrubber (ID Scrubber #1) for control of triethylamine (TEA) control emissions from core machines P4 and P5, exhausting through stack ID Nos. 10A and 10B and (1) one scrubber (ID Scrubber #2) for control of TEA emissions from core machines P6 and P7, exhausting through stack ID No. 10B.** ~~The source voluntarily utilizes a TEA scrubber with 90% control efficiency;~~

~~(b) Two (2) gray iron foundry lines, constructed in 1988, consisting of the following:~~

**(1) Plant 1 Melting Operations originally constructed in 1988 and to be modified in 2004, consisting of:**

- ~~(A-2)~~ One (1) indoor charge handling system for the three (3) electric induction furnaces, with a total maximum throughput capacity of 20 tons of metal per hour, consisting of three (3) units, identified as P1, P2, and P3, each with a maximum throughput capacity of 10 tons of metal per hour;

Note: The power control system at the plant limits the total maximum throughput of the charge handling system to 20 tons of metal per hour.

- ~~(B-3)~~ One (1) melting system, identified as P8, with a maximum capacity of 20 tons of metal per hour, consisting of three (3) electric induction furnaces, each with a melting capacity of 10 tons per hour, utilizing two (2) cartridge collectors for particulate control, exhausting

to stack ID Nos. 3A and 3B;

Note: The maximum throughput of metal for the melting system is limited to 20 tons per hour by the maximum throughput from the charge handling system of 20 tons of metal per hour.

- (C 4) One (1) holding system consisting of the following equipment:
  - (A) Two (2) electric holding furnaces, identified as P9, each with a holding capacity of 50 tons and a total maximum throughput capacity of 100 tons of metal per hour, utilizing two (2) cartridge collectors for particulate control, exhausting to stack ID Nos. 3A and 3B;
  - (B) Six (6) ladle heaters **to be replaced in 2004**, identified as P10, each with a heating capacity of 2.3 million British thermal units (MMBtu) per hour, each combusting natural gas, ~~with a maximum throughput capacity of 50 tons of metal per hour,~~ exhausting to **the building** stack ID Nos. 12A, 12B and 12C;
- (D 5) One (1) inoculation system consisting of two (2) ~~inoculation~~ ladles **to be replaced in 2004** identified as P11, each with a maximum throughput capacity of 10 tons of metal per hour, ~~utilizing two (2) cartridge collectors~~ **controlled by Dust Collectors DC-3A and DC-3B** for particulate control, exhausting to stack ID Nos. 3A and 3B;

(c) **Plant 1 Casting Line 1 constructed in 1988 with a capacity of 10 tons of metal and 75 tons of sand per hour, whose total capacity is further restricted by the overall melt capacity of 20 tons of metal/hour for both Lines 1 and 2, consisting of the following equipment:**

- (1 12) ~~Two (2) sand handling systems, consisting of nine (9) sand bins (P32), two (2) sand elevators (P33), two (2) sand mullers (P34), two (2) sand aerators (P35), two (2) sand coolers (P36), two (2) magnetic separators (P37), one (1) reclaim sand mill and screen (P38), and sand conveyors (P39), each system with a maximum capacity of 75 tons of sand per hour, utilizing five (5) cartridge collectors for particulate control~~ **One (1) sand system consisting of units identified as P32A, P33A, P34A, P35A, P36A, P37A, and P39A, controlled by baghouses DC2 and DC3A, exhausting to stacks 2 and 3A.**
- (2 6) ~~One (1) pouring system consisting of two (2) automatic pouring lines station, identified as P13A controlled by dust collector DC2, exhausting to stack 2. each with a maximum capacity of 10 tons of metal per hour and 75 tons of sand per hour, utilizing a cartridge collector for particulate control, exhausting to stack ID No. 2;~~
- (3 7) ~~One (1) casting cooling system, consisting of two (2) identical cooling lines~~ **cooling line identified as P14A, controlled by dust collector DC1A, exhausting to stack 1A.** ~~P14 and P15, each of which includes one (1) cooling conveyor and one (1) cooling tunnel, each line with a maximum capacity of 10 tons of metal per hour and 75 tons of sand per hour, each line utilizing a cartridge collector for particulate control, exhausting to stacks ID Nos. 1A and 1B, respectively;~~
- (4 8) **One (1) shakeout unit identified as P16A, controlled by dust collectors DC1B and DC2, exhausting to stacks 1B and 2.** ~~One (1) shakeout system unit identified as (P16A) consisting of two (2) shakeout drums, each with a maximum capacity of 10 tons of metal per hour and 75 tons of sand per hour, each drum utilizing a cartridge collector for particulate control, exhausting to stack ID Nos. 4A and 4B, respectively;~~
- (5 9) **Casting conveyors identified as P17A, P18A, P19A, P20A, P21A, P22A controlled by baghouse DC-6A exhausting through stack 6A.** ~~One (1) conveying system, consisting of a casting dump (P17), two (2) casting conveyors (P18), two (2) desprue conveyors (P19), two (2) sprue chutes and bins (P20), casting discharge (P21), and a rejected casting dump (P22), with each of P17 through P22 having a maximum capacity of 10 tons metal per hour, utilizing two (2) cartridge collectors for particulate control, exhausting to stack ID Nos. 6A and 6B. The maximum throughput of metal is limited to 20 tons per hour based on the~~

maximum melt capacity;

- (6 40) **Shot blast processes consisting of two shot blast units identified as P26, and P27 each with a maximum capacity of 6 tons of metal/hour, controlled by dust collector DC-8A, exhausting to stack 8A. One (1) shotblasting system, consisting of a casting dump and spinblast feeder (P23), one (1) casting dump (P25), one (1) barrelblast feeder (P26), four (4) barrelblast cabinets (P27), and two (2) barrelblast discharges (P28), with P23 having a maximum capacity of 20 tons metal per hour and P25 through P28 having a maximum combined capacity of 20 tons of metal per hour, utilizing three (3) cartridge collectors for particulate control, exhausting to stack ID Nos. 7, 8A and 8B. The maximum throughput of metal is limited to 20 tons per hour based on the maximum melt capacity;**
- (7 44) **Grinding processes identified as P29 and P30, with a total capacity of 12 tons of metal/hour, controlled by dust collector DC-8A, exhausting to stack 8A and dust collector DC-8B, exhausting inside the building. One (1) grinding system, identified as P29 and P31, with a maximum combined capacity of 20 tons metal per hour, utilizing two (2) cartridge collectors for particulate control, exhausting to stack ID Nos. 8A and 8B; and**

(d) **Plant 1, Casting Line 2 to be constructed in 2004, with a capacity of 15 tons of metal and 70 tons of sand per hour consisting of the following equipment:**

- (1) **One (1) sand system consisting of units identified as P32B, P33B, P34B, P35B, P36B, P37B and P39B, controlled by baghouses BH1-6200, BH1-6300 and BH1- 6400, and exhausting to stacks 1-6200 and 1- 6300/6400.**
- (2) **One (1) pouring station identified as P13B controlled by dust collector DC3B, exhausting to stack 3B.**
- (3) **One (1) cooling line identified as P14B, controlled by baghouse BH1-6200, exhausting to stack 1-6200.**
- (4) **One (1) shakeout unit identified as P16B, controlled by baghouse BH1-6200, exhausting to stack 1-6200.**
- (5) **One (1) bad heat shakeout unit controlled by dust collector DC-5, exhausting to stack 5.**
- (6) **Casting conveyors identified as P17B, P18B, P19B, P20B, P21B, P22B, controlled by baghouses DC-6B, and DC-8B exhausting to stacks 6B and 8B.**
- (7) **One (1) Plant 1, Line 2 shot blast process consisting of three shot blast units identified as P40, P41 and P42 with a total capacity of 9.0 tons of metal/hour, controlled by dust collector DC-8B, exhausting to stack 6B.**

C.16 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-7-5] [326 IAC 2-7-6]

- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. **If a Permittee is required to have an Operation, Maintenance and Monitoring (OMM) Plan (or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan) under 40 CFR 60/63, such plans shall be deemed to satisfy the requirements for a CPR for those compliance monitoring conditions.** A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:
- (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.

- (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan **or Operation, Maintenance and Monitoring (OMM) Plan (or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan)** and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.

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**The OMM) Plan (or Parametric Monitoring and SMM Plan) shall be submitted within the time frames specified by the applicable 40 CFR60/63 requirements.**

- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
- (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan **or Operation, Maintenance and Monitoring (OMM) Plan (or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan)**; or
- (2) If none of the reasonable response steps listed in the Compliance Response Plan **or Operation, Maintenance and Monitoring (OMM) Plan (or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan)** is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.

#### **Part 2 MACT Application Submittal Requirement**

~~G.22 Application Requirements for Section 112(j) of the Clean Air Act [40 CFR 63.52(e)] [40 CFR 63.56(a)] [40 CFR 63.9(b)] [326 IAC 2-7-12]~~

- ~~(a) The Permittee shall submit a Part 2 MACT Application in accordance with 40 CFR 63.52(e)(1). The Part 2 MACT Application shall meet the requirements of 40 CFR 63.53(b).~~
- ~~(b) Notwithstanding paragraph (a), the Permittee is not required to submit a Part 2 MACT Application if the Permittee no longer meets the applicability criteria of 40 CFR 63.50 by the application deadline in 40 CFR 63.52(e)(1). For example, the Permittee would not have to submit a Part 2 MACT Application if, by the application deadline:~~
- ~~(1) The source is no longer a major source of hazardous air pollutants, as defined in 40 CFR 63.2;~~
- ~~(2) The source no longer includes one or more units in an affected source category for which the U.S. EPA failed to promulgate an emission standard by May 15, 2002; or~~
- ~~(3) The MACT standard or standards for the affected source categories included at the source are promulgated.~~
- ~~(c) Notwithstanding paragraph (a), pursuant to 40 CFR 63.56(a), the Permittee shall comply with an applicable promulgated MACT standard in accordance with the schedule provided in the MACT standard if the MACT standard is promulgated prior to the Part 2 MACT Application deadline or prior to the issuance of permit with a case-by-case Section 112(j) MACT determination. The MACT requirements include the applicable General Provisions requirements of 40 CFR 63, Subpart A. Pursuant to 40 CFR 63.9(b), the Permittee shall submit an initial notification not later than 120 days after the effective date of the MACT, unless the MACT specifies otherwise. The initial notification shall be submitted to:~~

Compliance Data Section, Office of Air Quality  
 100 North Senate Avenue, P.O. Box 6015  
 Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V  
 Director, Air and Radiation Division  
 77 West Jackson Boulevard  
 Chicago, Illinois 60604-3590

**D.2.1 BACT PM<sub>10</sub>**

(a) Pursuant to 326 IAC 2-2-3, the Permittee shall comply with the following BACT required emission limits for PM<sub>10</sub> from the Plant 1, Line 2 processes (PM<sub>10</sub> limits include both filterable and condensable).

Process	Stack No	PM <sub>10</sub> Emission Limitation (gr/dscf)	PM <sub>10</sub> Limitation (lb/hr)
6 Ladle Heaters.	3A	0.003	1.70
2 Metal Treatment Ladles	3B	0.003	1.70

(b) Pursuant to 326 IAC 2-2-3, opacity limits for stacks No. 3B, 1-6200, 6B, 1-6300/6400 and 5 shall not exceed ten percent (10%) for more than three (3) consecutive six (6) minute averaging periods.

**D.2.3 PSD Minor Limit [326 IAC 2-2]**

Emissions of PM and PM<sub>10</sub> and the throughput of metal and sand for Plant 1, Line 1 constructed in 1988, shall be limited as follows:

Process	Material	PM Emission Limitation (Lb/ton material)	Throughput Limit (Tons/12 consecutive month period)
6 Ladles Heaters	Metal	0.20	90,000
2 Metal Treatment Inoculation Ladles	Metal	0.20	90,000

**D.2.4 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]**

- (a) VOC emissions from the inoculation operation (P11) shall not exceed 0.005 pound of VOC per ton of metal throughput.
- (b) VOC emissions from the pouring operation (P12, P13) and cooling operation (P14, P15) combined shall not exceed 0.14 pound of VOC per ton of metal throughput.
- (c) VOC emissions from the shakeout operation (P16) shall not exceed 1.2 pounds of VOC per ton of metal throughput.
- (d) The throughput of metal to each of the inoculation (P11), pouring (P12, P13), cooling (P14, P15), and shakeout operations (P16) shall not exceed 37,023 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

~~The metal throughput limit and the VOC emission limits yield VOC emissions from the two (2) foundry lines constructed in 1988 that are less than 25 tons per year. Therefore, the requirements of 326 IAC 8-1-6 (New Facilities, General Reduction Requirements) do not apply.~~

**D.2.4 Particulate [326 IAC 6-3-2]**

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rates from the Plant 1, Line 1 grey iron foundry line shall be limited as follows:

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Unit	Stack ID	Process Weight Rate (ton per hour)	Allowable Emissions (pounds per hour)
Charge Handling (P1, P2, P3)	N/A	20.0	30.51
Melting System - Electric Induction Furnace (P8) and Holding Furnaces (P9)	3A, 3B	20.0	30.51
Inoculation (P11)	3A,3B	20.0	30.51
Pouring (P13A)*	2	10.0	19.18
Casting Cooling (P14A)*	1A	10.0	19.18
Shakeout (P16A)*	1B	10.0	19.18
Conveying (P17A - P22A)	6A	5.0	12.05
Shotblast Operations (P26 - P27)	8A	3.0	8.56
Grinding (P29 - P30)	7, 8A, 8B	3.0	8.56
Sand Handling (P32 - P39)	2, 3A	75.00	48.43

The ladle Heaters and Metal Treatment Inoculation Ladles are now subject to BACT for PM<sub>10</sub> as shown in D.2.1.

**D.2.7 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]**

(a) Within 60 days after achieving maximum capacity but no later than 180 days after startup, in order to demonstrate compliance with Conditions D.2.1, the Permittee shall perform PM<sub>10</sub> testing (for both filterable and condensible PM<sub>10</sub>) for the following facilities utilizing methods as approved by the Commissioner

- (1) the cartridge collector controlling the ladle heaters (P10) exhausting to stack 3A.
- (2) the baghouse controlling the metal inoculation heaters (P11) exhausting to stack 3B.

(a b) Within 180 days after issuance of this Part 70 permit, in order to demonstrate compliance with Conditions D.2.3 and D.2.4, the Permittee shall perform PM and PM<sub>10</sub> testing for the following facilities utilizing methods as approved by the Commissioner:

- (1) the cartridge collectors controlling the melting system (P8), (P9) and the inoculation operation (P11) exhausting to stacks 3A and 3B;
- (2) the cartridge collector controlling the pouring operation (P13A) exhausting to stack 2;
- (3) the cartridge collector controlling the cooling line, P14A, of the casting cooling operation exhausting to stack 1A . Testing will be required on the cartridge collector;
- (4) the cartridge collectors controlling the shakeout operation (P16A) exhausting to stack 1B; **DRAFT**
- (5) the cartridge collectors controlling the conveying operation (P17A - P22A) exhausting to stack 6A;
- (6) the cartridge collectors controlling the shotblast (P26 & P27) and grinding operations (P29 & P30) exhausting to stack 7 and 8A ; and
- (7) the cartridge collectors controlling the sand handling operations (P32A - P37A, & P39A) exhausting to stacks 3A and 2.

These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM<sub>10</sub> includes filterable and condensable PM<sub>10</sub>. Testing shall be conducted in accordance with Section C- Performance Testing.

- (b c) Within 180 days after issuance of this Part 70 permit, in order to demonstrate compliance with Condition D.2.5, the Permittee shall perform VOC testing for the pouring (P12 and P13), cooling (P14 or P15 since both cooling lines are identical), and shakeout operation (P16) utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

#### D.2.8 Particulate Control

In order to comply with conditions **D.2.1**, D.2.3 and D.2.4, the cartridge collectors for particulate control shall be in operation and control emissions from the melting, **ladle heaters**, inoculation, pouring, cooling, shakeout, conveying, shotblasting, grinding, and sand handling processes at all times that these facilities are in operation.

#### D.2.9 Visible Emissions Notations

- (a) Visible emission notations of the charge handling operation and the stack exhausts for the melting, **ladle heating**, inoculation, pouring, cooling, shakeout, conveying, shotblasting, grinding, and sand handling processes shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

#### D.2.10 Parametric Monitoring

The Permittee shall record the total static pressure drop across each of the baghouses and cartridge collectors used in conjunction with the melting, **ladle heating**, inoculation, pouring, cooling, shakeout, conveying, shotblasting, grinding, and sand handling processes, at least once per shift when the melting, **ladle heating**, inoculation, pouring, cooling, shakeout, conveying, shotblasting, grinding, and sand handling processes are in operation when venting to the atmosphere. When for any one reading, the pressure drop across any of the cartridge collectors is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

#### D.2.11 Baghouse and Cartridge Collector Inspections

An inspection shall be performed each calendar quarter of all baghouses and cartridges controlling the melting, **ladle heating**, inoculation, pouring, cooling, shakeout, conveying, shotblasting, grinding, and sand handling processes when venting to the atmosphere. Inspections required by this condition shall not be performed in consecutive months. All defective cartridges shall be replaced.

**D.3.1 BACT for PM<sub>10</sub>**

Emissions of PM and PM<sub>10</sub> from the Plant 1, Line 2 process constructed in 2004 shall be limited as follows:

- (a) Pursuant to 326 IAC 2-2-3, the Permittee shall comply with the following BACT required emission limits for PM<sub>10</sub> from the Plant 1, Line 2 processes (PM<sub>10</sub> limits include both filterable and condensable).

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Process	Stack No.	PM <sub>10</sub> Emission Limitation (Gr/dscf)	PM <sub>10</sub> Emission Limitation (lb/hr)
Pouring (P13B)	3B	0.003	1.70
Casting Cooling (P14B)	1-6200	0.003	2.85
Shakeout (P16B)	1-6200	0.003	2.85
Conveying (P17B - P22B)	6B	0.003	2.74
Shotblast Operations (P40,41 & 42)	6B	0.003	1.03
Sand Handling (P32B-P37B & P39B)	1-6200 & 1-6300/6400	0.003	1.13
<b>Bad Heat Shakeout</b>	<b>5</b>	<b>0.003</b>	0.45

- (b) Pursuant to 326 IAC 2-2-3, opacity limits for stacks No. 3B, 1-6200, 6B, 1-6300/6400 and 5 shall not exceed ten percent (10%) for more than three (3) consecutive six (6) minute averaging periods.

**D.3.2 PM Emissions**

In order to render PSD not applicable for PM the following limits shall apply:

- (a) PM emissions from each baghouse controlling pouring, cooling, shakeout, conveying, shotblast, sand handling and bad heat shakeout operations of Plant 1, Line 2 shall not exceed 0.003 gr/dscf.
- (b) Metal throughput to Plant 1, Line 2 shall not exceed 61,500 tons per 12 consecutive month period with compliance determined at the end of each month.

**D.3.3 ~~D.2.3~~ Particulate [326 IAC 6-3-2]**

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rates from the two (2) Line 2 grey iron foundry lines shall be limited as follows:

Unit	Stack ID	Process Weight Rate (ton per hour)	Allowable Emissions (pounds per hour)
Charge Handling (P1,P2,P3)	N/A	20.0	30.51
Melting Electric Induction Furn. (P8) & Holding Furn. (P9)	3A,3B	20.0	30.51

Unit	Stack ID	Process Weight Rate (ton per hour)	Allowable Emissions (pounds per hour)
Inoculation (P11)	3A,3B	20.0	30.54
Pouring (P12 and P13) (P13B)*	2 3B	170.0 15.0	56.76 25.16
Casting Cooling (P14 and P15) (P14B)*	4A,4B 1-6200	170.0 15.0	56.76 25.16
Shakeout (P16) (P16B)*	4A,4B 1-6200	170.0 15.0	56.76 25.16
Conveying (P17B - P22B)	6A 6B, 8B	20.0 15.0	30.54 25.16
Shotblast Operations (P23-P28) (P40,41 & 42)	(8A,8B) 6B	20.0 9.0	30.54 17.87
Grinding (P29-P31)	7, 8A, 8B	20.0	30.54
Sand Handling (P32-P39) (P32B-P37B, P39B)	3A,3B,4A,4B,5 1-6200, 1-6300/6400	150.0 70.0	55.44 47.76

**D.3.4 VOC Emissions [326 IAC 2-2] [326 IAC 8-1-6]**

In order to render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 8-1-6(BACT) not applicable for VOC's, the following conditions shall apply:

- (a) The metal throughput to Line 2 of the Plant 1 process shall not exceed 61,500 tons per 12 consecutive month period, with compliance determined at the end of each month.
- (b) VOC emissions shall not exceed 0.8 lb/ ton of metal from the pouring, cooling, shakeout and bad heat shakeout combined.

These limits will equate to a total VOC emission level from the Plant 1 operations of less than 25 tons of VOC per 12 consecutive month period, therefore the requirements of PSD and 326 IAC 8-1-6 will not apply.

**D.3.6 D.2.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]**

- (a) Within 180 days after issuance of this permit, **Within 60 days after achieving maximum capacity but no later than 180 days after startup**, in order to demonstrate compliance with Conditions D.3.1 and D.3.2, the Permittee shall perform PM and PM<sub>10</sub> (for both filterable and condensable PM<sub>10</sub>) testing for the following facilities utilizing methods as approved by the Commissioner.
  - (1) the cartridge collectors controlling the melting system (P8) and the inoculation operation (P11) exhausting to stacks 3A and 3B;
  - (2) the cartridge collector controlling the pouring operation (P12, P13) exhausting to stack 2;
  - (3) the two (2) cartridge collectors controlling the two (2) identical cooling lines, P14 and P15, of the casting cooling operation exhausting to stacks 1A and 1B. Since each

- cooling line is identical, testing will only be required on one (1) of these cartridge collectors;
- ~~(4) the cartridge collectors controlling the shakeout operation (P16) exhausting to stacks 4A and 4B;~~
  - ~~(5) the cartridge collectors controlling the conveying operation (P17 - P22) exhausting to stacks 6A and 6B;~~
  - ~~(6) the cartridge collectors controlling the shotblast (P23 - P28) and grinding operations (P29 - P31) exhausting to stacks 8A, 8B, and 7; and~~
  - ~~(7) the cartridge collectors controlling the sand handling operations (P32 - P39) exhausting to stacks 3A, 3B, 4A, 4B, and 5.~~
- (1) the baghouse, DC3B, controlling the pouring operation (P13B) exhausting to stack 3B.**
  - (2) the baghouse BH1-6200 controlling the cooling operation (P14B) and the shakeout process (P16B) exhausting to stack 1- 6200.**
  - (3) the cartridge collectors DC 6B and DC8B controlling the casting conveyor and the shotblast system, exhausting to stack 6B.**
  - (4) baghouses BH 1-6300 and BH 1-6400 controlling the sand handling system exhausting to stack 1-6300/6400.**
  - (5) the cartridge collector DC5, controlling the bad heat shakeout operation exhausting to stack 5.**
- ~~(b) Within 180 days after issuance of this Part 70 permit, in order to demonstrate compliance with Condition D.2.4, the Permittee shall perform VOC testing for the pouring (P12 and P13), cooling (P14 or P15 since both cooling lines are identical), and shakeout operation (P16) utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.~~
- (b) Within 60 days after achieving maximum capacity but no later than 180 days after startup of the Line 2 modifications, in order to demonstrate compliance with Condition D.3.4, the Permittee shall perform VOC testing for the pouring (P13B), cooling (P14B), shakeout (P16B), and the bad heat shakeout operations exhausting to stacks 3B, 5 and 1-6200 utilizing methods as approved by the Commissioner.**

These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

#### D.3.7 ~~D.2.7~~ Particulate Control

**Pursuant to CP-139-8845-00011, issued on December 10, 1997,** and in order to comply with conditions ~~D.2.2~~ **D. 3.1** and ~~D.2.3~~ **D.3.2**, the cartridge collectors and baghouses for particulate control shall be in operation and control emissions from the pouring, cooling, shakeout, conveying, shotblasting, and sand handling processes at all times that these facilities are in operation.

#### D.3.9 Parametric Monitoring

The Permittee shall record the total static pressure drop across each of the baghouses **and cartridge collectors** used in conjunction with the pouring, cooling, shakeout, conveying, shotblasting and sand handling processes, at least once per shift when the pouring, cooling, shakeout, conveying, shotblasting and sand handling processes are in operation when venting to the atmosphere. When for any one reading, the pressure drop across any of the baghouses is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a ~~violation of this~~ **deviation from** this permit.

#### D.3.10 Baghouse and Cartridge Collector Inspections

An inspection shall be performed each calendar quarter of all **baghouses and** cartridges controlling the pouring, cooling, shakeout, conveying, shotblasting and sand handling processes when venting to the atmosphere. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.

#### D.3.11 Broken or Failed Baghouse and Cartridge Collector Detection

In the event that a **baghouse or** cartridge collector failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. ~~Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B - Emergency Provisions).~~ Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit. **If operations continue after the bag failure is observed and it will be 10 days or more after the failure is observed before the failed units can be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.**

#### D.3.12 Record Keeping Requirements

- ~~(a) To document compliance with Condition D.3.2, the Permittee shall maintain the following records:~~

~~(1) The metal throughput to the melting, inoculation, pouring, cooling, shakeout, conveying, shotblasting, and grinding operations for each month.~~

~~(2) The sand throughput to the sand handling operation for each month.~~

~~Records of metal throughput to the inoculation, pouring, cooling, and shakeout operations shall also be used to document compliance with condition D.3.4(d). Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.~~

- ~~(b) To document compliance with Condition D.3.8, the Permittee shall maintain records of visible emission notations of the charge handling operation and the stack exhausts for the melting, inoculation, pouring, cooling, shakeout, conveying, shotblasting, grinding, and sand handling processes once per shift.~~
- ~~(c) To document compliance with Condition D.3.9, the Permittee shall maintain once per shift records of the total static pressure drop during normal operation when venting to the atmosphere.~~
- ~~(d) To document compliance with Condition D.3.10, the Permittee shall maintain records of the results of the inspections required under Condition D.2.10.~~
- ~~(e) To document compliance with Condition D.3.5, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.~~
- ~~(f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.~~

### **D.3.12 Record Keeping Requirements**

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- (a) To document compliance with Condition D.3.2, the Permittee shall maintain records of the amount of sand and metal throughput of the operation.
- (b) To document compliance with Condition D.3.5, the Permittee shall maintain records of any additional inspections prescribed by the Preventative Maintenance Plan.
- (c) To document compliance with Condition D.3.9, the Permittee shall maintain once per shift records of the static pressure drop during normal operation when venting to the atmosphere.
- (d) To document compliance with Condition D.3.10, the Permittee shall maintain records of the results of the inspections required under Condition D.2.10.
- (e) To document compliance with Condition D.3.8, the Permittee shall maintain records of visible emission notations of the charge handling operation and the stack exhausts for the melting, inoculation, pouring, cooling, shakeout, conveying, shotblasting and sand handling processes taken once per shift.
- (f) All records shall be maintained in accordance with Section C- General Record Keeping Requirements, of this permit.

**Section D.3 (One (1) grey iron foundry line, constructed in 1997) has been changed to Section D.4**

### **D.4.12 Broken or Failed Baghouse and Cartridge Collector Detection**

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In the event that a **baghouse or** cartridge collector failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. ~~Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions).~~ Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit. **If operations continue after the bag failure is observed and it will be 10 days or more after the failure is observed before the failed units can be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.**

**Section D.4 Insignificant Activities has been changed to Section D.5.**

## **Part 70 Quarterly Report**

Source Name: INTAT Precision Inc.

Source Address: State Road 3 North, Rushville, Indiana 46173  
 Mailing Address: P.O. Box 488, Rushville, Indiana 46173  
 Part 70 Permit No.: T139-17898-00011  
 Facility: Line 1 of two (2) grey iron foundry lines constructed in 1988  
 Parameter: PM and PM10 emissions and VOC emissions  
 Limit:

- (a) ~~The throughput of metal to each of the following facilities shall not exceed 90,000 tons per twelve (12) consecutive month period: melting (P8) and holding furnaces (P9), inoculation (P11), pouring (P12, P13), cooling (P14, P15), shakeout (P16), conveying (P17-P22), shotblasting (P23-P28) and grinding (P29-P31).~~
- (b) ~~The throughput of metal to each of the inoculation (P11), pouring (P12, P13), cooling (P14, P15), and shakeout operations (P16) shall not exceed 37,023 tons per twelve (12) consecutive month period.~~

**The throughput of metal to each of the melting (P8 & P9), ladle (P10), inoculation (P11), pouring ( P13A), cooling (P14A), shakeout operations (P16A), conveying (P17A-P22A), shotblast (P26 &P27) and Grinding (P29&P30) shall not exceed 37,023 tons per twelve (12) consecutive month period.**

The operation P11 (inoculation) has been added to the following chart.

YEAR: \_\_\_\_\_

Month	Facility ID	Column 1	Column 2	Column 1 + Column 2
		Metal Throughput This Month (tons)	Metal Throughput for Previous 11 Months (tons)	12 Month Total Metal Throughput (tons)
	P8, P9			
	P10, P11			
	P13A			
	P14A			
	P16A			
	P17A - P22A			
	P26 & P27			
	P29 & P30			
	P8, P9			
	P10, P11			
	P13A			
	P14A			
	P16A			
	P17A - P22A			
	P26 & P27			
	P29 & P30			

## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

### Part 70 Quarterly Report

Source Name: INTAT Precision Inc.  
Source Address: State Road 3 North, Rushville, Indiana 46173  
Mailing Address: P.O. Box 488, Rushville, Indiana 46173  
Part 70 Permit No.: T139-17898-00011  
Facility: One (1) grey iron foundry line constructed in 2004, Plant 1, Line 2  
Parameter: PM and PM10 emissions  
Limit: The throughput of metal to Plant 1, Line 2 shall not exceed 5,125 tons per month during the first 12 months of operation.

YEAR: \_\_\_\_\_

Month	Metal throughput this month (tons)
1	
2	
3	

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

Source Name: INTAT Precision Inc.  
Source Address: State Road 3 North, Rushville, Indiana 46173  
Mailing Address: P.O. Box 488, Rushville, Indiana 46173  
Part 70 Permit No.: T139-17898-00011  
Facility: Line 4 2 of two (2) grey iron foundry lines constructed in 1988  
Parameter: PM and PM10 emissions and VOC emissions  
Limit: (a) — The throughput of metal to each of the following facilities shall not exceed 90,000 tons per twelve (12) consecutive month period: melting (P8) and holding furnaces (P9), inoculation (P11), pouring (P12, P13), cooling (P14, P15), shakeout (P16), conveying (P17-P22), shotblasting (P23-P28) and grinding (P29-P31).

(b) ~~The throughput of metal to each of the inoculation (P11), pouring (P12, P13), cooling (P14, P15), and shakeout operations (P16) shall not exceed 37,023 tons per twelve (12) consecutive month period.~~

**The throughput of metal to each of the following facilities shall not exceed 61,500 tons per twelve (12) consecutive month period: melting (P8,P9), ladle (P10), inoculation (P11), pouring (P13B), cooling (P14B), shakeout (P16B), conveying (P17B -P22B), shotblasting (P40 - P42) and grinding (P29 -P30).**

Month	Facility ID	Column 1	Column 2	Column 1 + Column 2
		Metal Throughput This Month (tons)	Metal Throughput for Previous 11 Months (tons)	12 Month Total Metal Throughput (tons)
	P8, P9			
	P10, P11			
	P13B			
	P14B			
	P16B			
	P17B - P22B			
	P40 - P42			
	P29 - P30			
	P8, P9			
	P10, P11			
	P13B			
	P14B			
	P16B			
	P17B - P22B			
	P40 - P42			
	P29 - P30			
	P8, P9			
	P10, P11			
	P13B			
	P14B			
	P16B			
	P17B-P22B			
	P40-P42			
	P29-P30			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_ DRAFT \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

### Part 70 Quarterly Report

Source Name: INTAT Precision Inc.  
Source Address: State Road 3 North, Rushville, Indiana 46173  
Mailing Address: P.O. Box 488, Rushville, Indiana 46173  
Part 70 Permit No.: T139-17898-00011  
Facility: One (1) grey iron foundry line constructed in 2004, Plant 1, Line 2  
Parameter: PM and PM10 emissions  
Limit: The throughput of sand to Plant 1, Line 2 shall not exceed 17,935 tons per month during the first 12 months of operation.

YEAR: \_\_\_\_\_

Month	Sand throughput this month (tons)
1	
2	
3	

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

## OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

### Part 70 Quarterly Report

DRAFT

Source Name: INTAT Precision Inc.  
 Source Address: State Road 3 North, Rushville, Indiana 46173  
 Mailing Address: P.O. Box 488, Rushville, Indiana 46173  
 Part 70 Permit No.: T139-17898-00011  
 Facility: One (1) grey iron foundry line constructed in 2004, Plant 1, Line 2  
 Parameter: PM and PM10 emissions  
 Limit: The throughput of sand to the sand handling operation (P32B- P37B, P39B) shall not exceed 215,230 tons per twelve (12) consecutive month period.

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	Sand Throughput This Month (tons)	Sand Throughput for Previous 11 Months (tons)	12 Month Total Sand Throughput (tons)

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.  
 Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
 Title / Position: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

### **Conclusion**

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 PSD Significant Source Modification No. 139-17898-00011 and PSD Significant Permit Modification No. 139-18320-00011.

DRAFT

**Appendix A: Emission Calculation (Plant 1, Line 2)**

Company Name: INTAT Precision, Inc.  
Mailing Address: 2148 State Road 3 North, Rushville, IN 46173  
PSD SSM: 139-17898-00011  
PSD SPM: 139-18320-00011  
Reviewer: Walter Habeeb  
Date: December 17, 2003

**Uncontrolled Emission Factors (lbs/ton of metal)**

Process Description	PM	PM10 Filterable	VOC	Manganese	Organic HAPs
Metal Ladles	1.8	0.9			
Pouring/Cooling	4.2	2.06	0.80 includes shakeout	1.0E-03 to 6.0E-05	0.28 includes shakeout
Shakeout	3.2	2.4		4.2E-03	
Sand System	3.6	0.54			
Shotblast	17.0	1.7		2.24E-03	
Grinding	17.0	1.7		2.24E-03	

Emission factors are from AP-42, Table 12.10-7

**Uncontrolled Emission - PM10 Condensable**

Process Description	lb/ ton - metal	lb/hr	ton per year
Melting / Pouring	0.453	6.8	13.93
Cooling / Shakeout	0.76	11.4	23.37
Total	1.213	18.2	37.30

### Uncontrolled Potential to Emit (Tons/yr)

Process	Capacity	PM	PM10 Filterable	VOC	CO	NOx	SO2	Lead	Mn	Organic HAPs	Total HAPs
Metal Ladles	20 tmph	157.68	78.84F								
N.G. Comb.	13.8 MMBtu/hr	0.11	0.46	0.30	5.08	6.0	0.04	3.02 E-05	2.30E-05	0.11	0.11
Pouring Cooling	15 tmph 15 tmph	275.94	135.34F	65.70 include shake out					6.57E-02 to 3.9E-03	18.40 include shake out	18.74 include shake out
Shakeout	15 tmph	210.24	147.17F						2.76E-01		
Sand System	70 tsph	1103.76	165.56								
Shot blast	9 tmph	670.14	67.01						8.83E-02		0.09
Grinding	12 tmph	893.52	89.35						1.18E-01		0.12
Total		3311.39	683.74F	66.00	5.08	6.0	0.04	3.03 E-05	0.55	18.51	19.06

Factors for VOC emissions from Pouring, Cooling and Shakeout are from source data from similar sources. Factors for Organic HAPs for Pouring, Cooling and Shakeout are from "NESHAP for Iron and Steel Foundries - Background Information for Proposed standards", EPA-453/R-02-013, Dec.2002, page C-13.

**Appendix A: Emission Calculation (Plant 1, Line 2)**

**Controlled Emission**

(Based On Plant 1 Production Limit of 61,500 TPY of Metal Produced)

Unit Description	Through put Capacity	Control Equipment	Air Flow Rate (CFM)	Grain Load (gr/dscf)*	PM / PM10 lb/hr *	Pm / PM10 lb/tm	PM / PM10 tpy	VOC tpy
2 Metal Treatment	20 tm/hr	DC 3A	66,225	0.003 F	1.70 F	0.085 F	2.61F	
6 Ladle Heater	20 tm/hr 13.8 MMBtu/hr	DC3B	66,225	0.003	1.70	0.085	3.01 F	0.30
Pouring / Cooling	15 tm/hr	BH1 -6200	111,000	0.003	2.86	0.19 F	5.84 F	24.60
Shakeout	15 tm/hr	BH1-6300	111,000	0.003	2.86	0.19 F	5.84 F	
Sand System	70 t sand/hr	BH1-6300	44,000	0.003	1.13	0.02	0.62 F	
Shotblast, Casting Conveyor	12 tmph	DC 6B	40,000	0.003	1.03	0.085	2.64 F	
Grinding	15 tmph	DC 8B	65,540	0.003	1.71	0.11	3.38 F	
Bad Heat Shakeout	15 tmph	DC 5	17,400	0.003	0.45	0.03	0.92 F	
<b>Total</b>					<b>13.44</b>		<b>24.86 F</b>	24.90

\* F= filterable

Source has taken a production limit of 61,500 TPY of metal and maximum VOC emission limit of 0.8 lb/tm.

$$\text{VOC Limit (TPY)} = \frac{(0.8 \text{ lb/tm}) (61,500 \text{ tm/yr})}{(2000 \text{ lb/t})} = 24.60 \text{ TPY}$$

$$\text{PM}_{10} \text{ (lb/hr)} = \frac{(\text{Capacity Baghouse} - \text{cf/m}) (\text{grain loading of bag} - \text{gr/cf}) (60 \text{ m/hr})}{(7000 \text{ gr/lb})}$$

$$\text{PM}_{10} \text{ (lb/ton metal)} = \frac{(\text{PM lb/hr})}{(\text{Capacity of Unit ton metal/hr})}$$

$$\text{PM}_{10} \text{ (TPY)} = \frac{(\text{PM lb/tm}) (61,500 \text{ tm/yr})}{(2000 \text{ lb/T})}$$

$$\text{PM}_{10} \text{ (gr/dscf)} = \frac{(\text{PM}_{10} \text{ lb/ton}) (\text{Capacity ton/hr}) (7000 \text{ gr/lb})}{(\text{Capacity Baghouse dscf/min}) (60 \text{ min/hr})}$$

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

**Company Name:** INTAT Precision, Inc.  
**Address City IN Zip:** 2148 State Road 3 North, Rushville, In 46173  
**Permit Number:** SSM 139-17898-00011 / SPM 139-18320-00011  
**Pit ID:** SSM139-00011  
**Reviewer:** Walter Habeeb  
**Date:** 17-Dec-03

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

13.8

120.9

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	**see below	5.5	84.0
Potential Emission in tons/yr	0.1	0.5	0.0	0.0	0.3	5.1

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

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

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

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

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See page 2 for HAPs emissions calculations.

updated 4/99

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

**Company Name:** INTAT Precision, Inc.  
**Address City IN Zip:** 2148 State Road 3 North, Rushville, In 46173  
**Permit Number:** SSM 139-17898-00011 / SPM 139-18320-00011  
**Pit ID:** SSM139-00011  
**Reviewer:** Walter Habeeb  
**Date:** 17-Dec-03

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	1.269E-04	7.253E-05	4.533E-03	1.088E-01	2.055E-04

HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	3.022E-05	6.649E-05	8.462E-05	2.297E-05	1.269E-04

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.  
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.