



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: May 21, 2008

RE: North Vernon Industry Corporation / 079-25513-00018

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

Notice of Decision: Approval – Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-17-3-4 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, Suite N 501E, 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.



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

Mr. Kenji Yasuda
North Vernon Industry Corporation
P.O. Box 894
North Vernon, Indiana 47265

May 21, 2008

Re: 079-25513-00018
Significant Permit Modification to
Part 70 No. T079-15119-00018

Dear Mr. Yasuda:

North Vernon Industry Corporation was issued Part 70 Operating Permit T079-15119-00018 on September 1, 2006 for a stationary gray iron foundry. A letter requesting changes to this permit was received on October 2, 2007. Pursuant to the provisions of 326 IAC 2-7-12, a significant permit modification to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of the addition of new mold making operations, pouring and cooling operations, and finishing operations.

All other conditions of the permit shall remain unchanged and in effect. Please find attached a copy of the revised permit.

Pursuant to Contract No. A305-5-65, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Mr. Stephen Treimel, ERG, 1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (919) 468-7902 to speak directly to Mr. Treimel. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana, 46204-2251, or call (800) 451-6027 and ask for Duane Van Laningham or extension 3-6878, or dial (317) 233-6878.

Sincerely/Original Signed By:

Matthew Stuckey, Chief
Permits Branch
Office of Air Quality

Attachments
ERG/ST

cc: File - Jennings County
Jennings County Health Department
Air Compliance Section Inspector
Compliance Data Section
Administrative and Development
Billing, Licensing and Training Section



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY

**North Vernon Industry Corporation
3750 North County Road 75 West
North Vernon, Indiana 47265**

(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. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-7-10.5, applicable to those conditions.

Operation Permit No.: T079-15119-00018	
Issued by: Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: September 1, 2006 Expiration Date: September 1, 2011
Significant Permit Modification No.: 079-25513-00018	
Issued by/Original Signed By: Matthew Stuckey, Chief Permits Branch Office of Air Quality	Issuance Date: May 21, 2008 Expiration Date: September 1, 2011

TABLE OF CONTENTS

SECTION A	SOURCE SUMMARY	6
A.1	General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(15)][326 IAC 2-7-1(22)]	
A.2	Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]	
A.3	Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]	
A.4	Part 70 Permit Applicability [326 IAC 2-7-2]	
SECTION B	GENERAL CONDITIONS	12
B.1	Definitions [326 IAC 2-7-1]	
B.2	Permit Term [326 IAC 2-7-5(2)] [326 IAC 2-1.1-9.5] [326 IAC 2-7-4(a)(1)(D)] [IC 13-15-3-6(a)]	
B.3	Term of Conditions [326 IAC 2-1.1-9.5]	
B.4	Enforceability [326 IAC 2-7-7]	
B.5	Severability [326 IAC 2-7-5(5)]	
B.6	Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]	
B.7	Duty to Provide Information [326 IAC 2-7-5(6)(E)]	
B.8	Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]	
B.9	Annual Compliance Certification [326 IAC 2-7-6(5)]	
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]	
B.11	Emergency Provisions [326 IAC 2-7-16]	
B.12	Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]	
B.13	Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]	
B.14	Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]	
B.15	Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]	
B.16	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]	
B.17	Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4] [326 IAC 2-7-8(e)]	
B.18	Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]	
B.19	Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12 (b)(2)]	
B.20	Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]	
B.21	Source Modification Requirement [326 IAC 2-7-10.5] [326 IAC 2-2-2]	
B.22	Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]	
B.23	Transfer of Ownership or Operational Control [326 IAC 2-7-11]	
B.24	Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]	
B.25	Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]	
SECTION C	SOURCE OPERATION CONDITIONS	22
	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 [326 IAC 6-3-2]	
C.2	Opacity [326 IAC 5-1]	
C.3	Open Burning [326 IAC 4-1] [IC 13-17-9]	
C.4	Incineration [326 IAC 4-2] [326 IAC 9-1-2]	
C.5	Fugitive Dust Emissions [326 IAC 6-4]	
C.6	Stack Height [326 IAC 1-7]	
C.7	Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]	
	Testing Requirements [326 IAC 2-7-6(1)]	
C.8	Performance Testing [326 IAC 3-6]	
	Compliance Requirements [326 IAC 2-1.1-11]	
C.9	Compliance Requirements [326 IAC 2-1.1-11]	

TABLE OF CONTENTS (Continued)

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

- C.10 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]
- C.11 Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]
- C.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]

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

- C.13 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]
- C.14 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]
- C.15 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]
- C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

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

- C.17 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]
- C.18 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2]
- C.19 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2]

Stratospheric Ozone Protection

- C.20 Compliance with 40 CFR 82 and 326 IAC 22-1

SECTION D.1 FACILITY OPERATION CONDITIONS 30

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

- D.1.1 PSD Minor Limitations [326 IAC 2-2]
- D.1.2 HAP Minor Limitations [326 IAC 2-4.1][40 CFR 63, Subpart EEEEE][40 CFR 63, Subpart MMMM]
- D.1.3 Particulate [326 IAC 6-3-2]
- D.1.4 Volatile Organic Compounds (BACT) [326 IAC 8-1-6]
- D.1.5 Preventive Maintenance Plan [326 IAC 1-6-3]

Compliance Determination Requirements

- D.1.6 Particulate Control [326 IAC 2-7-6(6)]
- D.1.7 Testing Requirements [326 IAC 2-6.1-5(a)(2), (4)] [326 IAC 2-1.1-11]

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

- D.1.8 Visible Emissions Notations [40 CFR 64]
- D.1.9 Parametric Monitoring [40 CFR 64]
- D.1.10 Broken or Failed Bag Detection [40 CFR 64]

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

- D.1.11 Record Keeping Requirements
- D.1.12 Reporting Requirements

SECTION D.2 FACILITY OPERATION CONDITIONS 37

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

- D.2.1 HAP Minor Limitations [326 IAC 2-4.1][40 CFR 63, Subpart EEEEE][40 CFR 63, Subpart MMMM]
- D.2.2 PSD Minor Limitations [326 IAC 2-2]
- D.2.3 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]
- D.2.4 Volatile Organic Compound (VOC) Limitations, Clean-up Requirements [326 IAC 8-2-9]
- D.2.5 Particulate [326 IAC 6-3-2]
- D.2.6 Particulate [326 IAC 6-3-2(d)]
- D.2.7 Preventive Maintenance Plan [326 IAC 1-6-3]

TABLE OF CONTENTS (Continued)

Compliance Determination Requirements	
D.2.8 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-4]	
Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]	
D.2.9 Monitoring	
Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]	
D.2.10 Record Keeping Requirements	
D.2.11 Reporting Requirements	
SECTION D.3 FACILITY OPERATION CONDITIONS	41
Emission Limitations and Standards [326 IAC 2-7-5(1)]	
D.3.1 PSD Minor Limitations [326 IAC 2-2]	
D.3.2 HAP Minor Limitations [326 IAC 2-4.1][40 CFR 63, Subpart EEEEE][40 CFR 63, Subpart MMMM]	
D.3.3 Volatile Organic Compound Usage Limitations [326 IAC 8-1-6]	
D.3.4 Particulate [326 IAC 6-3-2]	
D.3.5 Preventive Maintenance Plan [326 IAC 1-6-3]	
Compliance Determination Requirements	
D.3.6 Particulate Control [326 IAC 2-7-6(6)]	
D.3.7 Testing Requirements [326 IAC 2-6.1-5(a)(2), (4)] [326 IAC 2-1.1-11]	
Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]	
D.3.8 Visible Emissions Notations [40 CFR 64]	
D.3.9 Baghouse Parametric Monitoring [40 CFR 64]	
D.3.10 Broken or Failed Bag Detection [40 CFR 64]	
Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]	
D.3.11 Record Keeping Requirements	
D.3.12 Reporting Requirements	
SECTION D.4 FACILITY OPERATION CONDITIONS	50
Emission Limitations and Standards [326 IAC 2-7-5(1)]	
D.4.1 HAP Minor Limitations [326 IAC 2-4.1][40 CFR 63, Subpart EEEEE][40 CFR 63, Subpart MMMM]	
D.4.2 PSD Minor Limitations [326 IAC 2-2]	
D.4.3 Volatile Organic Compound (VOC) Limitation [326 IAC 8-2-9]	
D.4.4 Volatile Organic Compound (VOC) Limitation, Clean-up Requirements [326 IAC 8-2-9]	
D.4.5 Particulate [326 IAC 6-3-2]	
D.4.6 Particulate [326 IAC 6-3-2(d)]	
D.4.7 Preventive Maintenance Plan [326 IAC 1-6-3]	
Compliance Determination Requirements	
D.4.8 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-4]	
Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]	
D.4.9 Monitoring	
Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]	
D.4.10 Record Keeping Requirements	
D.4.11 Reporting Requirements	

TABLE OF CONTENTS (Continued)

SECTION D.5 FACILITY CONDITIONS - Insignificant Activities	54
Emission Limitations and Standards	
D.5.1 Volatile Organic Compounds (VOC)	
D.5.2 Particulate [326 IAC 6-3-2]	
Compliance Determination Requirement	
D.5.3 Particulate Control	
Certification	56
Emergency Occurrence Report.....	57
Quarterly Reports	59-66
Quarterly Deviation and Compliance Monitoring Report	67

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)]

The Permittee owns and operates a stationary gray iron foundry.

Source Address:	3750 North County Road 75 West, North Vernon, IN 47265
Mailing Address:	P.O. Box 894, North Vernon, IN 47265
General Source Phone:	812-346-8772
SIC Code:	3321
County Location:	Jennings
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD Rules; Minor Source, Section 112 of the Clean Air Act 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)]

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) Melting Operation consisting of the following emission units:
- (1) Two (2) electric induction furnaces, identified as P1-EIF #1 and P1-EIF#2, constructed in 1998, each having a nominal melting rate of 6.00 tons of metal per hour, with particulate emissions controlled by a dust collector (ID No. Area 1), and exhausting to stack P1B1.
 - (2) One (1) natural gas-fired rotary kiln, identified as P1-Rotary Kiln Dryer, constructed in 1998, with a rated capacity of 7.50 tons of scrap per hour and a heat input capacity of 8.00 MMBtu per hour, and exhausting to stack P1RKD.
 - (3) One (1) scrap and charge handling operations, identified as P1-Charge, constructed in 1998, with a rated capacity of 12.00 tons of scrap metal per hour, exhausting inside the building, then to general ventilation.
 - (4) One (1) natural gas-fired ladle preheater, identified as P1-Ladle Preheater, constructed in 1998 with a rated capacity of 0.4 MMBtu/hr, exhausting inside the building, and then to general ventilation.
- (b) One (1) mold making operation consisting of the following emission units:
- (1) One (1) mold sand handling operation, identified as P1-Mold Sand Handling, constructed in 1998, with a rated capacity of 55.00 tons of sand per hour, with particulate emissions controlled by a dust collector (ID No. Area 2), and exhausting to stack P1B2.
 - (2) One (1) mold making machine, identified as P1-Molding Machine, constructed in 1998, using 0.6 pounds of plastic per hour, 0.07 gallons of release agent per hour and 5.20 gallons of mold wash per hour, exhausting inside the building, then to general ventilation.

- (c) One (1) metal floor pouring, cooling area operation, identified as P1-Pouring/Cooling, constructed in 1998, with a rated capacity of 12.00 tons of metal per hour, utilizing a vacuum suction process during pouring and cooling operations, exhausting inside the building, and then to general ventilation.
- (d) One (1) shakeout unit/system for casting operation, identified as P1-Shakeout, constructed in 1998, with a rated capacity of 20.00 tons per hour, with particulate emissions controlled by a dust collector (ID No. Area 2), and exhausting to stack P1B2. ID No. Area 2 baghouse will recycle all the sand collected back into the mold sand process.
- (e) One (1) core making operation consisting of the following emission units:
 - (1) One (1) core sand process sand handling operation, identified as P1-Core Sand Handling, constructed in 1998, with a rated capacity of 0.125 tons of sand per hour, exhausting inside the building, then to general ventilation.
 - (2) One (1) Beta set core machine, identified as P1-Core Machine, constructed in 1998, with a rated capacity of 0.125 tons of cores per hour, using 1.3 gallons of resin per hour, 0.75 gallons of release agent 1 per hour, and 0.30 gallons of release agent 2 per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.
 - (3) One (1) butane torch used to flash off excess core release agent, identified as P1-Butane Torch, constructed in 1998, with a maximum firing rate of 0.144 gallons per hour and 0.014 MMBtu/hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.
- (f) One (1) Pre-Finishing Operation consisting of the following emission units:
 - (1) One (1) pre-finish station which contains three grinders, identified as P1-Pre-Finish Station, constructed in 1998, with a total rated capacity of 20.00 tons of metal per hour, with particulate emissions controlled by a dust collector (ID No. Area 5), and exhausting to stack P1B5.
 - (2) One (1) core removal station, identified as P1-Core Removal Operation, constructed in 1998, with a rated capacity of 20.00 tons of metal per hour, with particulate emissions controlled by a dust collector (ID No. Area 5), and exhausting to stack P1B5.
 - (3) One (1) shot blast machine, identified as P1-Shot Blast Machine #1, constructed in 1998, with a rated capacity of 20.00 tons of metal per hour, with particulate emissions controlled by a dust collector (ID No. Area 4), and exhausting to stack P1B4.
 - (4) Five (5) coarse grinding stations, identified as P1-Grinding Station #1 through P1-Grinding Station #5, constructed in 1998, with a rated capacity of 20.00 tons of metal per hour, with particulate emissions controlled by a dust collector (ID No. Area 5), and exhausting to stack P1B5.
 - (5) One (1) shot blast machine, identified as P1-Shot Blast Machine #2, constructed in 2005, with a maximum rated capacity of 20 tons of metal per hour, controlled by a dust collector (ID No. Area 6), with an airflow rate of 8,350 scfm, with an outlet grain loading of 0.005, and exhausting to stack P1B6.
- (g) One (1) Finishing Operation consisting of the following emission units:
 - (1) Filler/putty application process, identified as P1-Filler/Putty Application, constructed in 1998, with a rated capacity of 1.75 gallons per hour of filler/putty, exhausting inside the building, then to general ventilation.

- (2) One (1) paint booth, identified as P1-Paint Booth #2, constructed in 1998, with a rated capacity of 6.88 gallons of primer per hour, with dry filters for overspray control, exhausting through stack 12-CD-1.
 - (3) One (1) paint booth, identified as P1-Paint Booth #3, constructed in 1998, with a rated capacity of 1.43 gallons of primer per hour, with dry filters for overspray control, exhausting through stack 12-CD-1.
 - (4) One (1) putty station used for additional repair, identified as P1-Putty Booth, constructed in 1998, with a rated capacity of 20.00 tons of metal per hour, exhausting inside the building, then to general ventilation.
 - (5) One (1) final inspection paint booth, identified as P1-Final Inspection Paint Booth, constructed in 1998, with a rated capacity of 0.50 gallons of primer per hour, using dry filters for overspray control, and exhausting to stack Paint Filter-Final Inspection.
 - (6) One (1) buffing station containing three buffers, identified as P1-Buffing Booth, constructed in 1998, with a rated capacity of 20.00 tons of metal per hour, with particulate emissions controlled by a dust collector (ID. No. Area 3), and exhausting to stack P1B3.
 - (7) One (1) final inspection buffing station, identified as P1-Final Inspection Buffing Station, constructed in 1998, with a rated capacity of 20.00 tons of metal per hour, controlled by the final buffing dust collector, (ID No. Final Inspection Collector), exhausting inside the building, then to general ventilation.
- (h) One (1) Core Making Operation, consisting of the following emissions units:
- (1) One (1) raw core sand handling and storage system, identified as P2-Core Sand Handling, constructed in 2004, with a maximum capacity of 750 pounds of sand per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.
 - (2) One (1) Beta set core machine, identified as P2-Core Machine, constructed in 2004, with a rated capacity of 750 pounds of cores per hour, using 2.93 gallons of resin per hour, 1.25 gallons of release agent 1 per hour, and 0.50 gallons of release agent 2 per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.
 - (3) One (1) butane torch used to flash off excess core release agent, identified as P2-Butane Torch, constructed in 2004, with a maximum firing rate of 0.36 gallons per hour and 0.035 MMBtu/hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.
- (i) One (1) Mold Making Operation, consisting of the following emissions units:
- (1) One (1) raw mold sand handling and storage system, identified as P2-Mold Sand Handling, constructed in 2004, with a maximum capacity of 165 tons of sand per hour, with particulate emissions controlled by Baghouse 2, and exhausting to stack P2B2.
 - (2) One (1) molding machine, identified as P2-Molding Machine, constructed in 2004, with a maximum capacity of 165 tons of sand per hour, 1.0 pounds of plastic per hour, and 0.23 gallons of release agent per hour; with the uncontrolled emissions exhausting inside the building, then to general ventilation.
 - (3) One (1) mold wash, identified as P2-Mold Wash, constructed in 2004, with a maximum capacity of 7.1 gallons of mold wash per hour, with the uncontrolled

emissions exhausting inside the building, then to general ventilation.

- (4) Two (2) natural gas fired mold machine dryers, identified as P2- Mold Dryer #1 and P2-Mold Dryer #2, constructed in 2004, each rated at 0.00113 million (MM)BTU per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.
- (j) One (1) Melting Operation, consisting of the following emissions units:
- (1) One (1) charge handling system utilizing mechanical conveyors and magnetic overhead cranes, identified as P2-Charge, constructed in 2004, with maximum capacity of 18 tons of metal per hour, with particulate emissions controlled by Baghouse 1 and exhausting to stack P2B1.
 - (2) Three (3) electric induction furnaces, identified as P2-EIF#1, P2-EIF#2, and P2-EIF#3, constructed in 2004, each rated at 6 tons of metal per hour, and with a donut hood exhausting to a dust collector (Baghouse 1), and exhausting to stack P2B1.
 - (3) One (1) ladle with a natural gas fired preheater, identified as P2-Ladle Preheater, constructed in 2004, with a maximum capacity of 1 MMBTU per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation. This preheater is used to dry the ladle prior to each filing.
- (k) One (1) Floor Molding Operation, consisting of the following emissions units:
- (1) One (1) floor pouring and cooling, identified as P2-Pouring/Cooling, constructed in 2004, with a maximum rate of 18 tons of metal per hour, utilizing a vacuum suction during pouring and cooling operations, exhausting inside the building, then to general ventilation.
 - (2) One (1) shakeout unit/system for casting operation, identified as P2-Shakeout, constructed in 2004, with a maximum rate of 24 tons of metal per hour, with the particulate emissions controlled by Baghouse 2, and exhausting to stack P2B2. Baghouse 2 will recycle all the sand collected back into the mold sand process.
- (l) One (1) Pre-Finishing Operation, consisting of the following emissions units:
- (1) One (1) pre-finish knock out station/area, identified as P2-Pre-Finish Station, constructed in 2004, consisting of three (3) sanders, with a maximum capacity of 24 tons of metal per hour, with particulate emissions controlled by Baghouse 4, and exhausting to stack P2B4.
 - (2) One (1) enclosed shot blast machine, identified as P2-Shot Blast Machine, constructed in 2004, using steel shot as media, with a maximum capacity of 24 tons of metal per hour, with particulate emissions controlled by Baghouse 3, and exhausting to stack P2B3.
 - (3) One (1) core removal operation, identified as P2-Core Removal Operation, constructed in 2004, rated at 24 tons of metal per hour, will remove the remaining sand cores from the casting, with the uncontrolled emissions exhausting inside the building, then to general ventilation.
 - (4) One (1) coarse grinding area consisting of five (5) coarse grinding stations, identified as P2-Grinding Station #1 through P2-Grinding Station #5, constructed in 2004, with maximum capacity of 24 tons of metal per hour, with the particulate emissions controlled by Baghouse 4, and exhausting to stack P2B4.

- (m) One (1) Finishing Operation, consisting of the following emissions units:
 - (1) Filler/putty application to the casting to fill in any divots or scratches, identified as P2-Filler/Putty Application, constructed in 2004, with a maximum rate 1.6 gallons per hour for the entire finishing operations, with emissions exhausting inside the building, then to general ventilation.
 - (2) Two (2) paint booths, identified as P2-Paint Booth #1 and P2-Paint Booth #2, constructed in 2004, each utilizes an HVLP spray gun, using dry filters for particulate control, exhausting inside the building, then to general ventilation..
 - (A) P2-Paint Booth #1 has a maximum capacity of 6.88 gallons of primer per hour.
 - (B) P2-Paint Booth #2 has a maximum capacity of 2.24 gallons of primer per hour.
 - (3) Two (2) paint booth dryers using natural gas as fuel, identified as P2-Paint Booth #1 Dryer and P2-Paint Booth #2 Dryer, constructed in 2004, each rated at 0.00165 MMBtu per hour, with the uncontrolled emissions exhausting to stacks P2PB1 and P2PB2.
 - (4) One (1) buffing booth containing three (3) fine grinders or buffers, identified as P2-Buffing Booth, constructed in 2004, with a maximum capacity of 24 tons of metal per hour, with particulate emissions controlled by Baghouse 5, and exhausting to stack P2B5.
 - (5) One (1) putty booth used for additional repair, identified as P2-Putty Booth, constructed in 2004, with a maximum capacity of 24 tons of metal per hour, with the particulate emissions controlled by Baghouse 4, and exhausting to stack P2B4.
- (n) One (1) Furan Mold Making Operation, consisting of the following emissions units:
 - (1) One (1) furan mold sand reclamation system, identified as P2exp-Mold Sand Reclamation, approved for construction in 2008, with a maximum capacity of 10 tons of sand per hour, with particulate emissions controlled by Baghouse B6, and exhausting to stack P2expB6.
 - (2) One (1) furan mold mixer, identified as P2exp-Mold Mixer, approved for construction in 2008, with a maximum capacity of 2,000 pounds of sand per minute, with the uncontrolled emissions exhausting inside the building, then to general ventilation.
 - (3) One (1) mold wash, identified as P2exp-Mold Wash, approved for construction in 2008, with the uncontrolled emissions exhausting inside the building, then to general ventilation.
- (o) One (1) Casting Line, consisting of the following emissions units:
 - (1) One (1) floor pouring and cooling operation, identified as P2exp-Pouring/Cooling, approved for construction in 2008, with a maximum rate of 6 tons of metal per hour, exhausting inside the building, then to general ventilation.
 - (2) One (1) mold dump system for casting operation, identified as P2exp-Mold Dump, approved for construction in 2008, with a maximum rate of 6 tons of metal per hour, with the particulate emissions controlled by Baghouse B6, and exhausting to stack P2expB6.
- (p) One (1) enclosed Pre-Finishing Operation, consisting of the following four (4) emissions

units, all with a maximum capacity of 6 tons of metal per hour, all with particulate emissions controlled by Baghouse B7, and all exhausting to stack P2expB7:

- (1) One (1) pre-finish station, identified as P2exp-Pre-Finish Station, approved for construction in 2008.
- (2) One (1) enclosed blast cabinet, identified as P2exp-Blast Cabinet, approved for construction in 2008.
- (3) One (1) core removal operation, identified as P2exp-Core Removal Operation, will remove the remaining sand cores from the casting, approved for construction in 2008.
- (4) One (1) coarse grinding area, identified as P2exp-Grinding Station, approved for construction in 2008.
- (q) One (1) phenolic urethane no-bake core production process consisting of one (1) phenolic urethane no-bake core sand mixer and core boxes of various sizes, identified as P2exp-Core Mixer, with a maximum capacity of 100 pounds of core sand per minute, exhausting inside the building, then to general ventilation.

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

The source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (a) Degreasing operations that do not exceed 145 gallons per 12 months, including:

One (1) parts washing station, identified as P1-Maintenance Parts Washing Station, using a maximum of 0.002 gallons of washing solution per hour. [326 IAC 8-3-2]
- (b) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. [326 IAC 6-3]
- (c) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a 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]
- (d) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4]

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

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]

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] [326 IAC 2-7-4(a)(1)(D)] [IC 13-15-3-6(a)]

- (a) This permit, T079-15119-00018, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

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

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

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

B.4 Enforceability [326 IAC 2-7-7]

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

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

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)]

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)]

- (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)]

- (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. One (1) certification may cover multiple forms in one (1) submittal.
- (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 no later than July 1 of each year to:

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

and

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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.11 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: 317-233-0178 (ask for Compliance Section)

Facsimile Number: 317-233-6865

- (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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, 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.

B.12 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]

- (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)]

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]

- (a) All terms and conditions of permits established prior to T079-15119-00018 and issued pursuant to permitting programs approved into the state implementation plan have been either
 - (1) incorporated as originally stated,
 - (2) revised under 326 IAC 2-7-10.5, or
 - (3) deleted under 326 IAC 2-7-10.5.

- (b) Provided that all terms and conditions are accurately reflected in this combined permit, all previous registrations and permits are superseded by this combined new source review and part 70 operating permit.

B.14 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least 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.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

- (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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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.16 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]

- (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.17 Permit Renewal [326 IAC 2-7-3] [326 IAC 2-7-4] [326 IAC 2-7-8(e)]

- (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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source’s failure to have a permit is not a violation of 326 IAC 2-7 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.

B.18 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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)]

B.19 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.20 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 limitations provided in 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b), (c), or (e). The Permittee shall make 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 emissions increases and decreases at 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.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.21 Source Modification Requirement [326 IAC 2-7-10.5] [326 IAC 2-2-2]

- (a) A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.
- (b) Any modification at an existing major source is governed by the requirements of 326 IAC 2-2-2.

B.22 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2] [IC 13-30-3-1] [IC 13-17-3-2]

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.23 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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.24 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, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.25 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314][326 IAC 1-1-6]

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

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

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

C.7 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
MC 61-52 IGCN 1003
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. 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.8 Performance Testing [326 IAC 3-6]

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

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

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

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 Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.9 Compliance Requirements [326 IAC 2-1.1-11]

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.10 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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.11 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.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

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

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

C.13 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 shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval to:

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

within 180 days from the date on which this source commences operation.

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

- (c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) 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.14 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

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

C.15 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

- (a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit(s) (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
 - (1) initial inspection and evaluation;
 - (2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or
 - (3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
 - (1) monitoring results;
 - (2) review of operation and maintenance procedures and records;
 - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
 - (1) monitoring data;
 - (2) monitor performance data, if applicable; and
 - (3) corrective actions taken.

C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

- (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).

C.17 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]

- (a) Pursuant to 326 IAC 2-6-3(b)(3), starting in 2006 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering the previous calendar

year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

- (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
- (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 purpose of fee assessment.

The statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue
MC 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

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

- (b) The 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.18 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2]

- (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) If there is a "project" (as defined in 326 IAC 2-2-1(qq)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee)) and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr)), the Permittee shall comply with following:
 - (1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(qq)) at an existing emissions unit, document and maintain the following records:
 - (A) A description of the project.
 - (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.
 - (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
 - (i) Baseline actual emissions;
 - (ii) Projected actual emissions;

- (iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii); and
 - (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
- (2) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and
 - (3) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.19 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2]

- (a) The Permittee 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- (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) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.
- (f) If the Permittee is required to comply with the recordkeeping provisions of (c) in Section C- General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1(qq)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ::
 - (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1(xx), for that regulated NSR pollutant, and

- (2) The emissions differ from the preconstruction projection as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(ii).
- (g) The report for project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:
 - (1) The name, address, and telephone number of the major stationary source.
 - (2) The annual emissions calculated in accordance with (c)(2) and (3) in Section C- General Record Keeping Requirements.
 - (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3)).
 - (4) Any other information that the Permittee deems fit to include in this report,

Reports required in this part shall be submitted to:

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

- (h) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C- General Record Keeping Requirements available for review upon a request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.

Stratospheric Ozone Protection

C.20 Compliance with 40 CFR 82 and 326 IAC 22-1

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) One (1) Melting Operation consisting of the following emission units:
- (1) Two (2) electric induction furnaces, identified as P1-EIF #1 and P1-EIF#2, constructed in 1998, each having a nominal melting rate of 6.00 tons of metal per hour, with particulate emissions controlled by a dust collector (ID No. Area 1), and exhausting to stack P1B1.
 - (2) One (1) natural gas-fired rotary kiln, identified as P1-Rotary Kiln Dryer, constructed in 1998, with a rated capacity of 7.50 tons of scrap per hour and a heat input capacity of 8.00 MMBtu per hour, and exhausting to stack P1RKD.
 - (3) One (1) scrap and charge handling operations, identified as P1-Charge, constructed in 1998, with a rated capacity of 12.00 tons of scrap metal per hour, exhausting inside the building, then to general ventilation.
 - (4) One (1) natural gas-fired ladle preheater, identified as P1-Ladle Preheater, constructed in 1998 with a rated capacity of 0.4 MMBtu/hr, exhausting inside the building, and then to general ventilation.
- (b) One (1) mold making operation consisting of the following emission units:
- (1) One (1) mold sand handling operation, identified as P1-Mold Sand Handling, constructed in 1998, with a rated capacity of 55.00 tons of sand per hour, with particulate emissions controlled by a dust collector (ID No. Area 2), and exhausting to stack P1B2.
 - (2) One (1) mold making machine, identified as P1-Molding Machine, constructed in 1998, using 0.6 pounds of plastic per hour, 0.07 gallons of release agent per hour and 5.20 gallons of mold wash per hour, exhausting inside the building, then to general ventilation.
- (c) One (1) metal floor pouring, cooling area operation, identified as P1-Pouring/Cooling, constructed in 1998, with a rated capacity of 12.00 tons of metal per hour, utilizing a vacuum suction process during pouring and cooling operations, exhausting inside the building, and then to general ventilation.
- (d) One (1) shakeout unit/system for casting operation, identified as P1-Shakeout, constructed in 1998, with a rated capacity of 20.00 tons per hour, with particulate emissions controlled by a dust collector (ID No. Area 2), and exhausting to stack P1B2. ID No. Area 2 baghouse will recycle all the sand collected back into the mold sand process.
- (e) One (1) core making operation consisting of the following emission units:
- (1) One (1) core sand process sand handling operation, identified as P1-Core Sand Handling, constructed in 1998, with a rated capacity of 0.125 tons of sand per hour, exhausting inside the building, then to general ventilation.
 - (2) One (1) Beta set core machine, identified as P1-Core Machine, constructed in 1998, with a rated capacity of 0.125 tons of cores per hour, using 1.3 gallons of resin per hour, 0.75 gallons of release agent 1 per hour, and 0.30 gallons of release agent 2 per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.
 - (3) One (1) butane torch used to flash off excess core release agent, identified as P1-Butane Torch, constructed in 1998, with a maximum firing rate of 0.144 gallons per

hour and 0.014

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

MMBtu/hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.

- (f) One (1) Pre-Finishing Operation consisting of the following emission units:
- (1) One (1) pre-finish station which contains three grinders, identified as P1-Pre-Finish Station, constructed in 1998, with a total rated capacity of 20.00 tons of metal per hour, with particulate emissions controlled by a dust collector (ID No. Area 5), and exhausting to stack P1B5.
 - (2) One (1) core removal station, identified as P1-Core Removal Operation, constructed in 1998, with a rated capacity of 20.00 tons of metal per hour, with particulate emissions controlled by a dust collector (ID No. Area 5), and exhausting to stack P1B5.
 - (3) One (1) shot blast machine, identified as P1-Shot Blast Machine #1, constructed in 1998, with a rated capacity of 20.00 tons of metal per hour, with particulate emissions controlled by a dust collector (ID No. Area 4), and exhausting to stack P1B4.
 - (4) Five (5) coarse grinding stations, identified as P1-Grinding Station #1 through P1-Grinding Station #5, constructed in 1998, with a rated capacity of 20.00 tons of metal per hour, with particulate emissions controlled by a dust collector (ID No. Area 5), and exhausting to stack P1B5.
 - (5) One (1) shot blast machine, identified as P1 Shot Blast Machine #2, constructed in 2005, with a maximum rated capacity of 20 tons of metal per hour, controlled by a dust collector (ID No. Area 6) with an airflow rate of 8,350 scfm and an outlet grain loading of 0.005, and exhausting to stack P1B6.
- (g) One (1) Finishing Operation consisting of the following emission units:
- (6) One (1) buffing station containing three buffers, identified as P1-Buffing Booth, constructed in 1998, with a rated capacity of 20.00 tons of metal per hour, with particulate emissions controlled by a dust collector (ID. No. Area 3), and exhausting to stack P1B3.
 - (7) One (1) final inspection buffing station, identified as P1-Final Inspection Buffing Station, constructed in 1998, with a rated capacity of 20.00 tons of metal per hour, controlled by the final buffing dust collector, (ID No. Final Inspection Collector), exhausting inside the building, then to general ventilation.

(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 PSD Minor Limitations [326 IAC 2-2]

- (a) For the P1 emission units listed below, the metal throughput rate per (12) twelve consecutive month period, and the PM emissions and PM10 emissions shall be limited as follows:

Emission Unit ID	Metal Throughput Limit (tons per year)	PSD Emission Limit (lbs PM/PM10 per ton metal)	
		PM	PM10
P1-EIF#1, P1-EIF#2	74,400 total	0.75	0.75
P1-Shakeout, P1-Mold Sand Handling	74,400 each	0.32	0.32
P1-Shot Blast Machine #1	74,400	0.03	0.03
P1-Core Removal, P1-Pre-Finish, P1-Grinding #1 - #5	74,400 each	0.09	0.09
P1-Buffing Booth	74,400	0.08	0.08
P1-Shot Blast Machine #2	74,400	0.03	0.03
P1-Charge	74,400	0.6	0.36
P1-Rotary Kiln Dryer	74,400	0.2	0.2
P1-Pouring/Cooling	74,400	0.1	0.1
P1-Core Sand Handling	74,400	0.075	0.011
P1-Final Inspection Buffing	74,400	0.0045	0.0045

- (b) For the P1 emission units listed below, the VOC limits are as follows:
- (1) The amount of VOC used in the P1-Molding Machine and P1-Core Machine (listed in this Section) combined with the amount of VOC used in the P1-Filler/Putty Application, P1-Paint Booth #2, P1-Paint Booth #3, P1-Putty Booth, and the P1-Final Inspection Paint Booth (listed in Section D.2) shall be limited to less than 89.33 tons per twelve (12) consecutive month period.
 - (2) The P1-Shakeout and P1-Pouring/Cooling operations shall be limited to 74,400 tons of metal throughput per twelve (12) consecutive month period.
 - (3) The P1-Shakeout and P1-Pouring/Cooling operations shall be limited to less than a total of 0.18 pounds of VOC per ton of metal throughput.
- (c) The emissions of CO from the P1-Shakeout and P1-Pouring/Cooling operations shall be limited to less than a total of 2.40 pounds per ton of metal throughput.

Combined with the limits in Sections D.2, compliance with the above limits ensures that the VOC, CO, PM and PM10 emissions from the emissions units constructed in 1998 are limited to less than 100 tons per year. Therefore, the requirements of 326 IAC 2-2 are not applicable to the emissions units constructed in 1998.

D.1.2 HAP Minor Limitations [326 IAC 2-4.1][40 CFR 63, Subpart EEEEE][40 CFR 63, Subpart MMMM]

- (a) Metal throughput to P1 emissions units shall be limited to less than 74,400 tons per twelve (12) consecutive month period.
- (b) Particulate emissions from the P1 emission units shall be limited as specified in Condition D.1.1.
- (c) The amount of HAP used in the P1-Core Making (listed in this Section), combined with the amount of HAP used in the P1-Filler/Putty Application, P1-Paint Booth #2, P1-Paint Booth #3, and P1-Final Inspection Paint Booth (listed in Section D.2) and the amount of HAP used in the P2-Core Making and the P2exp-Mold Mixer (listed in Section D.3) and the amount of HAP used in the P2-Filler/Putty Application, P2-Paint Booth #1, and P2-Paint Booth #2 (listed in Section D.4) shall be limited to less than ten (10) tons per twelve (12) consecutive month period for any single HAP and less than 19.0 tons per twelve (12) consecutive month period for any combination of HAPs.

These limits, combined with the HAP usage limits in Conditions D.2.1, D.3.2, and D.4.1, and the HAP emissions from the other emission units at this source, will limit the source-wide emissions of HAPs to less than ten (10) tons of a single HAP and less than twenty-five (25) tons of a combination of HAPs per twelve (12) consecutive month period. Compliance with these limits makes the requirements of 326 IAC 2-4.1, 40 CFR 63, Subpart EEEEE and 40 CFR 63, Subpart MMMM not applicable to this source.

D.1.3 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, (Particulate Emission Limitations for Manufacturing Processes):

- (a) The allowable particulate emission rate from each of the two electric induction furnaces (P1-EIF #1 & P1-EIF #2) shall each not exceed 13.6 pounds per hour when operating at a process weight rate of 12,000 pounds per hour.
- (b) The allowable particulate emission rate from the rotary kiln dryer (P1-Rotary Kiln Dryer) shall not exceed 15.8 pounds per hour when operating at a process weight rate of 15,000 pounds per hour.
- (c) The allowable particulate emission rate from scrap and charge handling operations (P1-Charge) and the pouring and cooling operations (P1-Pouring/Cooling) shall not exceed 21.7 pounds per hour when operating at a process weight rate of 24,000 pounds per hour.
- (d) The allowable particulate emission rate from the mold sand handling operations (P1-Mold Sand Handling) shall not exceed 45.5 pounds per hour when operating at a process weight rate of 110,000 pounds of sand per hour.
- (e) The allowable particulate emission rate from the shakeout unit (P1-Shakeout), the shot blast machines (P1-Shot Blast Machine #1 and P1-Shot Blast Machine #2), the core removal operations (P1-Core Removal Operation), prefinish station (P1-Pre-Finish Station), coarse grinding stations (P1-Grinding Station #1 through P1-Grinding Station #5), buffing station (P1-Buffing Booth), and final inspection buffing station (P1-Final Inspection Buffing Station) shall each not exceed 30.5 pounds per hour when operating at a process weight rate of 40,000 pounds per hour.
- (f) The allowable particulate emission rate from the core sand handling operations (P1-Core Sand Handling) shall not exceed 1.02 pounds per hour when operating at a process weight rate of 250 pounds per hour.

The particulate emission rates were calculated as described below.

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:

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

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:

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

D.1.4 Volatile Organic Compounds (BACT) [326 IAC 8-1-6]

Pursuant to CP 079-5754-00018, issued August 26, 1996, the BACT for the P1-Molding Machine shall be the use of proprietary high solids pattern coating with less than or equal to 6 pounds of VOC per gallon of coating less water.

D.1.5 Preventive Maintenance Plan [326 IAC 1-6-3]

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

Compliance Determination Requirements

D.1.6 Particulate Control [326 IAC 2-7-6(6)]

- (a) To comply with Conditions D.1.1, D.1.2, and D.1.3, the baghouses for particulate control shall be in operation and control emissions from the electric induction furnaces, the mold sand handling operation and shakeout operations, the shot blast machines, the core removal station, the prefinish station, the coarse grinding stations, the buffing station and final inspection buffing station at all times that these facilities are in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.
- (c) The integral vacuum system shall be in operation at all times when the floor pouring/cooling is in operation.

D.1.7 Testing Requirements [326 IAC 2-6.1-5(a)(2), (4)] [326 IAC 2-1.1-11]

- (a) By August 9, 2008, in order to demonstrate compliance with Conditions D.1.1(a) and D.1.3(a), the Permittee shall perform PM and PM-10 testing on the baghouses controlling the electric induction furnaces utilizing methods as approved by the Commissioner. PM-10 includes filterable and condensable PM-10. This test 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 using methods approved by the Commissioner.
- (b) Within 180 days of issuance of the permit, and in order to demonstrate compliance with Condition D.1.1(c), the Permittee shall perform CO testing on the P1-Pouring/Cooling and P1-Shakeout utilizing methods as approved by the Commissioner. This test 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.
- (c) By August 11, 2010, and in order to demonstrate compliance with Condition D.1.1(b)(3), the Permittee shall perform VOC testing on the P1-Pouring/Cooling and P1-Shakeout utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

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

D.1.8 Visible Emissions Notations [40 CFR 64]

- (a) Visible emission notations of the electric induction furnaces, mold sand handling, shakeout operations, pre-finishing, core removal station, shot blast machines, coarse grinding operations, buffing station, and final inspection buffing station stack exhausts shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.1.9 Parametric Monitoring [40 CFR 64]

The Permittee shall record the pressure drop across the baghouses used in conjunction with the electric induction furnaces, the mold sand handling, the shakeout operations, the pre-finishing station, the core removal station, the shot blast machines, the coarse grinding station, buffing station, and final inspection buffing station operations at least once per day when these units are in operation. When the pressure drop across the baghouses is outside the normal range of 1.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. 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 - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - 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.1.10 Broken or Failed Bag Detection [40 CFR 64]

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

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

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

D.1.11 Record Keeping Requirements

- (a) To document compliance with Condition D.1.1, the Permittee shall:
 - (1) Maintain records of the throughput of metal to the P1 emission units on a monthly basis. Records shall include production and/or shipping records necessary to verify the amount of metal produced by the P1 emission units.
 - (2) Maintain records of the amount and VOC content of each core resin, filler, putty, primer, finishing material, thinner and cleanup solvent used in the P1 emission units on a monthly basis. Records shall include purchase orders, invoices, Certified Product Data Sheets and material safety data sheets (MSDS) necessary

to verify the type and amount used. The records maintained shall show the total VOC usage for each month and the weight of VOCs emitted for each compliance period. The records maintained shall be complete and sufficient to establish compliance with the VOC usage limits established in Condition D.1.1.

- (b) To document compliance with Condition D.1.2, the Permittee shall:
 - (1) Maintain records of the throughput of metal to the P1 emission units on a monthly basis. Records shall include production and/or shipping records necessary to verify the amount of metal produced by the P1 emission units.
 - (2) Maintain records of the amount and HAP content of each core resin, filler, putty, primer, finishing material, thinner and cleanup solvent used on a monthly basis. Records shall include purchase orders, invoices, Certified Product Data Sheets and material safety data sheets (MSDS) necessary to verify the type and amount used. The records maintained shall show the total HAP usage for each month and the weight of HAPs emitted for each compliance period. The records maintained shall be complete and sufficient to establish compliance with the HAP usage limits established in Condition D.1.2.
- (c) To document compliance with Condition D.1.8, the Permittee shall maintain a daily record of visible emission notations from the electric induction furnaces exhaust (Area 1), the mold sand handling and shakeout operations exhaust (Area 2), the buffing station exhaust (Area 3), shot blast machine exhaust (Area 4) pre-finishing, core removal station, coarse grinding operations exhaust (Area 5), and final inspection buffing station exhaust (Final Inspection Collector). The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (e.g. the process did not operate that day).
- (d) To document compliance with Condition D.1.9 the Permittee shall maintain a daily record of the pressure drop across the baghouses controlling the processes when venting to the atmosphere. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g. the process did not operate that day).
- (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.12 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.1(b) and D.1.2(a) and(c) 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 OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

- (g) One (1) Finishing Operation consisting of the following emission units:
- (1) Filler/putty application process, identified as P1-Filler/Putty Application, constructed in 1998, with a rated capacity of 1.75 gallons per hour of filler/putty, exhausting inside the building, then to general ventilation.
 - (2) One (1) paint booth, identified as P1-Paint Booth #2, constructed in 1998, with a rated capacity of 6.88 gallons of primer per hour, with dry filters for overspray control, exhausting through stack 12-CD-1.
 - (3) One (1) paint booth, identified as P1-Paint Booth #3, constructed in 1998, with a rated capacity of 1.43 gallons of primer per hour, with dry filters for overspray control, exhausting through stack 12-CD-1.
 - (4) One (1) putty station used for additional repair, identified as P1-Putty Booth, constructed in 1998, with a rated capacity of 20.00 tons of metal per hour, exhausting inside the building, then to general ventilation.
 - (5) One (1) final inspection paint booth, identified as P1-Final Inspection Paint Booth, constructed in 1998, with a rated capacity of 0.50 gallons of primer per hour, using dry filters for overspray control, and exhausting to stack Paint Filter-Final Inspection.

(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 HAP Minor Limitations [326 IAC 2-4.1][40 CFR 63, Subpart EEEEE][40 CFR 63, Subpart MMMM]

The amount of HAP used in the P1-Filler/Putty Application, P1-Paint Booth #2, P1-Paint Booth #3, and P1-Final Inspection Paint Booth (listed in this Section), combined with the amount of HAP used in the P1-Core Making (listed in Section D.1) and the amount of HAP used in the P2-Core Making and the P2exp-Mold Mixer (listed in Section D.3) and the amount of HAP used in the P2-Filler/Putty Application, P2-Paint Booth #1, and P2-Paint Booth #2 (listed in Section D.4) shall be limited to less than ten (10) tons per twelve (12) consecutive month period for any single HAP and less than 19.0 tons per twelve (12) consecutive month period for any combination of HAPs.

These limits, combined with the HAP usage limits in Conditions D.1.2, D.3.2, and D.4.1, and the HAP emissions from the other emission units at this source, will limit the source-wide emissions of HAPs to less than ten (10) tons of a single HAP and less than twenty-five (25) tons of a combination of HAPs per twelve (12) consecutive month period. Compliance with these limits makes the requirements of 326 IAC 2-4.1, 40 CFR 63, Subpart EEEEE and 40 CFR 63, Subpart MMMM not applicable to this source.

D.2.2 PSD Minor Limitations [326 IAC 2-2]

- (a) The total PM and PM10 emissions from paint booths #2 and #3 (P1-Paint Booth #2, P1-Paint Booth #3) shall be limited to 2.81 pounds per hour.
- (b) The PM and PM10 emissions from the final inspection paint booth (P1-Final Inspection Paint Booth) shall be limited to 0.11 pounds per hour.
- (c) The PM and PM10 emissions from the putty station (P1-Putty Booth) shall be limited to 0.0045 pounds per ton of metal.

- (d) The amount of VOC used in the P1-Filler/Putty Application, P1-Paint Booth #2, P1-Paint Booth #3, P1-Putty Booth, and the P1-Final Inspection Paint Booth (listed in this Section), combined with the amount of VOC used in the P1-Molding Machine and P1-Core Machine (listed in Section D.1) shall be limited to less than 89.33 tons per twelve (12) consecutive month period.

Combined with the emission limits in Section D.1, compliance with the above limits ensures that the VOC, PM and PM10 emissions from the emissions units constructed in 1998 are limited to less than 100 tons per year. Therefore, the requirements of 326 IAC 2-2 are not applicable to the emissions units constructed in 1998.

D.2.3 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating applied in the paint booths (P1-Paint Booth #2, P1-Paint Booth #3, P1-Final Inspection Paint Booth) shall be limited to 3.50 pounds of VOCs per gallon of coating, excluding water, as delivered to the applicator for any calendar day, for forced warm air (less than 90°C or 194°F) dried coatings.

D.2.4 Volatile Organic Compound (VOC) Limitations, Clean-up Requirements [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9(f), all solvents sprayed from the paint booth application equipment during cleanup or color changes shall be directed into containers. The containers shall be closed as soon as the solvent spraying is complete. In addition, all waste solvent shall be disposed of in such a manner that minimizes evaporation.

D.2.5 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emissions Limitations for Manufacturing Processes), the allowable PM emission rate from the filler/putty application station (P1-Filler/Putty Application) and the putty station (P1-Putty Booth) shall not exceed 30.51 pounds per hour each when operating at a process weight rate of 40,000 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.2.6 Particulate [326 IAC 6-3-2(d)]

Pursuant to 326 IAC 6-3-2(d), particulate from the paint booths (P1-Paint Booth #2, P1-Paint Booth #3, P1-Final Inspection Paint Booth) shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

D.2.7 Preventive Maintenance Plan [326 IAC 1-6-3]

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.2.8 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-4]

Compliance with the VOC content limit in Conditions D.2.2 and D.2.3 shall be determined using one of the following methods:

- (a) Pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

- (b) Pursuant to 326 IAC 8-1-2(a)(7), using volume weighted average of coatings on a daily basis. This volume weighted average shall be determined by the following equation:

$$A = [\sum C \times U] / \sum U$$

Where:

A is the volume weighted average in pounds VOC per gallon less water as applied
C is the VOC content of the coating in pounds VOC per gallon less water as applied and
U is the usage rate of the coating in gallons day

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

D.2.9 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 while one or more of the booths are in operation, unless adverse weather conditions occur and continue throughout the entire week. Adverse weather conditions are defined as the presence of ice or deep snow on rooftops that prevent the weekly observations or monthly rooftop inspections due to the safety hazard it represents to employees. If a condition exists which should result in a response step, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) Monthly inspections shall be performed of the coating emissions from the stacks and the presence of overspray on the rooftops and the nearby ground, except during adverse weather conditions. When there is a noticeable change in overspray emissions, or when evidence of overspray emissions is observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

D.2.10 Record Keeping Requirements

- (a) To document compliance with Condition D.2.1, the Permittee shall maintain records of the amount and HAP content of each core resin, filler, putty, primer, finishing material, thinner and cleanup solvent used on a monthly basis. Records shall include purchase orders, invoices, Certified Product Data Sheets and material safety data sheets (MSDS) necessary to verify the type and amount used. The records maintained shall show the total HAP usage for each month and the weight of HAPs emitted for each compliance period. The records maintained shall be complete and sufficient to establish compliance with the HAP usage limits established in Condition D.2.1.
- (b) To document compliance with Conditions D.2.2 and D.2.3, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC usage limit established in Conditions D.2.2 and D.2.3.
- (1) The amount and VOC and solids content of each coating material and solvent used less water on a monthly basis. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
 - (2) The total VOC usage for each month; and
 - (3) The weight of VOC emitted for each compliance period.

- (c) To document compliance with Condition D.2.9, the Permittee shall maintain a log of weekly overspray observations, and the daily and monthly inspections. In the event that a required weekly overspray observation or monthly rooftop inspection cannot be completed due to adverse weather conditions, the Permittee shall record the reasons why these observations or inspections did not occur.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.11 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.2.1 and D.2.2(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):

- (h) One (1) Core Making Operation, consisting of the following emissions units:
 - (1) One (1) raw core sand handling and storage system, identified as P2-Core Sand Handling, constructed in 2004, with a maximum capacity of 750 pounds of sand per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.
 - (2) One (1) Beta set core machine, identified as P2-Core Machine, constructed in 2004, with a rated capacity of 750 pounds of cores per hour, using 1.4 gallons of resin per hour, 1.25 gallons of release agent 1 per hour, and 0.50 gallons of release agent 2 per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.
 - (3) One (1) butane torch used to flash off excess core release agent, identified as P2-Butane Torch, constructed in 2004, with a maximum firing rate of 0.36 gallons per hour and 0.035 MMBtu/hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.
- (i) One (1) Mold Making Operation, consisting of the following emissions units:
 - (1) One (1) raw mold sand handling and storage system, identified as P2-Mold Sand Handling, constructed in 2004, with a maximum capacity of 165 tons of sand per hour, with particulate emissions controlled by Baghouse 2, and exhausting to stack P2B2.
 - (2) One (1) molding machine, identified as P2-Molding Machine, constructed in 2004, with a maximum capacity of 165 tons of sand per hour, 1.0 pounds of plastic per hour, and 0.23 gallons of release agent per hour; with particulate emissions controlled by Baghouse 1 and exhausting to stack P2B1.
 - (3) One (1) mold wash, identified as P2-Mold Wash, constructed in 2004, with a maximum capacity of 7.1 gallons of mold wash per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.
 - (4) Two (2) natural gas fired mold machine dryers, identified as P2- Mold Dryer #1 and P2-Mold Dryer #2, constructed in 2004, each rated at 0.00113 million (MM)BTU per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.
- (j) One (1) Melting Operation, consisting of the following emissions units:
 - (1) One (1) charge handling system utilizing mechanical conveyors and magnetic overhead cranes, identified as P2-Charge, constructed in 2004, with maximum capacity of 18 tons of metal per hour, with particulate emissions controlled by Baghouse 1 and exhausting to stack P2B1.
 - (2) Three (3) electric induction furnaces, identified as P2-EIF#1, P2-EIF#2, and P2-EIF#3, constructed in 2004, each rated at 6 tons of metal per hour, and with a donut hood exhausting to a dust collector (Baghouse 1), and exhausting to stack P2B1.
 - (3) One (1) ladle with a natural gas fired preheater, identified as P2-Ladle Preheater, constructed in 2004, with a maximum capacity of 1 MMBTU per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation. This preheater is used to dry the ladle prior to each filing.

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

- (k) One (1) Floor Molding Operation, consisting of the following emissions units:
 - (1) One (1) floor pouring and cooling, identified as P2-Pouring/Cooling, constructed in 2004, with a maximum rate of 18 tons of metal per hour; utilizing a vacuum suction during pouring and cooling operations, exhausting inside the building, then to general ventilation.
 - (2) One (1) shakeout unit/system for casting operation, identified as P2-Shakeout, constructed in 2004, with a maximum rate of 24 tons of metal per hour, with the particulate emissions controlled by Baghouse 2, and exhausting to stack P2B2. Baghouse 2 will recycle all the sand collected back into the mold sand process.
- (l) One (1) Pre-Finishing Operation, consisting of the following emissions units:
 - (1) One (1) pre-finish knock out station/area, identified as P2-Pre-Finish Station, constructed in 2004, consisting of three (3) sanders, with a maximum capacity of 24 tons of metal per hour, with particulate emissions controlled by Baghouse 4, and exhausting to stack P2B4.
 - (2) One (1) enclosed shot blast machine, identified as P2-Shot Blast Machine, constructed in 2004, using steel shot as media, with a maximum capacity of 24 tons of metal per hour, with particulate emissions controlled by Baghouse 3, and exhausting to stack P2B3.
 - (3) One (1) core removal operation, identified as P2-Core Removal Operation, constructed in 2004, rated at 24 tons of metal per hour, will remove the remaining sand cores from the casting, with the uncontrolled emissions exhausting inside the building, then to general ventilation.
 - (4) One (1) coarse grinding area consisting of five (5) coarse grinding stations, identified as P2-Grinding Station #1 through P2-Grinding Station #5, constructed in 2004, with maximum capacity of 24 tons of metal per hour, with the particulate emissions controlled by Baghouse 4, and exhausting to stack P2B4.
- (m) One (1) Finishing Operation, consisting of the following emissions units:
 - (4) One (1) buffing booth containing three (3) fine grinders or buffers, identified as P2-Buffing Booth, constructed in 2004, with a maximum capacity of 24 tons of metal per hour, with particulate emissions controlled by Baghouse 5, and exhausting to stack P2B5.
 - (5) One (1) putty booth used for additional repair, identified as P2-Putty Booth, constructed in 2004, with a maximum capacity of 24 tons of metal per hour, with the particulate emissions controlled by Baghouse 4, and exhausting to stack P2B4.
- (n) One (1) Furan Mold Making Operation, consisting of the following emissions units:
 - (1) One (1) furan mold sand reclamation system, identified as P2exp-Mold Sand Reclamation, approved for construction in 2008, with a maximum capacity of 10 tons of sand per hour, with particulate emissions controlled by Baghouse B6, and exhausting to stack P2expB6.
 - (2) One (1) furan mold mixer, identified as P2exp-Mold Mixer, approved for construction in 2008, with a maximum capacity of 2,000 pounds of sand per minute, the uncontrolled emissions exhausting inside the building, then to general ventilation.
 - (3) One (1) mold wash, identified as P2exp-Mold Wash, approved for construction in 2008,

with the uncontrolled emissions exhausting inside the building, then to general ventilation.

(o) One (1) Casting Line, consisting of the following emissions units:

(1) One (1) floor pouring and cooling operation, identified as P2exp-Pouring/Cooling, approved for construction in 2008, with a maximum rate of 6 tons of metal per hour, exhausting inside the building, then to general ventilation.

(2) One (1) mold dump system for casting operation, identified as P2exp-Mold Dump, approved for construction in 2008, with a maximum rate of 6 tons of metal per hour, with the particulate emissions controlled by Baghouse B6, and exhausting to stack P2expB6.

(p) One (1) enclosed Pre-Finishing Operation, consisting of the following four (4) emissions units, all with a maximum capacity of 6 tons of metal per hour, all with particulate emissions controlled by Baghouse B7, and all exhausting to stack P2expB7:

(1) One (1) pre-finish station, identified as P2exp-Pre-Finish Station, approved for construction in 2008.

(2) One (1) enclosed blast cabinet, identified as P2exp-Blast Cabinet, approved for construction in 2008.

(3) One (1) core removal operation, identified as P2exp-Core Removal Operation, will remove the remaining sand cores from the casting, approved for construction in 2008.

(4) One (1) coarse grinding area, identified as P2exp-Grinding Station, approved for construction in 2008.

(q) One (1) phenolic urethane no-bake core production process consisting of one (1) phenolic urethane no-bake core sand mixer and core boxes of various sizes, identified as P2exp-Core Mixer, with a maximum capacity of 100 pounds of core sand per minute, exhausting inside the building, then to general ventilation.

(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 PSD Minor Limitations [326 IAC 2-2]

- (a) For the P2 emission units listed below, the metal throughput rate per (12) twelve consecutive month period, and PM emissions and PM10 emissions shall be limited as follows:

Emission Unit ID	Metal Throughput Limit (tons per year)	PSD Emission Limit (lbs PM/PM10 per ton metal)	
		PM	PM10
P2-EIF#1, P2-EIF#2, P2-EIF #3	88,000 total	0.75	0.75
P2-Shakeout, P2-Mold Sand Handling	88,000 each	0.32	0.32
P2-Shot Blast Machine	88,000	0.03	0.03
P2-Pre-Finish, P2-Putty Booth, P2-Grinding #1 - #5	88,000 each	0.08	0.08
P2-Core Removal	88,000	0.065	0.01
P2-Charge	88,000	0.36	0.36
P2-Pouring/Cooling	88,000	0.1	0.1
P2-Core Sand Handling	88,000	0.075	0.011
P2-Buffering Booth	88,000	0.08	0.08

- (b) For the P2 emission units listed below, the VOC limits are as follows:
- (1) The amount of VOC used in the P2-Molding Machine and P2-Core Machine (listed in this Section), combined with the amount of VOC used in the P2-Filler/Putty Application, P2-Paint Booth #1 and P2-Paint Booth #2 (listed in Section D.4) shall be limited to less than 89.92 tons per twelve (12) consecutive month period.
 - (2) The P2-Shakeout and P2-Pouring/Cooling operations shall be limited to 88,000 tons of metal throughput per twelve (12) consecutive month period.
 - (3) The P2-Shakeout and P2-Pouring/Cooling operations shall be limited to less than a total of 0.18 pounds of VOC per ton of metal throughput.
- (c) The emissions of CO from the P2-Shakeout and P2-Pouring/Cooling operations shall be limited to less than a total of 1.87 pounds per ton of metal throughput.

Combined with the limits in Section D.4, compliance with the above limits ensures that the PM, PM10, CO, and VOC emissions from the emissions units constructed under SSM 079-17819-00018 are limited to less than 100 tons per year. Compliance by the Permittee with these limitations renders 326 IAC 2-2 (PSD) not applicable to the emissions units constructed under SSM 079-17819-00018.

- (d) In order to render 326 IAC 2-2 (PSD) not applicable to the modifications performed under Significant Source Modification 079-25476-00018, the Permittee shall limit comply with the limitations shown in the following table:

Emission Unit	Control Device (Stack)	Annual Production/Usage Limit	PM Limit	PM10 Limit	VOC Limit
P2exp-Pouring/Cooling	none	4,927 tons of metal per twelve consecutive month period	5.60 lbs/ton metal	3.46 lbs/ton metal	none
P2exp-Mold Sand Reclamation and P2exp-Mold Dump	Baghouse B6 (P2exp-B6)	14,780 tons of sand per twelve consecutive month period	0.87 lbs/ton sand	0.57 lbs/ton sand	none
P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and P2exp-Grinding Station	Baghouse B7 (P2exp-B7)	4,927 tons of metal per twelve consecutive month period	0.34 lbs/ton metal	0.03 lbs/ton metal	none
P2exp-Core Mixer	none	66,000 pounds core sand per twelve consecutive month period	none	none	none

D.3.2 HAP Minor Limitations [326 IAC 2-4.1][40 CFR 63, Subpart EEEEE][40 CFR 63, Subpart MMMM]

- (a) Metal throughput to P2 emissions units shall be limited to less than 88,000 tons per twelve (12) consecutive month period.
- (b) Particulate emissions from the P2 and P2exp emission units shall be limited as specified in Condition D.3.1.
- (c) The amount of HAP used in the P2-Core Making and the P2exp-Mold Mixer (listed in this

Section), combined with the amount of HAP used in the P1-Core Making (listed in Section D.1) and the amount of HAP used in the P1-Filler/Putty Application, P1-Paint Booth #2, P1-Paint Booth #3, and P1-Final Inspection Paint Booth (listed in Section D.2) and the amount of HAP used in the P2-Filler/Putty Application, P2-Paint Booth #1, and P2-Paint Booth #2 (listed in Section D.4) shall be limited to less than ten (10) tons per twelve (12) consecutive month period for any single HAP and less than 19.0 tons per twelve (12) consecutive month period for any combination of HAPs.

These limits, combined with the HAP usage limits in Conditions D.1.2, D.2.1, and D.4.1, and the HAP emissions from the other emission units at this source, will limit the source-wide emissions of HAPs to less than ten (10) tons of a single HAP and less than twenty-five (25) tons of a combination of HAPs per twelve (12) consecutive month period. Compliance with these limits makes the requirements of 326 IAC 2-4.1, 40 CFR 63, Subpart EEEEE and 40 CFR 63, Subpart Mmmm not applicable to this source.

D.3.3 Volatile Organic Compound Usage Limitations [326 IAC 8-1-6]

The amount of VOC used in the P2-Core Machine, including resin, release agent 1, and release agent 2, shall be limited to less than 25 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with this limit makes the requirements of 326 IAC 8-1-6(BACT) not applicable to the P2-Core Machine.

D.3.4 Particulate [326 IAC 6-3-2]

- (a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission from the raw core sand handling (P2-Core Sand Handling) and core machine (P2-Core Machine) shall not exceed 2.13 pounds per hour when operating at a process weight rate of 750 pounds per hour.
- (b) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission from the mold machine sand handling (P2-Mold Sand Handling) shall not exceed 56.44 pounds per hour when operating at a process weight rate of 165.0 tons of sand per hour.
- (c) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission from the metal and charge handling (P2-Charge), electric induction furnaces (P2-EIF#1, P2-EIF#2, P2-EIF#3), the floor pouring/cooling (P2-Pouring/Cooling) shall not exceed 28.43 pounds per hour when operating at a process weight rate of 18 tons per hour.
- (d) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission from the shakeout unit (P2-Shakeout,) the pre-finish knock out station (P2-Pre-Finish Station), the shotblast machine (P2-Shotblast Machine), the core removal (P2-Core removal) and grinding stations (P2-Grinding Station #1 through P2-Grinding Station #5), the buffing booth (P2-Buffing Booth), and the putty booth (P2-Putty Booth) shall not exceed 34.5 pounds per hour when operating at a process weight rate of 24 tons of metal per hour.
- (e) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission from P2exp-Pouring/Cooling, P2exp-Mold Mixer, P2exp-Mold Sand Reclamation, P2exp-Mold Dump, P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, P2exp-Grinding Station, and P2exp-Core Mixer shall not exceed the pound per hour limitations shown in the table below:

Emission Unit	Process Weight (tons/hr)	PM Emission Limit (lbs/hr)
P2exp-Pouring/Cooling	16 *	26.3
P2exp-Mold Mixer	60	46.3
P2exp-Mold Sand Reclamation	10	19.2

P2exp-Mold Dump	16 *	26.3
P2exp-Pre-Finish Station	6	13.6
P2exp-Blast Cabinet	6	13.6
P2exp-Core Removal Operation	6	13.6
P2exp-Grinding Station	6	13.6
P2exp-Core Mixer	3	8.56

* This process weight includes both metal (6 tons) and sand (10 tons).

The particulate emission rates were calculated as described below.

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

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

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

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

D.3.5 Preventive Maintenance Plan [326 IAC 1-6-3]

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

Compliance Determination Requirements

D.3.6 Particulate Control [326 IAC 2-7-6(6)]

- (a) To comply with Conditions D.3.1 and D.3.4, the baghouses for particulate control shall be in operation and control emissions from the electric induction furnaces (Baghouse 1), the mold sand handling operation and shakeout operations (Baghouse 2), the shot blast machine (Baghouse 3), the prefinish station and the coarse grinding stations (Baghouse 4), the buffing booth (Baghouse 5), the P2exp-Mold Sand Reclamation (Baghouse B6), the P2exp-Mold Dump (Baghouse B6), and the P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and P2exp-Grinding Station (Baghouse B7) at all times that these facilities are in operation.
- (b) The integral vacuum system shall be in operation at all times when the floor pouring/cooling is in operation.
- (c) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.3.7 Testing Requirements [326 IAC 2-6.1-5(a)(2), (4)] [326 IAC 2-1.1-11]

- (a) By August 9, 2008, in order to demonstrate compliance with Conditions D.3.1(a) and D.3.4(c), the Permittee shall perform PM and PM-10 testing on the three (3) electric induction furnaces and the control device (Baghouse 1) utilizing methods as approved by the Commissioner. PM-10 includes filterable and condensable PM-10. This test 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 using methods approved by the Commissioner.
- (b) Within 180 days of issuance of the permit, and in order to demonstrate compliance with Condition D.3.1(c), the Permittee shall perform CO testing on the P2-Pouring/Cooling and P2-Shakeout utilizing methods as approved by the Commissioner. This test 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.

- (c) By August 11, 2010, and in order to demonstrate compliance with Condition D.3.1(b)(3), the Permittee shall perform VOC testing on the P2-Pouring/Cooling and P2-Shakeout utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

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

D.3.8 Visible Emissions Notations [40 CFR 64]

- (a) Visible emission notations of the electric induction furnaces (Baghouse 1), the mold sand handling operation and shakeout operations (Baghouse 2), the shot blast machine (Baghouse 3), the prefinish station and the coarse grinding stations (Baghouse 4), the buffing booth (Baghouse 5), the P2exp-Mold Sand Reclamation (Baghouse B6), P2exp-Mold Dump (Baghouse B6), and P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and P2exp-Grinding Station (Baghouse B7) stack exhausts shall be performed once per day 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) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.3.9 Baghouse Parametric Monitoring [40 CFR 64]

The Permittee shall record the pressure drop across the baghouses used in conjunction with the electric induction furnaces, the mold sand handling operation, the shakeout operations, the shot blast machine, the prefinish station, the coarse grinding stations, the buffing booth, the P2exp-Mold Sand Reclamation, the P2exp-Mold Dump, and the P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and P2exp-Grinding Station at least once per day, when these facilities are in operation when venting to the atmosphere. When for any one reading the pressure drop across the baghouses is outside the range of 1 and 8 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. 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 - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

D.3.10 Broken or Failed Bag Detection [40 CFR 64]

- (a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

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

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

D.3.11 Record Keeping Requirements

- (a) To document compliance with Conditions D.3.1 and D.3.3, the Permittee shall:
- (1) Maintain records of the throughput of metal to the P2 emission units on a monthly basis. Records shall include production and/or shipping records necessary to verify the amount of metal produced by the P2 emission units.
 - (2) Maintain records of the amount and VOC content of each core resin, release agent, filler, putty, primer, finishing material, thinner and cleanup solvent used in the P2 and P2exp emission units on a monthly basis. Records shall include purchase orders, invoices, Certified Product Data Sheets and material safety data sheets (MSDS) necessary to verify the type and amount used. The records maintained shall show the total VOC usage for each month and the weight of VOCs emitted for each compliance period. The records maintained shall be complete and sufficient to establish compliance with the VOC usage limits established in Condition D.3.1.
- (b) To document compliance with Condition D.3.2, the Permittee shall:
- (1) Maintain records of the throughput of metal to the P2 emission units on a monthly basis. Records shall include production and/or shipping records necessary to verify the amount of metal produced by the P2 emission units.
 - (2) Maintain records of the amount and HAP content of each core resin, filler, putty, primer, finishing material, thinner and cleanup solvent used in the P2 and P2exp emission units on a monthly basis. Records shall include purchase orders, invoices, Certified Product Data Sheets and material safety data sheets (MSDS) necessary to verify the type and amount used. The records maintained shall show the total HAP usage for each month and the weight of HAPs emitted for each compliance period. The records maintained shall be complete and sufficient to establish compliance with the HAP usage limits established in Condition D.3.2.
- (c) To document compliance with Condition D.3.8, the Permittee shall maintain a daily record of visible emission notations from the electric induction furnaces exhaust (Baghouse 1), the mold sand handling operation and shakeout operations exhaust (Baghouse 2), the shot blast machine exhaust (Baghouse 3), the prefinish station and the coarse grinding stations exhaust (Baghouse 4), the buffing booth exhaust (Baghouse 5), the P2exp-Mold Sand Reclamation (Baghouse B6), P2exp-Mold Dump (Baghouse B6), and P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and P2exp-Grinding Station (Baghouse B7). The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (e.g. the process did not operate that day).
- (d) To document compliance with Condition D.3.9 the Permittee shall maintain a daily record of the pressure drop across the baghouses controlling the processes when venting to the atmosphere. The Permittee shall include in its daily record when a pressure drop reading

is not taken and the reason for the lack of a pressure drop reading, (e.g. the process did not operate that day).

- (e) To document compliance with Condition D.3.1(d), the Permittee shall maintain a monthly record of the metal throughput at emission units P2exp-Pouring/Cooling and the P2exp Pre-Finishing Operations.
- (f) To document compliance with Condition D.3.1(d), the Permittee shall maintain a monthly record of the sand usage at emission unit P2exp-Mold Sand Reclamation and P2exp-Core Mixer.
- (g) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.3.12 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.3.1 and D.3.2(a) and (c) shall be submitted to the addresses 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)]:

- (m) One (1) Finishing Operation, consisting of the following emissions units:
- (1) Filler/putty application to the casting to fill in any divots or scratches, identified as P2-Filler/Putty Application, constructed in 2004, with a maximum rate of 1.6 gallons per hour for the entire finishing operations, with emissions exhausting inside the building, then to general ventilation.
 - (2) Two (2) paint booths, identified as P2-Paint Booth #1 and P2-Paint Booth #2, constructed in 2004, each utilizes an HVLP spray gun, using dry filters for particulate control, with particulate emissions exhausting inside the building, then to general ventilation.
 - (A) P2-Paint Booth #1 has a maximum capacity of 6.88 gallons of primer per hour.
 - (B) P2-Paint Booth #2 has a maximum capacity of 2.24 gallons of primer per hour.
 - (3) Two (2) paint booth dryers using natural gas as fuel, identified as P2-Paint Booth #1 Dryer and P2-Paint Booth #2 Dryer, constructed in 2004, each rated at 0.00165 MMBtu per hour, with the uncontrolled emissions exhausting to stacks P2PB1 and P2PB2.

(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 HAP Minor Limitations [326 IAC 2-4.1][40 CFR 63, Subpart EEEEE][40 CFR 63, Subpart MMMM]

The amount of HAP used in the P2-Filler/Putty Application, P2-Paint Booth #1, and P2-Paint Booth #2 (listed in this Section), combined with the amount of HAP used in the P1-Core Making (listed in Section D.1) and the amount of HAP used in the P1-Filler/Putty Application, P1-Paint Booth #2, P1-Paint Booth #3, and P1-Final Inspection Paint Booth (listed in Section D.2) and the amount of HAP used in the P2-Core Making and the P2exp-Mold Mixer (listed in Section D.3) shall be limited to less than ten (10) tons per twelve (12) consecutive month period for any single HAP and less than 19.0 tons per twelve (12) consecutive month period for any combination of HAPs.

These limits, combined with the HAP usage limits in Conditions D.1.2, D.2.1, and D.3.2, and the HAP emissions from the other emission units at this source, will limit the source-wide emissions of HAPs to less than ten (10) tons of a single HAP and less than twenty-five (25) tons of a combination of HAPs per twelve (12) consecutive month period. Compliance with these limits makes the requirements of 326 IAC 2-4.1, 40 CFR 63, Subpart EEEEE and 40 CFR 63, Subpart MMMM not applicable to this source.

D.4.2 PSD Minor Limitations [326 IAC 2-2]

- (a) The PM and PM10 emissions from paint booth #1 (P2-Paint Booth #1) shall be limited to 1.9 pounds per hour.
- (b) The PM and PM10 emissions from paint booth #2 (P2-Paint Booth #2) shall be limited to 0.5 pounds per hour.
- (c) The amount of VOC used in the P2-Filler/Putty Application, P2-Paint Booth #1 and P2-Paint Booth #2 (listed in this Section), combined with the amount of VOC used in the P2-Molding Machine and P2-Core Machine (listed in Section D.3) shall be limited to less than 89.92 tons per twelve (12) consecutive month period.

Combined with the emission limits in Section D.3, compliance with the above limits ensures that

the VOC, PM and PM10 emissions from the emissions units constructed under SSM 079-17819-00018 are limited to less than 100 tons per year. Therefore, the requirements of 326 IAC 2-2 are not applicable to the emissions units constructed under SSM 079-17819-00018.

D.4.3 Volatile Organic Compound (VOC) Limitation [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating applied in the paint booths (P2-Paint Booth #1, P2-Paint Booth #2) shall be limited to 3.50 pounds of VOCs per gallon of coating, excluding water, as delivered to the applicator for any calendar day, for forced warm air (less than 90°C or 194°F) dried coatings.

D.4.4 Volatile Organic Compound (VOC) Limitation, Clean-up Requirements [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9(f), all solvents sprayed from the application equipment of paint booth 1 and paint booth 2 (P2-Paint Booth #1 and P2-Paint Booth #2) during clean up or color changes shall be directed into containers. Such containers shall be closed as soon as the solvent spraying is complete. In addition, all waste solvent shall be disposed of in such a manner that minimizes evaporation.

D.4.5 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emissions Limitations for Manufacturing Processes), the allowable PM emission rate from the filler/putty application station (P2-Filler/Putty Application) shall not exceed 30.51 pounds per hour when operating at a process weight rate of 40,000 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.4.6 Particulate [326 IAC 6-3-2(d)]

Pursuant to 326 IAC 6-3-2(d), particulate from the paint booths (P2-Paint Booth #1 and P2-Paint Booth #2) shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

D.4.7 Preventive Maintenance Plan [326 IAC 1-6-3]

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.4.8 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-4]

Compliance with the VOC content limit in Conditions D.4.2 and D.4.3 shall be determined using one of the following methods:

- (a) Pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.
- (b) Pursuant to 326 IAC 8-1-2(a)(7), using volume weighted average of coatings on a daily basis. This volume weighted average shall be determined by the following equation:

$$A = [\sum C \times U] / \sum U$$

Where:

A is the volume weighted average in pounds VOC per gallon less water as applied
C is the VOC content of the coating in pounds VOC per gallon less water as applied and
U is the usage rate of the coating in gallons day

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

D.4.9 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 while one or more of the booths are in operation, except during adverse weather conditions. Adverse weather conditions are defined as the presence of ice or deep snow on rooftops that prevent the weekly observations or monthly rooftop inspections due to the safety hazard it represents to employees. If a condition exists which should result in a response step, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) Monthly inspections shall be performed of the coating emissions from the stacks and the presence of overspray on the rooftops and the nearby ground, except during adverse weather conditions. When there is a noticeable change in overspray emissions, or when evidence of overspray emissions is observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

D.4.10 Record Keeping Requirements

- (a) The Permittee shall maintain records required under 326 IAC 3-5-6 at the source in a manner that they may be inspected by the IDEM, OAQ, or the US EPA, if so requested or required.
- (b) To document compliance with Condition D.4.1, the Permittee shall maintain records of the amount and HAP content of each core resin, filler, putty, primer, finishing material, thinner and cleanup solvent used on a monthly basis. Records shall include purchase orders, invoices, Certified Product Data Sheets and material safety data sheets (MSDS) necessary to verify the type and amount used. The records maintained shall show the total HAP usage for each month and the weight of HAPs emitted for each compliance period. The records maintained shall be complete and sufficient to establish compliance with the HAP usage limits established in Condition D.4.1.
- (c) To document compliance with Conditions D.4.2 and D.4.3 the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.4.2 and D.4.3. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
 - (1) The amount and VOC content of each coating material and solvent less water used on a monthly basis. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
 - (2) The total VOC usage for each month.
 - (3) The weight of VOCs emitted for each compliance period.

- (d) To document compliance with Condition D.4.9, the Permittee shall maintain a log of weekly overspray observations, and daily and monthly inspections. In the event that a required weekly overspray observation or monthly rooftop inspection cannot be completed due to adverse weather conditions, the Permittee shall record the reasons why these observations or inspections did not occur.
- (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.4.11 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.4.1 and D.4.2(c) 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 OPERATION CONDITIONS

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

- (a) Degreasing operations that do not exceed 145 gallons per 12 months, including:

One (1) parts washing station, identified as P1-Maintenance Parts Washing Station, using a maximum of 0.002 gallons of washing solution per hour. [326 IAC 8-3-2]
- (b) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. [326 IAC 6-3]
- (c) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a 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]
- (d) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4]

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

Emission Limitations and Standards

D.5.1 Volatile Organic Compounds (VOC)

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.5.2 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 grinding and machining operations and the brazing, cutting, soldering or welding processes shall not exceed E as calculated in the following formula:

The pounds per hour limitation was calculated using the following equation:

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

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

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

Compliance Determination Requirement

D.5.3 Particulate Control

In order to comply with D.5.2, the control equipment for particulate control shall be in operation and control emissions from the grinding and machining operations at all times that the grinding and machining operations are in operation.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

PART 70 OPERATING PERMIT CERTIFICATION

Source Name: North Vernon Industry Corporation
Source Address: 3750 North County Road 75 West, North Vernon, Indiana 47265
Mailing Address: P.O. Box 894, North Vernon, Indiana 47265
Part 70 Permit No.: 079-15119-00018

**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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865**

**PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT**

Source Name: North Vernon Industry Corporation
Source Address: 3750 North County Road 75 West, North Vernon, Indiana 47265
Mailing Address: P.O. Box 894, North Vernon, Indiana 47265
Part 70 Permit No.: 079-15119-00018

This form consists of 2 pages

Page 1 of 2

- | |
|--|
| <input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12) <ul style="list-style-type: none">C The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); andC The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), 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
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , 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

P1 VOC Usage Quarterly Report

Source Name: North Vernon Industry Corporation
Source Address: 3750 North County Road 75 West, North Vernon, Indiana 47265
Mailing Address: P.O. Box 894, North Vernon, IN 47265
Permit No.: 079-15119-00018
Facility and Limit: The total usage of VOC at the P1-Molding Machine, P1-Core Machine, P1-Filler/Putty Application, P1-Paint Booth #2, P1-Paint Booth #3, P1-Putty Booth, and the P1-Final Inspection Paint Booth shall be limited to less than 89.33 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 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

P2 VOC Usage Quarterly Report

Source Name: North Vernon Industry Corporation
Source Address: 3750 North County Road 75 West, North Vernon, Indiana 47265
Mailing Address: P.O. Box 894, North Vernon, IN 47265
Permit No.: 079-15119-00018
Facility and Limit: The total usage of VOC in the P2-Molding Machine, P2-Core Machine, P2-Filler/Putty Application, P2-Paint Booth #1 and P2-Paint Booth #2 shall be limited to less than 89.92 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 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

P1 Metal Limitation Quarterly Report

Source Name: North Vernon Industry Corporation
Source Address: 3750 North County Road 75 West, North Vernon, Indiana 47265
Mailing Address: P.O. Box 894, North Vernon, IN 47265
Permit No.: 079-15119-00018
Facility: P1-Charge, P1-Rotary Kiln Dryer, P1-EIF #1, P1-EIF#2, P1-Pouring/Cooling, P1-Shakeout, P1-Mold Sand Handling, P1-Pre-Finish, P1-Core Removal, P1-Core Sand Handling, P1-Grinding Station #1 through P1 Grinding Station #5, P1-Shotblast Machine #1, P1-Shotblast Machine #2, P1-Putty Booth, P1-Buffing Booth, P1-Final Inspection Buffing
Limit: The throughput of metal shall be limited to 74,400 tons of metal per twelve (12) consecutive month period, with compliance determined at the end of each month.

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 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

P2 Metal Limitation Quarterly Report

Source Name: North Vernon Industry Corporation
Source Address: 3750 North County Road 75 West, North Vernon, Indiana 47265
Mailing Address: P.O. Box 894, North Vernon, IN 47265
Permit No.: 079-15119-00018
Facility: P2-Charge, P2-EIF #1 through P2-EIF#3, P2-Pouring/Cooling, P2-Shakeout, P2-Mold Sand Handling, P2-Pre-Finish, P2-Core Removal, P2-Core Sand Handling, P2-Pre-Finish, P2-Putty Booth, P2-Grinding Station #1 through P2 Grinding Station #5, P2-Shotblast Machine, P2-Buffering Booth
Limit: The throughput of metal shall be limited to 88,000 tons of metal per twelve (12) consecutive month period, with compliance determined at the end of each month.

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 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

P2 BACT Limit Quarterly Report

Source Name: North Vernon Industry Corporation
Source Address: 3750 North County Road 75 West, North Vernon, Indiana 47265
Mailing Address: P.O. Box 894, North Vernon, IN 47265
Permit No.: 079-15119-00018
Facility and Limit: The amount of VOC used in the P2-Core Machine, including resin, release agent 1, and release agent 2, shall be limited to less than 25 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

YEAR:

Month	Units	This Month	Previous 11 Months	12 Month Total
	Gallons Tons VOC			
	Gallons Tons VOC			
	Gallons Tons VOC			

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

HAP Usage Quarterly Report

Source Name: North Vernon Industry Corporation
Source Address: 3750 North County Road 75 West, North Vernon, Indiana 47265
Mailing Address: P.O. Box 894, North Vernon, IN 47265
Permit No.: 079-15119-00018
Facility: P1 – Core Making, P1-Filler/Putty Application, P1-Paint Booth #2, P1-Paint Booth #3, P1-Final Inspection Paint Booth, P2-Core Making, P2-Filler/Putty Application, P2-Paint Booth #1, P2exp-Mold Mixer, and P2-Paint Booth #2
Limit: Less than ten (10) tons for a single HAP and less than 19.0 tons for a combination of HAPs per twelve (12) month consecutive period.

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 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

P2exp Metal Limitation Quarterly Report

Source Name: North Vernon Industry Corporation
Source Address: 3750 North County Road 75 West, North Vernon, Indiana 47265
Mailing Address: P.O. Box 894, North Vernon, IN 47265
Permit No.: 079-15119-00018
Facility and Limit: The total throughput of metal in the P2exp-Pouring/Cooling and P2exp Pre-Finishing Operations shall be limited to less than 4,927 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 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

P2exp Sand Usage Quarterly Report

Source Name: North Vernon Industry Corporation
Source Address: 3750 North County Road 75 West, North Vernon, Indiana 47265
Mailing Address: P.O. Box 894, North Vernon, IN 47265
Permit No.: 079-15119-00018
Facility and Limit: The total usage of sand in the P2exp-Mold Sand Reclamation shall be limited to less than 14,780 tons per twelve (12) consecutive month period, with compliance determined at the end of each month. The total usage of sand in the P2exp-Core Mixer shall be limited to less than 33 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

YEAR:

Month	Material	Column 1	Column 2	Column 1 + Column 2
		This Month	Previous 11 Months	12 Month Total
Month 1	Mold Sand			
	Core Sand			
Month 2	Mold Sand			
	Core Sand			
Month 3	Mold Sand			
	Core Sand			

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: North Vernon Industry Corporation
Source Address: 3750 North County Road 75 West, North Vernon, Indiana 47265
Mailing Address: P.O. Box 894, North Vernon, Indiana 47265
Part 70 Permit No.: 079-15119-00018

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. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does 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>	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

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

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document for a Significant Permit Modification to a Part 70 Operating Permit

Source Background and Description

Source Name:	North Vernon Industry Corporation
Source Location:	3750 North County Road 75 West, North Vernon, IN 47265
County:	Jennings
SIC Code:	3321
Operation Permit No.:	T079-15119-00018
Operation Permit Issuance Date:	September 1, 2006
Significant Permit Modification No.:	079-25513-00018
Permit Reviewer:	ERG/ST

On January 29, 2008, the Office of Air Quality (OAQ) had a notice published in The Plain Dealer, North Vernon, Indiana, stating that North Vernon Industry Corporation had applied for a Significant Permit Modification to their Part 70 Operating Permit. 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 March 25, 2008, North Vernon Industry Corporation submitted comments on the proposed Significant Permit Modification. The summary of the comments is as follows. New language is shown in **bold** while language that has been deleted is shown in ~~strikeout~~.

Comment 1: Please revise the descriptions and conditions in Sections A.2(n)(1), A.2(n)(2), A.2(n)(3), and throughout Section D.3 as follows:

- (a) The "furan mold sand handling and storage system, P2exp-Mold Sand Handling," should be referred to as the "furan mold sand reclamation system, P2exp-Mold Sand Reclamation."
- (b) The furan mold sand handling and storage system, P2exp-Mold Sand Handling [P2exp-Mold Sand Reclamation], should be listed as having a maximum capacity of 10 tons of sand per hour and the emission limits pursuant to 326 IAC 6-3-2 in Condition D.3.4 should be revised as a result of the revised maximum capacity of this emission unit.
- (c) The furan mold mixer, P2exp-Mold Mixer, should be listed as having a maximum capacity of 2000 pounds of sand per minute.
- (d) Please remove the annual resin, catalyst, release agent, and mold wash usages from the emission unit descriptions.
- (e) The furan mold mixer should be described as uncontrolled.

IDEM Response to Comment 1: IDEM has changed the equipment descriptions in sections A.2(n) and D.3 as follows:

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

The source consists of the following permitted emission units and pollution control devices:

...

- (n) One (1) Furan Mold Making Operation, consisting of the following emissions units:
 - (1) One (1) furan mold sand ~~handling and storage~~ **reclamation** system, identified as P2exp-Mold Sand ~~Handling~~ **Reclamation**, approved for construction in 2008, with a maximum capacity of ~~0.98~~ **10** tons of sand per hour, with particulate emissions controlled by Baghouse B6, and exhausting to stack P2expB6.
 - (2) One (1) furan mold mixer, identified as P2exp-Mold Mixer, approved for construction in 2008, with a maximum capacity of ~~0.98 tons of sand per hour~~ **2,000 pounds of sand per minute**, ~~112 tons of resin per year, 33.63 tons of catalyst per year, and 390 gallons of release agent per year;~~ with particulate emissions controlled by Baghouse B6, and exhausting to stack P2expB6. **the uncontrolled emissions exhausting inside the building, then to general ventilation.**
 - (3) One (1) mold wash, identified as P2exp-Mold Wash, approved for construction in 2008, with a maximum capacity of ~~0.187 gallons of mold wash per hour;~~ with the uncontrolled emissions exhausting inside the building, then to general ventilation.

SECTION D.3

FACILITY OPERATION CONDITIONS

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

...

- (n) One (1) Furan Mold Making Operation, consisting of the following emissions units:
 - (1) One (1) furan mold sand ~~handling and storage~~ **reclamation** system, identified as P2exp-Mold Sand ~~Handling~~ **Reclamation**, approved for construction in 2008, with a maximum capacity of ~~0.98~~ **10** tons of sand per hour, with particulate emissions controlled by Baghouse B6, and exhausting to stack P2expB6.
 - (2) One (1) furan mold mixer, identified as P2exp-Mold Mixer, approved for construction in 2008, with a maximum capacity of ~~0.98 tons of sand per hour~~ **2,000 pounds of sand per minute**, ~~112 tons of resin per year, 33.63 tons of catalyst per year, and 390 gallons of release agent per year;~~ with particulate emissions controlled by Baghouse B6, and exhausting to stack P2expB6. **the uncontrolled emissions exhausting inside the building, then to general ventilation.**
 - (3) One (1) mold wash, identified as P2exp-Mold Wash, approved for construction in 2008, with a maximum capacity of ~~0.187 gallons of mold wash per hour;~~ with the uncontrolled emissions exhausting inside the building, then to general ventilation.

Comment 2: Please revise the descriptions and conditions in Sections A.2(o)(1), A.2(o)(2), and throughout Section D.3 as follows:

- (a) The floor pouring and cooling should be described as a casting line having a maximum capacity of 6 tons of metal per hour. The emission limits pursuant to 326 IAC 6-3-2 in

Condition D.3.4 should be revised as a result of the revised maximum capacity of this emission unit.

- (b) The floor pouring and cooling does not use a vacuum suction.
- (c) The shakeout system would be more accurately described as a mold dump system. There is no mechanical shakeout system. This is a manual process which is expected to have negligible particulate emissions.
- (d) Delete the statement that says baghouse B7 will recycle all the sand collected back into the furan mold sand process. This statement is inaccurate.
- (e) Revise the reference to baghouse B7 to baghouse B6. The mold dump, P2exp-Mold Dump, will be controlled by baghouse B6.
- (f) Condition D.3.1(d) should be revised to combine the emission limits for the sand reclamation system and the mold dump because both will be controlled by baghouse B6.
- (f) Condition D.3.6(b) should be revised to remove the reference to the P2exp-Pouring/Cooling, since a vacuum system will not be used with this process.
- (g) Condition D.3.7 should be revised to eliminate the stack testing requirements for the baghouse B6 controlling the mold dump and sand reclamation operations. It is not feasible to test the mold dump process because it is a batch operation that only operates for approximately 15 to 30 minutes at a time, twice per day. The facility is producing very large castings (boat keels) and only two castings per day are processed at the mold dump and finishing operations. In order to do three 1-hour test runs, it would be necessary to test for about 15 to 30 minutes each day over a period of several days. This would result in an extraordinary cost to NVIC. Additionally, the emissions from these processes are expected to be well below the proposed emission limits. To establish the proposed emission limits, NVIC assumed a capture efficiency of only 25% for the mold dump operation and an overall control efficiency of 99% for the sand reclamation and finishing operations. These very conservative emission estimates, along with the compliance monitoring requirements in the permit, should be sufficient to assure compliance.

IDEM Response to Comment 2: The descriptions have been changed as requested. Due to the changes in control devices, the PSD minor modification limits in Condition D.3.1 for P2exp-Mold Sand Reclamation and P2exp-Mold Dump will be combined. The stack testing requirements for the baghouse B6 have been removed. Note: Many of the Conditions in Section D.3 are revised due to Comments 1, 2, 3, 4, and 5. Therefore, the changes to the conditions in section D.3 for Comments 1, 2, 3, 4, and 5 are shown in the response to Comment 5. IDEM has changed the equipment descriptions in sections A.2(o) and D.3 as follows:

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

The source consists of the following permitted emission units and pollution control devices:

...

- (o) One (1) ~~Floor Molding Operation~~ **Casting Line**, consisting of the following emissions units:
 - (1) One (1) floor pouring and cooling operation, identified as P2exp-Pouring/Cooling, approved for construction in 2008, with a maximum rate of ~~0.5625~~ **6** tons of metal per hour, ~~utilizing vacuum suction during pouring and cooling operations,~~ exhausting inside the building, then to general ventilation.

- (2) One (1) ~~shakeout~~ **mold dump** system for casting operation, identified as P2exp-~~Shakeout~~**Mold Dump**, approved for construction in 2008, with a maximum rate of ~~0.5625~~ **6** tons of metal per hour, with the particulate emissions controlled by Baghouse ~~B7~~ **B6**, and exhausting to stack P2exp~~B7~~**B6**. ~~Baghouse B7 will recycle all the sand collected back into the furan mold sand process.~~

SECTION D.3

FACILITY OPERATION CONDITIONS

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

...

- (o) One (1) ~~Floor Molding Operation~~ **Casting Line**, consisting of the following emissions units:
- (1) One (1) floor pouring and cooling operation, identified as P2exp-Pouring/Cooling, approved for construction in 2008, with a maximum rate of ~~0.5625~~ **6** tons of metal per hour, ~~utilizing vacuum suction during pouring and cooling operations~~, exhausting inside the building, then to general ventilation.
- (2) One (1) ~~shakeout~~ **mold dump** system for casting operation, identified as P2exp-~~Shakeout~~**Mold Dump**, approved for construction in 2008, with a maximum rate of ~~0.5625~~ **6** tons of metal per hour, with the particulate emissions controlled by Baghouse ~~B7~~ **B6**, and exhausting to stack P2exp~~B7~~**B6**. ~~Baghouse B7 will recycle all the sand collected back into the furan mold sand process.~~

Comment 3: Please revise the descriptions and conditions in Sections A.2(p) and throughout Section D.3 as follows:

- (a) The pre-finishing operation should be described as having a maximum capacity of 6 tons of metal per hour and controlled by baghouse B7 exhausting to stack P2expB7. There is no baghouse B8.
- (b) The emission limits pursuant to 326 IAC 6-3-2 in Condition D.3.4 should be revised as a result of the revised maximum capacities of the emission units.
- (c) Condition D.3.6(a) should be revised to reflect that the Pre-Finishing Operations are controlled by baghouse B7.
- (d) Condition D.3.7 should be revised to eliminate the stack testing requirements for baghouse B7 controlling the finishing operations. The emissions from these processes are expected to be well below the proposed emission limits. To establish the proposed emission limits, NVIC assumed a capture efficiency of only 25% for the mold dump operation and an overall control efficiency of 99% for the sand reclamation and finishing operations. These very conservative emission estimates, along with the compliance monitoring requirements in the permit, should be sufficient to assure compliance.

IDEM Response to Comment 3: The descriptions have been changed as requested. The stack testing requirements for the baghouse B7 have been removed. Note: Many of the Conditions in Section D.3 are revised due to Comments 1, 2, 3, 4, and 5. Therefore, the changes to the conditions in section D.3 for Comments 1, 2, 3, 4, and 5 are shown in the response to Comment 5. IDEM has changed the equipment descriptions in Sections A.2(p) and D.3, and the conditions in Section D.3 as follows:

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

The source consists of the following permitted emission units and pollution control devices:

...

- (p) One (1) enclosed Pre-Finishing Operation, consisting of the following four (4) emissions units, all with a maximum capacity of ~~0.5625~~ **6** tons of metal per hour, all with particulate emissions controlled by Baghouse ~~B8~~ **B7**, and all exhausting to stack P2exp~~B8~~**B7**:

...

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15):	
(p)	One (1) enclosed Pre-Finishing Operation, consisting of the following four (4) emissions units, all with a maximum capacity of 0.5625 6 tons of metal per hour, all with particulate emissions controlled by Baghouse B8 B7 , and all exhausting to stack P2exp B8 B7 :
...	

Comment 4: Condition D.3.1(d) should be revised to include annual usage limits. The PM/PM10 emission limits should be written as pound per ton limits instead of pound per hour limits. NVIC proposes emission limits for PM and PM10 emissions as shown in the following table. These emission limits will keep PM and PM10 emissions from this modification below the PSD applicability thresholds.

Emission Unit	Control Device (Stack)	Annual Production/Usage Limit	PM Limit (lbs/hr) (lbs/ton)	PM10 Limit (lbs/hr) (lbs/ton)
P2exp-Pouring/Cooling	none	4,927 tons of metal per twelve consecutive month period	0.23 5.60 lbs/ton metal	0.23 3.46 lbs/ton metal
P2exp-Mold Sand Reclamation and P2exp-Mold Dump	Baghouse B6 (P2exp-B6)	14,780 tons of sand per twelve consecutive month period	0.87 lbs/ton sand	0.57 lbs/ton sand
P2exp-Shakeout	Baghouse B7 (P2expB7)		0.68	0.68
P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and P2exp-Grinding Station	Baghouse B8 B7 (P2exp- B8 B7)	4,927 tons of metal pre twelve consecutive month period	2.74 0.34 lbs/ton metal	1.14 0.03 lbs/ton metal

IDEM Response to Comment 4: The PM and PM10 emission limits have been changed as requested. Note: Many of the Conditions in Section D.3 are revised due to Comments 1, 2, 3, 4, and 5.

Therefore, the changes to the conditions in Section D.3 for Comments 1, 2, 3, 4, and 5 are shown in the response to Comment 5. The permit has been changed as follows:

D.3.1 PSD Minor Limitations [326 IAC 2-2]

- (d) In order to render 326 IAC 2-2 (PSD) not applicable to the modifications performed under Significant Source Modification 079-25476-00018, the Permittee shall limit PM and PM10 emissions as shown in the following table:

Emission Unit	Control Device (Stack)	Annual Production/Usage Limit	PM Limit (lbs/hr) (lbs/ton)	PM10 Limit (lbs/hr) (lbs/ton)
P2exp-Pouring/Cooling	none	4,927 tons of metal per twelve consecutive month period	0.23 5.60 lbs/ton metal	0.23 3.46 lbs/ton metal
P2exp-Mold Sand Reclamation and P2exp-Mold Dump	Baghouse B6 (P2exp-B6)	14,780 tons of sand per twelve consecutive month period	0.87 lbs/ton sand	0.57 lbs/ton sand
P2exp-Shakeout	Baghouse B7 (P2expB7)		0.68	0.68
P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and P2exp-Grinding Station	Baghouse B8 B7 (P2exp- B8 B7)	4,927 tons of metal pre twelve consecutive month period	2.74 0.34 lbs/ton metal	1.14 0.03 lbs/ton metal

Comment 5: Please add the following emission unit: one (1) phenolic urethane no-bake core production process consisting of one (1) phenolic urethane no-bake core sand mixer, identified as P2exp-Core Mixer, with a maximum capacity of 100 pounds of core sand per minute with the prepared core sand being manually rammed into no-bake core boxes of various sizes (2 lbs – 150 lbs), exhausting inside the building, then to general ventilation. Please limit the materials usage in the P2exp core mixer as shown in the table below. Please also limit the usage of resin, release agent and mold wash in the P2exp-Mold Mixer as shown in the table below.

Emission Unit	Control Device (Stack)	Annual Production/Usage Limit	PM Limit (lbs/ton)	PM10 Limit (lbs/ton)	VOC Limit
P2exp-Core Mixer	none	66,000 tons core sand per twelve consecutive month period	none	none	none
P2exp-Mold Mixer	none	Resin: 148 tons per twelve consecutive month period			1.00 lb/ton
		Release Agent: 520 gallons per twelve consecutive month period			5.58 lbs/gal
		Mold Wash: 1,641 gallons per twelve consecutive month period			10 lbs/gal

IDEM Response to Comment 5: The core production process has been added to Sections A.2 and D.3 for the permit as shown below.

The potential to emit of VOC from the new core mixing operation is 0.71 tons per year. Combined with the potential to emit of VOC emissions from the P2exp-Mold Mixer (9.73 tons per year) and the potential to emit of VOC from the P2exp-Pouring/Cooling (8.55 tons/year) and the increase in VOC emissions from existing emission units due to increased utilization (Actual to Projected Actual Emissions After Controls of 3.19 tons/year), the total increase in VOC emissions due to this modification (0.71 + 9.73 + 8.55 + 3.19 = 22.18 tons per year) is less than the PSD major modification threshold (40 tons per year). Therefore, no VOC limits are necessary to keep this modification minor under PSD.

The uncontrolled potential to emit of PM from the new core mixing operation is 0.06 tons per year and the uncontrolled potential to emit of PM10 from the new core mixing operation is 0.01 tons per year. Combined with the increase in PM and PM10 emissions after controls and limits (21.15 tons per year PM and 12.85 tons per year PM10) from the other emission units being added in this modification, and the increase in PM and PM10 emissions after controls due to increased utilization of existing emission units (Actual to Projected Actual Emissions After Controls of 2.46 tons per year PM and 2.06 tons per year PM10), the total increase in PM and PM10 emissions is less than the PSD major modification threshold (25 tons PM per year and 15 tons PM10 per year). Therefore, it is not necessary to limit PM and PM10 emissions from the P2exp-Core Mixer.

The following table from the *Permit Level Determination – PSD* section of the Technical Support Document shows the changes in potential to emit due to this modification. The bold/strikeout shows the revisions in potential to emit due to the revisions in this Addendum.

Process/Emission Unit	Potential to Emit (tons/year)						
	PM	PM10	SO ₂	VOC	CO	NO _x	Lead*
P2exp-Pouring/Cooling	Less than 4 13.79	Less than 4 8.52	0.05	0.34 8.55	0 14.78	0.02	0.04
P2exp-Mold Mixer	0	0	0	4.13 5.37 9.73	0	0	0
P2exp-Mold Wash	0	0	0	9.73	0	0	0
P2exp-Mold Sand Handling Reclamation and P2exp- Shakeout Mold Dump	Less than 6.0 6.43 Less than 3.0	Less than 3.0 4.21 Less than 3.0	0 0	0 0.22	0 14.8	0 0	0 0.03
P2exp-Pre-Finish Station	Less than 42.0 0.84	Less than 5.0 0.074	0	0	0	0	0.16
P2exp-Blast Cabinet			0	0	0	0	
P2exp-Core Removal Operation			0	0	0	0	
P2exp-Grinding Station			0	0	0	0	
P2exp-Paint Booth	0.20	0.20	0	1.56	0	0	0
P2exp-Core Mixer	0.06	0.01	0	0	0	0	0
Total for New Emission Units (P2exp)	Less than 22.2 21.12	Less than 12.2 12.8	0.05	8.62 18.28	44.8 29.6	0.02	0.23

Actual to Projected Actual Emissions increase at existing P2 emission units (from table below)	Potential to Emit (tons/year)						
	2.46	2.06	0	3.19	0	0	0
Total Emissions Increase for Modification	Less than 24.66 23.58	Less than 14.26 14.87	0.05	11.8 21.47	14.8 29.6	0.02	0.23
Significant Level Threshold	25	15	40	40	100	40	0.6

No changes have been made to the TSD because the OAQ prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

The permit has been changed in response to Comments 1, 2, 3, 4 and 5 as follows:

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

The source consists of the following permitted emission units and pollution control devices:

...

- (q) **One (1) phenolic urethane no-bake core production process consisting of one (1) phenolic urethane no-bake core sand mixer and core boxes of various sizes, identified as P2exp-Core Mixer, with a maximum capacity of 100 pounds of core sand per minute, exhausting inside the building, then to general ventilation.**

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15):
...
(q) One (1) phenolic urethane no-bake core production process consisting of one (1) phenolic urethane no-bake core sand mixer and core boxes of various sizes, identified as P2exp-Core Mixer, with a maximum capacity of 100 pounds of core sand per minute, exhausting inside the building, then to general ventilation.

D.3.1 PSD Minor Limitations [326 IAC 2-2]

...

- (d) In order to render 326 IAC 2-2 (PSD) not applicable to the modifications performed under Significant Source Modification 079-25476-00018, the Permittee shall ~~limit PM and PM10 emissions as~~ **comply with the limitations** shown in the following table:

Emission Unit	Control Device (Stack)	Annual Production/Usage Limit	PM Limit (lbs/hr)	PM10 Limit (lbs/hr)	VOC Limit
P2exp-Pouring/Cooling	none	4,927 tons of metal per twelve consecutive month period	0.23 5.60 lbs/ton metal	0.23 3.46 lbs/ton metal	none

P2exp-Mold Sand Handling Reclamation and P2exp-Mold Dump	Baghouse B6 (P2exp-B6)	14,780 tons of sand per twelve consecutive month period	1.37 0.87 lbs/ton sand	0.68 0.57 lbs/ton sand	none
P2exp-Shakeout	Baghouse B7 (P2expB7)		0.68	0.68	none
P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and P2exp-Grinding Station	Baghouse B8 B7 (P2exp-B8B7)	4,927 tons of metal per twelve consecutive month period	2.74 0.34 lbs/ton metal	1.14 0.03 lbs/ton metal	none
P2exp-Core Mixer	none	66,000 pounds core sand per twelve consecutive month period	none	none	none

D.3.4 Particulate [326 IAC 6-3-2]

- ...
- (e) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission from P2exp-Pouring/Cooling, P2exp-Mold Mixer, P2exp-Mold Sand Handling Reclamation, P2exp-ShakeoutMold Dump, P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and the P2exp-Grinding Station, and P2exp-Core Mixer shall not exceed the pound per hour limitations shown in the table below:

Emission Unit	Process Weight (lbs/hr) (tons/hr)	PM Emission Limit (lbs/hr)
P2exp-Pouring/Cooling	3,085 * 16 *	5.48 26.3
P2exp-Mold Mixer	2,000 60	4.10 46.3
P2exp-Mold Sand Handling Reclamation	1,960 10	4.04 19.2
P2exp-ShakeoutMold Dump	3,085 * 16 *	5.48 26.3
P2exp-Pre-Finish Station	1,125 6	2.79 13.6
P2exp-Blast Cabinet	1,125 6	2.79 13.6
P2exp-Core Removal Operation	1,125 6	2.79 13.6
P2exp-Grinding Station	1,125 6	2.79 13.6
P2exp-Core Mixer	3	8.56

* This process weight includes both metal (6 tons) and sand (10 tons).

D.3.6 Particulate Control [326 IAC 2-7-6(6)]

- (a) To comply with Conditions D.3.1 and D.3.4, the baghouses for particulate control shall be in operation and control emissions from the electric induction furnaces (Baghouse 1), the mold sand handling operation and shakeout operations (Baghouse 2), the shot blast machine (Baghouse 3), the prefinish station and the coarse grinding stations (Baghouse 4), the buffing booth (Baghouse 5), the P2exp-Mold Sand Handling Reclamation (Baghouse B6), the P2exp-ShakeoutMold Dump (Baghouse B7 B6), and the P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and P2exp-Grinding Station (Baghouse B8 B7) at all times that these facilities are in operation.

- (b) The integral vacuum system shall be in operation at all times when the floor pouring/cooling and P2exp-Pouring/Cooling are in operation.

...

D.3.7 Testing Requirements [326 IAC 2-6.1-5(a)(2), (4)] [326 IAC 2-1.1-11]

...

- (d) ~~In order to demonstrate compliance with Conditions D.3.1(d) and D.3.4(e), the Permittee shall perform PM and PM10 testing as shown in the following table. PM10 includes filterable and condensable PM10. This test 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 using methods approved by the Commissioner.~~

Emission Unit	Control Device	Timeframe for Testing	Pollutant	Frequency of Testing	Limit or Requirement
P2exp-Mold Sand Handling	Baghouse B6, Stack P2expB6	Within 180 days of startup	PM/PM10	Every 5 years	1.37 lbs/hr PM 0.68 lbs/hr PM10
P2exp-Shakeout	Baghouse B7, Stack P2expB7	Within 180 days of startup	PM/PM10	Every 5 years	0.68 lbs/hr PM 0.68 lbs/hr PM10
P2exp-Pre-Finish Station	Baghouse B8, Stack P2expB8	Within 180 days of startup	PM/PM10	Every 5 years	2.74 lbs/hr PM 1.14 lbs/hr PM10
P2exp-Blast Cabinet					
P2exp-Core Removal Operation					
P2exp-Grinding Station					

D.3.8 Visible Emissions Notations [40 CFR 64]

- (a) Visible emission notations of the electric induction furnaces (Baghouse 1), the mold sand handling operation and shakeout operations (Baghouse 2), the shot blast machine (Baghouse 3), the prefinish station and the coarse grinding stations (Baghouse 4), the buffing booth (Baghouse 5), the P2exp-Mold Sand Handling **Reclamation** (Baghouse B6), P2exp-Shakeout **Mold Dump** (Baghouse ~~B7~~ **B6**), and P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and P2exp-Grinding Station (Baghouse ~~B8~~ **B7**) stack exhausts shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

...

D.3.9 Baghouse Parametric Monitoring [40 CFR 64]

The Permittee shall record the pressure drop across the baghouses used in conjunction with the electric induction furnaces, the mold sand handling operation, the shakeout operations, the shot blast machine, the prefinish station, the coarse grinding stations, the buffing booth, the P2exp-Mold Sand Handling **Reclamation**, the P2exp-Shakeout **Mold Dump**, and the P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and P2exp-Grinding Station at least once per day, when these facilities are in operation when venting to the atmosphere. When for any one reading the pressure drop across the baghouses is outside the range of 1 and 8

inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. 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 - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

D.3.11 Record Keeping Requirements

...

- (c) To document compliance with Condition D.3.8, the Permittee shall maintain a daily record of visible emission notations from the electric induction furnaces exhaust (Baghouse 1), the mold sand handling operation and shakeout operations exhaust (Baghouse 2), the shot blast machine exhaust (Baghouse 3), the prefinish station and the coarse grinding stations exhaust (Baghouse 4), the buffing booth exhaust (Baghouse 5), the P2exp-Mold Sand Handling Reclamation (Baghouse B6), P2exp-Shakeout Mold Dump (Baghouse ~~B7~~ B6), and P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and P2exp-Grinding Station (Baghouse ~~B8~~ B7). The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (e.g. the process did not operate that day).

...

- (e) To document compliance with Condition D.3.1(d), the Permittee shall maintain a monthly record of the metal throughput at emission units P2exp-Pouring/Cooling and the P2exp Pre-Finishing Operations.
- (f) To document compliance with Condition D.3.1(d), the Permittee shall maintain a monthly record of the sand usage at emission unit P2exp-Mold Sand Reclamation and P2exp-Core Mixer.
- (e)(g) 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 COMPLIANCE DATA SECTION

P2exp Metal Limitation Quarterly Report

Source Name:	North Vernon Industry Corporation
Source Address:	3750 North County Road 75 West, North Vernon, Indiana 47265
Mailing Address:	P.O. Box 894, North Vernon, IN 47265
Permit No.:	079-15119-00018
Facility and Limit:	The total throughput of metal in the P2exp-Pouring/Cooling and P2exp Pre-Finishing Operations shall be limited to less than 4,927 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 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**

P2exp Sand Usage Quarterly Report

Source Name: North Vernon Industry Corporation
Source Address: 3750 North County Road 75 West, North Vernon, Indiana 47265
Mailing Address: P.O. Box 894, North Vernon, IN 47265
Permit No.: 079-15119-00018
Facility and Limit: The total usage of sand in the P2exp-Mold Sand Reclamation shall be limited to less than 14,780 tons per twelve (12) consecutive month period, with compliance determined at the end of each month. The total usage of sand in the P2exp-Core Mixer shall be limited to less than 33 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

YEAR:

Month	Material	Column 1	Column 2	Column 1 + Column 2
		This Month	Previous 11 Months	12 Month Total
Month 1	Mold Sand			
	Core Sand			
Month 2	Mold Sand			
	Core Sand			
Month 3	Mold Sand			
	Core Sand			

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.

Comment 6: Please delete all references to the paint booth identified as P2exp-Paint Booth in Sections A.2 and D.4. This unit will not be constructed.

IDEM Response to Comment 6: References to the P2exp-paint Booth have been deleted. In the documentation submitted by the source, it was shown that the resin for the P2exp furan mold making operation (P2exp-Mold Mixer) contains HAP. Therefore, HAP emissions from this emission unit will need to be included in the HAP limits for this source. The permit has been changed as follows:

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

The source consists of the following permitted emission units and pollution control devices:

...

(g) ~~One (1) Finishing Operation, consisting of one (1) paint booth, identified as P2exp-Paint Booth, approved for construction in 2008, with a maximum capacity of 1,560 gallons of yellow primer per year, utilizing an HVLP spray gun, using dry filters for particulate control, and exhausting to stack P2exp9.~~

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

...

- (g) ~~One (1) Finishing Operation, consisting of one (1) paint booth, identified as P2exp-Paint Booth, approved for construction in 2008, with a maximum capacity of 1,560 gallons of yellow primer per year, utilizing an HVLP spray gun, using dry filters for particulate control, and exhausting to stack P2exp9.~~

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

D.1.2 HAP Minor Limitations [326 IAC 2-4.1][40 CFR 63, Subpart EEEEE][40 CFR 63, Subpart MMMM]

- ...
- (c) The amount of HAP used in the P1-Core Making (listed in this Section), combined with the amount of HAP used in the P1-Filler/Putty Application, P1-Paint Booth #2, P1-Paint Booth #3, and P1-Final Inspection Paint Booth (listed in Section D.2) and the amount of HAP used in the P2-Core Making **and the P2exp-Mold Mixer** (listed in Section D.3) and the amount of HAP used in the P2-Filler/Putty Application, P2-Paint Booth #1, **and** P2-Paint Booth #2, ~~and P2exp-Paint Booth~~ (listed in Section D.4) shall be limited to less than ten (10) tons per twelve (12) consecutive month period for any single HAP and less than 19.0 tons per twelve (12) consecutive month period for any combination of HAPs.

D.2.1 HAP Minor Limitations [326 IAC 2-4.1][40 CFR 63, Subpart EEEEE][40 CFR 63, Subpart MMMM]

The amount of HAP used in the P1-Filler/Putty Application, P1-Paint Booth #2, P1-Paint Booth #3, and P1-Final Inspection Paint Booth (listed in this Section), combined with the amount of HAP used in the P1-Core Making (listed in Section D.1) and the amount of HAP used in the P2-Core Making **and the P2exp-Mold Mixer** (listed in Section D.3) and the amount of HAP used in the P2-Filler/Putty Application, P2-Paint Booth #1, **and** P2-Paint Booth #2, ~~and P2exp-Paint Booth~~ (listed in Section D.4) shall be limited to less than ten (10) tons per twelve (12) consecutive month period for any single HAP and less than 19.0 tons per twelve (12) consecutive month period for any combination of HAPs.

...

D.3.2 HAP Minor Limitations [326 IAC 2-4.1][40 CFR 63, Subpart EEEEE][40 CFR 63, Subpart MMMM]

- ...
- (c) The amount of HAP used in the P2-Core Making **and the P2exp-Mold Mixer** (listed in this Section), combined with the amount of HAP used in the P1-Core Making (listed in Section D.1) and the amount of HAP used in the P1-Filler/Putty Application, P1-Paint Booth #2, P1-Paint Booth #3, and P1-Final Inspection Paint Booth (listed in Section D.2) and the amount of HAP used in the P2-Filler/Putty Application, P2-Paint Booth #1, **and** P2-Paint Booth #2, ~~and P2exp-Paint Booth~~ (listed in Section D.4) shall be limited to less than ten (10) tons per twelve (12) consecutive month period for any single HAP and less than 19.0 tons per twelve (12) consecutive month period for any combination of HAPs.

D.4.1 HAP Minor Limitations [326 IAC 2-4.1][40 CFR 63, Subpart EEEEE][40 CFR 63, Subpart MMMM]

The amount of HAP used in the P2-Filler/Putty Application, P2-Paint Booth #1, **and** P2-Paint Booth #2, ~~and P2exp-Paint Booth~~ (listed in this Section), combined with the amount of HAP used in the P1-Core Making (listed in Section D.1) and the amount of HAP used in the P1-Filler/Putty

Application, P1-Paint Booth #2, P1-Paint Booth #3, and P1-Final Inspection Paint Booth (listed in Section D.2) and the amount of HAP used in the P2-Core Making **and the P2exp-Mold Mixer** (listed in Section D.3) shall be limited to less than ten (10) tons per twelve (12) consecutive month period for any single HAP and less than 19.0 tons per twelve (12) consecutive month period for any combination of HAPs.

...

D.4.6 Particulate [326 IAC 6-3-2(d)]

Pursuant to 326 IAC 6-3-2(d), particulate from the paint booths (P2-Paint Booth #1, **and** P2-Paint Booth #2, ~~and P2exp-Paint Booth~~) shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

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

HAP Usage Quarterly Report

Source Name: North Vernon Industry Corporation
Source Address: 3750 North County Road 75 West, North Vernon, Indiana 47265
Mailing Address: P.O. Box 894, North Vernon, IN 47265
Permit No.: 079-15119-00018
Facility: P1 – Core Making, P1-Filler/Putty Application, P1-Paint Booth #2, P1-Paint Booth #3, P1-Final Inspection Paint Booth, P2-Core Making, P2-Filler/Putty Application, P2-Paint Booth #1, **P2exp-Mold Mixer, and** P2-Paint Booth #2, ~~and P2exp-Paint Booth~~
Limit: Less than ten (10) tons for a single HAP and less than 19.0 tons for a combination of HAPs per twelve (12) month consecutive period.

...

Comment 7: Condition D.3.7 should be revised to eliminate the reference to the emission limits. The emission limits are already stated in Condition D.3.1 and do not need to be restated here.

IDEM Response to Comment 7: The testing limits in Condition D.3.7 for the P2exp-Mold Sand Handling, P2exp-Shakeout, P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and P2exp-Grinding Station have been removed from the permit.

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

**Technical Support Document (TSD) for a
Part 70 Significant Source Modification and
Part 70 Significant Permit Modification**

Source Description and Location

Source Name: North Vernon Industry Corporation
Source Location: 3750 North County Road 75 West, North Vernon, IN 47265
County: Jennings
SIC Code: 3321
Operation Permit No.: T079-15119-00018
Operation Permit Issuance Date: September 1, 2006
Significant Source Modification No.: 079-25476-00018
Significant Permit Modification No.: 079-25513-00018
Permit Reviewer: ERG/ST

Existing Approvals

The source was issued Part 70 Operating Permit No. 079-15119-00018 on September 1, 2006.

County Attainment Status

The source is located in Jennings County.

Pollutant	Status
PM10	Attainment
PM2.5	Attainment
SO ₂	Attainment
NO ₂	Attainment
8-hour Ozone	Attainment
CO	Attainment
Lead	Attainment

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

- (a) Volatile organic compounds (VOC) and nitrogen oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Jennings County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) Jennings County has been classified as attainment for PM_{2.5}. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM_{2.5} emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM_{2.5} emissions, it has directed states to regulate PM₁₀ emissions as a surrogate for PM_{2.5} emissions.

- (c) Jennings County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (d) Fugitive Emissions
Since this type of operation is in one of the twenty-eight (28) listed source categories under 326 IAC 2-2, the fugitive emissions are counted toward determination of PSD applicability.

Source Status

The table below summarizes the potential to emit of the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

Pollutant	Emissions (tons/year)
PM	Less than 200
PM10	Less than 180
SO ₂	2.52
VOC	129
CO	26.1
NO _x	32.6
Single HAP	Less than 10
Total HAPs	Less than 25

- (a) This existing source is a major stationary source, under PSD (326 IAC 2-2), because regulated pollutants (PM10 and VOC) are emitted at a rate of 100 tons per year or more, and it is in one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-1(gg)(1).
- (b) This existing source is not a major source of HAPs, as defined in 40 CFR 63.41, because HAPs emissions are limited to less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).
- (c) These emissions are based upon TSD for Part 70 Operating Permit No. 079-15119-00018, issued on September 1, 2006.

Actual Emissions

No previous emission data has been received from the source.

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by North Vernon Industry Corporation on October 31, 2007, relating to the addition of a new pouring line at their existing foundry. The following is a list of the proposed emission units and pollution control devices:

- (a) One (1) Furan Mold Making Operation, consisting of the following emissions units:
 - (1) One (1) furan mold sand handling and storage system, identified as P2exp-Mold Sand Handling, approved for construction in 2008, with a maximum capacity of 0.98 tons of sand per hour, with particulate emissions controlled by Baghouse B6, and exhausting to stack P2expB6.
 - (2) One (1) furan mold mixer, identified as P2exp-Mold Mixer, approved for construction in 2008, with a maximum capacity of 0.98 tons of sand per hour, 112

tons of resin per year, 33.63 tons of catalyst per year, and 390 gallons of release agent per year; with particulate emissions controlled by Baghouse B6, and exhausting to stack P2expB6.

- (3) One (1) mold wash, identified as P2exp-Mold Wash, approved for construction in 2008, with a maximum capacity of 0.187 gallons of mold wash per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.
- (b) One (1) Floor Molding Operation, consisting of the following emissions units:
- (1) One (1) floor pouring and cooling operation, identified as P2exp-Pouring/Cooling, approved for construction in 2008, with a maximum rate of 0.5625 tons of metal per hour, utilizing vacuum suction during pouring and cooling operations, exhausting inside the building, then to general ventilation.
 - (2) One (1) shakeout system for casting operation, identified as P2exp-Shakeout, approved for construction in 2008, with a maximum rate of 0.5625 tons of metal per hour, with the particulate emissions controlled by Baghouse B7, and exhausting to stack P2expB7. Baghouse B7 will recycle all the sand collected back into the furan mold sand process.
- (c) One (1) enclosed Pre-Finishing Operation, consisting of the following four (4) emissions units, all with a maximum capacity of 0.5625 tons of metal per hour, all with particulate emissions controlled by Baghouse B8, and all exhausting to stack P2expB8:
- (1) One (1) pre-finish station, identified as P2exp-Pre-Finish Station, approved for construction in 2008.
 - (2) One (1) enclosed blast cabinet, identified as P2exp-Blast Cabinet, approved for construction in 2008.
 - (3) One (1) core removal operation, identified as P2exp-Core Removal Operation, will remove the remaining sand cores from the casting, approved for construction in 2008.
 - (4) One (1) coarse grinding area, identified as P2exp-Grinding Station, approved for construction in 2008.
- (d) One (1) Finishing Operation, consisting of one (1) paint booth, identified as P2exp-Paint Booth, approved for construction in 2008, with a maximum capacity of 1,560 gallons of yellow primer per year, utilizing an HVLP spray gun, using dry filters for particulate control, and exhausting to stack P2exp9.

This modification will not result in an increase in throughput for the other emission units at this source and will not result in any increase in the limited throughput of metal. The source has proposed to make these changes in order to increase the efficient utilization of existing emission units.

Enforcement Issues

There are no pending enforcement actions related to this modification.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
P2expB6	P2exp-Mold Sand Handling	50	2	10,000	Ambient
General Ventilation	P2exp-Mold Mixer	NA	NA	NA	Ambient
	P2exp-Pouring/Cooling				
P2expB7	P2exp-Shakeout	50	2.5	20,000	Ambient
P2expB8	P2exp-Pre-Finish Station	50	2.5	30,000	Ambient
	P2exp-Blast Cabinet				
	P2exp-Core Removal Operation				
	P2exp-Grinding Station				
P2exp9	P2exp-Paint Booth	50	2	10,000	Ambient

Emission Calculations

See Appendix A of this document for detailed emission calculations (pages 1 through 6).

Permit Level Determination – Part 70

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

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5. 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	76.7
PM10	18.1
SO ₂	0.05
VOC	8.62
CO	14.8
NO _x	0.02
Single HAP (manganese)	2.10
Total HAPs	2.63

This source modification is subject to 326 IAC 2-7-10.5(f)(4)(a) because this modification has the potential to emit greater than 25 tons per year of particulate matter (PM). Additionally, the modification will be incorporated into the Part 70 Operating Permit through a significant permit modification issued pursuant to 326 IAC 2-7-12(d) because this modification requires a case-by-case determination of an emission limit or standard.

Permit Level Determination – PSD

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 source modification, and only to the extent that the effect of the control equipment is made practically enforceable in the permit. Since the addition of new units results in increased utilization of existing emission units, IDEM has used the "Hybrid" test to determine the limits for this project.

Process/Emission Unit	Potential to Emit (tons/year)						
	PM	PM10	SO ₂	VOC	CO	NO _x	Lead*
P2exp-Pouring/Cooling	Less than 1	Less than 1	0.05	0.34	0	0.02	0.04
P2exp-Mold Mixer	0	0	0	1.13	0	0	0
P2exp-Mold Wash	0	0	0	5.37	0	0	0
P2exp-Mold Sand Handling	Less than 6.0	Less than 3.0	0	0	0	0	0
P2exp-Shakeout	Less than 3.0	Less than 3.0	0	0.22	14.8	0	0.03
P2exp-Pre-Finish Station	Less than 12.0	Less than 5.0	0	0	0	0	0.16
P2exp-Blast Cabinet			0	0	0	0	
P2exp-Core Removal Operation			0	0	0	0	
P2exp-Grinding Station			0	0	0	0	
P2exp-Paint Booth	0.20	0.20	0	1.56	0	0	0
Total for New Emission Units (P2exp)	Less than 22.2	Less than 12.2	0.05	8.62	14.8	0.02	0.23
Actual to Projected Actual Emissions increase at existing P2 emission units (from table below)	2.46	2.06	0	3.19	0	0	0
Total Emissions Increase for Modification	Less than 24.66	Less than 14.26	0.05	11.8	14.8	0.02	0.23
Significant Level Threshold	25	15	40	40	100	40	0.6

* PTE of lead is before controls. Limits are not needed to keep lead emissions to less than the PSD significant level (0.6 tons per year).

This modification will result in an increase in potential to emit due to the addition of the new emission units (P2exp). The Permittee has provided information as part of the application for this approval that, based on Actual to Projected Actual test in 326 IAC 2-2-2, this modification at a major stationary source will result in an increase of emissions from certain existing emission units at Plant 2 (P2-Charge, P2-Ladle Preheater, P2-EIF#1, P2-EIF#2, P2-EIF#3, P2-Core Sand Handling, P2-Core Machine, P2-Butane Torch, P2-Buffing Booth, and P2-Filler/Putty Application) due to increased utilization of these units. The information for actual emissions from the existing emission units is for the period August 2005 through July, 2007. Although the existing units have throughput limits, they cannot currently be utilized up to the throughput limits. A summary of the information submitted by the Permittee is presented in the following table.

Existing Emission Units at Plant #2 Actual to Projected Actual Emissions (with Control Devices)						
Pollutant	PM	PM10	SO ₂	VOC	CO	NO _x
Baseline Actual Emissions (P2 emission units)	19.67	16.49	0	5.82	0	0.01
Projected Actual Emissions (P2 emission units)	22.13	18.54	0	9.01	0	0.01
Increase Due to Increased Utilization	2.46	2.06	0	3.19	0	0

IDEM, OAQ has not reviewed this information and will not be making any determination in this

regard as part of this approval. The applicant will be required to keep records and report in accordance with Source obligation in 326 IAC 2-2-8.

This modification to an existing major stationary source is not major because the Permittee has accepted limits on the emissions increase such that the increase in emissions from the new units and the increased utilization of existing emission units is limited to less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

Since this source is considered a major PSD source and the unrestricted potential to emit of this modification is greater than twenty-five (25) tons of PM per year and fifteen (15) tons of PM₁₀ per year, this source has elected to limit the potential to emit of this modification as follows:

Emission Unit	Control Device (Stack)	PM Limit (lbs/hr)	PM10 Limit (lbs/hr)
P2exp-Pouring/Cooling	none	0.23	0.23
P2exp-Mold Sand Handling	Baghouse B6 (P2exp-B6)	1.37	0.68
P2exp-Shakeout	Baghouse B7 (P2exp-B7)	0.68	0.68
P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and P2exp-Grinding Station	Baghouse B8 (P2exp-B8)	2.74	1.14

Compliance with these emission limits will ensure that the increase in potential to emit due to this modification is less than twenty-five (25) tons of PM per year and less than fifteen (15) tons of PM10 per year and therefore will render the requirements of 326 IAC 2-2 not applicable.

Federal Rule Applicability Determination

The following federal rules are applicable to the source due to this modification:

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) included in this permit for this proposed modification.

The requirements of the New Source Performance Standard for Surface Coating of Metal Furniture (40 CFR 60, Subpart EE) are not included in this permit for the surface coating operation (P2exp-Paint Booth) because this source does not coat metal furniture. The source only coats iron castings used as counterweights on forklift trucks.

- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in this permit for this proposed modification. The source has accepted source-wide limits on HAP emissions of less than ten (10) tons per year of a single HAP and less than twenty-five (25) tons per year of a combination of HAPs. The conditions specifying the limits and controls that will restrict HAP emissions from this source to below the major source levels are included in Part 70 Operation Permit 079-15119-00018, issued on September 1, 2006.

- (1) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Iron and Steel Foundries (40 CFR 63, Subpart EEEEE) are not included in this permit modification for the iron foundry operations. The source has accepted a limit on the potential to emit for a single HAP of less than 10 tons per year and a limit on the potential to emit for a combination of HAPs of less than 25 tons per year prior to the April 22, 2007 compliance date for this NESHAP. Recordkeeping and reporting requirements are included in this permit to ensure that the source does not exceed the HAP emission threshold.

- (2) The requirements of the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products (40

CFR 63, Subpart M) are not included in this permit modification for the surface coating operations. The source has accepted a limit on the potential to emit for a single HAP of less than 10 tons per year and a limit on the potential to emit for a combination of HAPs of less than 25 tons per year prior to the January 2, 2007 compliance date for this NESHAP. Recordkeeping and reporting requirements are included in this permit to ensure that the source does not exceed the HAP emission threshold.

- (c) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to new or modified emission units that involve a pollutant-specific emission unit and meet the following criteria:
- (1) has a potential to emit before controls equal to or greater than the major source threshold for the pollutant involved;
 - (2) is subject to an emission limitation or standard for that pollutant; and
 - (3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

None of the emission units being added in this modification has a potential to emit before controls equal to or greater than the major source threshold for PM, PM10, SO₂, VOC, CO, NO_x, and single HAP, or any combination of HAPs. Therefore, the requirements of 40 CFR 64 (CAM) are not applicable to any of the new emission units as a part of this permit modification.

State Rule Applicability Determination

The following state rules are applicable to the source due to the modification:

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

PSD applicability is discussed under the Permit Level Determination - PSD section.

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

The operation of the emission units in this modification will emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 2-6 (Emission Reporting)

Since this source is required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program, this source is subject to 326 IAC 2-6 (Emission Reporting). In accordance with the compliance schedule in 326 IAC 2-6-3, an emission statement must be submitted triennially by July 1 beginning in 2006 and every 3 years after. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

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 Exemptions), opacity shall meet the following, unless otherwise stated in the 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.

326 IAC 11-1 (Emissions Limitations for Foundries)

This source was constructed after December 6, 1968. Pursuant to 326 IAC 11-1-1, the source shall comply with the emissions limitations specified in 326 IAC 6-3.

State Rule Applicability – Surface Coating

326 IAC 6-3-2(d) (Particulate Emission Limitations for Manufacturing Processes)
 Particulate from the surface coating operation (P2exp-Paint Booth) shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer’s specifications.

326 IAC 8-1-6 (General Reduction Requirements for VOC Emissions)
 The surface coating facility (P2exp-Paint Booth) has a potential to emit before control of less than 25 tons per year of VOC. Therefore, the requirements of 326 IAC 8-1-6 are not applicable.

326 IAC 8-2-9 (Miscellaneous Metal Coating)
 The paint booth (P2exp-Paint Booth) is approved for construction after July 1, 1990, applies surface coatings to metals, and has actual emissions of less than fifteen (15) pounds of VOC per day before add-on controls. Therefore, the requirements of 326 IAC 8-2-9 are not applicable.

State Rule Applicability – Mold Making, Floor Molding, and Pre-Finish Operations

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
 Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from P2exp-Pouring/Cooling, P2exp-Mold Mixer, P2exp-Mold Sand Handling, P2exp-Shakeout, P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and the P2exp-Grinding Station shall not exceed the pound per hour limitation shown in the table below:

Emission Unit	Process Weight (lbs/hr)	PM Emission Limit (lbs/hr)
P2exp-Pouring/Cooling	3,085 *	5.48
P2exp-Mold Mixer	2,000	4.10
P2exp-Mold Sand Handling	1,960	4.04
P2exp-Shakeout	3,085 *	5.48
P2exp-Pre-Finish Station	1,125	2.79
P2exp-Blast Cabinet	1,125	2.79
P2exp-Core Removal Operation	1,125	2.79
P2exp-Grinding Station	1,125	2.79

* Process weight for P2exp-Pouring/Cooling and P2exp-Shakeout includes sand and metal.

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:

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

326 IAC 8-1-6 (New Facilities; General Reduction Requirements)
 The potential to emit of volatile organic compound (VOC) from each of the P2exp-Pouring/Cooling, P2exp-Mold Mixer, P2exp-Mold Wash, P2exp-Mold Sand Handling, P2exp-Shakeout, P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and the P2exp-Grinding Station is less than twenty-five (25) tons per year. Stack tests of the existing pouring/cooling/shakeout were conducted on August 11, 2005 and the results were accepted by IDEM on October 21, 2005. Therefore, 326 IAC 8-1-6 is not applicable.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate

compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a 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 Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in 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 Determination Requirements applicable to this modification are as follows:

Emission Unit	Control Device	Timeframe for Testing	Pollutant	Frequency of Testing	Limit or Requirement
P2exp-Mold Sand Handling	Baghouse B6, Stack P2expB6	Within 180 days of startup	PM/PM10	Every 5 years	1.37 lbs/hr PM 0.68 lbs/hr PM10
P2exp-Shakeout	Baghouse B7, Stack P2expB7	Within 180 days of startup	PM/PM10	Every 5 years	0.68 lbs/hr PM 0.68 lbs/hr PM10
P2exp-Pre-Finish Station	Baghouse B8, Stack P2expB8	Within 180 days of startup	PM/PM10	Every 5 years	2.74 lbs/hr PM 1.14 lbs/hr PM10
P2exp-Blast Cabinet					
P2exp-Core Removal Operation					
P2exp-Grinding Station					

To demonstrate compliance with these combined limits, all emission units controlled by a single baghouse must be operated simultaneously during the testing period.

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

1. The pouring/cooling operation, shakeout unit, mold mixing operation, mold sand handling operation, pre-finish station, blast cabinet, core removal operation, and grinding station have applicable compliance monitoring conditions as specified below:
 - (a) Visible emission notations of the pouring/cooling operation, shakeout unit, mold mixing operation, mold sand handling operation, pre-finish station, blast cabinet, core removal operation, and grinding station stack exhausts shall be performed once per day during normal daylight operations. 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. If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

- (b) The Permittee shall record the pressure drop across the baghouses (B6, B7, and B8) controlling the shakeout unit, mold sand handling operation, pre-finish station, blast cabinet, core removal operation, and grinding station at least once per day when these units are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 to 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. 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 - Response to Excursions or Exceedances, shall be considered a deviation from this permit. The instrument used for determining the pressure shall comply with Section C - 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) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.
- (d) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (e) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the process line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (f) Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

These monitoring conditions are necessary because the baghouses for the units listed above must operate properly to ensure compliance with 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes), 326 IAC 2-7 (Part 70) and 326 IAC 2-2 (PSD).

- 2. The paint booth (P2exp-Paint Booth) has applicable compliance monitoring conditions as specified below:
 - (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 while one or more of the booths are in operation. If a condition exists which should result in a response step, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

- (b) Monthly inspections shall be performed of the coating emissions from the stacks and the presence of overspray on the rooftops and the nearby ground. When there is a noticeable change in overspray emissions, or when evidence of overspray emissions is observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

These monitoring conditions are necessary because the dry filters for the paint booth must operate properly to ensure compliance with 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes), 326 IAC 2-7 (Part 70) and 326 IAC 2-2 (PSD).

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. T079-15119-00018. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

1. The following changes have been made to incorporate this modification and its requirements:

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

The source consists of the following permitted emission units and pollution control devices:

(m) . . .

(n) One (1) Furan Mold Making Operation, consisting of the following emissions units:

- (1) **One (1) furan mold sand handling and storage system, identified as P2exp-Mold Sand Handling, approved for construction in 2008, with a maximum capacity of 0.98 tons of sand per hour, with particulate emissions controlled by Baghouse B6, and exhausting to stack P2expB6.**
- (2) **One (1) furan mold mixer, identified as P2exp-Mold Mixer, approved for construction in 2008, with a maximum capacity of 0.98 tons of sand per hour, 112 tons of resin per year, 33.63 tons of catalyst per year, and 390 gallons of release agent per year; with particulate emissions controlled by Baghouse B6, and exhausting to stack P2expB6.**
- (3) **One (1) mold wash, identified as P2exp-Mold Wash, approved for construction in 2008, with a maximum capacity of 0.187 gallons of mold wash per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.**

(o) One (1) Floor Molding Operation, consisting of the following emissions units:

- (1) **One (1) floor pouring and cooling operation, identified as P2exp-Pouring/Cooling, approved for construction in 2008, with a maximum rate of 0.5625 tons of metal per hour, utilizing vacuum suction during pouring and cooling operations, exhausting inside the building, then to general**

ventilation.

- (2) **One (1) shakeout system for casting operation, identified as P2exp-Shakeout, approved for construction in 2008, with a maximum rate of 0.5625 tons of metal per hour, with the particulate emissions controlled by Baghouse B7, and exhausting to stack P2expB7. Baghouse B7 will recycle all the sand collected back into the furan mold sand process.**
- (p) **One (1) enclosed Pre-Finishing Operation, consisting of the following four (4) emissions units, all with a maximum capacity of 0.5625 tons of metal per hour, all with particulate emissions controlled by Baghouse B8, and all exhausting to stack P2expB8:**
 - (1) **One (1) pre-finish station, identified as P2exp-Pre-Finish Station, approved for construction in 2008.**
 - (2) **One (1) enclosed blast cabinet, identified as P2exp-Blast Cabinet, approved for construction in 2008.**
 - (3) **One (1) core removal operation, identified as P2exp-Core Removal Operation, will remove the remaining sand cores from the casting, approved for construction in 2008.**
 - (4) **One (1) coarse grinding area, identified as P2exp-Grinding Station, approved for construction in 2008,.**
- (q) **One (1) Finishing Operation, consisting of one (1) paint booth, identified as P2exp-Paint Booth, approved for construction in 2008, with a maximum capacity of 1,560 gallons of yellow primer per year, utilizing an HVLP spray gun, using dry filters for particulate control, and exhausting to stack P2exp9.**

D.1.2 HAP Minor Limitations [326 IAC 2-4.1][40 CFR 63, Subpart EEEEE][40 CFR 63, Subpart MMMM]

...

- (c) The amount of HAP used in the P1-Core Making (listed in this Section), combined with the amount of HAP used in the P1-Filler/Putty Application, P1-Paint Booth #2, P1-Paint Booth #3, and P1-Final Inspection Paint Booth (listed in Section D.2) and the amount of HAP used in the P2-Core Making (listed in Section D.3) and the amount of HAP used in the P2-Filler/Putty Application, P2-Paint Booth #1, ~~and P2-Paint Booth #2,~~ **and P2exp-Paint Booth** (listed in Section D.4) shall be limited to less than ten (10) tons per twelve (12) consecutive month period for any single HAP and less than ~~49.6~~ **19.0** tons per twelve (12) consecutive month period for any combination of HAPs.

D.2.1 HAP Minor Limitations [326 IAC 2-4.1][40 CFR 63, Subpart EEEEE][40 CFR 63, Subpart MMMM]

The amount of HAP used in the P1-Filler/Putty Application, P1-Paint Booth #2, P1-Paint Booth #3, and P1-Final Inspection Paint Booth (listed in this Section), combined with the amount of HAP used in the P1-Core Making (listed in Section D.1) and the amount of HAP used in the P2-Core Making (listed in Section D.3) and the amount of HAP used in the P2-Filler/Putty Application, P2-Paint Booth #1, ~~and P2-Paint Booth #2,~~ **and P2exp-Paint Booth** (listed in Section D.4) shall be limited to less than ten (10) tons per twelve (12) consecutive month period for any single HAP and less than ~~49.6~~ **19.0** tons per twelve (12) consecutive month period for any combination of HAPs.

SECTION D.3

FACILITY OPERATION CONDITIONS

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

(m) . . .

(n) **One (1) Furan Mold Making Operation, consisting of the following emissions units:**

- (1) **One (1) furan mold sand handling and storage system, identified as P2exp-Mold Sand Handling, approved for construction in 2008, with a maximum capacity of 0.98 tons of sand per hour, with particulate emissions controlled by Baghouse B6, and exhausting to stack P2expB6.**
- (2) **One (1) furan mold mixer, identified as P2exp-Mold Mixer, approved for construction in 2008, with a maximum capacity of 0.98 tons of sand per hour, 112 tons of resin per year, 33.63 tons of catalyst per year, and 390 gallons of release agent per year; with particulate emissions controlled by Baghouse B6, and exhausting to stack P2expB6.**
- (3) **One (1) mold wash, identified as P2exp-Mold Wash, approved for construction in 2008, with a maximum capacity of 0.187 gallons of mold wash per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.**

(o) **One (1) Floor Molding Operation, consisting of the following emissions units:**

- (1) **One (1) floor pouring and cooling operation, identified as P2exp-Pouring/Cooling, approved for construction in 2008, with a maximum rate of 0.5625 tons of metal per hour, utilizing vacuum suction during pouring and cooling operations, exhausting inside the building, then to general ventilation.**
- (2) **One (1) shakeout system for casting operation, identified as P2exp-Shakeout, approved for construction in 2008, with a maximum rate of 0.5625 tons of metal per hour, with the particulate emissions controlled by Baghouse B7, and exhausting to stack P2expB7. Baghouse B7 will recycle all the sand collected back into the furan mold sand process.**

(p) **One (1) enclosed Pre-Finishing Operation, consisting of the following four (4) emissions units, all with a maximum capacity of 0.5625 tons of metal per hour, all with particulate emissions controlled by Baghouse B8, and all exhausting to stack P2expB8:**

- (1) **One (1) pre-finish station, identified as P2exp-Pre-Finish Station, approved for construction in 2008.**
- (2) **One (1) enclosed blast cabinet, identified as P2exp-Blast Cabinet, approved for construction in 2008.**
- (3) **One (1) core removal operation, identified as P2exp-Core Removal Operation, will remove the remaining sand cores from the casting, approved for construction in 2008.**
- (4) **One (1) coarse grinding area, identified as P2exp-Grinding Station, approved for construction in 2008.**

D.3.1 PSD Minor Limitations [326 IAC 2-2]

Combined with the limits in Section D.4, compliance with the above limits ensures that the PM, PM10, CO, and VOC emissions from the emissions units constructed under SSM 079-17819-00018 are limited to less than 100 tons per year. Compliance by the Permittee with these limitations makes the requirements of renders 326 IAC 2-2 (PSD) not applicable to the emissions units constructed under SSM 079-17819-00018.

- (d) In order to render 326 IAC 2-2 (PSD) not applicable to the modifications performed under Significant Source Modification 079-25476-00018, the Permittee shall limit PM and PM10 emissions as shown in the following table:**

Emission Unit	Control Device (Stack)	PM Limit (lbs/hr)	PM10 Limit (lbs/hr)
P2exp-Pouring/Cooling	none	0.23	0.23
P2exp-Mold Sand Handling	Baghouse B6 (P2exp-B6)	1.37	0.68
P2exp-Shakeout	Baghouse B7 (P2exp-B7)	0.68	0.68
P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and P2exp-Grinding Station	Baghouse B8 (P2exp-B8)	2.74	1.14

D.3.2 HAP Minor Limitations [326 IAC 2-4.1][40 CFR 63, Subpart EEEEE][40 CFR 63, Subpart MMMM]

- (b) Particulate emissions from the P2 and P2exp emission units shall be limited as specified in Condition D.3.1.
- (c) The amount of HAP used in the P2-Core Making (listed in this Section), combined with the amount of HAP used in the P1-Core Making (listed in Section D.1) and the amount of HAP used in the P1-Filler/Putty Application, P1-Paint Booth #2, P1-Paint Booth #3, and P1-Final Inspection Paint Booth (listed in Section D.2) and the amount of HAP used in the P2-Filler/Putty Application, P2-Paint Booth #1, and P2-Paint Booth #2, and P2exp-Paint Booth (listed in Section D.4) shall be limited to less than ten (10) tons per twelve (12) consecutive month period for any single HAP and less than ~~49.6~~ **19.0** tons per twelve (12) consecutive month period for any combination of HAPs.

D.3.4 Particulate [326 IAC 6-3-2]

- (e) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission from P2exp-Pouring/Cooling, P2exp-Mold Mixer, P2exp-Mold Sand Handling, P2exp-Shakeout, P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and the P2exp-Grinding Station shall not exceed the pound per hour limitations shown in the table below:**

Emission Unit	Process Weight (lbs/hr)	PM Emission Limit (lbs/hr)
P2exp-Pouring/Cooling	3,085 *	5.48
P2exp-Mold Mixer	2,000	4.10
P2exp-Mold Sand Handling	1,960	4.04
P2exp-Shakeout	3,085 *	5.48
P2exp-Pre-Finish Station	1,125	2.79
P2exp-Blast Cabinet	1,125	2.79
P2exp-Core Removal Operation	1,125	2.79

P2exp-Grinding Station	1,125	2.79
-------------------------------	--------------	-------------

Compliance Determination Requirements

D.3.6 Particulate Control [326 IAC 2-7-6(6)]

- (a) To comply with Conditions D.3.1 and D.3.4, the baghouses for particulate control shall be in operation and control emissions from the electric induction furnaces (Baghouse 1), the mold sand handling operation and shakeout operations (Baghouse 2), the shot blast machine (Baghouse 3), the prefinish station and the coarse grinding stations (Baghouse 4), and the buffing booth (Baghouse 5), **the P2exp-Mold Sand Handling (Baghouse B6), the P2exp-Shakeout (Baghouse B7), and the P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and P2exp-Grinding Station (Baghouse B8)** at all times that these facilities are in operation.
- (b) The integral vacuum system shall be in operation at all times when the floor pouring/cooling **and P2exp-Pouring/Cooling are** ~~is~~ in operation.

...

D.3.7 Testing Requirements [326 IAC 2-6.1-5(a)(2), (4)] [326 IAC 2-1.1-11]

- (d) In order to demonstrate compliance with Conditions D.3.1(d) and D.3.4(e), the Permittee shall perform PM and PM10 testing as shown in the following table. PM10 includes filterable and condensable PM10. This test 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 using methods approved by the Commissioner.

Emission Unit	Control Device	Timeframe for Testing	Pollutant	Frequency of Testing	Limit or Requirement
P2exp-Mold Sand Handling	Baghouse B6, Stack P2expB6	Within 180 days of startup	PM/PM10	Every 5 years	1.37 lbs/hr PM 0.68 lbs/hr PM10
P2exp-Shakeout	Baghouse B7, Stack P2expB7	Within 180 days of startup	PM/PM10	Every 5 years	0.68 lbs/hr PM 0.68 lbs/hr PM10
P2exp-Pre-Finish Station	Baghouse B8, Stack P2expB8	Within 180 days of startup	PM/PM10	Every 5 years	2.74 lbs/hr PM 1.14 lbs/hr PM10
P2exp-Blast Cabinet					
P2exp-Core Removal Operation					
P2exp-Grinding Station					

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

D.3.8 Visible Emissions Notations [40 CFR 64]

- (a) Visible emission notations of the electric induction furnaces (Baghouse 1), the mold sand handling operation and shakeout operations (Baghouse 2), the shot blast machine (Baghouse 3), the prefinish station and the coarse grinding stations (Baghouse 4), and the buffing booth (Baghouse 5), **the P2exp-Mold Sand Handling (Baghouse B6), P2exp-Shakeout (Baghouse B7), and P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and P2exp-Grinding Station (Baghouse B8)** stack

exhausts shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

...

D.3.9 Baghouse Parametric Monitoring [40 CFR 64]

The Permittee shall record the pressure drop across the baghouses used in conjunction with the electric induction furnaces, the mold sand handling operation, the shakeout operations, the shot blast machine, the prefinish station, the coarse grinding stations, ~~and~~ the buffing booth, **the P2exp-Mold Sand Handling, the P2exp-Shakeout, and the P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and P2exp-Grinding Station** at least once per day, when these facilities are in operation when venting to the atmosphere. When for any one reading the pressure drop across the baghouses is outside the range of 1 and 8 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. 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 - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

...

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

D.3.11 Record Keeping Requirements

(a) To document compliance with Conditions D.3.1 and D.3.3, the Permittee shall:

...

(2) Maintain records of the amount and VOC content of each core resin, release agent, filler, putty, primer, finishing material, thinner and cleanup solvent used in the P2 **and P2exp** emission units on a monthly basis. Records shall include purchase orders, invoices, Certified Product Data Sheets and material safety data sheets (MSDS) necessary to verify the type and amount used. The records maintained shall show the total VOC usage for each month and the weight of VOCs emitted for each compliance period. The records maintained shall be complete and sufficient to establish compliance with the VOC usage limits established in Condition D.3.1.

(b) To document compliance with Condition D.3.2, the Permittee shall:

...

(2) Maintain records of the amount and HAP content of each core resin, filler, putty, primer, finishing material, thinner and cleanup solvent used in the P2 **and P2exp** emission units on a monthly basis. Records shall include purchase orders, invoices, Certified Product Data Sheets and material safety data sheets (MSDS) necessary to verify the type and amount used. The records maintained shall show the total HAP usage for each month and the weight of HAPs emitted for each compliance period. The records maintained shall be complete and sufficient to establish compliance with the HAP usage limits established in Condition D.3.2.

(c) To document compliance with Condition D.3.8, the Permittee shall maintain **a daily record** ~~records~~ of visible emission notations from the electric induction furnaces exhaust (Baghouse 1), the mold sand handling operation and shakeout operations exhaust (Baghouse 2), the shot blast machine exhaust (Baghouse 3), the prefinish station and the coarse grinding stations exhaust (Baghouse 4), ~~and~~ the buffing booth exhaust (Baghouse

5), the **P2exp-Mold Sand Handling (Baghouse B6), P2exp-Shakeout (Baghouse B7), and P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and P2exp-Grinding Station (Baghouse B8)** ~~once per day~~. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (e.g. the process did not operate that day).

...

SECTION D.4

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:	
(m)	...
(q)	One (1) Finishing Operation, consisting of one (1) paint booth, identified as P2exp-Paint Booth, approved for construction in 2008, with a maximum capacity of 1,560 gallons of yellow primer per year, utilizing an HVLP spray gun, using dry filters for particulate control, and exhausting to stack P2exp9.

D.4.1 HAP Minor Limitations [326 IAC 2-4.1][40 CFR 63, Subpart EEEEE][40 CFR 63, Subpart MMMM]

The amount of HAP used in the P2-Filler/Putty Application, P2-Paint Booth #1, ~~and~~ P2-Paint Booth #2, **and P2exp-Paint Booth** (listed in this Section), combined with the amount of HAP used in the P1-Core Making (listed in Section D.1) and the amount of HAP used in the P1-Filler/Putty Application, P1-Paint Booth #2, P1-Paint Booth #3, and P1-Final Inspection Paint Booth (listed in Section D.2) and the amount of HAP used in the P2-Core Making (listed in Section D.3) shall be limited to less than ten (10) tons per twelve (12) consecutive month period for any single HAP and less than ~~19.6~~ **19.0** tons per twelve (12) consecutive month period for any combination of HAPs.

...

D.4.6 Particulate [326 IAC 6-3-2(d)]

Pursuant to 326 IAC 6-3-2(d), particulate from the paint booths (P2-Paint Booth #1, ~~and~~ P2-Paint Booth #2, **and P2exp-Paint Booth**) shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

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

HAP Usage Quarterly Report

Source Name: North Vernon Industry Corporation
Source Address: 3750 North County Road 75 West, North Vernon, Indiana 47265
Mailing Address: P.O. Box 894, North Vernon, IN 47265
Permit No.: 079-15119-00018
Facility: P1 – Core Making, P1-Filler/Putty Application, P1-Paint Booth #2, P1-Paint Booth #3, P1-Final Inspection Paint Booth, P2-Core Making, P2-Filler/Putty Application, P2-Paint Booth #1, ~~and~~ P2-Paint Booth #2, **and P2exp-Paint Booth**
Limit: Less than ten (10) tons for a single HAP and less than ~~19.6~~ **19.0** tons for a combination of HAPs per twelve (12) month consecutive period.

2. IDEM, OAQ has removed the identification of the Responsible Official in Condition A.1. IDEM will continue to maintain records of the name, title, and contact information for the responsible official.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary gray iron foundry.

~~Responsible Official: Vice President~~
Source Address: 3750 North County Road 75 West, North Vernon, IN 47265
Mailing Address: P.O. Box 894, North Vernon, IN 47265
General Source Phone: 812-346-8772
SIC Code: 3321
County Location: Jennings
Source Location Status: Attainment for all criteria pollutants
Source Status: Part 70 Permit Program
Major Source, under PSD Rules;
Minor Source, Section 112 of the Clean Air Act
1 of 28 Source Categories

3. IDEM, OAQ has decided to add the specific mail codes (MC) for each of the IDEM branches to improve mail delivery, as follows:

Permits Branch: **MC 61-53 IGCN 1003**
Compliance Branch: **MC 61-53 IGCN 1003**
Air Compliance Section: **MC 61-53 IGCN 1003**
Compliance Data Section: **MC 61-53 IGCN 1003**
Asbestos Section: **MC 61-52 IGCN 1003**
Technical Support and Modeling: **MC 61-50 IGCN 1003**

4. Condition C.18 has been updated to clarify the intent of this condition. Condition C.19 has been updated to include the correct rule citation.

C.18 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2]

...

- (c) If there is ~~a reasonable possibility that~~ a "project" (as defined in 326 IAC 2-2-1(qq)) at an existing emissions unit, other than projects at a ~~Clean Unit~~, **source with a Plantwide Applicability Limitation (PAL)**, which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee)) ~~may result in significant emissions increase~~ and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr)), the Permittee shall comply with following:

...

C.19 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11][**326 IAC 2-2**]

...

5. Conditions D.1.11 and D.3.11 have been updated to clarify the intent of these conditions.

D.1.11 Record Keeping Requirements

...

- (c) To document compliance with Condition D.1.8, the Permittee shall maintain a **daily record** ~~records~~ of visible emission notations from the electric induction furnaces exhaust (Area 1), the mold sand handling and shakeout operations exhaust (Area 2), the buffing station exhaust (Area 3), shot blast machine exhaust (Area 4) pre-finishing, core removal station, coarse grinding operations exhaust (Area 5), and final inspection buffing station exhaust (Final Inspection Collector) ~~once per day~~. **The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (e.g. the process did not operate that day).**

- (d) To document compliance with Condition D.1.9 the Permittee shall maintain a **daily record** ~~records~~ of the pressure drop **across the baghouses controlling the processes** ~~once per day during normal operation~~ when venting to the atmosphere. **The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g. the process did not operate that day).**

D.3.11 Record Keeping Requirements

...

- (c) To document compliance with Condition D.3.8, the Permittee shall maintain a **daily record** ~~records~~ of visible emission notations from the electric induction furnaces exhaust (Baghouse 1), the mold sand handling operation and shakeout operations exhaust (Baghouse 2), the shot blast machine exhaust (Baghouse 3), the prefinish station and the coarse grinding stations exhaust (Baghouse 4), ~~and the buffing booth exhaust (Baghouse 5),~~ **the P2exp-Mold Sand Handling (Baghouse B6), P2exp-Shakeout (Baghouse B7), and P2exp-Pre-Finish Station, P2exp-Blast Cabinet, P2exp-Core Removal Operation, and P2exp-Grinding Station (Baghouse B8)** ~~once per day~~. **The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (e.g. the process did not operate that day).**
- (d) To document compliance with Condition D.3.9 the Permittee shall maintain a **daily record** ~~records~~ of the pressure drop **across the baghouses controlling the processes** ~~once per day during normal operation~~ when venting to the atmosphere. **The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g. the process did not operate that day).**

...

6. Descriptions of the emission units constructed under Significant Source Modification 079-17819-00018 have been revised to indicate that they were constructed in 2004. The change to the description for these emission units is shown below.

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

The source consists of the following permitted emission units and pollution control devices:

...

- (h) One (1) Core Making Operation, consisting of the following emissions units:
- (1) One (1) raw core sand handling and storage system, identified as P2-Core Sand Handling, **constructed in 2004**, with a maximum capacity of 750 pounds of sand per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.
 - (2) One (1) Beta set core machine, identified as P2-Core Machine, **constructed in 2004**, with a rated capacity of 750 pounds of cores per hour, using 2.93 gallons of resin per hour, 1.25 gallons of release agent 1 per hour, and 0.50 gallons of release agent 2 per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.
 - (3) One (1) butane torch used to flash off excess core release agent, identified as P2-Butane Torch, **constructed in 2004**, with a maximum firing rate of 0.36 gallons per hour and 0.035 MMBtu/hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.

- (i) One (1) Mold Making Operation, consisting of the following emissions units:
- (1) One (1) raw mold sand handling and storage system, identified as P2-Mold Sand Handling, **constructed in 2004**, with a maximum capacity of 165 tons of sand per hour, with particulate emissions controlled by Baghouse 2, and exhausting to stack P2B2.
 - (2) One (1) molding machine, identified as P2-Molding Machine, **constructed in 2004**, with a maximum capacity of 165 tons of sand per hour, 1.0 pounds of plastic per hour, and 0.23 gallons of release agent per hour; with the uncontrolled emissions exhausting inside the building, then to general ventilation.
 - (3) One (1) mold wash, identified as P2-Mold Wash, **constructed in 2004**, with a maximum capacity of 7.1 gallons of mold wash per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.
 - (4) Two (2) natural gas fired mold machine dryers, identified as P2- Mold Dryer #1 and P2-Mold Dryer #2, **constructed in 2004**, each rated at 0.00113 million (MM)BTU per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.
- (j) One (1) Melting Operation, consisting of the following emissions units:
- (1) One (1) charge handling system utilizing mechanical conveyors and magnetic overhead cranes, identified as P2-Charge, **constructed in 2004**, with maximum capacity of 18 tons of metal per hour, with particulate emissions controlled by Baghouse 1 and exhausting to stack P2B1.
 - (2) Three (3) electric induction furnaces, identified as P2-EIF#1, P2-EIF#2, and P2-EIF#3, **constructed in 2004**, each rated at 6 tons of metal per hour, and with a donut hood exhausting to a dust collector (Baghouse 1), and exhausting to stack P2B1.
 - (3) One (1) ladle with a natural gas fired preheater, identified as P2-Ladle Preheater, **constructed in 2004**, with a maximum capacity of 1 MMBTU per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation. This preheater is used to dry the ladle prior to each filing.
- (k) One (1) Floor Molding Operation, consisting of the following emissions units:
- (1) One (1) floor pouring and cooling, identified as P2-Pouring/Cooling, **constructed in 2004**, with a maximum rate of 18 tons of metal per hour, utilizing a vacuum suction during pouring and cooling operations, exhausting inside the building, then to general ventilation.
 - (2) One (1) shakeout unit/system for casting operation, identified as P2-Shakeout, **constructed in 2004**, with a maximum rate of 24 tons of metal per hour, with the particulate emissions controlled by Baghouse 2, and exhausting to stack P2B2. Baghouse 2 will recycle all the sand collected back into the mold sand process.

- (l) One (1) Pre-Finishing Operation, consisting of the following emissions units:
 - (1) One (1) pre-finish knock out station/area, identified as P2-Pre-Finish Station, **constructed in 2004**, consisting of three (3) sanders, with a maximum capacity of 24 tons of metal per hour, with particulate emissions controlled by Baghouse 4, and exhausting to stack P2B4.
 - (2) One (1) enclosed shot blast machine, identified as P2-Shot Blast Machine, **constructed in 2004**, using steel shot as media, with a maximum capacity of 24 tons of metal per hour, with particulate emissions controlled by Baghouse 3, and exhausting to stack P2B3.
 - (3) One (1) core removal operation, identified as P2-Core Removal Operation, **constructed in 2004**, rated at 24 tons of metal per hour, will remove the remaining sand cores from the casting, with the uncontrolled emissions exhausting inside the building, then to general ventilation.
 - (4) One (1) coarse grinding area consisting of five (5) coarse grinding stations, identified as P2-Grinding Station #1 through P2-Grinding Station #5, **constructed in 2004**, with maximum capacity of 24 tons of metal per hour, with the particulate emissions controlled by Baghouse 4, and exhausting to stack P2B4.

- (m) One (1) Finishing Operation, consisting of the following emissions units:
 - (1) Filler/putty application to the casting to fill in any divots or scratches, identified as P2-Filler/Putty Application, **constructed in 2004**, with a maximum rate 1.6 gallons per hour for the entire finishing operations, with emissions exhausting inside the building, then to general ventilation.
 - (2) Two (2) paint booths, identified as P2-Paint Booth #1 and P2-Paint Booth #2, **constructed in 2004**, each utilizes an HVLP spray gun, using dry filters for particulate control, exhausting inside the building, then to general ventilation..
 - (A) P2-Paint Booth #1 has a maximum capacity of 6.88 gallons of primer per hour.
 - (B) P2-Paint Booth #2 has a maximum capacity of 2.24 gallons of primer per hour.
 - (3) Two (2) paint booth dryers using natural gas as fuel, identified as P2-Paint Booth #1 Dryer and P2-Paint Booth #2 Dryer, **constructed in 2004**, each rated at 0.00165 MMBtu per hour, with the uncontrolled emissions exhausting to stacks P2PB1 and P2PB2.
 - (4) One (1) buffing booth containing three (3) fine grinders or buffers, identified as P2-Buffing Booth, **constructed in 2004**, with a maximum capacity of 24 tons of metal per hour, with particulate emissions controlled by Baghouse 5, and exhausting to stack P2B5.
 - (5) One (1) putty booth used for additional repair, identified as P2-Putty Booth, **constructed in 2004**, with a maximum capacity of 24 tons of metal per hour, with the particulate emissions controlled by Baghouse 4, and exhausting to stack P2B4.

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

- (e) One (1) core making operation consisting of the following emission units:
 - ...
 - (3) One (1) butane torch used to flash off excess core release agent, identified as P1-Butane Torch, **constructed in 1998**, with a maximum firing rate of 0.144 gallons per hour and 0.014 MMBtu/hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.

SECTION D.3

FACILITY OPERATION CONDITIONS

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

- (h) One (1) Core Making Operation, consisting of the following emissions units:
 - (1) One (1) raw core sand handling and storage system, identified as P2-Core Sand Handling, **constructed in 2004**, with a maximum capacity of 750 pounds of sand per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.
 - (2) One (1) Beta set core machine, identified as P2-Core Machine, **constructed in 2004**, with a rated capacity of 750 pounds of cores per hour, using 1.4 gallons of resin per hour, 1.25 gallons of release agent 1 per hour, and 0.50 gallons of release agent 2 per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.
 - (3) One (1) butane torch used to flash off excess core release agent, identified as P2-Butane Torch, **constructed in 2004**, with a maximum firing rate of 0.36 gallons per hour and 0.035 MMBtu/hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.
- (i) One (1) Mold Making Operation, consisting of the following emissions units:
 - (1) One (1) raw mold sand handling and storage system, identified as P2-Mold Sand Handling, **constructed in 2004**, with a maximum capacity of 165 tons of sand per hour, with particulate emissions controlled by Baghouse 2, and exhausting to stack P2B2.
 - (2) One (1) molding machine, identified as P2-Molding Machine, **constructed in 2004**, with a maximum capacity of 165 tons of sand per hour, 1.0 pounds of plastic per hour, and 0.23 gallons of release agent per hour; with particulate emissions controlled by Baghouse 1 and exhausting to stack P2B1.
 - (3) One (1) mold wash, identified as P2-Mold Wash, **constructed in 2004**, with a maximum capacity of 7.1 gallons of mold wash per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.
 - (4) Two (2) natural gas fired mold machine dryers, identified as P2- Mold Dryer #1 and P2-Mold Dryer #2, **constructed in 2004**, each rated at 0.00113 million (MM)BTU per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation.
- (j) One (1) Melting Operation, consisting of the following emissions units:
 - (1) One (1) charge handling system utilizing mechanical conveyors and magnetic

- overhead cranes, identified as P2-Charge, **constructed in 2004**, with maximum capacity of 18 tons of metal per hour, with particulate emissions controlled by Baghouse 1 and exhausting to stack P2B1.
- (2) Three (3) electric induction furnaces, identified as P2-EIF#1, P2-EIF#2, and P2-EIF#3, **constructed in 2004**, each rated at 6 tons of metal per hour, and with a donut hood exhausting to a dust collector (Baghouse 1), and exhausting to stack P2B1.
- (3) One (1) ladle with a natural gas fired preheater, identified as P2-Ladle Preheater, **constructed in 2004**, with a maximum capacity of 1 MMBTU per hour, with the uncontrolled emissions exhausting inside the building, then to general ventilation. This preheater is used to dry the ladle prior to each filing.
- (k) One (1) Floor Molding Operation, consisting of the following emissions units:
- (1) One (1) floor pouring and cooling, identified as P2-Pouring/Cooling, **constructed in 2004**, with a maximum rate of 18 tons of metal per hour; utilizing a vacuum suction during pouring and cooling operations, exhausting inside the building, then to general ventilation.
- (2) One (1) shakeout unit/system for casting operation, identified as P2-Shakeout, **constructed in 2004**, with a maximum rate of 24 tons of metal per hour, with the particulate emissions controlled by Baghouse 2, and exhausting to stack P2B2. Baghouse 2 will recycle all the sand collected back into the mold sand process.
- (l) One (1) Pre-Finishing Operation, consisting of the following emissions units:
- (1) One (1) pre-finish knock out station/area, identified as P2-Pre-Finish Station, **constructed in 2004**, consisting of three (3) sanders, with a maximum capacity of 24 tons of metal per hour, with particulate emissions controlled by Baghouse 4, and exhausting to stack P2B4.
- (2) One (1) enclosed shot blast machine, identified as P2-Shot Blast Machine, **constructed in 2004**, using steel shot as media, with a maximum capacity of 24 tons of metal per hour, with particulate emissions controlled by Baghouse 3, and exhausting to stack P2B3.
- (3) One (1) core removal operation, identified as P2-Core Removal Operation, **constructed in 2004**, rated at 24 tons of metal per hour, will remove the remaining sand cores from the casting, with the uncontrolled emissions exhausting inside the building, then to general ventilation.
- (4) One (1) coarse grinding area consisting of five (5) coarse grinding stations, identified as P2-Grinding Station #1 through P2-Grinding Station #5, **constructed in 2004**, with maximum capacity of 24 tons of metal per hour, with the particulate emissions controlled by Baghouse 4, and exhausting to stack P2B4.
- (m) One (1) Finishing Operation, consisting of the following emissions units:
- (4) One (1) buffing booth containing three (3) fine grinders or buffers, identified as P2-Buffing Booth, **constructed in 2004**, with a maximum capacity of 24 tons of metal per hour, with particulate emissions controlled by Baghouse 5, and exhausting to stack P2B5.
- (5) One (1) putty booth used for additional repair, identified as P2-Putty Booth, **constructed in 2004**, with a maximum capacity of 24 tons of metal per hour, with the particulate emissions controlled by Baghouse 4, and exhausting to stack P2B4.

...

SECTION D.4

FACILITY OPERATION CONDITIONS

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

- (m) One (1) Finishing Operation, consisting of the following emissions units:
 - (1) Filler/putty application to the casting to fill in any divots or scratches, identified as P2-Filler/Putty Application, **constructed in 2004**, with a maximum rate of 1.6 gallons per hour for the entire finishing operations, with emissions exhausting inside the building, then to general ventilation.
 - (2) Two (2) paint booths, identified as P2-Paint Booth #1 and P2-Paint Booth #2, **constructed in 2004**, each utilizes an HVLP spray gun, using dry filters for particulate control, with particulate emissions exhausting inside the building, then to general ventilation.
 - (A) P2-Paint Booth #1 has a maximum capacity of 6.88 gallons of primer per hour.
 - (B) P2-Paint Booth #2 has a maximum capacity of 2.24 gallons of primer per hour.
 - (3) Two (2) paint booth dryers using natural gas as fuel, identified as P2-Paint Booth #1 Dryer and P2-Paint Booth #2 Dryer, **constructed in 2004**, each rated at 0.00165 MMBtu per hour, with the uncontrolled emissions exhausting to stacks P2PB1 and P2PB2.

...

Conclusion and Recommendation

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification 079-25476-00018 and Significant Permit Modification 079-25513-00018. The staff recommend to the Commissioner that this Part 70 Significant Source Modification and Significant Permit Modification be approved.

Appendix A: Emissions Calculations: P2 Expansion Foundry Operations

Company Name: North Vernon Industry Corporation
 Address: 3750 North County Road 75 West
 Significant Permit Modification: 079-25513-00018
 Reviewer: ERG/ST
 Date: December 7, 2007

Emission Unit	Maximum Capacity	Pollutant	Emission Factor (lbs/ton)	Source of Emission Factor	Potential to Emit							
					Before Controls		After Controls		SOx (ton/yr)	NOx (ton/yr)	VOC (ton/yr)	CO (ton/yr)
					PM (ton/yr)	PM10 (ton/yr)	PM (ton/yr)	PM10 (ton/yr)				
P2exp-Pouring/Cooling * 3-04-003-18 and 3-04-003-20	0.56 (tons metal/hr)	PM	4.20	FIRE 6.25	10.3	5.08			0.05	0.02	0.34	
		PM10	2.06	FIRE 6.25								
		SOx	0.02	FIRE 6.25								
		NOx	0.01	FIRE 6.25								
		VOC	0.14	FIRE 6.25								
	After Controls	PM	0.10	engineering est *	0.25							
	PM10	0.10	engineering est *	0.25								
PTE Totals					10.3	5.08	0.25	0.25	0.05	0.02	0.34	0.0

* The Pouring/Cooling operation utilizes a vacuum process during pouring/cooling that holds sand, metal and particulate in the mold. Resultant PM/PM10 emissions are minimal. CO emissions from pouring, cooling and shakeout are accounted for on page 2.

Methodology

PTE for Pouring/Cooling (tons/yr) = Maximum Capacity (tons metal/yr) x Emission Factor (lbs/ton) x 1 ton/2,000 lbs

Appendix A: Emissions Calculations: P2 Expansion Molding Operations

Company Name: North Vernon Industry Corporation
 Address: 3750 North County Road 75 West
 Significant Permit Modification: 079-25513-00018
 Reviewer: ERG/ST
 Date: December 7, 2007

Emission Unit	Maximum Capacity	Pollutant	Emission Factor	Source of Emission Factor	Overall Control Efficiency %	Potential to Emit							
						Before Controls		After Controls		SOx (ton/yr)	NOx (ton/yr)	VOC (ton/yr)	CO (ton/yr)
						PM (ton/yr)	PM10 (ton/yr)	PM (ton/yr)	PM10 (ton/yr)				
P2Exp-Shakeout SCC 3-04-003-31	0.56 (tons metal/hr)	PM PM10	3.20 2.24 (lbs/ton)	FIRE 6.25 FIRE 6.25	99.0%	7.88	5.52	0.079	0.055				
P2Exp-Pouring/Cooling P2-Shakeout	0.56 (tons metal/hr)	VOC CO	0.09 6.00 (lbs/ton)	2005 stack test ^a c								0.22	14.8
P2Exp-Furan Mold Sand Handling SCC 3-04-003-50	0.98 (tons sand/hr)	PM PM10	3.6 0.54 (lbs/ton)	FIRE 6.25 FIRE 6.25	99.0%	15.5	2.33	0.16	0.023				
P2Exp-Mold Wash	1,638 gals/yr	VOC	6.56 (lbVOC/gal)	MSDS Assume all VOC volatilizes and is released								5.37	
P2Exp- Furan Mold Mixer 3-04-003-98	112 tons/yr resin	VOC	0.72 lb/ton	OCMA test ^b								0.04	
	33.6 tons/yr catalyst	VOC	0.00 lb/ton	MSDS ^d								0.00	
	390 gals/yr release agent	VOC	5.58 (lb VOC/gal)	MSDS Assume all VOC volatilizes and is released								1.09	
PTE Totals						23.4	7.85	0.23	0.08	0.00	0.00	6.72	14.8

^a Stack tests of the pouring/cooling/shakeout in Plant P1 were conducted on August 11, 2005 and the results were accepted by IDEM on October 21, 2005. The stack test results are used in calculating the emission factors for VOC for P2exp-Pouring/Cooling.

^b Tests on the Furan NoBake resin were performed by OCMA

^c The CO emission factor for pouring, cooling and shakeout is based on the best available information for CO emissions from pouring, cooling and shakeout operations. This represents total emissions from pouring, cooling and shakeout combined.

^d The catalyst does not contain VOC.

Methodology

PTE for Shakeout/Mold Sand Handling Before Controls (tons/yr) = Maximum Capacity (tons metal or sand/yr) x Emission Factor (lbs/ton) x 1 ton/2,000 lbs

PTE for PM/PM10 for Shakeout/Mold Sand Handling After Controls (tons/yr) = PTE Before Controls (tons/yr) x (1 - Control Efficiency %)

PTE for VOC for Mold Wash and Furan Mold Mixer (tons/yr) = Maximum Capacity (gals/yr) x VOC Content (lb VOC/gal) x 1/2000 (ton/lbs)

PTE for VOC for Furan Mold Mixer (tons/yr) = Maximum Capacity (tons/yr) x Emission Factor (lb VOC/ton) x 1/2000 (ton/lbs)

Appendix A: Emissions Calculations: P2 Expansion Finish Prep

Company Name: North Vernon Industry Corporation
 Address: 3750 North County Road 75 West
 Significant Permit Modification: 079-25513-00018
 Reviewer: ERG/ST
 Date: December 7, 2007

Emission Unit	Maximum Capacity	Pollutant	Emission Factor	Source of Emission Factor	Overall Control Efficiency %	PTE Before Controls		PTE After Controls	
						PM (ton/yr)	PM10 (ton/yr)	PM (ton/yr)	PM10 (ton/yr)
P2exp-Blast Cabinet 3-04-003-40	0.56 (tons/hr) metal	PM PM10	17.0 1.70 (lbs/ton)	AP 42 AP 42	99.0%	41.9	4.19	0.42	0.042
P2exp-Pre-Finish Station 3-04-003-60	0.56 (tons/hr) metal	PM PM10	0.0045 0.0045 (lbs/ton)	FIRE 6.25 FIRE 6.25	99.0%	0.01	0.01	0.0001	0.0001
P2exp-Core Removal 3-04-003-60	0.56 (tons/hr) metal	PM PM10	0.0045 0.0045 (lbs/ton)	FIRE 6.25 FIRE 6.25	99.0%	0.01	0.01	0.0001	0.0001
P2exp-Coarse Grinding 3-04-003-60	0.56 (tons/hr) metal	PM PM10	0.0045 0.0045 (lbs/ton)	FIRE 6.25 FIRE 6.25	99.0%	0.01	0.01	0.0001	0.0001
PTE Totals						41.9	4.22	0.42	0.04

Emission Factor are from AP-42, Chapter 12.10 - Gray Iron Foundries, Table 12.10-7 (1/95) and FIRE 6.25.

Methodology

PTE for PM/PM10 Before Controls (tons/yr) = Maximum Capacity (tons metal/yr) x Emission Factor (lbs/ton) x 1 ton/2,000 lbs

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

Appendix A: Emissions Calculations: P2 Expansion Painting and Finishing

Company Name: North Vernon Industry Corporation
 Address: 3750 North County Road 75 West
 Significant Permit Modification: 079-25513-00018
 Reviewer: ERG/ST
 Date: December 7, 2007

Emission Unit	Maximum Capacity	Pollutant	Emission Factor (lbs/gal)	Source of Emission Factor	Transfer Efficiency %	Control Efficiency %	Potential to Emit				
							Before Controls		After Controls		VOC (ton/yr)
							PM (ton/yr)	PM10 (ton/yr)	PM (ton/yr)	PM10 (ton/yr)	
P2exp-Paint Booth Yellow Primer 4-02-006-10	1,560 (gals/yr)	VOC	2.00	MSDS	75%	80%					1.56
Primer is 50% solids	10.2 density (lb/gal)	PM PM10	5.08 5.08	MSDS			0.99		0.20		
								0.99		0.20	
PTE Totals							0.99	0.99	0.20	0.20	1.56

Methodology

PTE VOC for Painting (tons/yr) = Max. Capacity (gal/yr) x Emission Factor (lb VOC/gal) x 1 ton/2,000 lbs

PTE for PM/PM10 for Painting Before Controls (ton/yr) = Max. Capacity (gal/yr) x density (lb/gal) x Emission Factor (lbs/gal) x 1 ton/2,000 lbs x (1 - Transfer Efficiency(%))

PTE for PM/PM10 for Painting After Controls (ton/yr) = PTE for PM/PM10 for Painting Before Controls (ton/yr) x (1- Control Efficiency(%))

Appendix A: Emissions Calculations: P2 Expansion HAPs

Company Name: North Vernon Industry Corporation
 Address: 3750 North County Road 75 West
 Significant Permit Modification: 079-25513-00018
 Reviewer: ERG/ST
 Date: December 7, 2007

Metallic HAPs	Capacity	PTE PM	PTE lead	PTE manganese	Total Metallic HAP Before Controls	Total Metallic HAP After Controls
Process:	(tons metal/yr)	(tons/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)
P2exp-Pouring/Cooling ^b	0.56	10.3	0.04	0.32	2.10	0.026
P2exp-Shakeout ^b	0.56	7.88	0.03	0.24		
P2exp-Castings Cleaning and Finishing ^b	0.56	41.9	0.16	1.30		

Misc. Combustion HAPs	Maximum Capacity	Units	Combustion HAP Emission Factor	PTE	Total Misc. Combustion HAP
Process:		(tons/yr)	(lbs HAP/lb input)	(ton/yr)	(ton/yr)
P2exp-Pouring/Cooling & P2 Shakeout ^a	112	(tons resin and plastic/yr)	0.002956 lbs Xylene/lb	0.33	0.54
P2exp-Pouring/Cooling & P2 Shakeout ^a	112	(tons resin and plastic/yr)	0.000648 lbs Benzene/lb	0.07	
P2exp-Pouring/Cooling & P2 Shakeout ^a	112	(tons resin and plastic/yr)	0.001173 lbs other HAPs/lb	0.13	

^a PTE for Miscellaneous Combustion HAPs for Pouring/Cooling and Shakeout are based on total input of organic materials to the mold making and core making process. Assume that the resin in the cores (112 ton/yr) and plastic in the molds (0.1 lbs/hr) are combusted/volatilized during pouring/cooling/shakeout. Emission factor for Pouring/Cooling & Shakeout is from Modern Casting: "Calculating Emission Factors for Pouring, Cooling and Shakeout" Table 7: Low Nitrogen Furan, October 1994. HAPs include benzene, phenol, toluene, aldehydes, and others in trace amounts.

^b PTE for metallic HAPs is based on percentage of HAPs in casting metal. Assume all PM/PM10 emitted from these processes is from metallic castings. Casting metal is 0.385% lead and 3.1% manganese by weight.

There are no HAPs in the furan no bake resin mold wash, release agent, and paint.

Methodology

PTE Metallic HAPs (tons/yr) = PM/PM10 emissions (tons/yr) x Weight % HAPs (%)

PTE Misc. Combustion HAPs (tons/yr) = Maximum Capacity (tons/yr) x Emission Factor (lb HAP/lb input)

Appendix A: Emissions Summary

Company Name: North Vernon Industry Corporation
Address: 3750 North County Road 75 West
Significant Permit Modification: 079-25513-00018
Reviewer: ERG/ST
Date: December 7, 2007

PTE of Modification Before Controls (ton/yr)						
PM	PM10	VOC	SOx	NOx	CO	HAPs
76.7	18.1	8.62	0.05	0.02	14.8	2.63

PTE of Modification After Controls (ton/yr)						
PM	PM10	VOC	SOx	NOx	CO	HAPs
1.10	0.57	8.62	0.05	0.02	14.8	0.56