



Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

December 10, 2004

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.in.gov/idem

TO: Interested Parties / Applicant

RE: Urschel Laboratories Inc. / 127-19760-00037

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

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

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER.dot 9/16/03



Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) AND NEW SOURCE REVIEW OFFICE OF AIR QUALITY

**Urschel Laboratories Incorporated
2503 Calumet Avenue
Valparaiso, Indiana 46384**

(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 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F127-17726-00037	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: March 1, 2004 Expiration Date: March 1, 2009

First Administrative Amendment No. 127-18873-00037 Date Issued: April 30, 2004

First Significant Permit Revision: 127-19760-00037	
Issued by: Original signed by Paul Dubenetzky, Branch Chief Office of Air Quality	Pages Affected: 5, 11, 16, 26, 27, 28, and 39 Issuance Date: December 10, 2004



SECTION A	SOURCE SUMMARY	5
A.1	General Information [326 IAC 2-8-3(b)]	
A.2	Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]	
A.3	Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]	
A.4	FESOP Applicability [326 IAC 2-8-2]	
A.5	Prior Permits Superseded [326 IAC 2-1.1-9.5]	
SECTION B	GENERAL CONDITIONS	8
B.1	Permit No Defense [IC 13]	
B.2	Definitions [326 IAC 2-8-1]	
B.3	Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5]	
B.4	Enforceability [326 IAC 2-8-6]	
B.5	Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]	
B.6	Severability [326 IAC 2-8-4(4)]	
B.7	Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]	
B.8	Duty to Provide Information[326 IAC 2-8-4(5)(E)]	
B.9	Compliance Order Issuance [326 IAC 2-8-5(b)]	
B.10	Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]	
B.11	Annual Compliance Certification [326 IAC 2-8-5(a)(1)]	
B.12	Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)][326 IAC 2-8-5(a)(1)]	
B.13	Emergency Provisions [326 IAC 2-8-12]	
B.14	Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]	
B.15	Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]	
B.16	Permit Renewal [326 IAC 2-8-3(h)]	
B.17	Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]	
B.18	Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]	
B.19	Permit Revision Requirement [326 IAC 2-8-11.1]	
B.20	Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC13-14-2-2][IC13-30-3-1]	
B.21	Transfer of Ownership or Operational Control [326 IAC 2-8-10]	
B.22	Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16] [326 IAC 2-1.1-7]	
SECTION C	SOURCE OPERATION CONDITIONS	17
	Emission Limitations and Standards [326 IAC 2-8-4(1)]	
C.1	Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [40 CFR 52 Subpart P][326 IAC 6-3-2]	
C.2	Overall Source Limit [326 IAC 2-8]	
C.3	Opacity [326 IAC 5-1]	
C.4	Open Burning [326 IAC 4-1][IC 13-17-9]	
C.5	Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]	
C.6	Fugitive Dust Emissions [326 IAC 6-4]	
C.7	Operation of Equipment [326 IAC 2-8-5(a)(4)]	
C.8	Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61 Subpart M]	
	Testing Requirements [326 IAC 2-8-4(3)]	
C.9	Performance Testing [326 IAC 3-6]	
	Compliance Requirements [326 IAC 2-1.1-11]	
C.10	Compliance Requirements [326 IAC 2-1.1-11]	

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

- C.11 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]
- C.12 Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]
- C.13 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11]
[326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

- C.14 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]
- C.15 Compliance Response Plan - Preparation, Implementation, Records, and Reports
[326 IAC 2-8-4][326 IAC 2-8-5]
- C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4]
[326 IAC 2-8-5]

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

- C.17 General Record Keeping Requirements [326 IAC 2-8-4(3)][326 IAC 2-8-5]
- C.18 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

Stratospheric Ozone Protection

- C.19 Compliance with 40 CFR 82 and 326 IAC 22-1

SECTION D.1 FACILITY OPERATION CONDITIONS

Foundry Operations and Plasma Cutting 25

General Construction Conditions

Emission Limitations and Standards [326 IAC 2-8-4(1)]

- D.1.5 Particulate [326 IAC 6-3]
- D.1.6 Particulate Matter (PM) [326 IAC 2-2]
- D.1.7 Particulate Matter Less Than Ten Microns (PM10) [326 IAC 2-8]
- D.1.8 Volatile Organic Compounds (VOCs) [326 IAC 8-1-6][326 IAC 2-3][326 IAC 2-8]
- D.1.9 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

Compliance Determination Requirements

- D.1.10 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]
- D.1.11 Particulate Matter (PM)
- D.1.12 VOC and HAPs

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

- D.1.13 Thermal Oxidizer Temperature
- D.1.14 Parametric Monitoring
- D.1.15 Visible Emissions Notations
- D.1.16 Parametric Monitoring
- D.1.17 Baghouse Inspections
- D.1.18 Broken or Failed Bag Detection

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

- D.1.19 Record Keeping Requirements
- D.1.20 Reporting Requirements

SECTION D.2 FACILITY OPERATION CONDITIONS

Insignificant Activities	32
Emission Limitations and Standards [326 IAC 2-8-4(1)]	
D.2.1 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-4]	
D.2.2 Particulate [326 IAC 6-3-2]	
D.2.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]	
D.2.4 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]	
D.2.5 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2(c)]	
Compliance Determination Requirements	
Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]	
Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]	
Certification Form	36
Emergency Occurrence Form	37
Quarterly Report Form	39
Quarterly Deviation and Compliance Monitoring Report Form	40

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 2-8-3(b)]

The Permittee owns and operates a stationary no bake and green-sand bronze foundry operations.

Authorized individual:	Plant Manager
Source Address:	2503 Calumet Avenue, Valparaiso, IN 46383
Mailing Address:	2503 Calumet Avenue, Valparaiso, IN 46383
General Source Phone:	(219) 464-4811
SIC Code:	3556
Source Location Status:	Porter
Source Status:	Severe nonattainment for 1-hour ozone Moderate nonattainment for 8-hour ozone Unclassified or attainment for all other criteria pollutants Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD and Emission Offset and Nonattainment NSR; Minor Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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

- (a) One (1) Green Sand Foundry operation, installed in 1990, consisting of the following:
 - (1) One (1) Sand handling system identified as Unit D, consisting of return sand storage bin, sand feeder hopper, surge hopper, batch hopper, prepared sand feeder hopper, two (2) molder hoppers and associated conveyance equipment, with maximum rate of 25 tons per day and particulate emissions controlled by a Sand Handling Baghouse PCU-1 and exhausting to S/V-1.
 - (2) Electric induction melting furnace, pouring, casting and cooling operation identified as Unit E, with maximum charge capacity of 0.3 tons of metal per hour with particulate emissions controlled by a baghouse PCU-2 and exhausting to S/V-2.
- (b) One (1) No Bake Foundry operation, to be installed in 2003, consisting of the following:
 - (1) One (1) Sand handling system identified as Unit A, consisting of two (2) sand silos, two (2) sand hoppers and associated conveyance equipment, with maximum rate of 5.04 tons of sand per hour, and particulate emissions controlled by a Sand Handling Baghouse PCU-1 and exhausting to S/V-1.

- (2) Electric induction melting furnace, pouring, casting and cooling operation identified as Unit B, with maximum charge capacity of 0.6 ton of metals per hour and maximum binder usage of 26 lbs/ton of sand, with particulate emissions controlled by a baghouse PCU-2 and exhausting to S/V-2.
- (3) One (1) thermal sand reclamation operation identified as Unit C, controlling VOCs from the spent sand by a thermal oxidizer (PCU-3) with maximum system capacity of 1000 lbs sand per hour, equipped with a baghouse PCU-4 and exhausting to S/V-3.
- (c) One (1) Plasma cutting operation identified as Unit P with maximum cutting rate of 2,220 inches per hour (equivalent to process weight rate of 1.0 ton per hour) and exhausting to S/V-4.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

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

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.
 - (1) Two (2) natural gas fired sand heater cooler classifiers identified as EQ-3A and EQ-3B, and each rated at maximum heat input rating of 0.375 MMBtu/hr.
 - (2) Two (2) natural gas fired ladle torches identified as EQ-12A, with combined heat input rating of 1.5 MMBtu/hr.
 - (3) One (1) natural gas fired thermal oxidizer identified as PCU-3, and rated at maximum heat input rating of 0.465 MMBtu/hr.
 - (4) One (1) natural gas fired autoclave boiler identified as EQ-19, and rated at maximum heat input rating of 0.89 MMBtu/hr. [326 IAC 6-2-4]
 - (5) One (1) natural gas fired ceramic mold furnace identified as EQ-20, and rated at maximum heat input rating of 2.52 MMBtu/hr.
 - (6) One (1) natural gas fired dry off oven identified as EQ-6, and rated at maximum heat input rating of 0.75 MMBtu/hr.
- (b) The following VOC and HAP storage containers:
 - (1) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons.
 - (2) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (c) Machining where an aqueous cutting coolant continuously floods the machining interface.
- (d) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
 - (1) Frame and cover welding operation identified as Unit M. [326 IAC 6-3-2]
 - (2) Laser cutting operation identified as Unit O. [326 IAC 6-3-2]
 - (3) Brazing operation booth identified as Unit W. [326 IAC 6-3-2]
- (e) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (f) Paved and unpaved roads and parking lots with public access.

- (g) Furnaces used for melting metals other than beryllium with a brim full capacity of less than or equal to 450 cubic inches by volume.
- (h) 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.
 - (1) Frame grinding operation identified as Unit N. [326 IAC 6-3-2]
- (i) A laboratory as defined in 326 IAC 2-7-1(21)(D).
- (j) Activities with emissions below insignificant thresholds not previously identified (i.e. VOC emission less than 3 lb/hr and particulate emission less than 5 lb/hr):
 - (1) Immersion Cleaning of Machine Parts identified as Unit G. [326 IAC 8-3-2&5]
 - (2) Spray booth for impeller repair.
 - (3) One (1) stainless steel foundry employing the investment casting process (electric induction melting furnace and pouring operation only), identified as Unit K, with maximum metal charge capacity of 310 pounds per hour.
 - (4) One (1) surface coating operation identified as pattern shop finishing room coating mold impressions and exhausting to S/V-5.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]

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

SECTION B GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

B.2 Definitions [326 IAC 2-8-1]

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.3 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5]

This permit is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

B.4 Enforceability [326 IAC 2-8-6]

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 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

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 2-8-3(h) and 326 IAC 2-8-9.

B.6 Severability [326 IAC 2-8-4(4)]

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.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

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

B.8 Duty to Provide Information [326 IAC 2-8-4(5)(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 "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.10 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

B.11 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than April 15 of each year to:

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

- (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 2-8-4(3); and
 - (5) Such other facts as specified in Sections D of this permit, IDEM, OAQ, may require to determine the compliance status of the source.

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

B.12 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

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

- (b) The Permittee shall implement the PMPs, including any required record keeping, as necessary to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation, Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.13 Emergency Provisions [326 IAC 2-8-12]

- (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, except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes 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, and IDEM Northwest Regional Office 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 No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section) or,

Telephone No.: 317-233-5674 (ask for Compliance Section)

Facsimile No.: 317-233-5967

Telephone No.: 219-757-0265 (IDEM Northwest Regional Office)

Facsimile No.: 219-757-0267 (IDEM Northwest Regional Office)

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

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

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

The notice fulfills the requirement of 326 IAC 2-8-4(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 "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) 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 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:

- (1) 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.
- (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.14 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

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

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

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP 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 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (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 2-8-8(a)]
- (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 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(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 2-8-8(c)]

B.16 Permit Renewal [326 IAC 2-8-3(h)]

- (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 2-8-3. 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 "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

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

- (b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]
 - (1) A timely renewal application is one that is:
 - (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
 - (2) If IDEM, OAQ upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.
- (c) Right to Operate After Application for Renewal [326 IAC 2-8-9]

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 2-8 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 needed to process the application.

B.17 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:
- Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015
- Any such application shall be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]
- (d) No permit amendment or modification is required for the addition, operation or removal of a nonroad engine, as defined in 40 CFR 89.2.

B.18 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

- (a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without 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 approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:
- Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015
- and
- United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590
- in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-8-15(b)(2), (c)(1), and (d).

- (b) **Emission Trades [326 IAC 2-8-15(c)]**
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (c) **Alternative Operating Scenarios [326 IAC 2-8-15(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 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

B.19 Permit Revision Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

B.20 Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2][IC13-30-3-1]

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

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

B.21 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

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

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.22 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][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) 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 317-233-4320 (ask for OAQ, Billing, Licensing and Training Section), to determine the appropriate permit fee.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds Per Hour [40 CFR 52 Subpart P][326 IAC 6-3-2]

- (a) Pursuant to 40 CFR 52 Subpart P, particulate matter emissions from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.
- (b) Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

- (a) Pursuant to 326 IAC 2-8:
 - (1) The potential to emit volatile organic compounds (VOCs) from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period. This limitation shall also satisfy the requirements of 326 IAC 2-3 (Emission Offset);
 - (2) The potential to emit any regulated pollutant from the entire source, except particulate matter (PM) and volatile organic compounds (VOCs), shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period;
 - (3) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
 - (4) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.
- (b) Pursuant to 326 IAC 2-3 (Emission Offset), potential to emit particulate matter (PM) from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period.
- (c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided the source's potential to emit does not exceed the above specified limits.
- (d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.3 Opacity [326 IAC 5-1]

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

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

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

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

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

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

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

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

C.7 Operation of Equipment [326 IAC 2-8-5(a)(4)]

Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission unit vented to the control equipment is in operation.

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

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

- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

Testing Requirements [326 IAC 2-8-4(3)]

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

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

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ 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.10 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 2-8-4] [326 IAC 2-8-5(a)(1)]

C.11 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(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, P.O. Box 6015
Indianapolis, Indiana 46206-6015

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

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

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

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

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

C.13 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]

- (a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.
- (b) Whenever a condition in this permit requires the measurement of a temperature, the

instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.

- (c) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.14 Risk Management Plan [326 IAC 2-8-4] [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 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-8-4] [326 IAC 2-8-5]

-
- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and is comprised of:
- (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected time frame for taking reasonable response steps.
 - (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
- (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or
 - (2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
 - (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, and it will be 10 days or more until the unit or device will be shut down, then the permittee shall promptly notify the IDEM, OAQ of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.
 - (4) Failure to take reasonable response steps shall be considered a deviation from

the permit.

- (c) The Permittee is not required to take any further response steps for any of the following reasons:
- (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.
 - (3) An automatic measurement was taken when the process was not operating.
 - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.
- (e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-8-12 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

**C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4]
[326 IAC 2-8-5]**

- (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 "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.17 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

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

C.18 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

- (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 "authorized individual" as defined by 326 IAC2-1.1-1(1).
- (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 Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) The first report covered the period commencing on the date of issuance of the original FESOP and ended on the last day of the reporting period. All subsequent reporting periods shall be based on calendar years.

Stratospheric Ozone Protection

C.19 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 2-8-4(10)]:

- (a) One (1) Green Sand Foundry operation, installed in 1990, consisting of the following:
 - (1) One (1) Sand handling system identified as Unit D, consisting of return sand storage bin, sand feeder hopper, surge hopper, batch hopper, prepared sand feeder hopper, two (2) molder hoppers and associated conveyance equipment, with maximum rate of 25 tons per day and particulate emissions controlled by a Sand Handling Baghouse PCU-1 and exhausting to S/V-1.
 - (2) Electric induction melting furnace, pouring, casting and cooling operation identified as Unit E, with maximum charge capacity of 0.3 tons of metal per hour with particulate emissions controlled by a baghouse PCU-2 and exhausting to S/V-2.
- (b) One (1) No Bake Foundry operation, to be installed in 2003, consisting of the following:
 - (1) One (1) Sand handling system identified as Unit A, consisting of two (2) sand silos, two (2) sand hoppers and associated conveyance equipment, with maximum rate of 5.04 tons of sand per hour, and particulate emissions controlled by a Sand Handling Baghouse PCU-1 and exhausting to S/V-1.
 - (2) Electric induction melting furnace, pouring, casting and cooling operation identified as Unit B, with maximum charge capacity of 0.6 ton of metals per hour and maximum binder usage of 26 lbs/ton of sand, with particulate emissions controlled by a baghouse PCU-2 and exhausting to S/V-2.
 - (3) One (1) thermal sand reclamation operation identified as Unit C, controlling VOCs from the spent sand by a thermal oxidizer (PCU-3) with maximum system capacity of 1000 lbs sand per hour, equipped with a baghouse PCU-4 and exhausting to S/V-3.
- (c) One (1) Plasma cutting operation identified as Unit P with maximum cutting rate of 2,220 inches per hour (equivalent to process weight rate of 1.0 ton per hour) and exhausting to S/V-4.

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

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1 AND 326 IAC 2-8-11.1, WITH CONDITIONS LISTED BELOW ONLY SUBJECT ONLY TO NO BAKE FOUNDRY (UNIT A).

Construction Conditions

General Construction Conditions

D.1.1 This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

Effective Date of the Permit

D.1.2 Pursuant to IC 13-15-5-3, this section of this permit becomes effective upon its issuance.

D.1.3 All requirements of these construction conditions shall remain in effect unless modified in a manner consistent with procedures established for revisions pursuant to 326 IAC 2.

D.1.4 Pursuant to 326 IAC 2-1-9(b) (Revocation of Permits), IDEM, OAQ may revoke this section of the approved permit if construction is not commenced within eighteen (18) months after receipt of this permit or if construction is suspended for a continuous period of (1) one year or more.

Operation Conditions

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.5 Particulate [326 IAC 6-3]

The particulate emissions from the emission units listed in the table below shall be limited by the following:

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

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

The allowable emissions for each facility operating at its maximum process weight rate are as follows:

Emission Unit ID	Process Weight Rate (tons/hr)	Allowable Particulate Emissions (lb/hr)
Unit A (No Bake Foundry Sand Handling System)	5.04	12.12
Unit B (No Bake Foundry Melting/Pouring Equipment)	0.60	2.91
Unit C (No Bake Foundry: Thermal Sand Reclamation Unit)	0.50	2.57
Unit D (Green Sand Foundry Sand Handling System)	1.04	4.21
Unit E (Green Sand Foundry Melting/Pouring Equipment)	0.30	1.83
Unit P (Plasma Cutting)	1.00	4.10

D.1.6 Particulate Matter (PM) [326 IAC 2-2]

The allowable PM emissions from:

- (a) the No Bake Foundry Sand Handling System (Unit A) shall not exceed 6.97 pounds per hour, which is equivalent to 30.53 tons per year;
- (b) the No Bake Foundry Melting/Pouring Operations (Unit B) shall not exceed 2.91 pounds per hour, which is equivalent to 12.74 tons per year;
- (c) the Thermal Sand Reclaimer (Unit C (controlled by thermal oxidizer)) shall not exceed 2.57 pounds per hour, which is equivalent to 11.25 tons per year;
- (d) the Green Sand Foundry Sand Handling System (Unit D) shall not exceed 4.21 pounds per hour, which is equivalent to 18.44 tons per year;
- (e) the Green Sand Foundry Metal/Pouring Operations (Unit E) shall not exceed 1.83 pounds per hour, which is equivalent to 8.01 tons per year; and

- (f) the Plasma cutting operations (Unit P) shall not exceed 4.10 pounds per hour, which is equivalent to 18.0 tons per year.

Above emission limits for the No Bake Foundry and Green Sand Foundry are based on the operation of only one foundry at any given time. Compliance with these limits shall limit the source's potential to emit of PM to less than 250 tons per twelve (12) consecutive month period and make the requirements of 326 IAC 2-2 (PSD) not applicable.

D.1.7 Particulate Matter Less Than Ten Microns (PM10) [326 IAC 2-8]

Pursuant to 326 IAC 2-8 (FESOP) the PM-10 emissions from:

- (a) the No Bake Foundry Sand Handling System (Unit A) shall not exceed 6.97 pounds per hour, which is equivalent to 30.53 tons per year;
- (b) the No Bake Foundry Melting/Pouring Operations (Unit B) shall not exceed 2.91 pounds per hour, which is equivalent to 12.74 tons per year;
- (c) the Thermal Sand Reclaimer (Unit C (controlled by thermal oxidizer)) shall not exceed 2.57 pounds per hour, which is equivalent to 11.25 tons per year;
- (d) the Green Sand Foundry Sand Handling System (Unit D) shall not exceed 4.21 pounds per hour, which is equivalent to 18.44 tons per year;
- (e) the Green Sand Foundry Metal/Pouring Operations (Unit E) shall not exceed 1.83 pounds per hour, which is equivalent to 8.01 tons per year; and
- (f) the Plasma cutting operations (Unit P) shall not exceed 4.10 pounds per hour, which is equivalent to 18.0 tons per year.

Above emission limits for the No Bake Foundry and Green Sand Foundry are based on the operation of only one foundry at any given time. Compliance with these requirements shall limit the source wide potential to emit PM-10 to less than 100 tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 do not apply.

D.1.8 Volatile Organic Compounds (VOCs) [326 IAC 8-1-6][326 IAC 2-3][326 IAC 2-8]

- (a) The total binder usage in the No Bake Foundry shall be limited to 106,720 pounds per twelve (12) consecutive month period with compliance determined at the end of each month (equivalent to VOC emissions factor of 0.066 lb VOC/lb binder and 0.205 lb VOC/lb binder for emission Units A and B, respectively). This is equivalent to VOC emissions of 3.525 and 10.943 tons per year from emission Units A and B, respectively.
- (b) The VOC emissions from the Thermal Sand Reclaimer (Unit C) shall not exceed 0.569 tons per year based on control by the Thermal Oxidizer (PCU-3) with overall VOC control efficiency of 99.0%.

The binder usage limit and the controlled VOC emissions limits yield total VOC emissions from the No Bake Foundry (Sand Handling System (Unit A), Induction Furnace, Pouring, Casting & Cooling (Unit B), and Thermal Sand Reclaimer (Unit C)) that are less than 25 tons per year. Therefore, the requirements of 326 IAC 8-1-6 (New Facilities, General Reduction Requirements), 326 IAC 2-3 (Emission Offset) and 326 IAC 2-2 (Part 70) do not apply.

D.1.9 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B Preventive Maintenance Plan, of this permit, is required for the facilities (Units A, B, C, D, and E) and any emission control devices (PCU-1, PCU-2, PCU-3, and PCU-4).

Compliance Determination Requirements

D.1.10 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

- (a) No later than November 30, 2004, in order to demonstrate compliance with Conditions D.1.5, D.1.6 and D.1.7, the Permittee shall perform PM and PM-10 testing on the baghouse (PCU-1) controlling the particulate emissions from the No Bake Foundry Sand Handling System (Unit A) and the Green Sand Foundry Sand Handling System (Unit D) which exhaust through stack S/V-1, 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. PM-10 includes filterable and condensable PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.
- (b) No later than November 30, 2004, the Permittee shall perform VOC testing for the VOC capture system and the natural gas fired thermal oxidizer (PCU-3) utilizing sampling and analyses of the input and output sand streams for total combustible organics and discharge gas sampling for VOC utilizing Methods 25 (40 CFR 60, Appendix A) for VOC, or other methods as approved by the Commissioner. This test shall be performed to establish the minimum duct pressure or fan amperage, and the minimum operating temperature to demonstrate compliance with the overall VOC control efficiency in condition D.1.8. The overall capture and control efficiency will be determined by mass balance calculations using the test results. 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.

D.1.11 Particulate Matter (PM)

In order to comply with conditions D.1.5, D.1.6 and D.1.7, the baghouses for particulate control identified as PCU-1 shall be in operation when either of the sand handling systems for the No Bake Foundry (Unit A) or the Green Sand Foundry (Unit D) is in operation. The baghouse identified as PCU-2 shall be in operation when metal melting and pouring operations are being performed at either the No Bake Foundry (Unit B) or the Green Sand Foundry (Unit E). The baghouse identified as PCU-4 shall be in operation when the Thermal Sand Reclaimer (Unit C) is in operation.

D.1.12 VOC and HAPs

In order to comply with Conditions D.1.8(b), the stationary Thermal Oxidizer (PCU-3) shall be in operation and control emissions from the Thermal Sand Reclamation Operation (Unit C) at all times when the Thermal Sand Reclamation Operation (Unit C) is in operation.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.13 Thermal Oxidizer Temperature

- (a) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizer for measuring operating temperature. The output of this system shall be recorded as an hourly average. From the date of issuance of this permit until the approved stack test results are available, the Permittee shall take appropriate response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports whenever the hourly average temperature of the thermal oxidizer is below 1200 °F. An hourly average temperature that is below 1200 °F is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.
- (b) The Permittee shall determine the hourly average temperature from the most recent valid stack test that demonstrates compliance with limits in condition D.1.8, as approved by IDEM.
- (c) On and after the date the approved stack test results are available, the Permittee shall

take appropriate response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports whenever the hourly average temperature of the thermal oxidizer is below the hourly average temperature as observed during the compliant stack test. An hourly average temperature that is below the hourly average temperature as observed during the compliant stack test is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

D.1.14 Parametric Monitoring

- (a) The Permittee shall determine fan amperage or duct pressure from the most recent valid stack test that demonstrates compliance with limits in condition D.1.8, as approved by IDEM.
- (b) The duct pressure or fan amperage shall be observed at least once per day when the thermal oxidizer is in operation. When for any one reading, the duct pressure or fan amperage is outside the normal range as established in most recent compliant stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. A reading that is outside the range as established in the most recent compliant stack test is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

D.1.15 Visible Emissions Notations

- (a) Visible emission notations of the baghouses (PCU-1, PCU-2, and PCU-4) stack exhausts shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

D.1.16 Parametric Monitoring

The Permittee shall record the total static pressure drop across each of the baghouses identified as PCU-1, PCU-2, and PCU-4, at least once per shift when the systems are in operation. When for any one reading, the pressure drop across the baghouses (PCU-1 and PCU-2) is outside the normal range of 6.0 and 8.0 inches of water and the baghouse (PCU-4) is outside the normal range of 3.0 to 12.0 or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

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

D.1.17 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags (PCU-1, PCU-2, and PCU-4) controlling the Units A, B, C, D and E operations. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.

D.1.18 Broken or Failed Bag Detection

In the event that bag failure has been observed:

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

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.19 Record Keeping Requirements

- (a) To document compliance with condition D.1.8(a), the Permittee shall maintain records of the monthly usage of the binder in No Bake Foundry. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
- (b) To document compliance with Condition D.1.13, the Permittee shall maintain records of the continuous temperature records (on an hourly average basis) for the thermal oxidizer

and the hourly average temperature used to demonstrate compliance during the most recent compliant stack test.

- (c) To document compliance with Condition D.1.15, the Permittee shall maintain records of visible emission notations of the baghouse PCU-1, PCU-2 and PCU-4 stack exhausts once per shift.
- (d) To document compliance with Condition D.1.16, the Permittee shall maintain per shift records of the total static pressure drop during normal operation for each baghouse.
- (e) To document compliance with Condition D.1.17, the Permittee shall maintain records of the results of the inspections required under Condition D.1.17.
- (f) To document compliance with Condition D.1.9, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.
- (g) To document compliance with Condition D.1.14, the Permittee shall maintain records of duct pressure and fan amperage once per day.
- (h) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.20 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.8(a) 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.2

FACILITY OPERATION CONDITIONS

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

Insignificant Activities

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.
 - (1) Two (2) natural gas fired sand heater cooler classifiers identified as EQ-3A and EQ-3B, and each rated at maximum heat input rating of 0.375 MMBtu/hr.
 - (2) Two (2) natural gas fired ladle torches identified as EQ-12A, with combined heat input rating of 1.5 MMBtu/hr.
 - (3) One (1) natural gas fired thermal oxidizer identified PCU-3, and rated at maximum heat input rating of 0.465 MMBtu/hr.
 - (4) One (1) natural gas fired autoclave boiler identified as EQ-19, and rated at maximum heat input rating of 0.89 MMBtu/hr. [326 IAC 6-2-4]
 - (5) One (1) natural gas fired ceramic mold furnace identified as EQ-20, and rated at maximum heat input rating of 2.52 MMBtu/hr.
 - (6) One (1) natural gas fired dry off oven identified as EQ-6, and rated at maximum heat input rating of 0.75 MMBtu/hr.
- (b) The following VOC and HAP storage containers:
 - (1) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons.
 - (2) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (c) Machining where an aqueous cutting coolant continuously floods the machining interface.
- (d) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
 - (1) Frame and cover welding operation identified as Unit M. [326 IAC 6-3-2]
 - (2) Laser cutting operation identified as Unit O. [326 IAC 6-3-2]
 - (3) Brazing operation booth identified as Unit W. [326 IAC 6-3-2]
- (e) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (f) Paved and unpaved roads and parking lots with public access.
- (g) Furnaces used for melting metals other than beryllium with a brim full capacity of less than or equal to 450 cubic inches by volume.
- (h) 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.
 - (1) Frame grinding operation identified as Unit N. [326 IAC 6-3-2]
- (i) A laboratory as defined in 326 IAC 2-7-1(21)(D).

- (j) Activities with emissions below insignificant thresholds not previously identified (i.e. VOC emission less than 3 lb/hr and particulate emission less than 5 lb/hr):
- (1) Immersion Cleaning of Machine Parts identified as Unit G. [326 IAC 8-3-2&5]
 - (2) Spray booth for impeller repair.
 - (3) One (1) stainless steel foundry employing the investment casting process (melting and pouring only), identified as Unit K, with maximum metal charge capacity of 310 pounds per hour.
 - (4) One (1) surface coating operation identified as pattern shop finishing room coating mold impressions and exhausting to S/V-5.

(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 2-8-4(1)]

D.2.1 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (a) (Particulate Emission Limitations for Sources of Indirect Heating), the particulate emissions from Boiler EQ-19, shall be limited to 0.60 pounds of particulate matter per million British thermal units heat input.

D.2.2 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 investment casting foundry (Unit K) shall not exceed 1.17 pounds per hour when operating at a process weight rate of 0.155 tons per hour. 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:

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

D.2.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for Immersion Cleaning Operation 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.2.4 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs constructed after July 1, 1990, the Permittee shall ensure that the following control equipment requirements are met:

- (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
 - (B) The solvent is agitated; or
 - (C) The solvent is heated.
 - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
 - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
 - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility construction of which commenced after July 1, 1990, shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.
 - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

Hundred (100) pounds per hour [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2(e), the allowable particulate emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour. This includes the following operations:

- (1) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
 - (i) Frame and cover welding operation identified as Unit M.
 - (ii) Laser cutting operation identified as Unit O.
 - (iii) Brazing operation booth identified as Unit W.

- (2) 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.
 - (i) Frame grinding operation identified as Unit N.

Compliance Determination Requirements

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

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

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

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: Urschel Laboratories Incorporated
Source Address: 2503 Calumet Avenue, Valparaiso, IN 46383
Mailing Address: 2503 Calumet Avenue, Valparaiso, IN 46383
FESOP No.: F127-17726-00037

**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:

Date:

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

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT**

Source Name: Urschel Laboratories Incorporated
Source Address: 2503 Calumet Avenue, Valparaiso, IN 46383
Mailing Address: 2503 Calumet Avenue, Valparaiso, IN 46383
FESOP No.: F127-17726-00037

This form consists of 2 pages

Page 1 of 2

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

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

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

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

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO 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**

FESOP Quarterly Report

Source Name: Urschel Laboratories Incorporated
 Source Address: 2503 Calumet Avenue, Valparaiso, IN 46383
 Mailing Address: 2503 Calumet Avenue, Valparaiso, IN 46383
 FESOP No.: F127-17726-00037
 Facility: No Bake Foundry (Unit A and Unit B)
 Parameter: Binder Usage (VOC Emissions)
 Limit: The total binder usage in No Bake Foundry shall be limited to 106,720 pounds per twelve (12) consecutive month period with compliance determined at the end of each month. This is equivalent to VOC emissions of 3.525 and 10.943 tons per year from emission Units A and B, respectively.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	Binder Usage This Month	Binder Usage Previous 11 Months	Binder Usage 12 Month Total
Month 1			
Month 2			
Month 3			

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

Submitted by: _____
 Title / Position: _____
 Signature: _____
 Date: _____
 Phone: _____

Attach a signed certification to complete this report.

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

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
 QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Urschel Laboratories Incorporated
 Source Address: 2503 Calumet Avenue, Valparaiso, IN 46383
 Mailing Address: 2503 Calumet Avenue, Valparaiso, IN 46383
 FESOP No.: F127-17726-00037

Months: _____ **to** _____ **Year:** _____

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".	
<input type="radio"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="radio"/> 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 (TSD) for a Significant Permit Revision to a Federally
Enforceable State Operating Permit (FESOP)**

Source Background and Description

Source Name:	Urschel Laboratories Incorporated
Source Location:	2503 Calumet Avenue, Valparaiso, IN 46383
County:	Porter
SIC Code:	3556
Operation Permit No.:	127-17726-00037
Operation Permit Issuance Date:	March 1, 2004
Permit Revision No.:	127-19760
Permit Reviewer:	Adeel Yousuf/EVP

On November 3, 2004, the Office of Air Quality (OAQ) had a notice published in the Vidette Times in Munster, Indiana, stating that Urschel Laboratories Incorporated had applied for a Significant Permit Revision to a Federally Enforceable State Operating Permit (FESOP) to revise the stack testing date, thermal oxidizer control efficiency and the annual binder usage for the No Bake Foundry. The notice also stated that OAQ proposed to issue a Significant Permit Revision to a Federally Enforceable State Operating Permit for this operation and provided information on how the public could review the proposed Significant Permit Revision 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 Significant Permit Revision should be issued as proposed.

On November 11, 2004, James Kielman of Urschel Laboratories Inc., submitted comments on the proposed FESOP permit revision. The summary of the comments and corresponding responses is as follows (bolded language has been added and the language with a line through it has been deleted).

Comment 1

Emission units A and B are located in the No Bake Foundry and emission units D and E in the Green Sand Foundry. Units A and D exhaust through S/V1 and units B and E through S/V2. In sections D.1.6 and D.1.7 of the original FESOP, PM/PM10 limits are established for the individual emission units. In the revised permit, PM/PM10 emissions limits are established at S/V1 combining units A and D and at S/V2 combining units B and E.

The Office of Air Quality may wish to revisit the aforementioned changes. According to page 2, paragraph d of the Explanation of Permit Revisions, it is stated that the basis for establishing emission limits at S/V1 and S/V2 is that the gas streams converge prior to control. These limits were thus created on the assumption that the Green Sand and No-Bake foundries run concurrently. This does not reflect the manner in which Urschel Laboratories normally operates these two foundries. The ductwork and baghouses upstream of S/V1 and S/V2 are not designed to serve two foundries operating simultaneously. Production activities are therefore limited to one foundry at a time. This was specified in the original FESOP application and reflected in the original FESOP issued to us.

Response 1

Upon Permittee's confirmation that the two foundries can not operate concurrently, IDEM, OAQ has determined to revert back to the prior D.1.6 and D.1.7 conditions in the original FESOP 127-17726-00037, issued on March 1, 2004. Also, a statement has been added indicating that the emission limitations are based on only one foundry operating at any given time. Following changes have been made to Conditions D.1.6 and D.1.7 as a result of this comment.

D.1.6 Particulate Matter (PM) [326 IAC 2-2]

The allowable PM emissions from:

- (a) the No Bake Foundry Sand Handling System (Unit A) ~~and the Green Sand Foundry Sand Handling System (Unit D), both exhausting through S/V-1,~~ shall not exceed ~~41.18~~ **6.97** pounds per hour, which is equivalent to ~~48.97~~ **30.53** tons per year;
- (b) the No Bake Foundry Melting/Pouring Operations (Unit B) ~~and the Green Sand Foundry Metal/Pouring Operations (Unit E), both exhausting through S/V-2,~~ shall not exceed ~~4.74~~ **2.91** pounds per hour, which is equivalent to ~~20.75~~ **12.74** tons per year;
- (c) the Thermal Sand Reclaimer (Unit C (controlled by thermal oxidizer)), exhausting through S/V-3, shall not exceed 2.57 pounds per hour, which is equivalent to 11.25 tons per year; ~~and~~
- (d) **the Green Sand Foundry Sand Handling System (Unit D) shall not exceed 4.21 pounds per hour, which is equivalent to 18.44 tons per year;**
- (e) **the Green Sand Foundry Metal/Pouring Operations (Unit E) shall not exceed 1.83 pounds per hour, which is equivalent to 8.01 tons per year; and**
- (df) the Plasma cutting operations (Unit P), exhausting through S/V-4, shall not exceed 4.10 pounds per hour, which is equivalent to 18.0 tons per year.

Above emission limits for the No Bake Foundry and Green Sand Foundry are based on the operation of only one foundry at any given time. Compliance with these limits shall limit the source's potential to emit of PM to less than 250 tons per twelve (12) consecutive month period and make the requirements of 326 IAC 2-2 (PSD) not applicable.

D.1.7 Particulate Matter Less Than Ten Microns (PM10) [326 IAC 2-8]

Pursuant to 326 IAC 2-8 (FESOP) the PM-10 emissions from:

- (a) the No Bake Foundry Sand Handling System (Unit A) ~~and the Green Sand Foundry Sand Handling System (Unit D), both exhausting through S/V-1,~~ shall not exceed ~~41.18~~ **6.97** pounds per hour, which is equivalent to ~~48.97~~ **30.53** tons per year;
- (b) the No Bake Foundry Melting/Pouring Operations (Unit B) ~~and the Green Sand Foundry Metal/Pouring Operations (Unit E), both exhausting through S/V-2,~~ shall not exceed ~~4.74~~ **2.91** pounds per hour, which is equivalent to ~~20.75~~ **12.74** tons per year;
- (c) the Thermal Sand Reclaimer (Unit C (**controlled by thermal oxidizer**)), exhausting through S/V-3, shall not exceed 2.57 pounds per hour, which is equivalent to 11.25 tons per year; and
- (d) **the Green Sand Foundry Sand Handling System (Unit D) shall not exceed 4.21 pounds per hour, which is equivalent to 18.44 tons per year;**

- (e) **the Green Sand Foundry Metal/Pouring Operations (Unit E) shall not exceed 1.83 pounds per hour, which is equivalent to 8.01 tons per year; and**
- (df) the Plasma cutting operations (Unit P), exhausting through S/V-4, shall not exceed 4.10 pounds per hour, which is equivalent to 18.0 tons per year.

Above emission limits for the No Bake Foundry and Green Sand Foundry are based on the operation of only one foundry at any given time. Compliance with these requirements shall limit the source wide potential to emit PM-10 to less than 100 tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 do not apply.

Upon further review, the OAQ has decided to make the following changes to the FESOP Permit. Bolded language has been added and the language with a line through it has been deleted.

1. Following minor typographical errors in Conditions D.1.8 and D.1.10 have been corrected.

D.1.8 Volatile Organic Compounds (VOCs) [326 IAC 8-1-6][326 IAC 2-3][326 IAC 2-8]

- (a) The total binder usage in **the** No Bake Foundry shall be limited to 106,720 pounds per twelve (12) consecutive month period with compliance determined at the end of each month (equivalent to VOC emissions factor of 0.066 lb VOC/lb binder and 0.205 lb VOC/lb binder for emission Units A and B, respectively). This is equivalent to VOC emissions of 3.525 and 10.943 tons per year from emission Units A and B, respectively.

D.1.10 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

- (a) No later than November 30, 2004, in order to demonstrate compliance with Conditions D.1.5, D.1.6 and D.1.7, the Permittee shall perform PM and PM-10 testing on the baghouse (PCU-1) controlling the particulate emissions from **the** No Bake Foundry Sand Handling System (Unit A) and **the** Green Sand Foundry Sand Handling System (Unit D) which exhaust through stack S/V-1, 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. PM-10 includes filterable and condensable PM-10. Testing shall be conducted in accordance with Section C - Performance Testing.
- (b) No later than November 30, 2004, the Permittee shall perform VOC testing for the VOC capture system and the natural gas fired thermal oxidizer (PCU-3) utilizing sampling and analyses of the input and output sand streams for total combustible organics and discharge gas sampling for VOC utilizing Methods 25 (40 CFR 60, Appendix A) for VOC, or other methods as approved by the Commissioner. This test shall be performed to establish the minimum duct pressure or fan amperage, and the minimum operating temperature to demonstrate compliance with the ~~capture and~~ **overall VOC control efficiency**ies in condition D.1.8. The overall capture and control efficiency will be determined by mass balance calculations using the test results. 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.

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

Technical Support Document (TSD) for a Significant Permit Revision to a Federally
Enforceable State Operating Permit

Source Background and Description

Source Name:	Urschel Laboratories Incorporated
Source Location:	2503 Calumet Avenue, Valparaiso, IN 46383
County:	Porter
SIC Code:	3556
Operation Permit No.:	127-17726-00037
Operation Permit Issuance Date:	March 1, 2004
Permit Revision No.:	127-19760
Permit Reviewer:	Adeel Yousuf/EVP

The Office of Air Quality (OAQ) has reviewed a revision application from Urschel Laboratories, Inc. requesting to revise the stack testing date, thermal oxidizer control efficiency and the annual binder usage for the No Bake Foundry.

History

Urschel Laboratories, Inc was issued a FESOP No. 127-17726-00037 on March 1, 2004. On August 2, 2004, Urschel Laboratories, Inc. submitted an application to OAQ requesting to extend the performance testing deadline established in Condition D.1.10 of the FESOP. The reason for this extension is due to the fact that the No-Bake Foundry is currently in the tooling development phase of operation and therefore has limited production capabilities. Only 0.9% of the maximum yearly binder limit has been consumed since the issuance of the FESOP. The foundry is scheduled to be capable of operating at close to full capacity by November, 2004.

In addition, the source requests to revise the control efficiency of the thermal oxidizer because the analytical results from diagnostic stack testing indicate that the overall control efficiency of the thermal oxidizer (PCU3) is lower than the established FESOP limit of 99.9%. The source requests that the overall control efficiency of the thermal oxidizer be revised to 99%. The decrease in the overall control efficiency of the thermal oxidizer required by the FESOP will correspond to an increase in VOC emissions and in order to offset this increase, the allowable binder consumption at the No Bake Foundry (Emission Units A (Sand Mixing, Moldmaking, Coremaking, and Mold/Core Storage) and B (Pouring, Cooling and Shakeout)) will be reduced to maintain total plant-wide VOC emissions of less than 25.0 tons of VOC per year.

The following section describes the revisions made to the existing FESOP due to requests made by the Permittee during this review.

Explanation of Permit Revisions

This significant permit revision consists of the following changes:

- (a) The control efficiency of the thermal oxidizer (PCU-3) controlling VOC emissions from the Thermal Sand Reclaimer (Unit C) is being revised to 99% from the value of 99.9% in the FESOP (127-17726). This revised control efficiency is based on the analytical tests conducted by the Permittee at the No Bake Foundry. The corresponding controlled VOC emission limit is also revised from 0.06 to 0.569 tons per year with a net VOC emission increase of 0.509 tons per year.
- (b) The stack testing for the baghouse (PCU-1) and the thermal oxidizer (PCU-3) was required to be done originally on August 24, 2004. However, the source has stated that the Green Sand Foundry operation and the No-Bake Foundry operation are not scheduled to be at full capacity until November 2004. As a result, emission testing at the current production rate would not satisfy 326 IAC 3-6-3(b)(1), which requires facilities to be tested while operating at 95% to 100% of their permitted operating capacity. As notified in the letter to the Permittee, dated August 26, 2004, the OAQ has decided that if compliance testing is performed no later than November 30, 2004, no enforcement action will be taken for failing to test before the applicable deadline. Therefore, the stack test date is being revised from "within 180 days" to "no later than November 30, 2004".
- (c) In order to compensate for the increase in VOC emissions due to the decrease in thermal oxidizer control efficiency, the allowable annual binder usage is being adjusted from 110,500 to 106,720 pounds of binder per year at the No Bake Foundry (Emission Units A (Sand Mixing, Moldmaking, Coremaking, and Mold/Core Storage) and B (Pouring, Cooling and Shakeout)). This decrease in annual binder usage will decrease the VOC emissions from the No Bake Foundry by 0.512 tons per year, therefore, off-setting the emission increase of 0.509 tons per year from the thermal oxidizer.
Note: Only VOC emissions are associated with the binder usage, therefore, the change in binder usage will not affect the particulate matter emissions.
- (d) In addition to the request for changes made by the source, the OAQ has decided to revise the PM and PM10 limits for the foundry operations listed under Conditions D.1.6 and D.1.7. In the current version, there is a separate emission limit for each emission unit with Units A and D venting through stack S/V-1 and Units B and E venting through stack S/V-2. Since the gas streams come together prior to control, a stack test at the common stack may not be conclusive when trying to show compliance with two individual limits. Therefore, OAQ has limited the emissions from each stack instead of from each individual emission unit.

Existing Approvals

The source was issued FESOP No. F127-17726-00037 on March 1, 2004. The source has since received the following:

- (a) First Administrative Amendment No. 127-18873-00037, issued on April 30, 2004.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that this significant permit revision to the FESOP be approved. This recommendation is based on the following facts and conditions:

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

An application for the purposes of this review was received on August 2, 2004. Additional information was received on September 1, 2004.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (Appendix A, pages 1 and 2). Emission calculations reflect the increase in VOC emissions due to the lower control efficiency of the thermal oxidizer. The total increase in VOC emissions from the thermal oxidizer is 0.509 tons per year (increase from 0.06 to 0.569 tons per year). In order to offset this increase in VOC emissions, the annual binder usage for the No Bake Foundry has been reduced to 106,720 from 110,500 pounds per year. This decreases VOC emissions by 0.512 tons per year, thus, off-setting the VOC emission increase from the thermal oxidizer. The source wide VOC emissions remain unchanged at 24.20 tons per year (*24.13 tons per year originally in the FESOP 127-17726, issued on March 1, 2004 + 0.07 tons per year added because of addition of insignificant activities through an AA 127-18873, issued on April 30, 2004*).

Potential To Emit of the Revision

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

This table reflects the PTE for the thermal oxidizer at the modified control efficiency of 99%.

Pollutant	Potential To Emit (tons/year)
PM	0.00
PM-10	0.00
SO ₂	0.00
VOC	0.569
CO	0.00
NO _x	0.00

Justification for Revision

The FESOP is being revised through a Significant Permit Revision pursuant to 326 IAC IAC 2-8-11.1(g)(3), since the modification requires an adjustment to the emissions cap limitations and changes existing requirements for the units or processes under the emissions cap.

Potential to Emit of Source After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls after the proposed revision. The strike and bold indicates the proposed changes in emission limits.

Process/emission unit	Potential to Emit After Issuance (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Unit A (No Bake Foundry Sand Handling System)	30.53	30.53	--	6.41 3.525 (6.41-2.76-0.125)	--	--	0.90 (single) 1.34 (total)
Unit A (Mold washing) ⁽²⁾	--	--	--	2.76	--	--	--
Unit B (No Bake Foundry Melting/Pouring Equipment)	12.74	12.74	0.03	41.33 10.943 (11.33-0.387)	2.06	0.01	0.68 (single) 5.87 (total)
Unit C (No Bake Foundry: Thermal Sand Reclamation Unit)	11.25	11.25	--	0.06 0.569 (0.06+0.509)	--	--	negl.
Unit D (Green Sand Foundry Sand Handling System)	18.44	18.44	--	0.06	--	--	negl.
Unit E (Green Sand Foundry Melting/Pouring Equipment)	8.01	8.01	--	--	--	--	negl.
Unit P (Plasma Cutting)	18.0	18.0	--	--	--	--	1.07 (single) 2.05 (total)
Insignificant Activities * ⁽¹⁾	0.83 0.84	0.98 1.00	0.02	6.27 6.34	2.25 2.53	2.68 3.01	0.33 (single) 1.22 (total)
Total PTE After Issuance	99.80 99.81	99.95 99.97	0.05	24.13 24.20	4.31 4.59	2.69 3.02	1.20 (single) 10.49 (total)

Note: PM and PM10 emission limits for Units B through P are based on 326 IAC 6-3-2 allowables, while the PM and PM10 emission limit for Unit A consists of the remaining FESOP PM10 allowable to reach the 100 tons per year limit.

* Insignificant activities consist of natural gas combustion operations, Grinding and Laser cutting operations, Investment Cast foundry operation and Immersion cleaning operation.

(1) Insignificant activities reflect the emissions from insignificant units added under AA 127-18873-00037, issued on April 30, 2004.

(2) Unit A also consists of mold washing operation which was previously lumped in Unit A emissions row with total VOC emissions of 6.41 tons per year. However, in order to clarify, VOC emissions of 2.76 tons per year from mold washing operation have been subtracted from 6.41 tons per year and a new row has been inserted for moldwashing operation.

County Attainment Status

The source is located in Porter County.

Pollutant	Status
PM-10	Attainment
SO ₂	Attainment
NO ₂	Attainment
1-hour Ozone	Severe non-attainment
8-hour Ozone	Moderate non-attainment
CO	Attainment
Lead	Attainment

(a) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone.

(1) On January 26, 1996 in 40 CFR 52.777(i), the U.S. EPA granted a waiver of the requirements of Section 182(f) of the CAA for Lake and Porter Counties, including the lower NOx threshold for nonattainment new source review. Therefore, VOC emissions alone are considered when evaluating the rule applicability relating to the 1-hour ozone standards. Porter County has been designated as nonattainment in Indiana for the 1-hour ozone standard. Therefore, VOC emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3. See the State Rule Applicability for the source section.

(2) VOC and NOx emissions are considered when evaluating the rule applicability relating to the 8-hour ozone standard. Porter County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for nonattainment new source review.

(b) Porter County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants.

Source Status

Existing Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/yr)
PM	99.81
PM-10	99.97
SO ₂	0.05
VOC	24.20
CO	4.59
NO _x	3.02
Single HAP	< 10.0
Combination HAPs	< 25.0

- (a) This existing source is not a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater, no nonattainment pollutant is emitted at a rate of 25 tons per year or greater, and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2 and 2-3, the PSD and Emission Offset requirements do not apply.
- (b) These emissions are based upon the TSD for FESOP No. 127-17726-00037, issued on March 1, 2004 and AA No. 127-18873-00037, issued on April 30, 2004.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) applicable to this permit revision.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14, 20 and 40 CFR Part 61, 63) applicable to this permit revision.
- (c) The requirements of 40 CFR Part 64, Compliance Assurance Monitoring, are not applicable to this modification or to this source. Such requirements apply to a pollutant-specific emissions unit (PSEU), as defined in 40 CFR 64.1, at a major source that is required to obtain a Part 70 or 71 permit if the PSEU meets the following criteria:
 - (1) the unit is subject to an emission limitation or standard for an applicable regulated air pollutant,
 - (2) the unit uses a control device as defined in 40 CFR 64.1 to comply with that emission limitation or standard, and
 - (3) the unit has a potential to emit (PTE) before controls equal to or greater than 100 percent of the amount (tons per year) of the pollutant required for a source to be classified as a Part 70 major source.

This source is a FESOP source and is not a major Part 70 source. Therefore, the requirements of 40 CFR 64, Compliance Assurance Monitoring, are not applicable to this modification or to this source.

State Rule Applicability – Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) and 326 IAC 2-3 (Emission Offset)
This modification to an existing minor stationary source, which was initially constructed in 1990 after the August 7, 1977 rule applicability date, is not major because the source, which is not one of the 28 listed source categories, does not have the potential to emit of 25 tons per year or more of VOC and 100 tons per year or more of any other criteria pollutant after enforceable controls and limitations. The source will continue to be both a FESOP and minor stationary source after this modification with VOC emissions limited to less than 25 tons per year, and all other criteria pollutants to less than 100 tons per year. Therefore, the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) do not apply.

326 IAC 2-6 (Emission Reporting)

This source is located in Porter County and the potential to emit of VOC is less than 25 tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 2-8-4 (FESOP)

Pursuant to this rule, and after approval of this significant permit revision, the emissions of PM and PM10 shall continue to be limited to less than one hundred (100) tons per year; VOC, single HAP and combined HAPs emissions shall continue to be limited to less than 25, 10 and 25 tons per year, respectively. The source shall comply with the respective PM, PM10, and VOC requirements of Conditions D.1.6, D.1.7 and D.1.8, revised as shown in Proposed Changes to the Federally Enforceable State Operating Permit located at the end of this document.

326 IAC 5-1 (Opacity Limitations)

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

- (a) Opacity shall not exceed an average of 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.

State Rule Applicability – Individual Facilities

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

This modification is not subject to 326 IAC 2-4.1-1 (New Source Toxics Control). This source does not have the potential to emit of 10 tons per year of any HAP or 25 tons per year of any combination of HAPs. Therefore, the requirements of this rule do not apply to this modification nor to this source.

326 IAC 8-1-6 (New Facilities, General Reduction Requirements)

The potential VOC emissions from this revision are below the twenty-five (25) tons per year applicability threshold. Therefore, the rule 326 IAC 8-1-6, does not apply.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also 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.

There are no new compliance monitoring requirements applicable to this source revision.

Proposed Changes to the Federally Enforceable State Operating Permit

The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language appears in **bold**):

1. On April 15, 2004, the United States Environmental Protection Agency (U.S. EPA) named 23 Indiana counties and one partial county nonattainment for the new 8-hour ozone standard. The designations became effective on June 15, 2004. Porter County has been designated as moderate nonattainment for the 8-hour ozone standard. The following has been added to A.1 General Information:

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary no bake and green-sand bronze foundry operations.

Authorized individual:	Plant Manager
Source Address:	2503 Calumet Avenue, Valparaiso, IN 46383
Mailing Address:	2503 Calumet Avenue, Valparaiso, IN 46383
General Source Phone:	(219) 464-4811
SIC Code:	3556
Source Location Status:	Severe nonattainment for 1-hour ozone Moderate nonattainment for 8-hour ozone Unclassified or attainment for all other criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD and Emission Offset and Nonattainment NSR; Minor Source, Section 112 of the Clean Air Act

2. PM and PM10 emission limits have been revised as follows to accommodate the compliance testing of these emission units as explained above in the *Explanation of Permit Revisions*:

D.1.6 Particulate Matter (PM) [326 IAC 2-2]

~~Pursuant to 326 IAC 2-2, †~~The allowable PM emissions from:

- (a) the No Bake Foundry Sand Handling System (Unit A) **and the Green Sand Foundry Sand Handling System (Unit D), both exhausting through S/V-1**, shall not exceed ~~6.97~~ **11.18** pounds per hour, which is equivalent to ~~30.53~~ **48.97** tons per year;
- (b) the No Bake Foundry Melting/Pouring Operations (Unit B) **and the Green Sand Foundry Metal/Pouring Operations (Unit E), both exhausting through S/V-2**, shall not exceed ~~2.94~~ **4.74** pounds per hour, which is equivalent to ~~42.74~~ **20.75** tons per year;
- (c) the Thermal Sand Reclaimer (Unit C (**controlled by thermal oxidizer**)), **exhausting through S/V-3**, shall not exceed 2.57 pounds per hour, which is equivalent to 11.25 tons per year; **and**
- ~~(d) the Green Sand Foundry Sand Handling System (Unit D) shall not exceed 4.21 pounds per hour, which is equivalent to 18.44 tons per year;~~
- ~~(e) the Green Sand Foundry Metal/Pouring Operations (Unit E) shall not exceed 1.83 pounds per hour, which is equivalent to 8.01 tons per year; and~~

- (fd) the Plasma cutting operations (Unit P), **exhausting through S/V-4**, shall not exceed 4.10 pounds per hour, which is equivalent to 18.0 tons per year.

Compliance with these limits shall limit the source's potential to emit of PM to less than 250 tons per twelve (12) consecutive month period and make the requirements of 326 IAC 2-2 (PSD) not applicable.

D.1.7 Particulate Matter Less Than Ten Microns (PM10) [326 IAC 2-8]

Psuant to 326 IAC 2-8 (FESOP) the PM-10 emissions from:

- (a) the No Bake Foundry Sand Handling System (Unit A) **and the Green Sand Foundry Sand Handling System (Unit D), both exhausting through S/V-1**, shall not exceed ~~6.97~~ **11.18** pounds per hour, which is equivalent to ~~30.53~~ **48.97** tons per year;
- (b) the No Bake Foundry Melting/Pouring Operations (Unit B) **and the Green Sand Foundry Metal/Pouring Operations (Unit E), both exhausting through S/V-2**, shall not exceed ~~2.94~~ **4.74** pounds per hour, which is equivalent to ~~42.74~~ **20.75** tons per year;
- (c) the Thermal Sand Reclaimer (Unit C), **exhausting through S/V-3**, shall not exceed 2.57 pounds per hour, which is equivalent to 11.25 tons per year; **and**
- ~~(d) the Green Sand Foundry Sand Handling System (Unit D) shall not exceed 4.21 pounds per hour, which is equivalent to 18.44 tons per year;~~
- ~~(e) the Green Sand Foundry Metal/Pouring Operations (Unit E) shall not exceed 1.83 pounds per hour, which is equivalent to 8.04 tons per year; and~~
- (fd) the Plasma cutting operations (Unit P), **exhausting through S/V-4**, shall not exceed 4.10 pounds per hour, which is equivalent to 18.0 tons per year.

Compliance with these requirements shall limit the source wide potential to emit PM-10 to less than 100 tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 do not apply.

3. As explained above in the *Explanation of Permit Revisions*, the annual binder usage in the No Bake Foundry and the VOC control efficiency of the thermal oxidizer has been revised as follows:

D.1.8 Volatile Organic Compounds (VOCs) [326 IAC 8-1-6][326 IAC 2-3][326 IAC 2-8]

- (a) The total binder usage in No Bake Foundry shall be limited to ~~440,500~~ **106,720** pounds per twelve (12) consecutive month period with compliance determined at the end of each month (equivalent to VOC emissions factor of 0.066 lb VOC/lb binder and 0.205 lb VOC/lb binder for emission Units A and B, respectively). This is equivalent to VOC emissions of ~~3.65~~ **3.525** and ~~44.33~~ **10.943** tons per year from emission Units A and B, respectively.
- (b) The VOC emissions from the Thermal Sand Reclaimer (Unit C) shall not exceed ~~0.06~~ **0.569** tons per year based on control by the Thermal Oxidizer (PCU-3) with overall VOC control efficiency of ~~99.9%~~ **99.0%**.

The binder usage limit and the controlled VOC emissions limits yield total VOC emissions from the No Bake Foundry (Sand Handling System (Unit A), Induction Furnace, Pouring, Casting & Cooling (Unit B), and Thermal Sand Reclaimer (Unit C)) that are less than 25 tons per year. Therefore, the requirements of 326 IAC 8-1-6 (New Facilities, General Reduction Requirements), 326 IAC 2-3 (Emission Offset) and 326 IAC 2-2 (Part 70) do not apply.

4. The compliance testing date has been revised to November 30, 2004 as explained above in the *Explanation of Permit Revisions*

D.1.10 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

- (a) ~~During the period within 180 days after issuance of this permit~~ **No later than November 30, 2004**, in order to demonstrate compliance with Conditions D.1.5, D.1.6 and D.1.7, the Permittee shall perform PM and PM-10 testing on the baghouse (PCU-1) controlling the particulate emissions from No Bake Foundry Sand Handling System (Unit A) and Green Sand Foundry Sand Handling System (Unit D) which exhaust through stack S/V-1, 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. PM-10 includes filterable and condensable PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.
- (b) ~~During the period within 180 after issuance of this permit~~ **No later than November 30, 2004**, the Permittee shall perform VOC testing for the VOC capture system and the natural gas fired thermal oxidizer (PCU-3) utilizing sampling and analyses of the input and output sand streams for total combustible organics and discharge gas sampling for VOC utilizing Methods 25 (40 CFR 60, Appendix A) for VOC, or other methods as approved by the Commissioner. This test shall be performed to establish the minimum duct pressure or fan amperage, and the minimum operating temperature to demonstrate compliance with the capture and control efficiencies in condition D.1.8. The overall capture and control efficiency will be determined by mass balance calculations using the test results. 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.

5. Telephone and Facsimile numbers of IDEM Northwest Regional Office have been updated in Condition B.13.

B.13 Emergency Provisions [326 IAC 2-8-12]

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section) or,
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967
Telephone No.: 219-~~884757-6742~~**0265** (IDEM Northwest Regional Office)
Facsimile No.: 219-~~884757-6745~~**0267** (IDEM Northwest Regional Office)

6. Condition B.22(c) has been revised to reflect the correct name of the section.

B.22 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) 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, ~~IM & Billing~~, **Licensing, and Training** Section), to determine the appropriate permit fee.

7. FESOP Quarterly Report has been revised as well to reflect the above changes.

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

FESOP Quarterly Report

Source Name: Urschel Laboratories Incorporated
Source Address: 2503 Calumet Avenue, Valparaiso, IN 46383
Mailing Address: 2503 Calumet Avenue, Valparaiso, IN 46383
FESOP No.: F127-17726-00037
Facility: No Bake Foundry (Unit A and Unit B)
Parameter: Binder Usage (VOC Emissions)
Limit: The total binder usage in No Bake Foundry shall be limited to ~~440,500~~ **106,720** pounds per twelve (12) consecutive month period with compliance determined at the end of each month. This is equivalent to VOC emissions of ~~3.65~~ **3.525** and ~~44.33~~ **10.943** tons per year from emission Units A and B, respectively.

Conclusion

The operation of this revision to this existing bronze and stainless steel and no bake foundry operation shall be subject to the conditions of the attached proposed Significant Permit Revision No. 127-19760-00037.

**Appendix A: Emissions Calculations
N0-Bake Foundry**

**Company Name: Urschel Laboratories Incorporated
Address City IN Zip: 2503 Calumet Avenue, Valparaiso, Indiana 46384
SPR No.: 127-19760-00037
Reviewer: Adeel Yousuf / EVP
Date: 10/07/04**

Thermal Sand Reclamation (C)

Maximum spent Sand Throughput rate (lb/hr):	1000	
Maximum VOC content of spend Sand (%):	1.3	
Control Efficiency of the Thermal Oxidizer (%):	99.9	99% (new control efficiency of the Thermal Oxidizer)

Pollutant	Uncontrolled Potential Emissions (ton/yr)	Old Controlled Potential Emissions (tons/yr)	New Controlled Potential Emissions (tons/yr)	Increase in VOC Emissions Due to Lower Control Efficiency (ton/yr)
VOC	56.94	0.06	0.569	0.509

Methodology:

Uncontrolled Potential Emissions (ton/yr) = Maximum Throughput (lb/yr) x Emission Factor (%) x 1 ton / 2000 lbs x 8760 hours/yr

Controlled Potential Emissions (ton/yr) = Maximum Throughput (lb/yr) x Emission Factor (%) x 1 ton / 2000 lbs x 8760 hours/yr (1-Control Efficiency)

**Appendix A: Emissions Calculations
No-Bake Foundry**

**Company Name: Urschel Laboratories Incorporated
Address City IN Zip: 2503 Calumet Avenue, Valparaiso, Indiana 46384
SPR No.: 127-19760-00037
Reviewer: Adeel Yousuf / EVP
Date: 10/07/04**

Volatile Organic Compounds (VOC) Emissions From New No Bake Foundry

1. Sand Mixing, Moldmaking, Coremaking, Mold/Core Storage (A)

Pollutant	Emission Factor (lb VOC/ lb binder) *	Maximum Throughput (lb binder/yr)	Uncontrolled Potential Emissions (ton/yr)	Old Limited Throughput (lb binder/yr)	New Limited Throughput (lb binder/yr)	Old Controlled Potential Emissions (tons/yr)	New Controlled Potential Emissions (tons/yr)	Decrease in VOC Emissions due to Decrease in Annual Binder Usage (ton/yr)
VOC	0.066	588,672	19.43	440,500	106,720	3.65	3.522	-0.125

Notes:

* VOC emission factors are based on the results of testing performed by the Ohio Cast Metals Association (OCMA) reported in "Technical and Economic Feasibility Study for Control of VOCs from Phenolic Urethane Cold Box and No Bake Core - and Mold - Making Operations in Foundries", RMT Inc. April 1998.

Methodology:

Emissions (ton/yr) = Maximum Throughput (lb binder/yr) x Emission Factor (lb VOC/lb binder) x 1 ton / 2000 lbs.

2. Pouring, Cooling and Shakeout (B)

Pollutant	Emission Factor (lb VOC/ lb binder) *	Maximum Throughput (lb binder/yr)	Uncontrolled Potential Emissions (ton/yr)	Old Limited Throughput (lb binder/yr)	New Limited Throughput (lb binder/yr)	Old Controlled Potential Emissions (tons/yr)	New Controlled Potential Emissions (tons/yr)	Decrease in VOC Emissions due to Decrease in Annual Binder Usage (ton/yr)
VOC	0.205	588,672	60.34	440,500	106,720	44.33	10.939	-0.387

Notes:

* VOC emission factors are based on the results of testing conducted by the Casting Emissions Reduction Program (CERP) reported in "Phenolic Urethane/Iron No-Bake Baseline Emission Test", Technikon LLC, April 10, 2003.

Methodology:

Emissions (ton/yr) = Maximum Throughput (lb binder/yr) x Emission Factor (lb VOC/lb binder) x 1 ton / 2000 lbs.