



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

TO: Interested Parties / Applicant
DATE: January 30, 2014
RE: Urschel Laboratories, Inc. / 127-33753-00037
FROM: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, 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, Suite N 501E, 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 6/13/13



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Ms. Jennifer Brooks
Urschel Laboratories, Inc.
2503 Calumet Avenue
Valparaiso, IN 46383

January 30, 2014

Re: 127-33753-00037
First Significant Revision to
F127-26605-00037

Dear Ms. Brooks:

Urschel Laboratories, Inc. was issued a Federally Enforceable State Operating Permit (FESOP) Renewal No. F127-26605-00037 on November 20, 2008 for a stationary no bake and green-sand bronze and stainless steel foundry that manufactures food processing equipment located at 2503 Calumet Avenue, Valparaiso, Indiana. On October 4, 2013, the Office of Air Quality (OAQ) received an application from the source requesting to construct and operate one (1) electric induction bronze melting furnace, which will be equipped with two (2) crucibles, in the existing no bake foundry. The attached Technical Support Document (TSD) provides additional explanation of the changes to the source/permit. Pursuant to the provisions of 326 IAC 2-8-11.1, these changes to the permit are required to be reviewed in accordance with the Significant Permit Revision (SPR) procedures of 326 IAC 2-8-11.1(f). Pursuant to the provisions of 326 IAC 2-8-11.1, a significant permit revision to this permit is hereby approved as described in the attached Technical Support Document (TSD).

The following construction conditions are applicable to the proposed project:

1. General Construction Conditions
The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
2. This approval 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.
3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the significant permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Attached please find the entire revised permit.

Urschel Laboratories, Inc.
Valparaiso, Indiana
Permit Reviewer: Brian Williams

Page 2 of 2
FESOP SPR No. 127-33753-00037

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5.
If you have any questions on this matter, please contact Brian Williams of my staff at 317-234-5375 or 1-800-451-6027, and ask for extension 4-5375.

Sincerely,



Iryn Calilung, Section Chief
Permits Branch
Office of Air Quality

Attachments: Technical Support Document and revised permit

IC/BMW

cc: File - Porter County
Porter County Health Department
U.S. EPA, Region V
Compliance and Enforcement Branch



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Federally Enforceable State Operating Permit
Renewal
OFFICE OF AIR QUALITY

Urschel Laboratories, Inc.
2503 Calumet Avenue
Valparaiso, Indiana 46383

(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. 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.

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.

Table with 2 columns: Issued by (Iryn Calilung, Section Chief, Permits Branch, Office of Air Quality) and Issuance/Expiration Dates (November 20, 2008 / November 20, 2018). Operation Permit No.: F127-26605-00037

Table with 2 columns: Issued by (Iryn Calilung, Section Chief, Permits Branch, Office of Air Quality, with signature) and Issuance/Expiration Dates (January 30, 2014 / November 20, 2018). Significant Permit Revision No.: 127-33753-00037

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 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 and stainless steel foundry that manufactures food processing equipment.

Source Address:	2503 Calumet Avenue, Valparaiso, Indiana 46383
General Source Phone Number:	219-464-4811
SIC Code:	3366 (Copper Foundries), 3325 (Steel Foundries, Not Elsewhere Classified), 3556 (Food Products Machinery), and 3324 (Steel Investment Foundry)
County Location:	Porter
Source Location Status:	Nonattainment for 8-hour ozone standard Attainment for all other criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

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) No Bake Foundry operation installed in 2003 and approved for modification in 2014, 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 process weight rate of 5.04 tons of sand per hour, and maximum binder usage of 588,672 pounds per year, particulate emissions controlled by a Sand Handling Baghouse PCU-1 and exhausting to S/V-1.
 - (2) One (1) Electric induction melting furnace, identified as Unit B, pouring, casting and cooling operation with maximum charge capacity of 0.6 ton of metals per hour and maximum process weight rate of binder usage of 26 lbs/ton of sand, with particulate emissions controlled by a baghouse PCU-2 and exhausting to S/V-2.

Under 40 CFR 63, Subpart ZZZZZ, this emission unit is considered an affected facility.
 - (3) One (1) electric induction bronze melting furnace, equipped with two (2) crucibles, identified as NBF-12A&B, approved for construction in 2014, with a maximum charge capacity of 0.45 tons of bronze per hour, with particulate emissions controlled by a baghouse PCU-2 and exhausting to S/V-2.

Note: The electric induction melting furnace, identified as Unit B and the electric induction bronze melting furnace, identified as NBF-12A&B cannot operate at the

same time.

- (4) 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 process weight rate of 1000 lbs sand per hour, equipped with a baghouse PCU-4 and exhausting to S/V-3.

Under 40 CFR 60, Subpart UUU, this emission unit is considered an affected facility.

- (b) 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 of sand per day and particulate emissions controlled by a Sand Handling Baghouse PCU-1 and exhausting to S/V-1.
- (2) One (1) Electric induction melting furnace, identified as Unit E, pouring, casting and cooling operation 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.

Under 40 CFR 63, Subpart ZZZZZ, this emission unit is considered an affected facility.

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:

- (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 capacity of 0.75 MMBtu/hr.
 - (7) One (1) natural gas fired Pacific Kiln, identified as K-1, constructed in 2008, with a maximum heat input rate of 1.3 MMBtu/hr.

- (b) Activities with emissions below insignificant thresholds (i.e. VOC emission less than 3 lb/hr and particulate emission less than 5 lb/hr):
 - (1) One (1) stainless steel foundry, identified as Unit K, employing the investment casting process (melting furnace and pouring operation only), with maximum metal charge capacity of 310 pounds per hour.

Under 40 CFR 63, Subpart ZZZZZ, this emission unit is considered an affected facility.
 - (2) Immersion Cleaning of Machine Parts, identified as Unit G, using 41,793 pounds per year of solution containing 100% VOC content. [326 IAC 8-3-2]
 - (3) One (1) CO₂ laser cutting operation, constructed in 2007, with a maximum cutting rate of 600 inches per hour (equivalent to a process rate of 1.0 ton per hour) and exhausting to S/V 4.
 - (4) One (1) surface coating operation identified as pattern shop finishing room, coating mold impressions and exhausting to S/V-5.
 - (5) Spray booth for impeller repair.
- (c) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing, polishing, abrasive blasting; pneumatic conveying; and woodworking operations.
 - (1) Frame grinding operation identified as Unit N. [326 IAC 6-3-2]
- (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]
 - (4) One (1) Plasma cutting torch identified as unit P-1. [326 IAC 6-3-2]
- (e) Furnaces used for melting metals other than beryllium with a brim full capacity of less than or equal to 450 cubic inches by volume.
- (f) 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.
- (g) A laboratory as defined in 326 IAC 2-7-1(21)(D).
- (h) Machining where an aqueous cutting coolant continuously floods the machining interface.

- (i) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (j) Paved and unpaved roads and parking lots with public access.

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) to renew a Federally Enforceable State Operating Permit (FESOP).

SECTION B GENERAL CONDITIONS

B.1 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.2 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

-
- (a) This permit, F127-26605-00037, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

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

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

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

B.4 Enforceability [326 IAC 2-8-6] [IC 13-17-12]

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

B.5 Severability [326 IAC 2-8-4(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.6 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.7 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. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

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

- (a) A certification required by this permit meets the requirements of 326 IAC 2-8-5(a)(1) if:
- (1) it contains a certification by an "authorized individual", as defined by 326 IAC 2-1.1-1(1), and
 - (2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

B.9 Annual 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. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than April 15 of each year to:
- Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- (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, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.10 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.11 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)]

(a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:

- (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.

The Permittee shall implement the PMPs.

(b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, 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:

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The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

The Permittee shall implement the PMPs.

(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. The

PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "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.12 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 describe the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ or 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 Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865
Northwest Regional Office phone: (219) 464-0233; fax: (219) 464-0553.

- (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 and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
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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 a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "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) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(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.

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

- (a) All terms and conditions of permits established prior to F127-26605-00037 and issued pursuant to permitting programs approved into the state implementation plan have been either:
- (1) incorporated as originally stated,
 - (2) revised, or
 - (3) deleted.
- (b) All previous registrations and permits are superseded by this permit.

B.14 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.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 Federally Enforceable State Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "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(42). The renewal application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
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- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 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, pursuant to 326 IAC 2-8-3(g), in writing by IDEM, OAQ any additional information identified as being 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
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
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Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "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.18 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) and (c) without a prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

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

and

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

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

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15(b)(1) and (c). The Permittee shall make such records available, upon reasonable request, for public review.

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

(b) **Emission Trades [326 IAC 2-8-15(b)]**
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(b).

(c) **Alternative Operating Scenarios [326 IAC 2-8-15(c)]**
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.

(d) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.19 Source Modification Requirement [326 IAC 2-8-11.1]

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

B.20 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

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

- (a) Enter upon the Permittee's premises where a 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
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "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 no later than 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, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.23 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [326 IAC 1-1-6]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

C.2 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;
- (2) The potential to emit any regulated pollutant from the entire source, except particulate matter (PM), volatile organic compounds (VOCs), and greenhouse gases (GHGs) 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.
- (5) The potential to emit greenhouse gases (GHGs) from the entire source shall be limited to less than one hundred thousand (100,000) tons of CO₂ equivalent emissions (CO₂e) per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-2 (PSD), potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) 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 5-1-1 (Applicability) and 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]

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

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 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.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
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Licensed 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 Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.

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

C.9 Performance Testing [326 IAC 3-6]

- (a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
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Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "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)]

- (a) For new units:
Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units shall be implemented on and after the date of initial start-up.
- (b) For existing units:
Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance to begin such monitoring. If, due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance, 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 and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

C.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]

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

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

C.13 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.14 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

- (a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:
 - (1) initial inspection and evaluation;
 - (2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system);
or
 - (3) any necessary follow-up actions to return operation to normal or usual manner of operation.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
 - (1) monitoring results;
 - (2) review of operation and maintenance procedures and records; and/or
 - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall record the reasonable response steps taken.

C.15 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 submit a description of its response actions to IDEM, OAQ no later than seventy-five (75) days after the date of the test.
- (b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) 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 a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

C.16 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. Support information includes the following, where applicable:
 - (AA) All calibration and maintenance records.
 - (BB) All original strip chart recordings for continuous monitoring instrumentation.
 - (CC) Copies of all reports required by the FESOP.Records of required monitoring information include the following, where applicable:
 - (AA) The date, place, as defined in this permit, and time of sampling or measurements.
 - (BB) The dates analyses were performed.
 - (CC) The company or entity that performed the analyses.
 - (DD) The analytical techniques or methods used.
 - (EE) The results of such analyses.
 - (FF) The operating conditions as existing at the time of sampling or measurement.

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, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

C.17 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. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.
- (b) The address for report submittal is:
- Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

Stratospheric Ozone Protection

C.18 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 applicable standards for recycling and emissions reduction.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) One (1) No Bake Foundry operation, installed in 2003 and approved for modification in 2014, 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 process weight rate of 5.04 tons of sand per hour, and maximum binder usage of 588,672 pounds per year, particulate emissions controlled by a Sand Handling Baghouse PCU-1 and exhausting to S/V-1.

(2) One (1) Electric induction melting furnace, identified as Unit B, pouring, casting and cooling operation with maximum charge capacity of 0.6 ton of metals per hour and maximum process weight rate of binder usage of 26 lbs/ton of sand, with particulate emissions controlled by a baghouse PCU-2 and exhausting to S/V-2.

Under 40 CFR 63, Subpart ZZZZZ, this emission unit is considered an affected facility.

(3) One (1) electric induction bronze melting furnace, equipped with two (2) crucibles, identified as NBF-12A&B, approved for construction in 2014, with a maximum charge capacity of 0.45 tons of bronze per hour, with particulate emissions controlled by a baghouse PCU-2 and exhausting to S/V-2.

Note: The electric induction melting furnace, identified as Unit B and the electric induction bronze melting furnace, identified as NBF-12A&B cannot operate at the same time.

(4) 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 process weight rate of 1000 lbs sand per hour, equipped with a baghouse PCU-4 and exhausting to S/V-3.

Under 40 CFR 60, Subpart UUU, this emission unit is considered an affected facility.

(b) 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 of sand per day and particulate emissions controlled by a Sand Handling Baghouse PCU-1 and exhausting to S/V-1.

(2) One (1) Electric induction melting furnace, identified as Unit E, pouring, casting and cooling operation 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.

Under 40 CFR 63, Subpart ZZZZZ, this emission unit is considered an affected facility.

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

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

D.1.1 Particulate Matter (PM) [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 not applicable, the PM emission rates from the emission units listed below shall be limited as follows:

- (a) the No Bake Foundry Sand Handling System (Unit A) shall not exceed 10.0 pounds of PM per hour.
- (b) the No Bake Foundry Melting/Pouring Operations (Unit B and NBF-12A&B) shall not exceed 2.91 pounds of PM per hour.
- (c) the Thermal Sand Reclaimer (Unit C (controlled by thermal oxidizer)) shall not exceed 2.57 pounds of PM per hour.
- (d) the Green Sand Foundry Sand Handling System (Unit D) shall not exceed 4.21 pounds of PM per hour.
- (e) the Green Sand Foundry Metal/Pouring Operations (Unit E) shall not exceed 1.83 pounds of PM per hour.

Compliance with these limits, combined with the potential to emit PM from all other emission units at this source, shall limit the source-wide potential to emit of PM to less than 250 tons per twelve (12) consecutive month period, and render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

D.1.2 Particulate Matter Less Than Ten Microns (PM10) [326 IAC 2-8-4] [326 IAC 2-2]

Pursuant to 326 IAC 2-8-4 (FESOP), the PM10 emission rates from the emission units listed below shall be limited as follows:

- (a) the No Bake Foundry Sand Handling System (Unit A) shall not exceed 10.0 pounds of PM10 per hour.
- (b) the No Bake Foundry Melting/Pouring Operations (Unit B and NBF-12A&B) shall not exceed 2.91 pounds of PM10 per hour.
- (c) the Thermal Sand Reclaimer (Unit C (controlled by thermal oxidizer)) shall not exceed 2.57 pounds of PM10 per hour.
- (d) the Green Sand Foundry Sand Handling System (Unit D) shall not exceed 4.21 pounds of PM10 per hour.
- (e) the Green Sand Foundry Metal/Pouring Operations (Unit E) shall not exceed 1.83 pounds of PM10 per hour.

Compliance with these limits, combined with the potential to emit PM-10 from all other emission units at this source, shall limit the source-wide potential to emit PM-10 to less than 100 tons per twelve (12) consecutive month period, and render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-7 (Part 70) not applicable.

D.1.3 Particulate Matter Less Than Two and a half Microns (PM2.5) [326 IAC 2-8-4] [326 IAC 2-2]

Pursuant to 326 IAC 2-8-4 (FESOP), the PM2.5 emission rates from the emission units listed below shall be limited as follows:

- (a) the No Bake Foundry Sand Handling System (Unit A) shall not exceed 10.0 pounds of PM2.5 per hour.
- (b) the No Bake Foundry Melting/Pouring Operations (Unit B and NBF-12A&B) shall not exceed 2.91 pounds of PM2.5 per hour.
- (c) the Thermal Sand Reclaimer (Unit C (controlled by thermal oxidizer)) shall not exceed 2.57 pounds of PM2.5 per hour.
- (d) the Green Sand Foundry Sand Handling System (Unit D) shall not exceed 4.21 pounds of PM2.5 per hour.
- (e) the Green Sand Foundry Metal/Pouring Operations (Unit E) shall not exceed 1.83 pounds of PM2.5 per hour.

Compliance with these limits, combined with the potential to emit PM2.5 from all other emission units at this source, shall limit the source-wide potential to emit of PM2.5 to less than 100 tons per twelve (12) consecutive month period and render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-7 (Part 70) not applicable.

D.1.4 Particulate [326 IAC 6-3]

Pursuant to 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing processes), the allowable particulate emissions from the emission units listed in the table shall be limited by the following:

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

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 Rate (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 NBF-12A&B (No Bake Foundry Melting)	0.45	2.40
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

D.1.5 Copper Foundry Limitation [40 CFR 63, Subpart ZZZZZZ] [326 IAC 20]

In order to render 40 CFR 63, Subpart ZZZZZZ (National Emission Standards for Hazardous Air Pollutants (NESHAPs): Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries) not applicable, the total combined copper and copper-based alloys melt throughput of the three (3) electric induction furnaces (Unit B, NBF-12A&B, and Unit E) shall be less than 600 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with this limit shall render the requirements of 40 CFR 63, Subpart ZZZZZZ (6Z) (National Emission Standards for Hazardous Air Pollutants (NESHAPs): Area Source Standards for Aluminum, Copper not applicable.

D.1.6 Volatile Organic Compounds (VOCs) [326 IAC 2-3][326 IAC 8-1-6] [326 IAC 2-8-4]

Pursuant to 326 IAC 2-8-4, the Permittee shall limit the VOC emissions from the emission units A, B and C as follows:

- (a) The amount of total binder usage in the No Bake Foundry, Sand handling Unit A and Electric Induction melting furnace, pouring, casting and cooling operation Unit B combined shall not exceed 106,720 pounds per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) The VOC emissions from the No bake Foundry, Sand handling Unit A shall not exceed 0.066 lb VOC/ lb of binder.
- (c) The VOC emissions from the No bake Foundry, Electric Induction melting furnace, pouring, casting and cooling operation Unit B shall not exceed 0.205 VOC/ lb of binder.
- (d) The total input of VOC from the use of mold wash in the No bake Foundry (Unit A) shall not exceed 2.76 tons of per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (e) 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%.

Compliance with these limits, combined with the potential to emit VOC from all other emission units at this source, shall limit the source-wide potential to emit VOC to less than 25 tons per year, and render the requirements of 326 IAC 2-3 (Emission Offset), 326 IAC 2-7 (Part 70), and 326 IAC 8-1-6 (New Facilities, General Reduction Requirements) not applicable.

D.1.7 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan is required for these facilities and any control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.1.8 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

- (a) In order to demonstrate compliance with Conditions D.1.1, D.1.2, D.1.3, and D.1.4 the Permittee shall perform PM, PM10, and PM2.5 testing for 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, at least once every five (5) years from the date of the most recent valid compliance demonstration. This testing shall be conducted utilizing methods approved by the Commissioner and shall be conducted in accordance with the provisions of 326

IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM10 and PM2.5 includes filterable and condensable PM10 and PM2.5.

- (b) In order to demonstrate compliance with Condition D.1.6(e) 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 the fan amperage, and the minimum operating temperature to demonstrate compliance with the overall VOC control efficiency in Condition D.1.6(e). The overall capture and control efficiency will be determined by mass balance calculations using the test results. This test shall be repeated no less than once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.
- (c) The Permittee shall perform a one-time performance test to verify the uncontrolled PM, PM10, and PM2.5 emissions from the electric induction bronze melting furnace, identified as NBF-12A&B, no later than sixty (60) days after achieving maximum capacity, but not later than one hundred eighty (180) days after initial startup utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM10 and PM2.5 includes filterable and condensable PM10 and PM2.5.

D.1.9 Particulate Control

- (a) In order to comply with conditions D.1.1(a)(d), D.1.2(a)(d), D.1.3(a)(d) and D.1.4, the baghouse 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.
- (b) In order to comply with Conditions D.1.1(b) and (e), D.1.2(b) and (e), D.1.3(b) and (e), and D.1.4, 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 and NBF-12A&B) or the Green Sand Foundry (Unit E).
- (c) In order to comply with conditions D.1.1(c), D.1.2(c), D.1.3(c) and 1.4, the baghouse identified as PCU-4 shall be in operation when the Thermal Sand Reclaimer (Unit C) is in operation.
- (d) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.1.10 VOC and HAPs Control

In order to comply with Condition D.1.6(d), 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.

D.1.11 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-4]

Compliance with the VOC input limit contained in Condition D.1.6(c) shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

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

D.1.12 Thermal Oxidizer Temperature

- (a) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizer for measuring operating temperature. For the purpose of this condition, continuous means no less often than once every fifteen (15) minutes. The output of this system shall be recorded as 3-hour average. The Permittee shall maintain the thermal oxidizer at or above 1,200°F or the three (3) hour average temperature established during the most recent valid stack test. The Permittee shall take appropriate response whenever the temperature of the thermal oxidizer is below 1,200°F or the three (3) hour average established during the most recent valid stack test. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A three (3) hour average temperature that is below the minimum established during the latest stack test is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.
- (b) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with the limits in Condition D.1.6.
- (c) On and after the date the stack test results are available, the Permittee shall operate the thermal oxidizer at or above the 3-hour average temperature as observed during the compliant stack test. A 3-hour average temperature that is below the 3-hour average temperature as observed during the compliant stack test is not a deviation from this permit. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.1.13 Parametric Monitoring

- (a) The Permittee shall determine the fan amperage or the duct pressure from the most recent valid stack test that demonstrates compliance with limits in condition D.1.6.
- (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 is less than the range of 0.05 and 0.65 inches of water as established by the latest stack test, the permittee shall take reasonable response.

A pressure drop that is below the above mentioned minimum is not a deviation from this permit. Section C- Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.1.14 Visible Emissions Notations

- (a) Visible emission notations of the baghouses (PCU-1, PCU-2, and PCU-4) stack exhausts shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response. Section C- Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.1.15 Baghouse Parametric Monitoring

The Permittee shall record the pressure drop across each of the baghouses identified as PCU-1, PCU-2, and PCU-4, at least once per day when the systems are in operation. When for any one reading, the pressure drop across the baghouses (PCU-1, PCU-2, and PCU-4) is outside the normal range, the Permittee shall take reasonable response. The normal range for baghouses (PCU-1 and PCU2) is a pressure drop range between 2.0 and 8.0 inches of water unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. The normal range for baghouse (PCU-4) is a pressure drop range between 0.25 and 12.0 inches of water unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. Section C- Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

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

D.1.16 Broken or Failed Bag Detection

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

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

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

D.1.17 Record Keeping Requirements

- (a) To document the compliance status with Condition D.1.5, the Permittee shall keep monthly records of the total combined copper and copper-based alloys melt throughput of the three (3) electric induction furnaces (Unit B, NBF-12A&B, and Unit E).
- (b) To document the compliance status with Condition D.1.6(a)(b)(c), the Permittee shall maintain records of the monthly usage of the binder in No Bake Foundry from Units A and B. Records necessary to demonstrate compliance shall be available ~~with~~ no later than 30 days after the end of each compliance period.
- (c) To document the compliance status with Condition D.1.6(d), the Permittee shall maintain records in accordance with (1) through (4) below. Records necessary to demonstrate compliance shall be available no later than 30 days after the end of each compliance period.
 - (1) The VOC content of each coating material and solvent used.
 - (2) The amount of coating material and solvent less water used on monthly basis.
 - (A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
 - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
 - (3) The total VOC usage for each month.
 - (4) The weight of VOCs emitted for each compliance period.
- (d) To document the compliance status with Condition D1.12, the Permittee shall maintain continuous temperature records (no less often than once per fifteen (15) minutes) for the thermal oxidizer and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test.
- (e) To document compliance with D.1.13, the Permittee shall maintain daily records of the duct pressure or fan amperage.
- (f) To document compliance with Condition D.1.14, the Permittee shall maintain daily records of visible emission notations of the baghouse PCU-1, PCU-2 and PCU-4 stack exhausts. Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation, (i.e. the process did not operate that day).
- (g) To document compliance with Condition D.1.15, the Permittee shall maintain daily records of the pressure drop during normal operation across each of the baghouses, PCU-1, PCU-2 and PCU-4. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (i.e. the process did not operate that day).
- (h) Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

D.1.18 Reporting Requirements

A quarterly summary of the information to document the compliance status with Conditions D.1.5 and D.1.6(a),(b),(c), and (d) shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meet the requirements of 326 IAC 2-8-5(a)(1) by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

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 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 capacity of 0.75 MMBtu/hr.
 - (7) One (1) natural gas fired Pacific Kiln, identified as K-1, constructed in 2008, with a maximum heat input rate of 1.3 MMBtu/hr.
- (b) Activities with emissions below insignificant thresholds (i.e. VOC emission less than 3 lb/hr and particulate emission less than 5 lb/hr):
- (1) One (1) stainless steel foundry, identified as Unit K, employing the investment casting process (melting furnace and pouring operation only), with maximum metal charge capacity of 310 pounds per hour.

Under 40 CFR 63, Subpart ZZZZZ, this emission unit is considered an affected facility.
 - (2) Immersion Cleaning of Machine Parts, identified as Unit G, using 41,793 pounds per year of solution containing 100% VOC content. [326 IAC 8-3-2]
 - (3) One (1) CO₂ laser cutting operation, constructed in 2007, with a maximum cutting rate of 600 inches per hour (equivalent to a process rate of 1.0 ton per hour) and exhausting to S/V 4.
 - (4) One (1) surface coating operation identified as pattern shop finishing room, coating mold impressions and exhausting to S/V-5.
 - (5) Spray booth for impeller repair.
- (c) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic

feet per minute, including the following: deburring; buffing, polishing, abrasive blasting; pneumatic conveying; and woodworking operations.

- (1) Frame grinding operation identified as Unit N. [326 IAC 6-3-2]
- (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]
 - (4) One (1) plasma cutting torch identified as Unit P-1. [326 IAC 6-3-2]
- (e) Furnaces used for melting metals other than beryllium with a brim full capacity of less than or equal to 450 cubic inches by volume.
- (f) 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.
- (g) A laboratory as defined in 326 IAC 2-7-1(21)(D).
- (h) Machining where an aqueous cutting coolant continuously floods the machining interface.
- (i) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (j) Paved and unpaved roads and parking lots with public access.

(The information describing the process contained in this emissions unit 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]

(a) Pursuant to 326 IAC 8-3-2(a), the Permittee shall ensure the following control equipment and operating requirements are met for each of the parts washers:

- (1) Equip the degreaser with a cover.
- (2) Equip the degreaser with a device for draining cleaned parts.
- (3) Close the degreaser cover whenever parts are not being handled in the degreaser.
- (4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases.
- (5) Provide a permanent, conspicuous label that lists the operating requirements in subdivisions (3), (4), (6), and (7).
- (6) Store waste solvent only in closed containers.
- (7) Prohibit the disposal or transfer of waste solvent in such a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.

(b) Pursuant to 326 IAC 8-3-2(b), the Permittee shall ensure the following additional control equipment and operating requirements are met for each of the parts washers:

- (1) Equip the degreaser with one (1) of the following control devices if the solvent is heated to a temperature of greater than forty-eight and nine-tenths (48.9) degrees Celsius (one hundred twenty (120) degrees Fahrenheit):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent used is insoluble in, and heavier than, water.
 - (C) A refrigerated chiller.
 - (D) Carbon adsorption.
 - (E) An alternative system of demonstrated equivalent or better control as those outlined in clauses (A) through (D) that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.

- (2) Ensure the degreaser cover is designed so that it can be easily operated with one (1) hand if the solvent is agitated or heated.
- (3) If used, solvent spray:
 - (A) must be a solid, fluid stream; and
 - (B) shall be applied at a pressure that does not cause excessive splashing.

D.2.4 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One 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 6.5 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:

- (a) 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.
 - (2) Brazing operation booth identified as Unit W.
 - (3) One (1) Plasma cutting torch identified as unit P-1.
- (b) 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.

SECTION E.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) No Bake Foundry operation, installed in 2003 and approved for modification in 2014, consisting of the following:
- (2) One (1) Electric induction melting furnace, identified as Unit B, pouring, casting and cooling operation with maximum charge capacity of 0.6 ton of metals per hour and maximum process weight rate of binder usage of 26 lbs/ton of sand, with particulate emissions controlled by a baghouse PCU-2 and exhausting to S/V-2.
- Under 40 CFR 63, Subpart ZZZZZ, this emission unit is considered an affected facility.
- (b) One (1) Green Sand Foundry operation, installed in 1990, consisting of the following:
- (2) One (1) Electric induction melting furnace, identified as Unit E, pouring, casting and cooling operation 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.
- Under 40 CFR 63, Subpart ZZZZZ, this emission unit is considered an affected facility.

Insignificant Activities

- (b) Activities with emissions below insignificant thresholds (i.e. VOC emission less than 3 lb/hr and particulate emission less than 5 lb/hr):
- (1) One (1) stainless steel foundry, identified as Unit K, employing the investment casting process (melting furnace and pouring operation only), with maximum metal charge capacity of 310 pounds per hour.
- Under 40 CFR 63, Subpart ZZZZZ, this emission unit is considered an affected facility.

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

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 20-1]

E.1.1 General Provisions Relating to NESHAP [40 CFR Part 63, Subpart A] [326 IAC 20-1]

Pursuant to 40 CFR 63, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1, except as otherwise specified in 40 CFR 63, Subpart ZZZZZ.

E.1.2 NESHAP for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources [40 CFR Part 63, Subpart ZZZZZ] [326 IAC 20-1]

The Permittee, which owns and operates an existing iron and steel foundry that is an area source of hazardous air pollutant (HAP) emissions shall comply with the following provisions of 40 CFR Part 63, Subpart ZZZZZ (included as Attachment A of this permit):

- | | | | |
|-----|----------------------------|-----|-----------------|
| (a) | 40 CFR 63.10880 | (f) | 40 CFR 63.10905 |
| (b) | 40 CFR 63.10881(a) and (d) | (g) | 40 CFR 63.10906 |
| (c) | 40 CFR 63.10885 | | |
| (d) | 40 CFR 63.10886 | | |
| (e) | 40 CFR 63.10890 | | |

SECTION E.2

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) No Bake Foundry operation, installed in 2003 and approved for modification in 2014, consisting of the following:
- (4) 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 process weight rate of 1000 lbs sand per hour, equipped with a baghouse PCU-4 and exhausting to S/V-3.

Under 40 CFR 60, Subpart UUU, this emission unit is considered an affected facility.

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

New Source Performance Standards (NSPS) Requirements [326 IAC 12-1]

E.2.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the applicable provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 12-1, except as otherwise specified in 40 CFR 60, Subpart UUU.
- (b) Pursuant to 40 CFR 60.10, the Permittee shall submit all required notifications and reports to:

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

E.2.2 New Source Performance Standards (NSPS) for Calciners and Dryers in Mineral Industries [40 CFR Part 60, Subpart UUU] [326 IAC 12]

The Permittee shall comply with the applicable provisions of 40 CFR Part 60, Subpart UUU (included as Attachment B of this permit), which are incorporated by reference as 326 IAC 12, except as otherwise specified in 40 CFR Part 60, Subpart UUU:

- (a) 40 CFR 60.730(a) and (c)
(b) 40 CFR 60.731
(c) 40 CFR 60.732
(d) 40 CFR 60.733
(e) 40 CFR 60.734
(f) 40 CFR 60.735(a), (c)(1) and (2), and (d)
(g) 40 CFR 60.736(a) and (b)
(h) 40 CFR 60.737

E.2.3 Testing Requirements [326 IAC 2-6.1-5(b)(2)] [326 IAC 2-1.1-11]

The Permittee shall perform the stack testing required under 40 CFR Part 60, Subpart UUU, utilizing methods as approved by the Commissioner to document compliance with Condition E.2.2. These tests shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
CERTIFICATION**

Source Name: Urschel Laboratories, Inc.
Source Address: 2503 Calumet Avenue, Valparaiso, Indiana 46383
FESOP Permit No.: F127-26605-00037

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 AND ENFORCEMENT BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: (317) 233-0178
Fax: (317) 233-6865**

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

Source Name: Urschel Laboratories, Inc.
Source Address: 2503 Calumet Avenue, Valparaiso, Indiana 46383
FESOP Permit No.: F127-26605-00037

This form consists of 2 pages

Page 1 of 2

- | |
|--|
| <p><input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12)</p> <ul style="list-style-type: none">• The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and• The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16 |
|--|

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

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

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

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N 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: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH**

FESOP Quarterly Report

Source Name: Urschel Laboratories, Inc.
Source Address: 2503 Calumet Avenue, Valparaiso, Indiana 46383
FESOP Permit No.: F127-26605-00037
Facility: Three (3) electric induction furnaces (Unit B, NBF-12A&B, and Unit E)
Parameter: Copper and Copper-Based Alloys Melt Throughput
Limit: The total combined copper and copper-based alloys melt throughput of the three (3) electric induction furnaces (Unit B, NBF-12A&B, and Unit E) shall be less than 600 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

YEAR: _____

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

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

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

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH**

FESOP Quarterly Report

Source Name: Urschel Laboratories, Inc.
Source Address: 2503 Calumet Avenue, Valparaiso, Indiana 46383
FESOP Permit No.: F127-26605-00037
Facility: No Bake Foundry (Unit A)
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 at 0.066 lb VOC/lb of binder from Unit A.

YEAR: _____

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

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

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

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH**

FESOP Quarterly Report

Source Name: Urschel Laboratories, Inc.
Source Address: 2503 Calumet Avenue, Valparaiso, Indiana 46383
FESOP Permit No.: F127-26605-00037
Facility: No Bake Foundry (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 at VOC emissions of 0.205 lb VOC/lb of binder from Unit B.

YEAR: _____

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

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

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

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH**

FESOP Quarterly Report

Source Name: Urschel Laboratories, Inc.
Source Address: 2503 Calumet Avenue, Valparaiso, Indiana 46383
FESOP Permit No.: F127-26605-00037
Facility: No Bake Foundry (Unit A)
Parameter: VOC Usage
Limit: The total input of VOC from the use of mold wash in the No bake Foundry (Unit A) shall not exceed 2.76 tons of per twelve (12) consecutive month period, with compliance determined at the end of each month.

YEAR: _____

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

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

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

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Urschel Laboratories, Inc.
Source Address: 2503 Calumet Avenue, Valparaiso, Indiana 46383
FESOP Permit No.: F127-26605-00037

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

Page 1 of 2

<p>This report shall be submitted quarterly based on a calendar year. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C- General Reporting. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".</p>	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

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

Attachment A

Title 40: Protection of Environment

Subpart ZZZZZ—National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources

Source: 73 FR 252, Jan. 2, 2008, unless otherwise noted.

Applicability and Compliance Dates

§ 63.10880 Am I subject to this subpart?

(a) You are subject to this subpart if you own or operate an iron and steel foundry that is an area source of hazardous air pollutant (HAP) emissions.

(b) This subpart applies to each new or existing affected source. The affected source is each iron and steel foundry.

(1) An affected source is existing if you commenced construction or reconstruction of the affected source before September 17, 2007.

(2) An affected source is new if you commenced construction or reconstruction of the affected source on or after September 17, 2007. If an affected source is not new pursuant to the preceding sentence, it is not new as a result of a change in its compliance obligations pursuant to §63.10881(d).

(c) On and after January 2, 2008, if your iron and steel foundry becomes a major source as defined in §63.2, you must meet the requirements of 40 CFR part 63, subpart EEEEE.

(d) This subpart does not apply to research and development facilities, as defined in section 112(c)(7) of the Clean Air Act.

(e) You are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not otherwise required by law to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a). Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart.

(f) If you own or operate an existing affected source, you must determine the initial applicability of the requirements of this subpart to a small foundry or a large foundry based on your facility's metal melt production for calendar year 2008. If the metal melt production for calendar year 2008 is 20,000 tons or less, your area source is a small foundry. If your metal melt production for calendar year 2008 is greater than 20,000 tons, your area source is a large foundry. You must submit a written notification to the Administrator that identifies your area source as a small foundry or a large foundry no later than January 2, 2009.

(g) If you own or operate a new affected source, you must determine the initial applicability of the requirements of this subpart to a small foundry or a large foundry based on your facility's annual metal melting capacity at startup. If the annual metal melting capacity is 10,000 tons or less, your area source is a small foundry. If the annual metal melting capacity is greater than 10,000 tons, your area source is a large foundry. You must submit a written notification to the Administrator that identifies your area source as a small foundry or a large foundry no later than 120 days after startup.

§ 63.10881 What are my compliance dates?

(a) If you own or operate an existing affected source, you must achieve compliance with the applicable provisions of this subpart by the dates in paragraphs (a)(1) through (3) of this section.

(1) Not later than January 2, 2009 for the pollution prevention management practices for metallic scrap in §63.10885(a) and binder formulations in §63.10886.

(2) Not later than January 4, 2010 for the pollution prevention management practices for mercury in §63.10885(b).

(3) Except as provided in paragraph (d) of this section, not later than 2 years after the date of your large foundry's notification of the initial determination required in §63.10880(f) for the standards and management practices in §63.10895.

(b) If you have a new affected source for which the initial startup date is on or before January 2, 2008, you must achieve compliance with the provisions of this subpart not later than January 2, 2008.

(c) If you own or operate a new affected source for which the initial startup date is after January 2, 2008, you must achieve compliance with the provisions of this subpart upon startup of your affected source.

(d) Following the initial determination for an existing affected source required in §63.10880(f),

(1) Beginning January 1, 2010, if the annual metal melt production of your small foundry exceeds 20,000 tons during the preceding calendar year, you must submit a notification of foundry reclassification to the Administrator within 30 days and comply with the requirements in paragraphs (d)(1)(i) or (ii) of this section, as applicable.

(i) If your small foundry has never been classified as a large foundry, you must comply with the requirements for a large foundry no later than 2 years after the date of your foundry's notification that the annual metal melt production exceeded 20,000 tons.

(ii) If your small foundry had previously been classified as a large foundry, you must comply with the requirements for a large foundry no later than the date of your foundry's most recent notification that the annual metal melt production exceeded 20,000 tons.

(2) If your facility is initially classified as a large foundry (or your small foundry subsequently becomes a large foundry), you must comply with the requirements for a large foundry for at least 3 years before reclassifying your facility as a small foundry, even if your annual metal melt production falls below 20,000 tons. After 3 years, you may reclassify your facility as a small foundry provided your annual metal melt production for the preceding calendar year was 20,000 tons or less. If you reclassify your large foundry as a small foundry, you must submit a notification of reclassification to the Administrator within 30 days and comply with the requirements for a small foundry no later than the date you notify the Administrator of the reclassification. If the annual metal melt production exceeds 20,000 tons during a subsequent year, you must submit a notification of reclassification to the Administrator within 30 days and comply with the requirements for a large foundry no later than the date you notify the Administrator of the reclassification.

(e) Following the initial determination for a new affected source required in §63.10880(g),

(1) If you increase the annual metal melt capacity of your small foundry to exceed 10,000 tons, you must submit a notification of reclassification to the Administrator within 30 days and comply with the requirements for a large foundry no later than the startup date for the new equipment, if applicable, or the date of issuance for your revised State or Federal operating permit.

(2) If your facility is initially classified as a large foundry (or your small foundry subsequently becomes a large foundry), you must comply with the requirements for a large foundry for at least 3 years before reclassifying your facility as a small foundry. After 3 years, you may reclassify your facility as a small foundry provided your most recent annual metal melt capacity is 10,000 tons or less. If you reclassify your large foundry as a small foundry, you must notify the Administrator within 30 days and comply with the requirements for a small foundry no later than the date your melting equipment was removed or taken out of service, if applicable, or the date of issuance for your revised State or Federal operating permit.

Pollution Prevention Management Practices for New and Existing Affected Sources

§ 63.10885 What are my management practices for metallic scrap and mercury switches?

(a) *Metallic scrap management program.* For each segregated metallic scrap storage area, bin or pile, you must comply with the materials acquisition requirements in paragraph (a)(1) or (2) of this section. You must keep a copy of the material specifications onsite and readily available to all personnel with material acquisition duties, and provide a copy to each of your scrap providers. You may have certain scrap subject to paragraph (a)(1) of this section and other scrap subject to paragraph (a)(2) of this section at your facility provided the metallic scrap remains segregated until charge make-up.

(1) *Restricted metallic scrap.* You must prepare and operate at all times according to written material specifications for the purchase and use of only metal ingots, pig iron, slitter, or other materials that do not include post-consumer automotive body scrap, post-consumer engine blocks, post-consumer oil filters, oily turnings, lead components, chlorinated plastics, or free liquids. For the purpose of this subpart, "free liquids" is defined as material that fails the paint filter test by EPA Method 9095B, "Paint Filter Liquids Test" (revision 2), November 2004 (incorporated by reference—see §63.14). The requirements for no free liquids do not apply if the owner or operator can demonstrate that the free liquid is water that resulted from scrap exposure to rain.

(2) *General iron and steel scrap.* You must prepare and operate at all times according to written material specifications for the purchase and use of only iron and steel scrap that has been depleted (to the extent practicable) of organics and HAP metals in the charge materials used by the iron and steel foundry. The materials specifications must include at minimum the information specified in paragraph (a)(2)(i) or (ii) of this section.

(i) Except as provided in paragraph (a)(2)(ii) of this section, specifications for metallic scrap materials charged to a scrap preheater or metal melting furnace to be depleted (to the extent practicable) of the presence of used oil filters, chlorinated plastic parts, accessible lead-containing components (such as batteries and wheel weights), and a program to ensure the scrap materials are drained of free liquids.

(ii) For scrap charged to a cupola metal melting furnace that is equipped with an afterburner, specifications for metallic scrap materials to be depleted (to the extent practicable) of the presence of chlorinated plastics, accessible lead-containing components (such as batteries and wheel weights), and a program to ensure the scrap materials are drained of free liquids.

(b) *Mercury requirements.* For scrap containing motor vehicle scrap, you must procure the scrap pursuant to one of the compliance options in paragraphs (b)(1), (2), or (3) of this section for each scrap provider, contract, or shipment. For scrap that does not contain motor vehicle scrap, you must procure

the scrap pursuant to the requirements in paragraph (b)(4) of this section for each scrap provider, contract, or shipment. You may have one scrap provider, contract, or shipment subject to one compliance provision and others subject to another compliance provision.

(1) *Site-specific plan for mercury switches.* You must comply with the requirements in paragraphs (b)(1)(i) through (v) of this section.

(i) You must include a requirement in your scrap specifications for removal of mercury switches from vehicle bodies used to make the scrap.

(ii) You must prepare and operate according to a plan demonstrating how your facility will implement the scrap specification in paragraph (b)(1)(i) of this section for removal of mercury switches. You must submit the plan to the Administrator for approval. You must operate according to the plan as submitted during the review and approval process, operate according to the approved plan at all times after approval, and address any deficiency identified by the Administrator or delegated authority within 60 days following disapproval of a plan. You may request approval to revise the plan and may operate according to the revised plan unless and until the revision is disapproved by the Administrator or delegated authority. The Administrator or delegated authority may change the approval status of the plan upon 90-days written notice based upon the semiannual report or other information. The plan must include:

(A) A means of communicating to scrap purchasers and scrap providers the need to obtain or provide motor vehicle scrap from which mercury switches have been removed and the need to ensure the proper management of the mercury switches removed from the scrap as required under the rules implementing subtitle C of the Resource Conservation and Recovery Act (RCRA) (40 CFR parts 261 through 265 and 268). The plan must include documentation of direction to appropriate staff to communicate to suppliers throughout the scrap supply chain the need to promote the removal of mercury switches from end-of-life vehicles. Upon the request of the Administrator or delegated authority, you must provide examples of materials that are used for outreach to suppliers, such as letters, contract language, policies for purchasing agents, and scrap inspection protocols;

(B) Provisions for obtaining assurance from scrap providers motor vehicle scrap provided to the facility meet the scrap specification;

(C) Provisions for periodic inspections or other means of corroboration to ensure that scrap providers and dismantlers are implementing appropriate steps to minimize the presence of mercury switches in motor vehicle scrap and that the mercury switches removed are being properly managed, including the minimum frequency such means of corroboration will be implemented; and

(D) Provisions for taking corrective actions (i.e., actions resulting in scrap providers removing a higher percentage of mercury switches or other mercury-containing components) if needed, based on the results of procedures implemented in paragraph (b)(1)(ii)(C) of this section).

(iii) You must require each motor vehicle scrap provider to provide an estimate of the number of mercury switches removed from motor vehicle scrap sent to the facility during the previous year and the basis for the estimate. The Administrator may request documentation or additional information at any time.

(iv) You must establish a goal for each scrap supplier to remove at least 80 percent of the mercury switches. Although a site-specific plan approved under paragraph (b)(1) of this section may require only the removal of convenience light switch mechanisms, the Administrator will credit all documented and verifiable mercury-containing components removed from motor vehicle scrap (such as sensors in anti-locking brake systems, security systems, active ride control, and other applications) when evaluating progress towards the 80 percent goal.

(v) For each scrap provider, you must submit semiannual progress reports to the Administrator that provide the number of mercury switches removed or the weight of mercury recovered from the switches, the estimated number of vehicles processed, an estimate of the percent of mercury switches removed, and certification that the removed mercury switches were recycled at RCRA-permitted facilities or otherwise properly managed pursuant to RCRA subtitle C regulations referenced in paragraph (b)(1)(ii)(A) of this section. This information can be submitted in aggregate form and does not have to be submitted for each shipment. The Administrator may change the approval status of a site-specific plan following 90-days notice based on the progress reports or other information.

(2) *Option for approved mercury programs.* You must certify in your notification of compliance status that you participate in and purchase motor vehicle scrap only from scrap providers who participate in a program for removal of mercury switches that has been approved by the Administrator based on the criteria in paragraphs (b)(2)(i) through (iii) of this section. If you purchase motor vehicle scrap from a broker, you must certify that all scrap received from that broker was obtained from other scrap providers who participate in a program for the removal of mercury switches that has been approved by the Administrator based on the criteria in paragraphs (b)(2)(i) through (iii) of this section. The National Mercury Switch Recovery Program and the State of Maine Mercury Switch Removal Program are EPA-approved programs under paragraph (b)(2) of this section unless and until the Administrator disapproves the program (in part or in whole) under paragraph (b)(2)(iii) of this section.

(i) The program includes outreach that informs the dismantlers of the need for removal of mercury switches and provides training and guidance for removing mercury switches;

(ii) The program has a goal to remove at least 80 percent of mercury switches from motor vehicle scrap the scrap provider processes. Although a program approved under paragraph (b)(2) of this section may require only the removal of convenience light switch mechanisms, the Administrator will credit all documented and verifiable mercury-containing components removed from motor vehicle scrap (such as sensors in anti-locking brake systems, security systems, active ride control, and other applications) when evaluating progress towards the 80 percent goal; and

(iii) The program sponsor agrees to submit progress reports to the Administrator no less frequently than once every year that provide the number of mercury switches removed or the weight of mercury recovered from the switches, the estimated number of vehicles processed, an estimate of the percent of mercury switches recovered, and certification that the recovered mercury switches were recycled at facilities with permits as required under the rules implementing subtitle C of RCRA (40 CFR parts 261 through 265 and 268). The progress reports must be based on a database that includes data for each program participant; however, data may be aggregated at the State level for progress reports that will be publicly available. The Administrator may change the approval status of a program or portion of a program (e.g., at the State level) following 90-days notice based on the progress reports or on other information.

(iv) You must develop and maintain onsite a plan demonstrating the manner through which your facility is participating in the EPA-approved program.

(A) The plan must include facility-specific implementation elements, corporate-wide policies, and/or efforts coordinated by a trade association as appropriate for each facility.

(B) You must provide in the plan documentation of direction to appropriate staff to communicate to suppliers throughout the scrap supply chain the need to promote the removal of mercury switches from end-of-life vehicles. Upon the request of the Administrator or delegated authority, you must provide examples of materials that are used for outreach to suppliers, such as letters, contract language, policies for purchasing agents, and scrap inspection protocols.

(C) You must conduct periodic inspections or other means of corroboration to ensure that scrap providers are aware of the need for and are implementing appropriate steps to minimize the presence of mercury in scrap from end-of-life vehicles.

(3) *Option for specialty metal scrap.* You must certify in your notification of compliance status and maintain records of documentation that the only materials from motor vehicles in the scrap are materials recovered for their specialty alloy (including, but not limited to, chromium, nickel, molybdenum, or other alloys) content (such as certain exhaust systems) and, based on the nature of the scrap and purchase specifications, that the type of scrap is not reasonably expected to contain mercury switches.

(4) *Scrap that does not contain motor vehicle scrap.* For scrap not subject to the requirements in paragraphs (b)(1) through (3) of this section, you must certify in your notification of compliance status and maintain records of documentation that this scrap does not contain motor vehicle scrap.

§ 63.10886 What are my management practices for binder formulations?

For each furfuryl alcohol warm box mold or core making line at a new or existing iron and steel foundry, you must use a binder chemical formulation that does not use methanol as a specific ingredient of the catalyst formulation. This requirement does not apply to the resin portion of the binder system.

Requirements for New and Existing Affected Sources Classified as Small Foundries

§ 63.10890 What are my management practices and compliance requirements?

(a) You must comply with the pollution prevention management practices for metallic scrap and mercury switches in §63.10885 and binder formulations in §63.10886.

(b) You must submit an initial notification of applicability according to §63.9(b)(2).

(c) You must submit a notification of compliance status according to §63.9(h)(1)(i). You must send the notification of compliance status before the close of business on the 30th day after the applicable compliance date specified in §63.10881. The notification must include the following compliance certifications, as applicable:

(1) "This facility has prepared, and will operate by, written material specifications for metallic scrap according to §63.10885(a)(1)" and/or "This facility has prepared, and will operate by, written material specifications for general iron and steel scrap according to §63.10885(a)(2)."

(2) "This facility has prepared, and will operate by, written material specifications for the removal of mercury switches and a site-specific plan implementing the material specifications according to §63.10885(b)(1) and/or "This facility participates in and purchases motor vehicle scrap only from scrap providers who participate in a program for removal of mercury switches that has been approved by the Administrator according to §63.10885(b)(2) and has prepared a plan for participation in the EPA-approved program according to §63.10885(b)(2)(iv)" and/or "The only materials from motor vehicles in the scrap charged to a metal melting furnace at this facility are materials recovered for their specialty alloy content in accordance with §63.10885(b)(3) which are not reasonably expected to contain mercury switches" and/or "This facility complies with the requirements for scrap that does not contain motor vehicle scrap in accordance with §63.10885(b)(4)."

(3) "This facility complies with the no methanol requirement for the catalyst portion of each binder chemical formulation for a furfuryl alcohol warm box mold or core making line according to §63.10886."

(d) As required by §63.10(b)(1), you must maintain files of all information (including all reports and notifications) for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

(e) You must maintain records of the information specified in paragraphs (e)(1) through (7) of this section according to the requirements in §63.10(b)(1).

(1) Records supporting your initial notification of applicability and your notification of compliance status according to §63.10(b)(2)(xiv).

(2) Records of your written materials specifications according to §63.10885(a) and records that demonstrate compliance with the requirements for restricted metallic scrap in §63.10885(a)(1) and/or for the use of general scrap in §63.10885(a)(2) and for mercury in §63.10885(b)(1) through (3), as applicable. You must keep records documenting compliance with §63.10885(b)(4) for scrap that does not contain motor vehicle scrap.

(3) If you are subject to the requirements for a site-specific plan for mercury switch removal under §63.10885(b)(1), you must:

(i) Maintain records of the number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, and an estimate of the percent of mercury switches recovered; and

(ii) Submit semiannual reports of the number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, an estimate of the percent of mercury switches recovered, and a certification that the recovered mercury switches were recycled at RCRA-permitted facilities. The semiannual reports must include a certification that you have conducted periodic inspections or taken other means of corroboration as required under §63.10885(b)(1)(ii)(C). You must identify which option in paragraph §63.10885(b) applies to each scrap provider, contract, or shipment. You may include this information in the semiannual compliance reports required under paragraph (f) of this section.

(4) If you are subject to the option for approved mercury programs under §63.10885(b)(2), you must maintain records identifying each scrap provider and documenting the scrap provider's participation in an approved mercury switch removal program. If you purchase motor vehicle scrap from a broker, you must maintain records identifying each broker and documentation that all scrap provided by the broker was obtained from other scrap providers who participate in an approved mercury switch removal program.

(5) Records to document use of binder chemical formulation that does not contain methanol as a specific ingredient of the catalyst formulation for each furfuryl alcohol warm box mold or core making line as required by §63.10886. These records must be the Material Safety Data Sheet (provided that it contains appropriate information), a certified product data sheet, or a manufacturer's hazardous air pollutant data sheet.

(6) Records of the annual quantity and composition of each HAP-containing chemical binder or coating material used to make molds and cores. These records must be copies of purchasing records, Material Safety Data Sheets, or other documentation that provides information on the binder or coating materials used.

(7) Records of metal melt production for each calendar year.

(f) You must submit semiannual compliance reports to the Administrator according to the requirements in §63.10(e). The report must clearly identify any deviation from the pollution prevention management practices in §63.10885 or §63.10886 and the corrective action taken.

(g) You must submit a written notification to the Administrator of the initial classification of your facility as a small foundry as required in §63.10880(f) and (g), as applicable, and for any subsequent reclassification as required in §63.10881(d)(1) or (e), as applicable.

(h) Following the initial determination for an existing affected source as a small foundry, if the annual metal melt production exceeds 20,000 tons during the preceding year, you must comply with the requirements for large foundries by the applicable dates in §63.10881(d)(1)(i) or (d)(1)(ii). Following the initial determination for a new affected source as a small foundry, if you increase the annual metal melt capacity to exceed 10,000 tons, you must comply with the requirements for a large foundry by the applicable dates in §63.10881(e)(1).

(i) You must comply with the following requirements of the General Provisions (40 CFR part 63, subpart A): §§63.1 through 63.5; §63.6(a), (b), (c), and (e)(1); §63.9; §63.10(a), (b)(1), (b)(2)(xiv), (b)(3), (d)(1), (d)(4), and (f); and §§63.13 through 63.16. Requirements of the General Provisions not cited in the preceding sentence do not apply to the owner or operator of a new or existing affected source that is classified as a small foundry.

Requirements for New and Existing Affected Sources Classified as Large Iron and Steel Foundries

§ 63.10895 What are my standards and management practices?

(a) If you own or operate an affected source that is a large foundry as defined in §63.10906, you must comply with the pollution prevention management practices in §§63.10885 and 63.10886, the requirements in paragraphs (b) through (e) of this section, and the requirements in §§63.10896 through 63.10900.

(b) You must operate a capture and collection system for each metal melting furnace at a new or existing iron and steel foundry unless that furnace is specifically uncontrolled as part of an emissions averaging group. Each capture and collection system must meet accepted engineering standards, such as those published by the American Conference of Governmental Industrial Hygienists.

(c) You must not discharge to the atmosphere emissions from any metal melting furnace or group of all metal melting furnaces that exceed the applicable limit in paragraph (c)(1) or (2) of this section. When an alternative emissions limit is provided for a given emissions source, you are not restricted in the selection of which applicable alternative emissions limit is used to demonstrate compliance.

(1) For an existing iron and steel foundry, 0.8 pounds of particulate matter (PM) per ton of metal charged or 0.06 pounds of total metal HAP per ton of metal charged.

(2) For a new iron and steel foundry, 0.1 pounds of PM per ton of metal charged or 0.008 pounds of total metal HAP per ton of metal charged.

(d) If you own or operate a new affected source, you must comply with each control device parameter operating limit in paragraphs (d)(1) and (2) of this section that applies to you.

(1) For each wet scrubber applied to emissions from a metal melting furnace, you must maintain the 3-hour average pressure drop and scrubber water flow rate at or above the minimum levels established during the initial or subsequent performance test.

(2) For each electrostatic precipitator applied to emissions from a metal melting furnace, you must maintain the voltage and secondary current (or total power input) to the control device at or above the level established during the initial or subsequent performance test.

(e) If you own or operate a new or existing iron and steel foundry, you must not discharge to the atmosphere fugitive emissions from foundry operations that exhibit opacity greater than 20 percent (6-minute average), except for one 6-minute average per hour that does not exceed 30 percent.

§ 63.10896 What are my operation and maintenance requirements?

(a) You must prepare and operate at all times according to a written operation and maintenance (O&M) plan for each control device for an emissions source subject to a PM, metal HAP, or opacity emissions limit in §63.10895. You must maintain a copy of the O&M plan at the facility and make it available for review upon request. At a minimum, each plan must contain the following information:

(1) General facility and contact information;

(2) Positions responsible for inspecting, maintaining, and repairing emissions control devices which are used to comply with this subpart;

(3) Description of items, equipment, and conditions that will be inspected, including an inspection schedule for the items, equipment, and conditions. For baghouses that are equipped with bag leak detection systems, the O&M plan must include the site-specific monitoring plan required in §63.10897(d)(2).

(4) Identity and estimated quantity of the replacement parts that will be maintained in inventory; and

(5) For a new affected source, procedures for operating and maintaining a CPMS in accordance with manufacturer's specifications.

(b) You may use any other O&M, preventative maintenance, or similar plan which addresses the requirements in paragraph (a)(1) through (5) of this section to demonstrate compliance with the requirements for an O&M plan.

§ 63.10897 What are my monitoring requirements?

(a) You must conduct an initial inspection of each PM control device for a metal melting furnace at an existing affected source. You must conduct each initial inspection no later than 60 days after your applicable compliance date for each installed control device which has been operated within 60 days of the compliance date. For an installed control device which has not operated within 60 days of the compliance date, you must conduct an initial inspection prior to startup of the control device. Following the initial inspections, you must perform periodic inspections and maintenance of each PM control device for a metal melting furnace at an existing affected source. You must perform the initial and periodic inspections according to the requirements in paragraphs (a)(1) through (4) of this section. You must record the results of each initial and periodic inspection and any maintenance action in the logbook required in §63.10899(b)(13).

(1) For the initial inspection of each baghouse, you must visually inspect the system ductwork and baghouse units for leaks. You must also inspect the inside of each baghouse for structural integrity and fabric filter condition. Following the initial inspections, you must inspect and maintain each baghouse according to the requirements in paragraphs (a)(1)(i) and (ii) of this section.

(i) You must conduct monthly visual inspections of the system ductwork for leaks.

(ii) You must conduct inspections of the interior of the baghouse for structural integrity and to determine the condition of the fabric filter every 6 months.

(2) For the initial inspection of each dry electrostatic precipitator, you must verify the proper functioning of the electronic controls for corona power and rapper operation, that the corona wires are energized, and that adequate air pressure is present on the rapper manifold. You must also visually inspect the system ductwork and electrostatic housing unit and hopper for leaks and inspect the interior of the electrostatic precipitator to determine the condition and integrity of corona wires, collection plates, hopper, and air diffuser plates. Following the initial inspection, you must inspect and maintain each dry electrostatic precipitator according to the requirements in paragraphs (a)(2)(i) through (iii) of this section.

(i) You must conduct a daily inspection to verify the proper functioning of the electronic controls for corona power and rapper operation, that the corona wires are energized, and that adequate air pressure is present on the rapper manifold.

(ii) You must conduct monthly visual inspections of the system ductwork, housing unit, and hopper for leaks.

(iii) You must conduct inspections of the interior of the electrostatic precipitator to determine the condition and integrity of corona wires, collection plates, plate rappers, hopper, and air diffuser plates every 24 months.

(3) For the initial inspection of each wet electrostatic precipitator, you must verify the proper functioning of the electronic controls for corona power, that the corona wires are energized, and that water flow is present. You must also visually inspect the system ductwork and electrostatic precipitator housing unit and hopper for leaks and inspect the interior of the electrostatic precipitator to determine the condition and integrity of corona wires, collection plates, plate wash spray heads, hopper, and air diffuser plates. Following the initial inspection, you must inspect and maintain each wet electrostatic precipitator according to the requirements in paragraphs (a)(3)(i) through (iii) of this section.

(i) You must conduct a daily inspection to verify the proper functioning of the electronic controls for corona power, that the corona wires are energized, and that water flow is present.

(ii) You must conduct monthly visual inspections of the system ductwork, electrostatic precipitator housing unit, and hopper for leaks.

(iii) You must conduct inspections of the interior of the electrostatic precipitator to determine the condition and integrity of corona wires, collection plates, plate wash spray heads, hopper, and air diffuser plates every 24 months.

(4) For the initial inspection of each wet scrubber, you must verify the presence of water flow to the scrubber. You must also visually inspect the system ductwork and scrubber unit for leaks and inspect the interior of the scrubber for structural integrity and the condition of the demister and spray nozzle. Following the initial inspection, you must inspect and maintain each wet scrubber according to the requirements in paragraphs (a)(4)(i) through (iii) of this section.

(i) You must conduct a daily inspection to verify the presence of water flow to the scrubber.

(ii) You must conduct monthly visual inspections of the system ductwork and scrubber unit for leaks.

(iii) You must conduct inspections of the interior of the scrubber to determine the structural integrity and condition of the demister and spray nozzle every 12 months.

(b) For each wet scrubber applied to emissions from a metal melting furnace at a new affected source, you must use a continuous parameter monitoring system (CPMS) to measure and record the 3-hour average pressure drop and scrubber water flow rate.

(c) For each electrostatic precipitator applied to emissions from a metal melting furnace at a new affected source, you must measure and record the hourly average voltage and secondary current (or total power input) using a CPMS.

(d) If you own or operate an existing affected source, you may install, operate, and maintain a bag leak detection system for each negative pressure baghouse or positive pressure baghouse as an alternative to the baghouse inspection requirements in paragraph (a)(1) of this section. If you own or operate a new affected source, you must install, operate, and maintain a bag leak detection system for each negative pressure baghouse or positive pressure baghouse. You must install, operate, and maintain each bag leak detection system according to the requirements in paragraphs (d)(1) through (3) of this section.

(1) Each bag leak detection system must meet the requirements in paragraphs (d)(1)(i) through (vii) of this section.

(i) The system must be certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic meter (0.00044 grains per actual cubic foot) or less.

(ii) The bag leak detection system sensor must provide output of relative particulate matter loadings and the owner or operator shall continuously record the output from the bag leak detection system using a strip chart recorder, data logger, or other means.

(iii) The system must be equipped with an alarm that will sound when an increase in relative particulate loadings is detected over the alarm set point established in the operation and maintenance plan, and the alarm must be located such that it can be heard by the appropriate plant personnel.

(iv) The initial adjustment of the system must, at minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points. If the system is equipped with an alarm delay time feature, you also must adjust the alarm delay time.

(v) Following the initial adjustment, do not adjust the sensitivity or range, averaging period, alarm set point, or alarm delay time. Except, once per quarter, you may adjust the sensitivity of the bag leak detection system to account for seasonable effects including temperature and humidity according to the procedures in the monitoring plan required by paragraph (d)(2) of this section.

(vi) For negative pressure baghouses, induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detector sensor must be installed downstream of the baghouse and upstream of any wet scrubber.

(vii) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(2) You must prepare a site-specific monitoring plan for each bag leak detection system to be incorporated in your O&M plan. You must operate and maintain each bag leak detection system according to the plan at all times. Each plan must address all of the items identified in paragraphs (d)(2)(i) through (vi) of this section.

(i) Installation of the bag leak detection system.

(ii) Initial and periodic adjustment of the bag leak detection system including how the alarm set-point will be established.

(iii) Operation of the bag leak detection system including quality assurance procedures.

(iv) Maintenance of the bag leak detection system including a routine maintenance schedule and spare parts inventory list.

(v) How the bag leak detection system output will be recorded and stored.

(vi) Procedures for determining what corrective actions are necessary in the event of a bag leak detection alarm as required in paragraph (d)(3) of this section.

(3) In the event that a bag leak detection system alarm is triggered, you must initiate corrective action to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete corrective action as soon as practicable, but no later than 10 calendar days from the date of the alarm. You must record the date and time of each valid alarm, the time you initiated corrective action, the correction action taken, and the date on which corrective action was completed. Corrective actions may include, but are not limited to:

(i) Inspecting the bag house for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions.

(ii) Sealing off defective bags or filter media.

(iii) Replacing defective bags or filter media or otherwise repairing the control device.

(iv) Sealing off a defective baghouse department.

(v) Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system.

(vi) Shutting down the process producing the particulate emissions.

(e) You must make monthly inspections of the equipment that is important to the performance of the total capture system (i.e., pressure sensors, dampers, and damper switches). This inspection must include observations of the physical appearance of the equipment (e.g., presence of holes in the ductwork or hoods, flow constrictions caused by dents or accumulated dust in the ductwork, and fan erosion). You must repair any defect or deficiency in the capture system as soon as practicable, but no later than 90 days. You must record the date and results of each inspection and the date of repair of any defect or deficiency.

(f) You must install, operate, and maintain each CPMS or other measurement device according to your O&M plan. You must record all information needed to document conformance with these requirements.

(g) In the event of an exceedance of an established emissions limitation (including an operating limit), you must restore operation of the emissions source (including the control device and associated capture system) to its normal or usual manner or operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the exceedance. You must record the date and time correction action was initiated, the correction action taken, and the date corrective action was completed.

(h) If you choose to comply with an emissions limit in §63.10895(c) using emissions averaging, you must calculate and record for each calendar month the pounds of PM or total metal HAP per ton of metal melted from the group of all metal melting furnaces at your foundry. You must calculate and record the weighted average pounds per ton emissions rate for the group of all metal melting furnaces at the foundry determined from the performance test procedures in §63.10898(d) and (e).

§ 63.10898 What are my performance test requirements?

(a) You must conduct a performance test to demonstrate initial compliance with the applicable emissions limits for each metal melting furnace or group of all metal melting furnaces that is subject to an emissions limit in §63.10895(c) and for each building or structure housing foundry operations that is subject to the opacity limit for fugitive emissions in §63.10895(e). You must conduct the test within 180 days of your compliance date and report the results in your notification of compliance status.

(1) If you own or operate an existing iron and steel foundry, you may choose to submit the results of a prior performance test for PM or total metal HAP that demonstrates compliance with the applicable emissions limit for a metal melting furnace or group of all metal melting furnaces provided the test was conducted within the last 5 years using the methods and procedures specified in this subpart and either no process changes have been made since the test, or you can demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance with the applicable emissions limit despite such process changes.

(2) If you own or operate an existing iron and steel foundry and you choose to submit the results of a prior performance test according to paragraph (a)(1) of this section, you must submit a written notification to the Administrator of your intent to use the previous test data no later than 60 days after your compliance date. The notification must contain a full copy of the performance test and contain information to demonstrate, if applicable, that either no process changes have been made since the test, or that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite such process changes.

(3) If you have an electric induction furnace equipped with an emissions control device at an existing foundry, you may use the test results from another electric induction furnace to demonstrate compliance with the applicable PM or total metal HAP emissions limit in §63.10895(c) provided the furnaces are similar with respect to the type of emission control device that is used, the composition of the scrap charged, furnace size, and furnace melting temperature.

(4) If you have an uncontrolled electric induction furnace at an existing foundry, you may use the test results from another electric induction furnace to demonstrate compliance with the applicable PM or total metal HAP emissions limit in §63.10895(c) provided the test results are prior to any control device and the electric induction furnaces are similar with respect to the composition of the scrap charged, furnace size, and furnace melting temperature.

(5) For electric induction furnaces that do not have emission capture systems, you may install a temporary enclosure for the purpose of representative sampling of emissions. A permanent enclosure and capture system is not required for the purpose of the performance test.

(b) You must conduct subsequent performance tests to demonstrate compliance with all applicable PM or total metal HAP emissions limits in §63.10895(c) for a metal melting furnace or group of all metal melting furnaces no less frequently than every 5 years and each time you elect to change an operating limit or make a process change likely to increase HAP emissions.

(c) You must conduct each performance test according to the requirements in §63.7(e)(1), Table 1 to this subpart, and paragraphs (d) through (g) of this section.

(d) To determine compliance with the applicable PM or total metal HAP emissions limit in §63.10895(c) for a metal melting furnace in a lb/ton of metal charged format, compute the process-weighted mass emissions (E_p) for each test run using Equation 1 of this section:

$$E_p = \frac{C \times Q \times T}{P \times K} \quad (\text{Eq. 1})$$

Where:

E_p = Process-weighted mass emissions rate of PM or total metal HAP, pounds of PM or total metal HAP per ton (lb/ton) of metal charged;

C = Concentration of PM or total metal HAP measured during performance test run, grains per dry standard cubic foot (gr/dscf);

Q = Volumetric flow rate of exhaust gas, dry standard cubic feet per hour (dscf/hr);

T = Total time during a test run that a sample is withdrawn from the stack during melt production cycle, hr;

P = Total amount of metal charged during the test run, tons; and

K = Conversion factor, 7,000 grains per pound.

(e) To determine compliance with the applicable emissions limit in §63.10895(c) for a group of all metal melting furnaces using emissions averaging,

(1) Determine and record the monthly average charge rate for each metal melting furnace at your iron and steel foundry for the previous calendar month; and

(2) Compute the mass-weighted PM or total metal HAP using Equation 2 of this section.

$$E_c = \frac{\sum_{i=1}^n (E_{pi} \times T_{ti})}{\sum_{i=1}^n T_{ti}} \quad (\text{Eq. 2})$$

Where:

E_c = The mass-weighted PM or total metal HAP emissions for the group of all metal melting furnaces at the foundry, pounds of PM or total metal HAP per ton of metal charged;

E_{pi} = Process-weighted mass emissions of PM or total metal HAP for individual emission unit i as determined from the performance test and calculated using Equation 1 of this section, pounds of PM or total metal HAP per ton of metal charged;

T_{ti} = Total tons of metal charged for individual emission unit i for the calendar month prior to the performance test, tons; and

n = The total number of metal melting furnaces at the iron and steel foundry.

(3) For an uncontrolled electric induction furnace that is not equipped with a capture system and has not been previously tested for PM or total metal HAP, you may assume an emissions factor of 2 pounds per ton of PM or 0.13 pounds of total metal HAP per ton of metal melted in Equation 2 of this section instead of a measured test value. If the uncontrolled electric induction furnace is equipped with a capture system, you must use a measured test value.

(f) To determine compliance with the applicable PM or total metal HAP emissions limit for a metal melting furnace in §63.10895(c) when emissions from one or more regulated furnaces are combined with other non-regulated emissions sources, you may demonstrate compliance using the procedures in paragraphs (f)(1) through (3) of this section.

(1) Determine the PM or total metal HAP process-weighted mass emissions for each of the regulated streams prior to the combination with other exhaust streams or control device.

(2) Measure the flow rate and PM or total metal HAP concentration of the combined exhaust stream both before and after the control device and calculate the mass removal efficiency of the control device using Equation 3 of this section.

$$\% \text{ reduction} = \frac{E_i - E_o}{E_i} \times 100\% \quad (\text{Eq. 3})$$

Where:

E_i = Mass emissions rate of PM or total metal HAP at the control device inlet, lb/hr;

E_o = Mass emissions rate of PM or total metal HAP at the control device outlet, lb/hr.

(3) Meet the applicable emissions limit based on the calculated PM or total metal HAP process-weighted mass emissions for the regulated emissions source using Equation 4 of this section:

$$E_{p1\text{released}} = E_{p1} \times \left(1 - \frac{\% \text{ reduction}}{100} \right) \quad (\text{Eq. 4})$$

Where:

$E_{p1\text{released}}$ = Calculated process-weighted mass emissions of PM (or total metal HAP) predicted to be released to the atmosphere from the regulated emissions source, pounds of PM or total metal HAP per ton of metal charged; and

E_{p1i} = Process-weighted mass emissions of PM (or total metal HAP) in the uncontrolled regulated exhaust stream, pounds of PM or total metal HAP per ton of metal charged.

(g) To determine compliance with an emissions limit for situations when multiple sources are controlled by a single control device, but only one source operates at a time or other situations that are not expressly considered in paragraphs (d) through (f) of this section, you must submit a site-specific test plan to the Administrator for approval according to the requirements in §63.7(c)(2) and (3).

(h) You must conduct each opacity test for fugitive emissions according to the requirements in §63.6(h)(5) and Table 1 to this subpart.

(i) You must conduct subsequent performance tests to demonstrate compliance with the opacity limit in §63.10895(e) no less frequently than every 6 months and each time you make a process change likely to increase fugitive emissions.

(j) In your performance test report, you must certify that the capture system operated normally during the performance test.

(k) You must establish operating limits for a new affected source during the initial performance test according to the requirements in Table 2 of this subpart.

(l) You may change the operating limits for a wet scrubber, electrostatic precipitator, or baghouse if you meet the requirements in paragraphs (l)(1) through (3) of this section.

(1) Submit a written notification to the Administrator of your plan to conduct a new performance test to revise the operating limit.

(2) Conduct a performance test to demonstrate compliance with the applicable emissions limitation in §63.10895(c).

(3) Establish revised operating limits according to the applicable procedures in Table 2 to this subpart.

§ 63.10899 What are my recordkeeping and reporting requirements?

(a) As required by §63.10(b)(1), you must maintain files of all information (including all reports and notifications) for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

(b) In addition to the records required by 40 CFR 63.10, you must keep records of the information specified in paragraphs (b)(1) through (13) of this section.

(1) You must keep records of your written materials specifications according to §63.10885(a) and records that demonstrate compliance with the requirements for restricted metallic scrap in §63.10885(a)(1) and/or for the use of general scrap in §63.10885(a)(2) and for mercury in §63.10885(b)(1) through (3), as applicable. You must keep records documenting compliance with §63.10885(b)(4) for scrap that does not contain motor vehicle scrap.

(2) If you are subject to the requirements for a site-specific plan for mercury under §63.10885(b)(1), you must:

(i) Maintain records of the number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, and an estimate of the percent of mercury switches recovered; and

(ii) Submit semiannual reports of the number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, an estimate of the percent of mercury switches recovered, and a certification that the recovered mercury switches were recycled at RCRA-permitted facilities. The semiannual reports must include a certification that you have conducted periodic inspections or taken other means of corroboration as required under §63.10885(b)(1)(ii)(C). You must identify which option in §63.10885(b) applies to each scrap provider, contract, or shipment. You may include this information in the semiannual compliance reports required under paragraph (c) of this section.

(3) If you are subject to the option for approved mercury programs under §63.10885(b)(2), you must maintain records identifying each scrap provider and documenting the scrap provider's participation in an approved mercury switch removal program. If your scrap provider is a broker, you must maintain records identifying each of the broker's scrap suppliers and documenting the scrap supplier's participation in an approved mercury switch removal program.

(4) You must keep records to document use of any binder chemical formulation that does not contain methanol as a specific ingredient of the catalyst formulation for each furfuryl alcohol warm box mold or core making line as required by §63.10886. These records must be the Material Safety Data Sheet (provided that it contains appropriate information), a certified product data sheet, or a manufacturer's hazardous air pollutant data sheet.

(5) You must keep records of the annual quantity and composition of each HAP-containing chemical binder or coating material used to make molds and cores. These records must be copies of purchasing records, Material Safety Data Sheets, or other documentation that provide information on the binder or coating materials used.

(6) You must keep records of monthly metal melt production for each calendar year.

(7) You must keep a copy of the operation and maintenance plan as required by §63.10896(a) and records that demonstrate compliance with plan requirements.

(8) If you use emissions averaging, you must keep records of the monthly metal melting rate for each furnace at your iron and steel foundry, and records of the calculated pounds of PM or total metal HAP per ton of metal melted for the group of all metal melting furnaces required by §63.10897(h).

(9) If applicable, you must keep records for bag leak detection systems as follows:

(i) Records of the bag leak detection system output;

(ii) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings; and

(iii) The date and time of all bag leak detection system alarms, and for each valid alarm, the time you initiated corrective action, the corrective action taken, and the date on which corrective action was completed.

(10) You must keep records of capture system inspections and repairs as required by §63.10897(e).

(11) You must keep records demonstrating conformance with your specifications for the operation of CPMS as required by §63.10897(f).

(12) You must keep records of corrective action(s) for exceedances and excursions as required by §63.10897(g).

(13) You must record the results of each inspection and maintenance required by §63.10897(a) for PM control devices in a logbook (written or electronic format). You must keep the logbook onsite and make the logbook available to the Administrator upon request. You must keep records of the information specified in paragraphs (b)(13)(i) through (iii) of this section.

(i) The date and time of each recorded action for a fabric filter, the results of each inspection, and the results of any maintenance performed on the bag filters.

(ii) The date and time of each recorded action for a wet or dry electrostatic precipitator (including ductwork), the results of each inspection, and the results of any maintenance performed for the electrostatic precipitator.

(iii) The date and time of each recorded action for a wet scrubber (including ductwork), the results of each inspection, and the results of any maintenance performed on the wet scrubber.

(c) You must submit semiannual compliance reports to the Administrator according to the requirements in §63.10(e). The reports must include, at a minimum, the following information as applicable:

(1) Summary information on the number, duration, and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective action taken;

(2) Summary information on the number, duration, and cause (including unknown cause, if applicable) of monitor downtime incidents (other than downtime associated with zero and span or other calibration checks, if applicable); and

(3) Summary information on any deviation from the pollution prevention management practices in §§63.10885 and 63.10886 and the operation and maintenance requirements §63.10896 and the corrective action taken.

(d) You must submit written notification to the Administrator of the initial classification of your new or existing affected source as a large iron and steel facility as required in §63.10880(f) and (g), as applicable, and for any subsequent reclassification as required in §63.10881(d) or (e), as applicable.

§ 63.10900 What parts of the General Provisions apply to my large foundry?

(a) If you own or operate a new or existing affected source that is classified as a large foundry, you must comply with the requirements of the General Provisions (40 CFR part 63, subpart A) according to Table 3 of this subpart.

(b) If you own or operator a new or existing affected source that is classified as a large foundry, your notification of compliance status required by §63.9(h) must include each applicable certification of compliance, signed by a responsible official, in Table 4 of this subpart.

Other Requirements and Information

§ 63.10905 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by EPA or a delegated authority such as your State, local, or tribal agency. If the EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency.

(c) The authorities that cannot be delegated to State, local, or tribal agencies are specified in paragraphs (c)(1) through (6) of this section.

(1) Approval of an alternative non-opacity emissions standard under 40 CFR 63.6(g).

- (2) Approval of an alternative opacity emissions standard under §63.6(h)(9).
- (3) Approval of a major change to test methods under §63.7(e)(2)(ii) and (f). A “major change to test method” is defined in §63.90.
- (4) Approval of a major change to monitoring under §63.8(f). A “major change to monitoring” under is defined in §63.90.
- (5) Approval of a major change to recordkeeping and reporting under §63.10(f). A “major change to recordkeeping/reporting” is defined in §63.90.
- (6) Approval of a local, State, or national mercury switch removal program under §63.10885(b)(2).

§ 63.10906 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act, in §63.2, and in this section.

Annual metal melt capacity means the lower of the total metal melting furnace equipment melt rate capacity assuming 8,760 operating hours per year summed for all metal melting furnaces at the foundry or, if applicable, the maximum permitted metal melt production rate for the iron and steel foundry calculated on an annual basis. Unless otherwise specified in the permit, permitted metal melt production rates that are not specified on an annual basis must be annualized assuming 24 hours per day, 365 days per year of operation. If the permit limits the operating hours of the furnace(s) or foundry, then the permitted operating hours are used to annualize the maximum permitted metal melt production rate.

Annual metal melt production means the quantity of metal melted in a metal melting furnace or group of all metal melting furnaces at the iron and steel foundry in a given calendar year. For the purposes of this subpart, metal melt production is determined on the basis on the quantity of metal charged to each metal melting furnace; the sum of the metal melt production for each furnace in a given calendar year is the annual metal melt production of the foundry.

Bag leak detection system means a system that is capable of continuously monitoring relative particulate matter (dust) loadings in the exhaust of a baghouse to detect bag leaks and other upset conditions. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, electrodynamic, light scattering, light transmittance, or other effect to continuously monitor relative particulate matter loadings.

Binder chemical means a component of a system of chemicals used to bind sand together into molds, mold sections, and cores through chemical reaction as opposed to pressure.

Capture system means the collection of components used to capture gases and fumes released from one or more emissions points and then convey the captured gas stream to a control device or to the atmosphere. A capture system may include, but is not limited to, the following components as applicable to a given capture system design: Duct intake devices, hoods, enclosures, ductwork, dampers, manifolds, plenums, and fans.

Chlorinated plastics means solid polymeric materials that contain chlorine in the polymer chain, such as polyvinyl chloride (PVC) and PVC copolymers.

Control device means the air pollution control equipment used to remove particulate matter from the effluent gas stream generated by a metal melting furnace.

Cupola means a vertical cylindrical shaft furnace that uses coke and forms of iron and steel such as scrap and foundry returns as the primary charge components and melts the iron and steel through combustion of the coke by a forced upward flow of heated air.

Deviation means any instance in which an affected source or an owner or operator of such an affected source:

- (1) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emissions limitation (including operating limits), management practice, or operation and maintenance requirement;
- (2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any iron and steel foundry required to obtain such a permit; or
- (3) Fails to meet any emissions limitation (including operating limits) or management standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Electric arc furnace means a vessel in which forms of iron and steel such as scrap and foundry returns are melted through resistance heating by an electric current flowing through the arcs formed between the electrodes and the surface of the metal and also flowing through the metal between the arc paths.

Electric induction furnace means a vessel in which forms of iron and steel such as scrap and foundry returns are melted through resistance heating by an electric current that is induced in the metal by passing an alternating current through a coil surrounding the metal charge or surrounding a pool of molten metal at the bottom of the vessel.

Exhaust stream means gases emitted from a process through a conveyance as defined in this subpart.

Foundry operations mean all process equipment and practices used to produce metal castings for shipment. *Foundry operations* include: Mold or core making and coating; scrap handling and preheating; metal melting and inoculation; pouring, cooling, and shakeout; shotblasting, grinding, and other metal finishing operations; and sand handling.

Free liquids means material that fails the paint filter liquids test by EPA Method 9095B, Revision 2, November 1994 (incorporated by reference—see §63.14). That is, if any portion of the material passes through and drops from the filter within the 5-minute test period, the material contains *free liquids*.

Fugitive emissions means any pollutant released to the atmosphere that is not discharged through a system of equipment that is specifically designed to capture pollutants at the source, convey them through ductwork, and exhaust them using forced ventilation. *Fugitive emissions* include pollutants released to the atmosphere through windows, doors, vents, or other building openings. *Fugitive emissions* also include pollutants released to the atmosphere through other general building ventilation or exhaust systems not specifically designed to capture pollutants at the source.

Furfuryl alcohol warm box mold or core making line means a mold or core making line in which the binder chemical system used is that system commonly designated as a furfuryl alcohol warm box system by the foundry industry.

Iron and steel foundry means a facility or portion of a facility that melts scrap, ingot, and/or other forms of iron and/or steel and pours the resulting molten metal into molds to produce final or near final shape products for introduction into commerce. Research and development facilities, operations that only

produce non-commercial castings, and operations associated with nonferrous metal production are not included in this definition.

Large foundry means, for an existing affected source, an iron and steel foundry with an annual metal melt production greater than 20,000 tons. For a new affected source, *large foundry* means an iron and steel foundry with an annual metal melt capacity greater than 10,000 tons.

Mercury switch means each mercury-containing capsule or switch assembly that is part of a convenience light switch mechanism installed in a vehicle.

Metal charged means the quantity of scrap metal, pig iron, metal returns, alloy materials, and other solid forms of iron and steel placed into a metal melting furnace. Metal charged does not include the quantity of fluxing agents or, in the case of a cupola, the quantity of coke that is placed into the metal melting furnace.

Metal melting furnace means a cupola, electric arc furnace, electric induction furnace, or similar device that converts scrap, foundry returns, and/or other solid forms of iron and/or steel to a liquid state. This definition does not include a holding furnace, an argon oxygen decarburization vessel, or ladle that receives molten metal from a metal melting furnace, to which metal ingots or other material may be added to adjust the metal chemistry.

Mold or core making line means the collection of equipment that is used to mix an aggregate of sand and binder chemicals, form the aggregate into final shape, and harden the formed aggregate. This definition does not include a line for making greensand molds or cores.

Motor vehicle means an automotive vehicle not operated on rails and usually is operated with rubber tires for use on highways.

Motor vehicle scrap means vehicle or automobile bodies, including automobile body hulks, that have been processed through a shredder. *Motor vehicle scrap* does not include automobile manufacturing bundles, or miscellaneous vehicle parts, such as wheels, bumpers, or other components that do not contain mercury switches.

Nonferrous metal means any pure metal other than iron or any metal alloy for which an element other than iron is its major constituent in percent by weight.

On blast means those periods of cupola operation when combustion (blast) air is introduced to the cupola furnace and the furnace is capable of producing molten metal. On blast conditions are characterized by both blast air introduction and molten metal production.

Responsible official means responsible official as defined in §63.2.

Scrap preheater means a vessel or other piece of equipment in which metal scrap that is to be used as melting furnace feed is heated to a temperature high enough to eliminate volatile impurities or other tramp materials by direct flame heating or similar means of heating. Scrap dryers, which solely remove moisture from metal scrap, are not considered to be scrap preheaters for purposes of this subpart.

Scrap provider means the person (including a broker) who contracts directly with an iron and steel foundry to provide motor vehicle scrap. Scrap processors such as shredder operators or vehicle dismantlers that do not sell scrap directly to a foundry are not *scrap providers*.

Scrubber blowdown means liquor or slurry discharged from a wet scrubber that is either removed as a waste stream or processed to remove impurities or adjust its composition or pH.

Small foundry means, for an existing affected source, an iron and steel foundry that has an annual metal melt production of 20,000 tons or less. For a new affected source, *small foundry* means an iron and steel foundry that has an annual metal melt capacity of 10,000 tons or less.

Total metal HAP means, for the purposes of this subpart, the sum of the concentrations of compounds of antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury, nickel, and selenium as measured by EPA Method 29 (40 CFR part 60, appendix A–8). Only the measured concentration of the listed analytes that are present at concentrations exceeding one-half the quantitation limit of the analytical method are to be used in the sum. If any of the analytes are not detected or are detected at concentrations less than one-half the quantitation limit of the analytical method, the concentration of those analytes will be assumed to be zero for the purposes of calculating the total metal HAP for this subpart.

Table 1 to Subpart ZZZZZ of Part 63—Performance Test Requirements for New and Existing Affected Sources Classified as Large Foundries

As required in §63.10898(c) and (h), you must conduct performance tests according to the test methods and procedures in the following table:

For. . .	You must. . .	According to the following requirements. . .
1. Each metal melting furnace subject to a PM or total metal HAP limit in §63.10895(c)	a. Select sampling port locations and the number of traverse points in each stack or duct using EPA Method 1 or 1A (40 CFR part 60, appendix A) b. Determine volumetric flow rate of the stack gas using Method 2, 2A, 2C, 2D, 2F, or 2G (40 CFR part 60, appendix A) c. Determine dry molecular weight of the stack gas using EPA Method 3, 3A, or 3B (40 CFR part 60, appendix A). ¹ d. Measure moisture content of the stack gas using EPA Method 4 (40 CFR part 60, A) e. Determine PM concentration using EPA Method 5, 5B, 5D, 5F, or 5I, as applicable or total metal HAP concentration using EPA Method 29 (40 CFR part 60, appendix A)	Sampling sites must be located at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere. i. Collect a minimum sample volume of 60 dscf of gas during each PM sampling run. The PM concentration is determined using only the front-half (probe rinse and filter) of the PM catch. ii. For Method 29, only the measured concentration of the listed metal HAP analytes that are present at concentrations exceeding one-half the quantification limit of the analytical method are to be used in the sum. If any of the analytes are not detected or are detected at concentrations less than one-half the quantification limit of the analytical method, the concentration of those analytes is assumed to be zero for the purposes of calculating the total metal HAP.
		iii. A minimum of three valid test runs are needed to comprise a PM or total metal HAP performance test.
		iv. For cupola metal melting furnaces, sample PM or total metal HAP only during times when the cupola is on blast.
		v. For electric arc and electric induction metal melting furnaces, sample PM or total metal HAP only during normal melt production conditions, which may include, but are not limited to the following operations: Charging, melting, alloying, refining, slagging, and tapping.

For. . .	You must. . .	According to the following requirements. . .
		vi. Determine and record the total combined weight of tons of metal charged during the duration of each test run. You must compute the process-weighted mass emissions of PM according to Equation 1 of §63.10898(d) for an individual furnace or Equation 2 of §63.10898(e) for the group of all metal melting furnaces at the foundry.
2. Fugitive emissions from buildings or structures housing any iron and steel foundry emissions sources subject to opacity limit in §63.10895(e)	a. Using a certified observer, conduct each opacity test according to EPA Method 9 (40 CFR part 60, appendix A–4) and 40 CFR 63.6(h)(5)	i. The certified observer may identify a limited number of openings or vents that appear to have the highest opacities and perform opacity observations on the identified openings or vents in lieu of performing observations for each opening or vent from the building or structure. Alternatively, a single opacity observation for the entire building or structure may be performed, if the fugitive release points afford such an observation.
		ii. During testing intervals when PM or total metal HAP performance tests, if applicable, are being conducted, conduct the opacity test such that the opacity observations are recorded during the PM or total metal HAP performance tests.
	b. As alternative to Method 9 performance test, conduct visible emissions test by Method 22 (40 CFR part 60, appendix A–7). The test is successful if no visible emissions are observed for 90 percent of the readings over 1 hour. If VE is observed greater than 10 percent of the time over 1 hour, then the facility must conduct another performance test as soon as possible, but no later than 15 calendar days after the Method 22 test, using Method 9 (40 CFR part 60, appendix A–4)	i. The observer may identify a limited number of openings or vents that appear to have the highest visible emissions and perform observations on the identified openings or vents in lieu of performing observations for each opening or vent from the building or structure. Alternatively, a single observation for the entire building or structure may be performed, if the fugitive release points afford such an observation. ii. During testing intervals when PM or total metal HAP performance tests, if applicable, are being conducted, conduct the visible emissions test such that the observations are recorded during the PM or total metal HAP performance tests.

¹You may also use as an alternative to EPA Method 3B (40 CFR part 60, appendix A), the manual method for measuring the oxygen, carbon dioxide, and carbon monoxide content of exhaust gas, ANSI/ASME PTC 19.10–1981, “Flue and Exhaust Gas Analyses” (incorporated by reference—see §63.14).

Table 2 to Subpart ZZZZZ of Part 63—Procedures for Establishing Operating Limits for New Affected Sources Classified as Large Foundries

As required in §63.10898(k), you must establish operating limits using the procedures in the following table:

For . . .	You must . . .
1. Each wet scrubber subject to the operating limits in §63.10895(d)(1) for pressure drop and scrubber water flow rate.	Using the CPMS required in §63.10897(b), measure and record the pressure drop and scrubber water flow rate in intervals of no more than 15 minutes during each PM or total metal HAP test run. Compute and record the average pressure drop and average scrubber water flow rate for all the valid sampling runs in which the applicable emissions limit is met.
2. Each electrostatic precipitator subject to operating limits in §63.10895(d)(2) for voltage and secondary current (or total power input).	Using the CPMS required in §63.10897(c), measure and record voltage and secondary current (or total power input) in intervals of no more than 15 minutes during each PM or total metal HAP test run. Compute and record the minimum hourly average voltage and secondary current (or total power input) from all the readings for each valid sampling run in which the applicable emissions limit is met.

Table 3 to Subpart ZZZZZ of Part 63—Applicability of General Provisions to New and Existing Affected Sources Classified as Large Foundries

As required in §63.10900(a), you must meet each requirement in the following table that applies to you:

Citation	Subject	Applies to large foundry?	Explanation
63.1	Applicability	Yes.	
63.2	Definitions	Yes.	
63.3	Units and abbreviations	Yes.	
63.4	Prohibited activities	Yes.	
63.5	Construction/reconstruction	Yes.	
63.6(a)–(g)	Compliance with standards and maintenance requirements	Yes.	
63.6(h)	Opacity and visible emissions standards	Yes.	
63.6(i)(i)–(j)	Compliance extension and Presidential compliance exemption	Yes.	
63.7(a)(3), (b)–(h)	Performance testing requirements	Yes.	
63.7(a)(1)–(a)(2)	Applicability and performance test dates	No	Subpart ZZZZZ specifies applicability and performance test dates.
63.8(a)(1)–(a)(3), (b), (c)(1)–(c)(3), (c)(6)–(c)(8), (d), (e), (f)(1)–(f)(6), (g)(1)–(g)(4)	Monitoring requirements	Yes.	
63.8(a)(4)	Additional monitoring requirements for control devices in §63.11	No.	

Citation	Subject	Applies to large foundry?	Explanation
63.8(c)(4)	Continuous monitoring system (CMS) requirements	No.	
63.8(c)(5)	Continuous opacity monitoring system (COMS) minimum procedures	No.	
63.8(g)(5)	Data reduction	No.	
63.9	Notification requirements	Yes.	
63.10(a), (b)(1)–(b)(2)(xii) –(b)(2)(xiv), (b)(3), (d)(1)–(2), (e)(1)–(2), (f)	Recordkeeping and reporting requirements	Yes.	
63.10(c)(1)–(6), (c)(9)–(15)	Additional records for continuous monitoring systems	No.	
63.10(c)(7)–(8)	Records of excess emissions and parameter monitoring exceedances for CMS	Yes.	
63.10(d)(3)	Reporting opacity or visible emissions observations	Yes.	
63.10(e)(3)	Excess emissions reports	Yes.	
63.10(e)(4)	Reporting COMS data	No.	
63.11	Control device requirements	No.	
63.12	State authority and delegations	Yes.	
63.13–63.16	Addresses of State air pollution control agencies and EPA regional offices. Incorporation by reference. Availability of information and confidentiality. Performance track provisions	Yes.	

Table 4 to Subpart ZZZZZ of Part 63—Compliance Certifications for New and Existing Affected Sources Classified as Large Iron and Steel Foundries

As required by §63.10900(b), your notification of compliance status must include certifications of compliance according to the following table:

For. . .	Your notification of compliance status required by §63.9(h) must include this certification of compliance, signed by a responsible official:
Each new or existing affected source classified as a large foundry and subject to scrap management requirements in §63.10885(a)(1) and/or (2)	“This facility has prepared, and will operate by, written material specifications for metallic scrap according to §63.10885(a)(1)” and/or “This facility has prepared, and will operate by, written material specifications for general iron and steel scrap according to §63.10885(a)(2).”
Each new or existing affected source classified as a large foundry and subject to mercury switch removal requirements in §63.10885(b)	“This facility has prepared, and will operate by, written material specifications for the removal of mercury switches and a site-specific plan implementing the material specifications according to §63.10885(b)(1)” and/or “This facility participates in and purchases motor vehicles scrap only from scrap providers who participate in a program for removal of mercury switches that has been approved by the EPA Administrator according to §63.10885(b)(2) and have prepared a plan for participation in the EPA approved program according to §63.10885(b)(2)(iv)” and/or “The only materials from motor vehicles in the scrap charged to a metal melting furnace at this facility are materials recovered for their specialty alloy content in accordance with §63.10885(b)(3) which are not reasonably expected to contain mercury switches” and/or “This facility complies with the requirements for scrap that does not contain motor vehicle scrap in accordance with §63.10885(b)(4).”
Each new or existing affected source classified as a large foundry and subject to §63.10886	“This facility complies with the no methanol requirement for the catalyst portion of each binder chemical formulation for a furfuryl alcohol warm box mold or core making line according to §63.10886.”
Each new or existing affected source classified as a large foundry and subject to §63.10895(b)	“This facility operates a capture and collection system for each emissions source subject to this subpart according to §63.10895(b).”
Each existing affected source classified as a large foundry and subject to §63.10895(c)(1)	“This facility complies with the PM or total metal HAP emissions limit in §63.10895(c) for each metal melting furnace or group of all metal melting furnaces based on a previous performance test in accordance with §63.10898(a)(1).”
Each new or existing affected source classified as a large foundry and subject to §63.10896(a)	“This facility has prepared and will operate by an operation and maintenance plan according to §63.10896(a).”
Each new or existing (if applicable) affected source classified as a large foundry and subject to §63.10897(d)	“This facility has prepared and will operate by a site-specific monitoring plan for each bag leak detection system and submitted the plan to the Administrator for approval according to §63.10897(d)(2).”

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

Attachment B

Title 40: Protection of Environment

Subpart UUU—Standards of Performance for Calciners and Dryers in Mineral Industries

Source: 57 FR 44503, Sept. 28, 1992, unless otherwise noted.

§ 60.730 Applicability and designation of affected facility.

(a) The affected facility to which the provisions of this subpart apply is each calciner and dryer at a mineral processing plant. Feed and product conveyors are not considered part of the affected facility. For the brick and related clay products industry, only the calcining and drying of raw materials prior to firing of the brick are covered.

(b) An affected facility that is subject to the provisions of subpart LL, Metallic Mineral Processing Plants, is not subject to the provisions of this subpart. Also, the following processes and process units used at mineral processing plants are not subject to the provisions of this subpart: vertical shaft kilns in the magnesium compounds industry; the chlorination-oxidation process in the titanium dioxide industry; coating kilns, mixers, and aerators in the roofing granules industry; and tunnel kilns, tunnel dryers, apron dryers, and grinding equipment that also dries the process material used in any of the 17 mineral industries (as defined in § 60.731, "Mineral processing plant").

(c) The owner or operator of any facility under paragraph (a) of this section that commences construction, modification, or reconstruction after April 23, 1986, is subject to the requirements of this subpart.

§ 60.731 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

Calciner means the equipment used to remove combined (chemically bound) water and/or gases from mineral material through direct or indirect heating. This definition includes expansion furnaces and multiple hearth furnaces.

Control device means the air pollution control equipment used to reduce particulate matter emissions released to the atmosphere from one or more affected facilities.

Dryer means the equipment used to remove uncombined (free) water from mineral material through direct or indirect heating.

Installed in series means a calciner and dryer installed such that the exhaust gases from one flow through the other and then the combined exhaust gases are discharged to the atmosphere.

Mineral processing plant means any facility that processes or produces any of the following minerals, their concentrates or any mixture of which the majority (>50 percent) is any of the following minerals or a combination of these minerals: alumina, ball clay, bentonite, diatomite, feldspar, fire clay, fuller's earth, gypsum, industrial sand, kaolin, lightweight aggregate, magnesium compounds, perlite, roofing granules, talc, titanium dioxide, and vermiculite.

§ 60.732 Standards for particulate matter.

Each owner or operator of any affected facility that is subject to the requirements of this subpart shall comply with the emission limitations set forth in this section on and after the date on which the initial performance test required by § 60.8 is completed, but not later than 180 days after the initial startup, whichever date comes first. No emissions shall be discharged into the atmosphere from any affected facility that:

(a) Contains particulate matter in excess of 0.092 gram per dry standard cubic meter (g/dscm) [0.040 grain per dry standard cubic foot (gr/dscf)] for calciners and for calciners and dryers installed in series and in excess of 0.057 g/dscm (0.025 gr/dscf) for dryers; and

(b) Exhibits greater than 10 percent opacity, unless the emissions are discharged from an affected facility using a wet scrubbing control device.

[57 FR 44503, Sept. 28, 1992, as amended at 65 FR 61778, Oct. 17, 2000]

§ 60.733 Reconstruction.

The cost of replacement of equipment subject to high temperatures and abrasion on processing equipment shall not be considered in calculating either the "fixed capital cost of the new components" or the "fixed capital cost that would be required to construct a comparable new facility" under § 60.15. Calciner and dryer equipment subject to high temperatures and abrasion are: end seals, flights, and refractory lining.

§ 60.734 Monitoring of emissions and operations.

(a) With the exception of the process units described in paragraphs (b), (c), and (d) of this section, the owner or operator of an affected facility subject to the provisions of this subpart who uses a dry control device to comply with the mass emission standard shall install, calibrate, maintain, and operate a continuous monitoring system to measure and record the opacity of emissions discharged into the atmosphere from the control device.

(b) In lieu of a continuous opacity monitoring system, the owner or operator of a ball clay vibrating grate dryer, a bentonite rotary dryer, a diatomite flash dryer, a diatomite rotary calciner, a feldspar rotary dryer, a fire clay rotary dryer, an industrial sand fluid bed dryer, a kaolin rotary calciner, a perlite rotary dryer, a roofing granules fluid bed dryer, a roofing granules rotary dryer, a talc rotary calciner, a titanium dioxide spray dryer, a titanium dioxide fluid bed dryer, a vermiculite fluid bed dryer, or a vermiculite rotary dryer who uses a dry control device may have a certified visible emissions observer measure and record three 6-minute averages of the opacity of visible emissions to the atmosphere each day of operation in accordance with Method 9 of appendix A of part 60.

(c) The owner or operator of a ball clay rotary dryer, a diatomite rotary dryer, a feldspar fluid bed dryer, a fuller's earth rotary dryer, a gypsum rotary dryer, a gypsum flash calciner, gypsum kettle calciner, an industrial sand rotary dryer, a kaolin rotary dryer, a kaolin multiple hearth furnace, a perlite expansion furnace, a talc flash dryer, a talc rotary dryer, a titanium dioxide direct or indirect rotary dryer or a vermiculite expansion furnace who uses a dry control device is exempt from the monitoring requirements of this section.

(d) The owner or operator of an affected facility subject to the provisions of this subpart who uses a wet scrubber to comply with the mass emission standard for any affected facility shall install, calibrate, maintain, and operate monitoring devices that continuously measure and record the pressure loss of the gas stream through the scrubber and the scrubbing liquid flow rate to the scrubber. The pressure loss

monitoring device must be certified by the manufacturer to be accurate within 5 percent of water column gauge pressure at the level of operation. The liquid flow rate monitoring device must be certified by the manufacturer to be accurate within 5 percent of design scrubbing liquid flow rate.

§ 60.735 Recordkeeping and reporting requirements.

(a) Records of the measurements required in § 60.734 of this subpart shall be retained for at least 2 years.

(b) Each owner or operator who uses a wet scrubber to comply with § 60.732 shall determine and record once each day, from the recordings of the monitoring devices in § 60.734(d), an arithmetic average over a 2-hour period of both the change in pressure of the gas stream across the scrubber and the flowrate of the scrubbing liquid.

(c) Each owner or operator shall submit written reports semiannually of exceedances of control device operating parameters required to be monitored by § 60.734 of this subpart. For the purpose of these reports, exceedances are defined as follows:

(1) All 6-minute periods during which the average opacity from dry control devices is greater than 10 percent; or

(2) Any daily 2-hour average of the wet scrubber pressure drop determined as described in § 60.735(b) that is less than 90 percent of the average value recorded according to § 60.736(c) during the most recent performance test that demonstrated compliance with the particulate matter standard; or

(3) Each daily wet scrubber liquid flow rate recorded as described in § 60.735(b) that is less than 80 percent or greater than 120 percent of the average value recorded according to § 60.736(c) during the most recent performance test that demonstrated compliance with the particulate matter standard.

(d) The requirements of this section remain in force until and unless the Agency, in delegating enforcement authority to a State under section 111(c) of the Clean Air Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected facilities within the State will be relieved of the obligation to comply with this section provided that they comply with the requirements established by the State.

[57 FR 44503, Sept. 28, 1992, as amended at 58 FR 40591, July 29, 1993]

§ 60.736 Test methods and procedures.

(a) In conducting the performance tests required in § 60.8, the owner or operator shall use the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b).

(b) The owner or operator shall determine compliance with the particulate matter standards in § 60.732 as follows:

(1) Method 5 shall be used to determine the particulate matter concentration. The sampling time and volume for each test run shall be at least 2 hours and 1.70 dscm.

(2) Method 9 and the procedures in § 60.11 shall be used to determine opacity from stack emissions.

(c) During the initial performance test of a wet scrubber, the owner or operator shall use the monitoring devices of § 60.734(d) to determine the average change in pressure of the gas stream across the scrubber and the average flowrate of the scrubber liquid during each of the particulate matter runs. The arithmetic averages of the three runs shall be used as the baseline average values for the purposes of § 60.735(c).

§ 60.737 Delegation of authority.

(a) In delegating implementation and enforcement authority to a State under section 111(c) of the Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Authorities which will not be delegated to States: No restrictions.

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

Addendum to the Technical Support Document (ATSD) for a
Significant Permit Revision to a Federally Enforceable State Operating
Permit (FESOP)

Source Description and Location
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Source Name:	Urschel Laboratories, Inc.
Source Location:	2503 Calumet Avenue, Valparaiso, IN 46384
County:	Porter
SIC Code:	3366 (Copper Foundries), 3325 (Steel Foundries, Not Elsewhere Classified), 3556 (Food Products Machinery), and 3324 (Steel Investment Foundry)
Operation Permit No.:	F 127-26605-00037
Operation Permit Issuance Date:	November 20, 2008
Significant Permit Revision No.:	127-33753-00037
Permit Reviewer:	Brian Williams

On December 23, 2013, the Office of Air Quality (OAQ) had a notice published in the Chesterton Tribune, Chesterton, Indiana, stating that Urshcel Laboratories, Inc. had applied for a significant permit revision to construct and operate one (1) new electric induction bronze melting furnace, which will be equipped with two (2) crucibles, in the existing no bake foundry. The notice also stated that the OAQ proposed to issue a significant permit revision for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Comments and Responses

On January 6, 2014, Maureen K. Cosentino, a concerned citizen submitted comments to IDEM, OAQ on the draft significant permit revision.

The Technical Support Document (TSD) is used by IDEM, OAQ for historical purposes. IDEM, OAQ does not make any changes to the original TSD, but the Permit will have the updated changes. The comments and revised permit language are provided below with deleted language as ~~strikeouts~~ and new language **bolded**.

Comment 1:

I was informed of this permit by a neighbor the other day, as I do not get the local newspaper. I have grave concerns, Lake Erie Land did not mention anything about this when they told us they sold the land south of the Coffee Creek Section in Chesterton, where I live. I am 80 and have been told the body does not take stress as well when one is older. More importantly, I have asthma and there are young children living in this subdivision.

Response to Comment 1:

This permit revision is to an existing Federally Enforceable State Operating Permit (FESOP) for Urschel Laboratories, Inc., which is currently located at 2503 Calumet Avenue, Valparaiso, Indiana 46383. In this permit revision the source has requested to construct and operate one (1) electric induction bronze melting furnace, which will be equipped with two (2) crucibles, in the

existing no bake foundry. IDEM is aware that this source has plans to construct a new facility in Chesterton's Coffee Creek Center. This permit revision does not pertain to the new facility and does not allow the source to operate at any location other than the address mentioned above. Urschel Laboratories, Inc., will have to apply for and obtain a new air permit for the new plant in Chesterton. If and when the source applies for a new air permit at the new location they will have to notify adjacent landowners and occupations about the application. No changes were made as a result of this comment.

Comment 2:

The public notice states, "These corrections, changes, and removals may include Title I changes. The potential to emit of any regulated pollutants and hazardous air pollutants will continue to be limited to less than the TV and/or PSD major threshold levels, respectively." What does this mean? Limited or not, the pollutants will still be emitted.

Response to Comment 2:

Title V (TV) of the 1990 Clean Air Act Amendments requires all major sources and some smaller sources of air pollution to obtain an operating permit. A Title V permit grants a source permission to operate. The permit includes all air pollution requirements that apply to the source, including emissions limits and monitoring, record keeping, and reporting requirements. It also requires that the source report its compliance with permit conditions to IDEM.

The regulated pollutant thresholds for a source to be required to obtain a Title V permit are as follows:

Type of Pollutant	Title V (Major Source) Potential to Emit Threshold (in Tons Per Year)
Volatile organic compounds (VOCs) (Related to ozone formation)	100 TPY 25 TPY in severe nonattainment areas
Nitrogen dioxide and oxides of nitrogen (NOX) (Related to ozone formation)	100 TPY
Sulfur dioxide	100 TPY
Carbon monoxide	100 TPY
PM-10 (Particulate matter smaller than 10 microns)	100 TPY
PM-2.5 (Particulate matter smaller than 2.5 microns)	100 TPY
Lead	100 TPY 10 TPY for secondary lead smelters
A single hazardous air pollutant (HAP)	10 TPY
A combination of HAPs	25 TPY
Greenhouse Gases (GHGs)	100,000 TPY as CO2 equivalents

However, pursuant to 326 IAC 2-8, IDEM has the ability to issue a major source a FESOP, which allows the source to take federally enforceable emission limits to ensure their annual emissions are less than the thresholds specified above. Therefore, the notice is stating that Urschel Laboratories, Inc., will remain a minor source for the purposes of the Title V permitting program.

Prevention of Significant Deterioration (PSD) applies to new major PSD sources, modifications that themselves are a major PSD source at a minor PSD source, or major PSD modifications at existing major PSD sources for pollutants in attainment areas or areas that are unclassifiable under the National Ambient Air Quality Standards (NAAQS). It requires: the installation of the "Best Available Control Technology (BACT)"; an air quality analysis; an additional impacts analysis; and public involvement. Additional information is provided on the U.S. EPA [New Source Review Web page](#); access to training materials is can be found on IDEM [New Source Review Reform Web page](#).

For this source the PSD major source thresholds are as follows:

Type of Pollutant	PSD Major Source Potential to Emit Threshold (in Tons per Year)
Volatile organic compounds (VOCs) (Related to ozone formation)	250 TPY
Nitrogen dioxide and oxides of nitrogen (NOX) (Related to ozone formation)	250 TPY
Sulfur dioxide	250 TPY
Carbon monoxide	250 TPY
PM-10 (Particulate matter smaller than 10 microns)	250 TPY
PM-2.5 (Particulate matter smaller than 2.5 microns)	250 TPY
Greenhouse Gases (GHGs)	100,000 TPY as CO2 equivalents

This source will continue to limit its emissions of the pollutants listed above to less than the PSD major source thresholds. As a result, this source will remain a minor PSD source. Pursuant to Federal and State laws this source is allowed to emit up to the thresholds specified in the two tables above, in order to operate under a FESOP and be PSD minor source. No changes were made as a result of this comment.

IDEM Contact

- (a) Questions regarding this proposed significant permit revision can be directed to Brian Williams at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-5375 or toll free at 1-800-451-6027 extension 4-5375.
- (b) A copy of the permit is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

**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 (FESOP)

Source Description and Location

Source Name: Urschel Laboratories, Inc.
Source Location: 2503 Calumet Avenue, Valparaiso, IN 46384
County: Porter
SIC Code: 3366 (Copper Foundries), 3325 (Steel Foundries, Not Elsewhere Classified), 3556 (Food Products Machinery), and 3324 (Steel Investment Foundry)
Operation Permit No.: F 127-26605-00037
Operation Permit Issuance Date: November 20, 2008
Significant Permit Revision No.: 127-33753-00037
Permit Reviewer: Brian Williams

On October 4, 2013, the Office of Air Quality (OAQ) received an application from Urschel Laboratories, Inc. related to a modification to an existing stationary no bake and green-sand bronze and stainless steel foundry that manufactures food processing equipment.

Existing Approvals

The source was issued FESOP Renewal No. 127-26605-00037 on November 20, 2008. There have been no subsequent approvals issued.

County Attainment Status

The source is located in Porter County.

Pollutant	Designation
SO ₂	Cannot be classified for the area bounded on the north by Lake Michigan; on the west by the Lake County and Porter County line; on the south by I-80 and I-90; and on the east by the LaPorte County and Porter County line. The remainder of Porter County is better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	On June 11, 2012, the U.S. EPA designated Porter County nonattainment, for the 8-hour ozone standard.
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.
Unclassifiable or attainment effective February 6, 2012, for PM _{2.5} .	

- (a) **Ozone Standards**
 U.S. EPA, in the Federal Register Notice 77 FR 112 dated June 11, 2012, has designated Porter County as nonattainment for ozone. On August 1, 2012, the air pollution control board issued an emergency rule adopting the U.S. EPA's designation. This rule became effective August 9, 2012. IDEM does not agree with U.S. EPA's designation of nonattainment. IDEM filed a suit against U.S. EPA in the U.S. Court of Appeals for the DC Circuit on July 19, 2012. However, in order to ensure that sources are not potentially liable for a violation of the Clean Air Act, the OAQ is following the U.S. EPA's designation. Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated

under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Therefore, VOC and NO_x emissions were evaluated pursuant to the requirements of Emission Offset, 326 IAC 2-3.

- (b) **PM_{2.5}**
Porter County has been classified as attainment for PM_{2.5}. On May 8, 2008, U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM_{2.5} emissions. These rules became effective on July 15, 2008. On May 4, 2011, the air pollution control board issued an emergency rule establishing the direct PM_{2.5} significant level at ten (10) tons per year. This rule became effective June 28, 2011. Therefore, direct PM_{2.5}, SO₂, and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (c) **Other Criteria Pollutants**
Porter County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

This source is classified as a no bake and green-sand bronze and stainless steel foundry, but it is not considered one (1) of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1), because the plant does not use scrap metal.

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Status of the Existing Source

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

This PTE table is from the TSD of FESOP Renewal No. 127-26605-00037 on November 20, 2008.

Process/ Emission Unit	Potential To Emit of the Entire Source Prior to Revision (tons/year)*									
	PM	PM10	PM2.5	SO ₂	NOx	VOC	CO	GHGs as CO ₂ e**	Total HAPs	Worst Single HAP
Unit A (No Bake Foundry; Sand Handling system)	43.8	43.8	43.8	--	--	3.525	--	--	1.34	0.90 Xylene
Unit A (Mold Washing)	--	--	--	--	--	2.76	--	--	--	--
Unit B (No Bake Foundry; Induction Furnace- pouring, casting and cooling)	12.74	12.74	12.74	.032	0.01	10.94	2.06	--	5.587	0.685 Phenol
Unit C (No Bake Foundry; Thermal Sand Reclaimer)	11.25	11.25	11.25	0	--	0.569	--	--	negl.	negl.
Unit D (Green Sand Foundry; Sand Handling System)	18.44	18.44	18.44	--	--	0	--	--	0.6	0.06 Form-aldehyde
Unit E (Green Sand Foundry; Fume Control)	8.01	8.01	8.01	--	--	--	--	--	negl.	negl.
Unit G (Immersion Cleaning) (Insignificant Activity)	--	--	--	--	--	6.12	--	--	0.87	0.33 Methyl Chloride
Investment cast foundry; Melting, Pouring, Casting and Cooling- Unit K (Insignificant Activity)	0.29	0.29	0.29	0	0	0	3.31	--	negl.	negl.
Insignificant Activities	1.18	1.38	1.38	0.02	3.58	0.24	3.01	--	0.5	0.23 Chromium
Total PTE of Entire Source	95.71	95.91	95.91	0.05	3.59	24.24	8.38	--	8.41	2.27 Xylene
Title V Major Source Thresholds**	NA	100	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds**	250	250	250	250	250	NA	250	100,000	NA	NA
Emission Offset/ Nonattainment NSR Major Source Thresholds	NA	NA	NA	NA	NA	100	NA	NA	NA	NA

negl. = negligible

*These emissions are based upon TSD of FESOP Renewal No. 127-26605-00037 on November 20, 2008.

**The 100,000 CO₂e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD. Prior to July 1, 2011, greenhouse gas emissions were not regulated; therefore no greenhouse gas emission calculations were included in previous permits for this source.

- (a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).
- (b) This existing source is not a major stationary source under Emission Offset (326 IAC 2-3), because no nonattainment regulated pollutant is emitted at a rate of 100 tons per year or more.
- (c) This existing source is not a major source of HAPs, as defined in 40 CFR 63.41, because the unlimited potential to emit HAPs are less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

Description of Proposed Revision

The Office of Air Quality (OAQ) has reviewed an application, submitted by Urschel Laboratories, Inc. on October 4, 2013, relating to the construction and operation of one (1) electric induction bronze melting furnace, which will be equipped with two (2) crucibles, in the existing no bake foundry. The new furnace will have a maximum capacity of 900 pounds per hour and the particulate emissions will be controlled by the existing baghouse, identified as PCU-2. The power to the new furnace will be supplied by the existing power supply for the existing electric induction furnace (Unit B). In addition, due to different ladle configurations, equipment setup and power distribution, two different metal types (i.e. stainless steel and manganese bronze) cannot be melted at the same time in the no bake foundry. The existing furnace has a maximum capacity of 1,200 pounds per hour. Consequently, the addition of the new furnace will not increase the overall melting throughput of the no bake foundry.

The following is a list of the new emission unit and pollution control device:

- (a) One (1) No Bake Foundry operation installed in 2003 and approved for modification in 2014, consisting of the following:
 - (1) One (1) electric induction bronze melting furnace, equipped with two (2) crucibles, identified as NBF-12A&B, approved for construction in 2014, with a maximum charge capacity of 0.45 tons of bronze per hour, with particulate emissions controlled by a baghouse PCU-2 and exhausting to S/V-2.

Note: The electric induction melting furnace, identified as Unit B and the electric induction bronze melting furnace, identified as NBF-12A&B cannot operate at the same time.

Enforcement Issues

There are no pending enforcement actions related to this revision.

Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

Permit Level Determination – FESOP Revision

The following table is used to determine the appropriate permit level under 326 IAC 2-8.11.1. This table reflects the PTE before controls of the proposed revision. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Process/ Emission Unit	PTE of Proposed Revision (tons/year)									
	PM	PM10	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO ₂ e	Total HAPs	Worst Single HAP
Electric Induction Bronze Melting Furnace NBF-12A&B (No bake foundry)	0.20	0.18	0.18	0	0	0	0	0	0.003	0.003 Manganese
Total PTE of Proposed Revision	0.20	0.18	0.18	0	0	0	0	0	0.003	0.003 Manganese

The unlimited potential to emit of the new furnace is less than the thresholds specified in 326 IAC 2-8-11.1 (Permit Revisions). However, the source is using alternative emission factors from AP-42, Chapter 12.13 - Steel Foundries. As a result, the source will be required to perform a one-time uncontrolled test to verify the emission rates for this new furnace.

In addition, the source has agreed to accept an annual bronze melting limit of less than 600 tons per year for all melting operations at the source in order to render the requirements of 40 CFR 63, Subpart ZZZZZZ not applicable. Therefore, pursuant to 326 IAC 2-8-11.1(f)(1)(A), this FESOP is being revised through a FESOP Significant Permit Revision because the proposed revision is not an Administrative Amendment or a Minor Permit revision. This permit revision will be adding applicable testing, NSPS and NESHAP requirements.

PTE of the Entire Source After Issuance of the FESOP Revision

The table below summarizes the potential to emit of the entire source with updated emissions shown as **bold** values and previous emissions shown as ~~strikethrough~~ values.

Process/ Emission Unit	Potential To Emit of the Entire Source to accommodate the Proposed Revision (tons/year)									
	PM	PM10	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO ₂ e**	Total HAPs	Worst Single HAP
Unit A (No Bake Foundry; Sand Handling system)	43.8	43.8	43.8	0	0	3.525	0	0	4.34 1.29	0.90 0.87 Xylene
Unit A (Mold Washing)	0	0	0	0	0	2.76	0	0	0	0
Unit B and NBF-12A&B (No Bake Foundry; Induction Furnaces-pouring, casting and cooling)	12.74 12.75	12.74 12.75	12.74 12.75	0.02 0.17	0.01	10.94	2.06	0	5.587 5.82	0.685 0.66 Phenol
Unit C (No Bake Foundry; Thermal Sand Reclaimer)	11.25 11.26	11.25 11.26	11.25 11.26	0	0	0.569 0.57	0	0	negl.	negl.

Process/ Emission Unit	Potential To Emit of the Entire Source to accommodate the Proposed Revision (tons/year)									
	PM	PM10	PM2.5	SO ₂	NOx	VOC	CO	GHGs as CO ₂ e**	Total HAPs	Worst Single HAP
Unit D (Green Sand Foundry; Sand Handling System)	18.44	18.44	18.44	0	0	0.06	0	0	0.6	0.06 Formaldehyde
Unit E (Green Sand Foundry; Fume Control)	8.04 8.02	8.04 8.02	8.04 8.02	0	0	0	0	0	negl. 0.89	negl. 0.52 Manganese
Unit G (Immersion Cleaning) (Insignificant Activity)	0	0	0	0	0	6.12	0	0	0.87	0.33 Methyl Chloride
Investment cast foundry; Melting, Pouring, Casting and Cooling- Unit K (Insignificant Activity)	0.29	0.29	0.29	0	0	0	3.31	0	negl. 0.11	negl. 0.06 Chromium
Insignificant Activities	1.18	1.38	1.38	0.02	3.58 3.51	0.24	3.04 2.95	4,328	0.5	0.23 Chromium
Total PTE of Entire Source	95.74 95.73	95.94 95.93	95.94 95.93	0.05	3.59 3.52	24.24 24.21	8.38 8.32	4,328	8.44 9.56	2.27 1.20 Xylene
Title V Major Source Thresholds**	NA	100	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds**	250	250	250	250	250	NA	250	100,000	NA	NA
Emission Offset/ Nonattainment NSR Major Source Thresholds	NA	NA	NA	NA	NA	100	NA	NA	NA	NA
negl. = negligible *Under the Part 70 Permit program (40 CFR 70), PM10 and PM2.5, not particulate matter (PM), are each considered as a "regulated air pollutant". **The 100,000 CO ₂ e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.										

Note: IDEM has reviewed the potential to emit calculations in Appendix A of this TSD. Based on IDEM's review, the limited potential to emit calculations have been updated to reflect the enforceable limits in the current permit. In addition, IDEM has calculated the potential to emit greenhouse gases.

The table below summarizes the potential to emit of the entire source after issuance of this revision, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this FESOP permit revision, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Revision (tons/year)									
	PM	PM10	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO ₂ e**	Total HAPs	Worst Single HAP
Unit A (No Bake Foundry; Sand Handling system)	43.8	43.8	43.8	0	0	3.52	0	0	1.29	0.87 Xylene
Unit A (Mold Washing)	0	0	0	0	0	2.76	0	0	0	0
Unit B and NBF-12A&B (No Bake Foundry; Induction Furnaces-pouring, casting and cooling)	12.75	12.75	12.75	0.17	0.01	10.94	2.06	0	5.82	0.66 Phenol
Unit C (No Bake Foundry; Thermal Sand Reclaimer)	11.26	11.26	11.26	0	0	0.57	0	0	negl.	negl.
Unit D (Green Sand Foundry; Sand Handling System)	18.44	18.44	18.44	0	0	0.06	0	0	0.6	0.06 Formaldehyde
Unit E (Green Sand Foundry; Fume Control)	8.02	8.02	8.02	0	0	0	0	0	0.89	0.52 Manganese
Unit G (Immersion Cleaning) (Insignificant Activity)	0	0	0	0	0	6.12	0	0	0.87	0.33 Methyl Chloride
Investment cast foundry; Melting, Pouring, Casting and Cooling- Unit K (Insignificant Activity)	0.29	0.29	0.29	0	0	0	3.31	0	0.11	0.06 Chromium
Insignificant Activities	1.18	1.38	1.38	0.02	3.51	0.24	2.95	4,328	0.5	0.23 Chromium
Total PTE of Entire Source	95.73	95.93	95.93	0.05	3.52	24.21	8.32	4,328	9.56	1.20 Xylene
Title V Major Source Thresholds**	NA	100	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds**	250	250	250	250	250	NA	250	100,000	NA	NA
Emission Offset/ Nonattainment NSR Major Source Thresholds	NA	NA	NA	NA	NA	100	NA	NA	NA	NA

negl. = negligible

*Under the Part 70 Permit program (40 CFR 70), PM10 and PM2.5, not particulate matter (PM), are each considered as a "regulated air pollutant".

**The 100,000 CO₂e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.

(a) FESOP Status

This revision to an existing Title V minor stationary source will not change the minor status, because the potential to emit criteria pollutants from the entire source will still be limited to less than the Title V major source threshold levels. Therefore, the source will still be subject to the provisions of 326 IAC 2-8 (FESOP).

In order to comply with the requirements of 326 IAC 2-8-4 (FESOP), the source shall comply with the following:

- (1) The emissions from the No Bake Foundry Melting/Pouring Operations (Unit B and NBF-12A&B) shall not exceed 2.91 pounds of PM10 per hour.
- (2) The emissions from the No Bake Foundry Melting/Pouring Operations (Unit B and NBF-12A&B) shall not exceed 2.91 pounds of PM2.5 per hour.

Note: The new melting furnace will be controlled by the existing baghouse, identified as PCU-2. Therefore, the source requested to include the new melting furnace in the existing PM10 and PM2.5 emission limits for the No Bake Foundry Melting and Pouring Operations. This is a Title 1 change.

Compliance with these limits, combined with the potential to emit PM10 and PM2.5 from all other emission units at this source, shall limit the source-wide total potential to emit of PM10 and PM2.5 to less than 100 tons per 12 consecutive month period, each, and shall render the requirements of 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

- (3) The total input of VOC from the use of mold wash in the No bake Foundry (Unit A) shall not exceed 2.76 tons of per twelve (12) consecutive month period, with compliance determined at the end of each month.

Note: The potential to emit calculations in Appendix A of the TSD for FESOP Renewal No. 127-26605-00037 included a mold wash usage limit of 1,800 gallons per year, which is equivalent to 2.76 tons of VOC per year. However, the limit was not included in the permit. Therefore, IDEM has added the limit to the permit in order to make it enforceable and to ensure the source-wide limited potential to emit VOC is less than twenty-five (25) tons per year. This is a Title 1 change.

Compliance with these limits, combined with the potential to emit VOC from all other emission units at this source, shall limit the source-wide total potential to emit of VOC to less than 25 tons per 12 consecutive month period, and shall render the requirements of 326 IAC 2-7 (Part 70 Permits), 326 IAC 2-3 (Emission Offset), and 326 IAC 8-1-6 (New Facilities, General Reduction Requirements) not applicable.

The source shall continue to comply with all other applicable emission limits as contained in FESOP Renewal No. 127-26605-00037, issued on November 20, 2008.

(b) PSD Minor Source

This modification to an existing PSD minor stationary source will not change the PSD minor status, because the potential to emit of all attainment regulated pollutants from the entire source will continue to be less than the PSD major source threshold levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, the source shall comply with the following:

- (1) The emissions from the No Bake Foundry Melting/Pouring Operations (Unit B and NBF-

12A&B) shall not exceed 2.91 pounds of PM per hour.

Note: The new melting furnace will be controlled by the existing baghouse, identified as PCU-2. Therefore, the source requested to include the new melting furnace in the existing PM emission limit for the No Bake Foundry Melting and Pouring Operations. This is a Title 1 change.

Compliance with these limits, combined with the potential to emit PM from all other emission units at this source, shall limit the source-wide total potential to emit of PM to less than 250 tons per 12 consecutive month period and shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

The source shall continue to comply with all other applicable emission limits as contained in FESOP Renewal No. 127-26605-00037, issued on November 20, 2008.

(c) Emission Offset Minor Source

This modification to an existing Emission Offset minor stationary source will not change the Emission Offset minor status, because the potential to emit of all nonattainment regulated pollutants from the entire source will continue to be less than the Emission Offset major source threshold levels. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

- (a) The requirements of the New Source Performance Standards for Calciners and Dryers in Mineral Industries (40 CFR 60, Subpart UUU) are included in this revision because the source utilizes thermal sand reclamation, which meets the definition of a calciner in 40 CFR 60.731 and was constructed after April 23, 1986.

The emission unit subject to this rule include the following:

- (1) 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 process weight rate of 1,000 lbs sand per hour, equipped with a baghouse PCU-4 and exhausting to S/V-3.

Applicable portions of the NSPS are the following:

- (1) 40 CFR 60.730(a) and (c)
- (2) 40 CFR 60.731
- (3) 40 CFR 60.732
- (4) 40 CFR 60.733
- (5) 40 CFR 60.734
- (6) 40 CFR 60.735(a), (c)(1) and (2), and (d)
- (7) 40 CFR 60.736(a) and (b)
- (8) 40 CFR 60.737

This is a newly applicable requirement and this NSPS has applicable testing requirements. This is a Title 1 change.

The requirements of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated as 326 IAC 12-1, apply to the thermal sand reclamation system except as otherwise specified in 40 CFR 60, Subpart UUU.

- (b) There are no other New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included for this proposed revision.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (a) This stainless steel foundry that manufactures food processing equipment, is subject to the National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources, 40 CFR 63, Subpart ZZZZZ (326 IAC 20), because this source is an existing steel foundry, as defined in 40 CFR 63.10906, constructed prior to September 17, 2007, and is an area source of hazardous air pollutant (HAP) emissions. The facility's metal melt production for calendar year 2008 was less than 20,000 tons. Therefore, this existing affected source is a small foundry for the purposes of 40 CFR 63, Subpart ZZZZZ

The facilities subject to this rule include the following:

- (1) One (1) Electric induction melting furnace, identified as Unit B, pouring, casting and cooling operation with maximum charge capacity of 0.6 ton of metals per hour and maximum process weight rate of binder usage of 26 lbs/ton of sand, with particulate emissions controlled by a baghouse PCU-2 and exhausting to S/V-2.
- (2) One (1) Electric induction melting furnace, identified as Unit E, pouring, casting and cooling operation 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.
- (3) One (1) stainless steel foundry, identified as Unit K, employing the investment casting process (melting furnace and pouring operation only), with maximum metal charge capacity of 310 pounds per hour.

Applicable portions of the NESHAP are the following:

- (1) 40 CFR 63.10880
- (2) 40 CFR 63.10881(a) and (d)
- (3) 40 CFR 63.10885
- (4) 40 CFR 63.10886
- (5) 40 CFR 63.10890
- (6) 40 CFR 63.10905
- (7) 40 CFR 63.10906

This is a newly applicable requirement and this NESHAP does not have applicable testing requirements since this source is currently classified as a small foundry. This is a Title 1 change.

The requirements of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the source except as otherwise specified in 40 CFR 63, Subpart ZZZZZ.

The new electric induction bronze melting furnace is not subject to this NESHAP because it only melts nonferrous metal as defined in 40 CFR 63.10906.

- (b) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Secondary Nonferrous Metals Processing Area Sources, 40 CFR 63, Subpart TTTTTT (326 IAC 20), are not included in the permit, since this source does not process secondary nonferrous metals.
- (c) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Area Source Standards for Nine Metal Fabrication and Finishing Source Categories, 40 CFR 63, Subpart XXXXXX (326 IAC 20), are not included in the permit, since this source is not one of the nine listed source categories in 40 CFR 63.11514.

- (d) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs): Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries, 40 CFR 63, Subpart ZZZZZZ (326 IAC 20) did not initially apply to the existing melting operations at this copper-based alloy foundry because the facility's annual metal melt production for calendar year 2010 was less than 600 tons per year. However, due to the addition of the new electric induction bronze melting furnace, IDEM must re-evaluate the applicability of this NESHAP.

Pursuant to 40 CFR 63.11544(a)(4)(iv), 40 CFR 63, Subpart ZZZZZZ is applicable to existing foundries with new melting operations that increase the capacity after startup such that the annual metal melt capacity equals or exceeds 600 tons per year. Annual melt capacity is defined in 40 CFR 63.11556, and is the unlimited maximum capacity of the new furnace at 8,760 hours per year or the maximum permitted aluminum, copper, and other nonferrous metal melting operation production rate for the melting operation calculated on an annual basis. The proposed bronze furnace has an annual metal melt capacity of 3,942 tons per year. However, the source has requested to limit the furnaces to less than 600 tons of bronze per year in order to render this NESHAP not applicable.

In order to render 40 CFR 63, Subpart ZZZZZZ (National Emission Standards for Hazardous Air Pollutants (NESHAPs): Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries) not applicable, the total combined copper and copper-based alloys melt throughput of the three (3) electric induction furnaces (Unit B, NBF-12A&B, and Unit E) shall be less than 600 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with these limit shall render the requirements of 40 CFR 63, Subpart ZZZZZZ (6Z) (National Emission Standards for Hazardous Air Pollutants (NESHAPs): Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries) not applicable.

Note: This is a new limit as a result of this revision.

- (e) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included for this proposed revision.

Compliance Assurance Monitoring (CAM)

- (a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the potential to emit of the source is limited to less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

State Rule Applicability Determination

The following state rules are applicable to the proposed revision:

- (a) 326 IAC 2-8-4 (FESOP)
This revision to an existing Title V minor stationary source will not change the minor status, because the potential to emit criteria pollutants from the entire source will still be limited to less than the Title V major source threshold levels. Therefore, the source will still be subject to the provisions of 326 IAC 2-8 (FESOP). See PTE of the Entire Source After Issuance of the FESOP Revision Section above.
- (b) 326 IAC 2-2 (Prevention of Significant Deterioration(PSD))
This modification to an existing PSD minor stationary source will not change the PSD minor status, because the potential to emit of all attainment regulated pollutants from the entire source will continue to be less than the PSD major source threshold levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply. See PTE of the Entire Source After Issuance of the FESOP Revision Section above.

- (c) 326 IAC 2-3 (Emission Offset)
This modification to an existing Emission Offset minor stationary source will not change the Emission Offset minor status, because the potential to emit of all nonattainment regulated pollutants from the entire source will continue to be less than the Emission Offset major source threshold levels. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply. See PTE of the Entire Source After Issuance of the FESOP Revision Section above.
- (d) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The proposed revision is not subject to the requirements of 326 IAC 2-4.1, since the unlimited potential to emit of HAPs from the new furnace is less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs.
- (e) 326 IAC 2-6 (Emission Reporting)
Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is located in Porter County, it has actual and limited emissions of NOx and VOC of less than twenty-five (25) tons per year, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.
- (f) 326 IAC 5-1 (Opacity Limitations)
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
- (1) 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.
 - (2) 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.
- (g) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)
Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source 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.
- (h) 326 IAC 12 (New Source Performance Standards)
See Federal Rule Applicability Section of this TSD.
- (i) 326 IAC 20 (Hazardous Air Pollutants)
See Federal Rule Applicability Section of this TSD.

Electric Induction Bronze Melting Furnace

- (a) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the electric induction bronze melting furnace shall not exceed 2.40 pounds per hour when operating at a process weight rate of 0.45 tons per hour. The pound per hour limitation was calculated with the following equation:

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 baghouse (PCU-2) shall be in operation at all times the electric induction bronze melting furnace is in operation, since the source is using alternative emission factors.

- (b) 326 IAC 8 (VOC Rules)
The electric induction bronze melting furnace does not have the potential to emit VOC. Therefore, there are no 326 IAC 8 rules applicable to this furnace.
- (c) 326 IAC 20 (Hazardous Air Pollutants)
See Federal Rule Applicability Section of this TSD.

Immersion Cleaning of Machine Parts

- (a) 326 IAC 8-3 (Organic Solvent Degreasing Operations)
The source is not modifying the existing immersion cleaning operation. However, IDEM has reevaluated the applicability of 326 IAC 8-3 (Organic Solvent Degreasing Operations) due to recent revisions to the rule.
- (b) 326 IAC 8-3-2 (Cold cleaner degreaser control equipment and operating requirements)
This source currently has degreasing operations, which are subject to 326 IAC 8-3-2. On January 30, 2013, 326 IAC 8-3-2 was revised. As a result, IDEM is reevaluating the applicability of 326 IAC 8-3-2. The cold cleaner degreasing operations were constructed after July 1, 1990 and are not equipped with a remote solvent reservoir. Therefore, these operations are still subject to the requirements of 326 IAC 8-3-2.

Pursuant to 326 IAC 8-3-2(a), the owner or operator of a cold cleaner degreaser shall ensure the following control equipment and operating requirements are met:

- (1) Equip the degreaser with a cover.
- (2) Equip the degreaser with a device for draining cleaned parts.
- (3) Close the degreaser cover whenever parts are not being handled in the degreaser.
- (4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases.
- (5) Provide a permanent, conspicuous label that lists the operating requirements in subdivisions (3), (4), (6), and (7).
- (6) Store waste solvent only in closed containers.
- (7) Prohibit the disposal or transfer of waste solvent in such a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.

Pursuant to 326 IAC 8-3-2(b), the owner or operator of a cold cleaner degreaser subject to this subsection shall ensure the following additional control equipment and operating requirements are met:

- (1) Equip the degreaser with one (1) of the following control devices if the solvent is heated to a temperature of greater than forty-eight and nine-tenths (48.9) degrees Celsius (one hundred twenty (120) degrees Fahrenheit):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent used is insoluble in, and heavier than, water.

- (C) A refrigerated chiller.
 - (D) Carbon adsorption.
 - (E) An alternative system of demonstrated equivalent or better control as those outlined in clauses (A) through (D) that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.
- (2) Ensure the degreaser cover is designed so that it can be easily operated with one (1) hand if the solvent is agitated or heated.
- (3) If used, solvent spray:
- (A) must be a solid, fluid stream; and
 - (B) shall be applied at a pressure that does not cause excessive splashing.

Note: These are new requirements due to a change in applicability.

- (c) 326 IAC 8-3-5 (Cold cleaner degreaser operation and control)
 The degreasing operations are currently subject to 326 IAC 8-3-5. However, on January 30, 2013, this rule was repealed. Therefore, the degreasing operations are no longer subject to this rule and the requirements of this rule will be removed from the permit.

Compliance Determination, Monitoring and Testing Requirements
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- (a) The compliance determination and monitoring requirements applicable to this proposed revision are as follows:

Emission Unit/Control	Operating Parameters	Frequency
Electric Induction Bronze Melting Furnace/Baghouse PCU-2	Pressure Drop	Once per day
	Visible Emissions	Once per day

These compliance monitoring requirements are necessary to ensure compliance with 326 IAC 2-8-4 (FESOP), 326 IAC 2-2 (PSD), and 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes).

- (b) The testing requirements applicable to this proposed revision are as follows:

Testing Requirements				
Emission Unit	Control Device	Pollutant	Timeframe for Testing	Frequency of Testing
Electric Induction Bronze Melting Furnace	Uncontrolled	PM, PM10, and PM2.5	No later than 60 days after achieving maximum capacity, but not later than 180 days after initial startup	One Time

Pursuant to Nonrule Policy Air-014-NPD - Approval and Validation of Alternative Emission Factors the source must perform a one time stack test to determine the uncontrolled PM, PM10, and PM2.5 emission rates for the new electric induction bronze melting furnace.

Proposed Changes

The following changes listed below are due to the proposed revision. Deleted language appears as ~~striketrough~~ text and new language appears as **bold** text:

1. Sections A.2 - Emission Units and Pollution Control Equipment Summary and D.1 - Emission Unit Operation Conditions have been revised to include descriptive information for the new furnace. In addition, the existing emission unit descriptions in Sections A.2, A.3 - Insignificant Activities, D.1, and D.2 have been revised to identify the emission units that have applicable NSPS and NESHAP requirements.
2. The existing PM, PM10, and PM2.5 emission limits in Section D.1 - Particulate Matter (PM), Section D.1 - Particulate Matter Less Than Ten Microns (PM10), and Section D.1 - Particulate Matter Less than Two and a half Microns (PM2.5) have been revised to include the new furnace. In addition, Section D.1 - PM2.5 has been revised to reflect that Porter County is now in attainment for the PM2.5 standard. Therefore, the PM2.5 emissions are reviewed under 326 IAC 2-2 (PSD) not 326 IAC 2-1.1-5 (Nonattainment NSR).
3. Section D.1 - Particulate has been revised to include the allowable emission rate under 326 IAC 6-3-2 for the new furnace.
4. A new copper and copper based alloy melting limit has been included in Section D.1 as Condition D.1.5 - Copper Foundry Limitation. Due to the addition of this limit new record keeping and reporting requirements have been included in Section D.1. Finally, a new FESOP Quarterly Report form has been included in the permit for this limit.
5. The existing VOC emission limits in Section D.1 - Volatile Organic Compounds (VOCs) have been revised to include a VOC input limit on the mold wash. Due to the addition of this limit new compliance determination, record keeping, and reporting requirements have been included in Section D.1. Finally, a new FESOP Quarterly Report form has been included in the permit for this limit.
6. New testing requirements have been included in Section D.1 - Testing Requirements for the new furnace.
7. Section D.1 - Particulate Control has been revised to include the new furnace.
8. This source is subject to 40 CFR 63, Subpart ZZZZZ and 40 CFR 60, Subpart UUU. Therefore, these newly applicable requirements have been added to the permit in Sections E.1 and E.2.

...

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) No Bake Foundry operation installed in 2003 **and approved for modification in 2014**, consisting of the following:

- ...
- (2) One (1) Electric induction melting furnace, identified as Unit B, pouring, casting and cooling operation with maximum charge capacity of 0.6 ton of metals per hour and maximum process weight rate of binder usage of 26 lbs/ton of sand, with particulate emissions controlled by a baghouse PCU-2 and exhausting to S/V-2.

Under 40 CFR 63, Subpart ZZZZZ, this emission unit is considered an affected facility.

- (3) **One (1) electric induction bronze melting furnace, equipped with two (2) crucibles, identified as NBF-12A&B, approved for construction in 2014, with a maximum charge capacity of 0.45 tons of bronze per hour, with particulate emissions controlled by a baghouse PCU-2 and exhausting to S/V-2.**

Note: The electric induction melting furnace, identified as Unit B and the electric induction bronze melting furnace, identified as NBF-12A&B cannot operate at the same time.

- (34) 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 process weight rate of 1000 lbs sand per hour, equipped with a baghouse PCU-4 and exhausting to S/V-3.

Under 40 CFR 60, Subpart UUU, this emission unit is considered an affected facility.

- ...
(b) One (1) Green Sand Foundry operation, installed in 1990, consisting of the following:

- (2) One (1) Electric induction melting furnace, identified as Unit E, pouring, casting and cooling operation 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.

Under 40 CFR 63, Subpart ZZZZ, this emission unit is considered an affected facility.

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:

- ...
(b) Activities with emissions below insignificant thresholds (i.e. VOC emission less than 3 lb/hr and particulate emission less than 5 lb/hr):

- (1) One (1) stainless steel foundry, identified as Unit K, employing the investment casting process (melting furnace and pouring operation only), with maximum metal charge capacity of 310 pounds per hour.

Under 40 CFR 63, Subpart ZZZZ, this emission unit is considered an affected facility.

...
SECTION D.1

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) No Bake Foundry operation, installed in 2003 **and approved for modification in 2014**, consisting of the following:

- ...
(2) One (1) Electric induction melting furnace, identified as Unit B, pouring, casting and cooling operation with maximum charge capacity of 0.6 ton of metals per hour and maximum process weight rate of binder usage of 26 lbs/ton of sand, with particulate emissions controlled by a baghouse PCU-2 and exhausting to S/V-2.

Under 40 CFR 63, Subpart ZZZZ, this emission unit is considered an affected facility.

(3) **One (1) electric induction bronze melting furnace, equipped with two (2) crucibles, identified as NBF-12A&B, approved for construction in 2014, with a maximum charge capacity of 0.45 tons of bronze per hour, with particulate emissions controlled by a baghouse PCU-2 and exhausting to S/V-2.**

Note: The electric induction melting furnace, identified as Unit B and the electric induction bronze melting furnace, identified as NBF-12A&B cannot operate at the same time.

(34) 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 process weight rate of 1000 lbs sand per hour, equipped with a baghouse PCU-4 and exhausting to S/V-3.

Under 40 CFR 60, Subpart UUU, this emission unit is considered an affected facility.

(b) One (1) Green Sand Foundry operation, installed in 1990, consisting of the following:

...

(2) One (1) Electric induction melting furnace, identified as Unit E, pouring, casting and cooling operation 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.

Under 40 CFR 63, Subpart ZZZZ, this emission unit is considered an affected facility.

...

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

D.1.1 Particulate Matter (PM) [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 not applicable, the PM emission rates from the emission units listed below shall be limited as follows:

- ...
- (b) the No Bake Foundry Melting/Pouring Operations (Unit B and NBF-12A&B) shall not exceed 2.91 pounds of PM per hour.
- ...

Compliance with these limits, **combined with the potential to emit PM from all other emission units at this source**, shall limit the source-wide potential to emit of PM to less than 250 tons per twelve (12) consecutive month period, and render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

D.1.2 Particulate Matter Less Than Ten Microns (PM10) [326 IAC 2-8-4] [326 IAC 2-2] [~~326 IAC 2-7~~]

Pursuant to 326 IAC 2-8-4 (FESOP), the PM10 emission rates from the emission units listed below shall be limited as follows:

- ...
- (b) the No Bake Foundry Melting/Pouring Operations (Unit B and NBF-12A&B) shall not exceed 2.91 pounds of PM10 per hour.
- ...

Compliance with these requirements limits, **combined with the potential to emit PM-10 from all other emission units at this source**, shall limit the source-wide potential to emit PM-10 to less than 100 tons per twelve (12) consecutive month period, and render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-7 (Part 70) not applicable.

D.1.3 Particulate Matter Less Than Two and a half Microns (PM2.5) [~~326 IAC 2-1.1-5~~] [326 IAC 2-8-4]

[326 IAC 2-2]

In order to render the requirements of 326 IAC 2-1.1-5 (Nonattainment NSR) not applicable, the PM2.5 emission rates from the emission units listed below shall be limited as follows:

Pursuant to 326 IAC 2-8-4 (FESOP), the PM2.5 emission rates from the emission units listed below shall be limited as follows:

- (b) the No Bake Foundry Melting/Pouring Operations (Unit B and NBF-12A&B) shall not exceed 2.91 pounds of PM2.5 per hour.

Compliance with these limits, **combined with the potential to emit PM2.5 from all other emission units at this source**, shall limit the source-wide potential to emit of PM2.5 to less than 100 tons per twelve (12) consecutive month period and render the requirements of 326 IAC 2-1.1-5 (Nonattainment NSR) **326 IAC 2-2 (PSD) and 326 IAC 2-7 (Part 70)** not applicable.

D.1.4 Particulate [326 IAC 6-3]

Pursuant to 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing processes), the allowable particulate emissions from the emission units listed in the table shall be limited by the following:

Emission Unit ID	Process Weight Rate (tons/hr)	Allowable Particulate Emissions Rate (lb/hr)
Unit A (Green Sand Foundry Melting/Pouring Equipment)	5.04	12.12
Unit B (No Bake Foundry Melting/Pouring Equipment)	0.60	2.91
Unit NBF-12A&B (No Bake Foundry Melting)	0.45	2.40
Unit C (Green Sand Foundry Melting/Pouring Equipment)	0.50	2.57
Unit D (Green Sand Foundry Melting/Pouring Equipment)	1.04	4.21
Unit E (Green Sand Foundry Melting/Pouring Equipment)	0.30	1.83

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

D.1.5 Copper Foundry Limitation [40 CFR 63, Subpart ZZZZZZ] [326 IAC 20]

In order to render 40 CFR 63, Subpart ZZZZZZ (National Emission Standards for Hazardous Air Pollutants (NESHAPs): Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries) not applicable, the total combined copper and copper-based alloys melt throughput of the three (3) electric induction furnaces (Unit B, NBF-12A&B, and Unit E) shall be less than 600 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with this limit shall render the requirements of 40 CFR 63, Subpart ZZZZZZ (6Z) (National Emission Standards for Hazardous Air Pollutants (NESHAPs): Area Source Standards for Aluminum, Copper not applicable.

D.1.56 Volatile Organic Compounds (VOCs) [326 IAC 2-3][326 IAC 2-7] [326 IAC 8-1-6] [326 IAC 2-8-4]

Pursuant to 326 IAC 2-8-4, the Permittee shall ~~control~~ **limit** the VOC emissions from the emission units A, B and C as follows:

...

- (d) The total input of VOC from the use of mold wash in the No bake Foundry (Unit A) shall not exceed 2.76 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.**
- ~~(de)~~ 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%.

Compliance with these requirements ~~limits~~, **combined with the potential to emit VOC from all other emission units at this source**, shall limit the source-wide potential to emit VOC to less than 25 tons per year, and render the requirements of 326 IAC 2-3 (Emission Offset), 326 IAC 2-27 (Part 70), and 326 IAC 8-1-6 (New Facilities, General Reduction Requirements) not applicable.

D.1.67 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

...

Compliance Determination Requirements

D.1.78 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

...

- (c) The Permittee shall perform a one-time performance test to verify the uncontrolled PM, PM10, and PM2.5 emissions from the electric induction bronze melting furnace, identified as NBF-12A&B, no later than sixty (60) days after achieving maximum capacity, but not later than one hundred eighty (180) days after initial startup utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM10 and PM2.5 includes filterable and condensable PM10 and PM2.5.**

D.1.89 Particulate Control

...

- ~~(b)~~ In order to comply with ~~e~~**Conditions D.1.1(b) and (e), and D.1.2(b) and (e), D.1.3(b) and (e), and D.1.4**, 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 **and NBF-12A&B**) or the Green Sand Foundry (Unit E).

...

D.1.910 VOC and HAPs Control

In order to comply with Condition D.1.56~~(ed)~~, 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.

D.1.11 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-4]

Compliance with the VOC input limit contained in Condition D.1.6(c) shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

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

D.1.102 Thermal Oxidizer Temperature

...

D.1.143 Parametric Monitoring

...

D.1.124 Visible Emissions Notations

...

D.1.135 Baghouse Parametric Monitoring

...

D.1.146 Broken or Failed Bag Detection

...

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

D.1.157 Record Keeping Requirements

- (a) **To document the compliance status with Condition D.1.5, the Permittee shall keep monthly records of the total combined copper and copper-based alloys melt throughput of the three (3) electric induction furnaces (Unit B, NBF-12A&B, and Unit E).**
- (ab) To document **the** compliance **status** with Condition D.1.56(a)(b)(c), the Permittee shall maintain records of the monthly usage of the binder in No Bake Foundry from Units A and B. Records necessary to demonstrate compliance shall be available ~~within~~ **no later than** 30 days ~~of~~ **after** the end of each compliance period.
- (c) **To document the compliance status with Condition D.1.6(d), the Permittee shall maintain records in accordance with (1) through (4) below. Records necessary to demonstrate compliance shall be available no later than 30 days after the end of each compliance period.**
 - (1) **The VOC content of each coating material and solvent used.**
 - (2) **The amount of coating material and solvent less water used on monthly basis.**
 - (A) **Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.**
 - (B) **Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.**
 - (3) **The total VOC usage for each month.**
 - (4) **The weight of VOCs emitted for each compliance period.**
- (bd) To document **the** compliance **status** with Condition D1.102, the Permittee shall maintain continuous temperature records (no less often than once per **fifteen (15) minutes**) for the thermal oxidizer and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test.
- (ee) To document compliance with D.1.143, the Permittee shall maintain daily records of the duct pressure or fan amperage.
- (ef) To document compliance with Condition D.1.124, the Permittee shall maintain daily records of visible emission notations of the baghouse PCU-1, PCU-2 and PCU-4 stack exhausts. Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation, (i.e. the process did

not operate that day).

- (eg) To document compliance with Condition D.1.135, the Permittee shall maintain daily records of the pressure drop during normal operation across each of the baghouses, PCU-1, PCU-2 and PCU-4. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (i.e. the process did not operate that day).
- (fh) ~~All records shall be maintained in accordance with Section C – General Record Keeping Requirements, of this permit.~~ **Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.**

D.1.168 Reporting Requirements

A quarterly summary of the information to document **the compliance status** with Conditions **D.1.5 and D.1.56(a),(b),(c), and (d)** 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~~ **not later than thirty (30) days** after the end of the quarter being reported. **Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition.** ~~The report submitted by the Permittee does require the certification by the responsible official as defined by 326 IAC 2-7-1(34).~~ **The report submitted by the Permittee does require a certification that meet the requirements of 326 IAC 2-8-5(a)(1) by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).**

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Insignificant Activities :

...

- (b) Activities with emissions below insignificant thresholds (i.e. VOC emission less than 3 lb/hr and particulate emission less than 5 lb/hr):
 - (1) One (1) stainless steel foundry, identified as Unit K, employing the investment casting process (melting furnace and pouring operation only), with maximum metal charge capacity of 310 pounds per hour.

Under 40 CFR 63, Subpart ZZZZZ, this emission unit is considered an affected facility.

...

SECTION E.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) **One (1) No Bake Foundry operation, installed in 2003 and approved for modification in 2014, consisting of the following:**
 - (2) **One (1) Electric induction melting furnace, identified as Unit B, pouring, casting and cooling operation with maximum charge capacity of 0.6 ton of metals per hour and maximum process weight rate of binder usage of 26 lbs/ton of sand, with particulate emissions controlled by a baghouse PCU-2 and exhausting to S/V-2.**

Under 40 CFR 63, Subpart ZZZZZ, this emission unit is considered an affected facility.

- (b) One (1) Green Sand Foundry operation, installed in 1990, consisting of the following:**
- (2) One (1) Electric induction melting furnace, identified as Unit E, pouring, casting and cooling operation 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.**

Under 40 CFR 63, Subpart ZZZZZ, this emission unit is considered an affected facility.

Insignificant Activities

- (b) Activities with emissions below insignificant thresholds (i.e. VOC emission less than 3 lb/hr and particulate emission less than 5 lb/hr):**
- (1) One (1) stainless steel foundry, identified as Unit K, employing the investment casting process (melting furnace and pouring operation only), with maximum metal charge capacity of 310 pounds per hour.**

Under 40 CFR 63, Subpart ZZZZZ, this emission unit is considered an affected facility.

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

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 20-1]

E.1.1 General Provisions Relating to NESHAP [40 CFR Part 63, Subpart A] [326 IAC 20-1]

Pursuant to 40 CFR 63, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1, except as otherwise specified in 40 CFR 63, Subpart ZZZZZ.

E.1.2 NESHAP for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources [40 CFR Part 63, Subpart ZZZZZ] [326 IAC 20-1]

The Permittee, which owns and operates an existing iron and steel foundry that is an area source of hazardous air pollutant (HAP) emissions shall comply with the following provisions of 40 CFR Part 63, Subpart ZZZZZ (included as Attachment A of this permit):

- (a) 40 CFR 63.10880**
- (b) 40 CFR 63.10881(a) and (d)**
- (c) 40 CFR 63.10885**
- (d) 40 CFR 63.10886**
- (e) 40 CFR 63.10890**
- (f) 40 CFR 63.10905**
- (g) 40 CFR 63.10906**

SECTION E.2

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) One (1) No Bake Foundry operation, installed in 2003 and approved for modification in 2014, consisting of the following:

(4) 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 process weight rate of 1000 lbs sand per hour, equipped with a baghouse PCU-4 and exhausting to S/V-3.

Under 40 CFR 60, Subpart UUU, this emission unit is considered an affected facility.

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

New Source Performance Standards (NSPS) Requirements [326 IAC 12-1]

E.2.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the applicable provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 12-1, except as otherwise specified in 40 CFR 60, Subpart UUU.

(b) Pursuant to 40 CFR 60.10, the Permittee shall submit all required notifications and reports to:

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

E.2.2 New Source Performance Standards (NSPS) for Calciners and Dryers in Mineral Industries [40 CFR Part 60, Subpart UUU] [326 IAC 12]

The Permittee shall comply with the applicable provisions of 40 CFR Part 60, Subpart UUU (included as Attachment B of this permit), which are incorporated by reference as 326 IAC 12, except as otherwise specified in 40 CFR Part 60, Subpart UUU:

- (a) 40 CFR 60.730(a) and (c)
- (b) 40 CFR 60.731
- (c) 40 CFR 60.732
- (d) 40 CFR 60.733
- (e) 40 CFR 60.734
- (f) 40 CFR 60.735(a), (c)(1) and (2), and (d)
- (g) 40 CFR 60.736(a) and (b)
- (h) 40 CFR 60.737

E.2.3 Testing Requirements [326 IAC 2-6.1-5(b)(2)] [326 IAC 2-1.1-11]

The Permittee shall perform the stack testing required under 40 CFR Part 60, Subpart UUU, utilizing methods as approved by the Commissioner to document compliance with Condition E.2.2. These tests shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

...

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE AND ENFORCEMENT BRANCH**

FESOP Quarterly Report

Source Name: Urschel Laboratories, Inc.
Source Address: 2503 Calumet Avenue, Valparaiso, Indiana 46384
FESOP Permit No.: F127-26605-00037
Facility: Three (3) electric induction furnaces (Unit B, NBF-12A&B, and Unit E)
Parameter: Copper and Copper-Based Alloys Melt Throughput
Limit: The total combined copper and copper-based alloys melt throughput of the three (3) electric induction furnaces (Unit B, NBF-12A&B, and Unit E) shall be less than 600 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

YEAR: _____

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

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

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

**OFFICE OF AIR QUALITY
 COMPLIANCE AND ENFORCEMENT BRANCH**

FESOP Quarterly Report

Source Name: Urschel Laboratories, Inc.
Source Address: 2503 Calumet Avenue, Valparaiso, Indiana 46384
FESOP Permit No.: F127-26605-00037
Facility: No Bake Foundry (Unit A)
Parameter: VOC Usage
Limit: The total input of VOC from the use of mold wash in the No bake Foundry (Unit A) shall not exceed 2.76 tons of per twelve (12) consecutive month period, with compliance determined at the end of each month.
YEAR: _____

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

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

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

...
 Upon further review, IDEM, OAQ has decided to make the following changes to the permit. Deleted language appears as ~~strike through~~ text and new language appears as **bold** text:

1. The source description in Section A.1 has been revised to clarify that this source is a no bake and green-sand bronze and stainless steel foundry that manufactures food processing equipment. In addition, IDEM has revised the standard industrial classification code (SIC) in Section A.1 to include the SIC codes for copper foundries (3366) (which includes bronze), steel foundries, not elsewhere classified (3325), and steel investment foundries (3324). This is in addition to the existing SIC code for food products machinery (3556).
2. Section A.1 of the permit and the reporting forms has been revised to remove all references to the source mailing address. IDEM, OAQ will continue to maintain records of the mailing address.

3. Section A.1 has been revised to indicate that Porter County is now unclassifiable or attainment for the PM2.5 standard
4. IDEM has reevaluated the applicability of 326 IAC 8-3 (Organic Solvent Degreasing Operations) for the existing degreasing operations in Section D.2. The emission unit descriptions in Section A.3 and D.2 have been revised to remove the reference to 326 IAC 8-3-5.
5. For clarity, IDEM has changed references to the general conditions: "in accordance with Section B", in accordance with Section C", or other similar language to "Section C...contains the Permittee's obligations with regard to the records required by this condition."
6. IDEM has decided that the phrases "no later than" and "not later than" are clearer than "within" in relation to the end of a timeline. Therefore all timelines have been switched to "no later than" or "not later than" except when the underlying rule states "within."
7. IDEM has decided to clarify throughout the permit that a certification needs to meet the requirements of 326 IAC 2-8-5(a)(1). In addition, IDEM has decided to remove the last sentence dealing with the need for certification from the forms because the conditions requiring the forms already address this issue.
8. IDEM has decided to clarify the certification requirements in Section B - Duty to Provide Information and Section B - Certification.
9. IDEM has decided to clarify the requirements of Section B – Preventive Maintenance Plan and to add a new paragraph (b) to handle a future situation where the Permittee adds units that need preventive maintenance plans. IDEM has also revised the language of the Section B - Preventive Maintenance Plan to allow the Permittee to not have to begin implementing the requirements of these conditions until ninety days after initial start up. Finally, IDEM, OAQ has clarified the rule citation for the Preventive Maintenance Plan.
10. On October 27, 2010, the Indiana Air Pollution Control Board issued revisions to 326 IAC 2. These revisions resulted in changes to the rule citations listed in the permit. These changes are not changes to the underlining provisions. The change is only to the citation of these rules in Section B - Operational Flexibility.
11. IDEM has updated the telephone and facsimile information for the Northwest Regional Office in Section B - Emergency Provisions.
12. IDEM has revised Section B - Emergency Provisions to delete paragraph (h). 326 IAC 2-8-4(3)(C)(ii) allows that deviations reported under an independent requirement do not have to be included in the Quarterly Deviation and Compliance Monitoring Report.
13. IDEM has decided that having a separate condition for the reporting of deviations is unnecessary. Therefore, IDEM has removed Section B - Deviations from Permit Requirements and Conditions and added the requirements of that condition to Section C - General Reporting Requirements. Paragraph (d) of Section C - General Reporting Requirements has been removed because IDEM already states the timeline and certification needs of each report in the condition requiring the report.
14. IDEM has revised Section B - Permit Renewal paragraph (c) to state which rule establishes the authority to set a deadline for the Permittee to submit additional information.
15. IDEM has decided to reference 326 IAC 2 in Section B - Source Modification Requirements, rather than the specific construction rule.
16. IDEM has revised Section C - Overall Source Limit to specify that the potential to emit greenhouse

- gases (GHGs) from the entire source shall be limited to less than one hundred thousand (100,000) tons of CO₂ equivalent emissions (CO₂e) per twelve (12) consecutive month period.
17. IDEM has added 326 IAC 5-1-1 to the exception clause of Section C - Opacity, since 326 IAC 5-1-1 does list exceptions.
 18. IDEM has revised Section C - Incineration to more closely reflect the two underlying rules.
 19. This source has exhaust gas stacks with an unlimited potential to emit more than twenty-five (25) tons of PM. Therefore, this source is subject to 326 IAC 1-7 (Stack Height Provisions). IDEM has revised Section C to include this new requirement.
 20. IDEM has removed the first paragraph of Section C - Performance Testing because specific testing conditions elsewhere in the permit will specify the timeline and procedures.
 21. IDEM has revised Section C - Compliance Monitoring. The reference to recordkeeping has been removed due to the fact that other conditions already address recordkeeping. The voice of the condition has been change to clearly indicate that it is the Permittee that must follow the requirements of the condition. In, addition, IDEM is changing the Section C Compliance Monitoring Condition to clearly describe when new monitoring for new and existing units must begin.
 22. IDEM has removed Section C - Monitoring Methods. The conditions that require the monitoring or testing, if required, state what methods shall be used.
 23. IDEM has revised Section C - Instrument Specifications to indicate that the analog instrument must be capable of measuring the parameters outside the normal range.
 24. IDEM has revised Section C - Response to Excursions or Exceedances. The introduction sentence has been added to clarify that it is only when an excursion or exceedance is detected that the requirements of this condition need to be followed. The word "excess" was added to the last sentence of paragraph (a) because the Permittee only has to minimize excess emissions. The middle of paragraph (b) has been deleted as it was duplicative of paragraph (a). The phrase "or are returning" was added to subparagraph (b)(2) as this is an acceptable response assuming the operation or emission unit does return to normal or its usual manner of operation. The phrase "within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable" was replaced with "normal or usual manner of operation" because the first phrase is just a limited list of the second phrase. The recordkeeping required by paragraph (e) was changed to require only records of the response because the previously listed items are required to be recorded elsewhere in the permit.
 25. IDEM has revised Section C - Actions Related to Noncompliance Demonstrated by a Stack Test. The requirements to take response steps and minimize excess emissions have been removed because Section C - Response to Excursions or Exceedances already requires response steps related to exceedances and excess emissions minimization. The start of the timelines was switched from "the receipt of the test results" to "the date of the test." There was confusion if the "receipt" was by IDEM, the Permittee, or someone else. Since the start of the timelines has been moved up, the length of the timelines was increased. The new timelines require action within a comparable timeline; and the new timelines still ensure that the Permittee will return to compliance within a reasonable timeframe.
 26. The voice of paragraph (b) of Section C - General Record Keeping Requirements has been changed to clearly indicate that it is the Permittee that must follow the requirements of the paragraph. IDEM, OAQ has also clarified the Permittee's responsibility with regards to record keeping.

27. IDEM has revised the language of Section C - Compliance Monitoring, Section C - General Record Keeping, and Section C - General Reporting to allow the Permittee to not have to begin implementing the requirements of these conditions until ninety days after initial start up.
28. IDEM has decided to simplify the referencing in Section C - Compliance with 40 CFR 82 and 326 IAC 22-1.
29. IDEM has decided to clarify Section D - Testing Requirements.
30. IDEM, OAQ is revising Sections D.1 - Thermal Oxidizer Temperature and Parametric Monitoring to increase clarity. The Permittee should begin monitoring against the new set point or range as soon as the valid compliant results are available. IDEM, OAQ has also decided taking a data point no less often than once per fifteen (15) minutes is sufficient instead of once every minute.
31. IDEM, OAQ is revising Section D - Baghouse Parametric Monitoring to increase clarity. IDEM has also included the replacement of an instrument as an acceptable action in Section D - Baghouse Parametric Monitoring.
32. The word "status" has been added to Section D - Record Keeping Requirements and Section D - Reporting Requirements. The Permittee has the obligation to document the compliance status. The wording has been revised to properly reflect this.
33. The phrase "of this permit" has been added to the paragraph of the Quarterly Deviation and Compliance Monitoring Report Form to match the underlying rule.
34. IDEM, OAQ has clarified the interaction of the Quarterly Deviation and Compliance Monitoring Report and the Emergency Provisions.
35. Pursuant to 326 IAC 2-7-1(39), starting July 1, 2011, greenhouse gases (GHGs) emissions are subject to regulation at a source with a potential to emit (PTE) 100,000 tons per year or more of CO₂ equivalent emissions (CO₂e). Therefore, CO₂e emissions have been calculated for this source. Based on the calculations, the unlimited PTE GHGs from the entire source is less than 100,000 tons of CO₂e per year (see Appendix A for the calculations). This did not require any changes to the permit.

Mailing Address: ~~PO Box 2200, Valparaiso, Indiana 46384~~

...

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

The Permittee owns and operates a stationary no bake and green-sand bronze **and stainless steel** foundry **that manufactures food processing equipment**.

Source Address:	2503 Calumet Avenue, Valparaiso, Indiana 46383
Mailing Address:	PO Box 2200, Valparaiso, Indiana 46384
General Source Phone Number:	219-464-4811
SIC Code:	3366 (Copper Foundries), 3325 (Steel Foundries, Not Elsewhere Classified), 3556 (Food Products Machinery), and 3324 (Steel Investment Foundry)
County Location:	Porter
Source Location Status:	Nonattainment for 8-hour ozone standard Nonattainment for PM_{2.5} standard
Source Status:	Attainment for all other criteria pollutants Federally Enforceable State Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

...

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:

...

- (b) Activities with emissions below insignificant thresholds (i.e. VOC emission less than 3 lb/hr and particulate emission less than 5 lb/hr):

...

- (2) Immersion Cleaning of Machine Parts, identified as Unit G, using 41,793 pounds per year of solution containing 100% VOC content. [326 IAC 8-3-2&5]

SECTION B GENERAL CONDITIONS

B.1 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.2 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

- (a) ~~This permit, F127-26605-00037, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.~~

- (b) ~~If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.~~

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

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

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

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

~~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 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.6 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.7 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 an "authorized~~

individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

- (b) ~~For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.~~

~~B.8 Certification [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. One (1) certification may cover multiple forms in one (1) submittal.~~
- (c) ~~An "authorized individual" is defined at 326 IAC 2-1.1-1(1).~~

~~B.9 Annual 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. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than April 15 of each year to:~~

~~Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2254~~

- (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, as IDEM, OAQ may require to determine the compliance status of the source.~~

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

~~B.10 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.11 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 maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:~~

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

~~(b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~

~~(c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.~~

~~B.12 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 describe the following:~~

- ~~(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;~~
- ~~(2) The permitted facility was at the time being properly operated;~~
- ~~(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;~~
- ~~(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the~~

~~emergency, or after the emergency was discovered or reasonably should have been discovered;~~

~~Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-0178 (ask for Compliance Section)
Facsimile Number: 317-233-6865
Northwest Regional Office phone: (219) 757-0265; fax: (219) 757-0267.~~

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

~~Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2254~~

~~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 an "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) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(e)(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.13 Prior Permits Superseded [326 IAC 2-1.1-9.5]~~

- (a) ~~All terms and conditions of permits established prior to F127-26605-00037 and issued pursuant to permitting programs approved into the state implementation plan have been either:~~

- (1) ~~incorporated as originally stated,~~
- (2) ~~revised, or~~
- (3) ~~deleted.~~

- (b) ~~All previous registrations and permits are superseded by this permit.~~

~~B.14 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.15 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 Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:~~

~~Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2254~~

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

The Quarterly Deviation and Compliance Monitoring Report does require the certification by an "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.16 — 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 Federally Enforceable State Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by an "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.17 — 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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2254

- (b) — A timely renewal application is one that is:
- (1) — Submitted at least nine (9) months prior to the date of the expiration of this permit;
and

~~(2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.~~

~~(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 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 being needed to process the application.~~

~~B.18 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2254~~

~~Any such application shall be certified by an "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.19 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]~~

~~(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) through (d) without a prior permit revision, if each of the following conditions is met:~~

~~(1) The changes are not modifications under any provision of Title I of the Clean Air Act;~~

~~(2) Any approval required by 326 IAC 2-8-11.1 has been obtained;~~

~~(3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);~~

~~(4) The Permittee notifies the:~~

~~Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2254~~

~~and~~

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

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

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

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

- ~~(b) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(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.~~
- ~~(d) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.~~

~~B.20 Source Modification 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.21 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]~~

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

- ~~(a) Enter upon the Permittee's premises where a 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.22 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2254~~

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

- (c) ~~The Permittee may implement 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.23 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 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.~~

~~B.24 Advanced Source Modification Approval [326 IAC 2-8-4(11)] [326 IAC 2-1.1-9]~~

- (a) ~~The requirements to obtain a permit modification under 326 IAC 2-8-11.1 are satisfied by this permit for the proposed emission units, control equipment or insignificant activities in Sections A.2 and A.3.~~
- (b) ~~Pursuant to 326 IAC 2-1.1-9 any permit authorizing construction may be revoked if construction of the emission unit has not commenced within eighteen (18) months from the date of issuance of the permit, or if during the construction, work is suspended for a continuous period of one (1) year or more.~~

~~B.25 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [326 IAC 1-1-6]~~

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

SECTION B GENERAL CONDITIONS

B.1 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.2 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

- (a) This permit, F127-26605-00037, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

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

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

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

B.4 Enforceability [326 IAC 2-8-6] [IC 13-17-12]

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

B.5 Severability [326 IAC 2-8-4(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.6 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.7 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. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.**

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

- (a) A certification required by this permit meets the requirements of 326 IAC 2-8-5(a)(1) if:**
- (1) it contains a certification by an "authorized individual", as defined by 326 IAC 2-1.1-1(1), and**
 - (2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.**
- (b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.**
- (c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).**

B.9 Annual 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. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than April 15 of each year to:**
- Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251**
- (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, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.10 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.11 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)]

- (a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:
 - (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.

The Permittee shall implement the PMPs.

- (b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, 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 and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

The Permittee shall implement the PMPs.

- (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. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "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.12 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 describe the following:
 - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ or 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 Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865
Northwest Regional Office phone: (219) 464-0233; fax: (219) 464-0553.
 - (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 and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251**

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

The notice fulfills the requirement of 326 IAC 2-8-4(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 a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "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) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(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.

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

- (a) All terms and conditions of permits established prior to F127-26605-00037 and issued pursuant to permitting programs approved into the state implementation plan have been either:
 - (1) incorporated as originally stated,
 - (2) revised, or
 - (4) deleted.
- (b) All previous registrations and permits are superseded by this permit.

B.14 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.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 Federally Enforceable State Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "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(42). The renewal application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 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, pursuant to 326 IAC 2-8-3(g), in writing by IDEM, OAQ any additional information identified as being 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
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003

Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "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.18 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

- (a) **The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) and (c) without a prior permit revision, if each of the following conditions is met:**

- (1) **The changes are not modifications under any provision of Title I of the Clean Air Act;**
- (2) **Any approval required by 326 IAC 2-8-11.1 has been obtained;**
- (3) **The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);**
- (4) **The Permittee notifies the:**

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

and

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

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

- (5) **The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15(b)(1) and (c). The Permittee shall make such records available, upon reasonable request, for public review.**

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

- (b) **Emission Trades [326 IAC 2-8-15(b)]**
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit

revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(b).

- (c) **Alternative Operating Scenarios [326 IAC 2-8-15(c)]**
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.
- (d) **Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.**

B.19 Source Modification Requirement [326 IAC 2-8-11.1]

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

B.20 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

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

- (a) Enter upon the Permittee's premises where a 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
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251**

Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "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 no later than 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, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.23 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [326 IAC 1-1-6]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

G.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, except particulate matter (PM), from the entire source 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) The 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. This limitation shall make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.~~

~~(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 that 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]~~

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

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

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

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue
MC 61-52 IGCN 1003
Indianapolis, Indiana 46204-2254

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

- ~~(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.~~
- ~~(f) Demolition and Renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).~~

~~(g) — Indiana Licensed 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 Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.~~

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

~~C.8 — Performance Testing [326 IAC 3-6]~~

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

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

~~Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2254~~

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

~~(b) — The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by an "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.9 — Compliance Requirements [326 IAC 2-1.1-11]~~

~~The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.~~

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

~~C.10 — 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. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:~~

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

~~Indianapolis, Indiana 46204-2254~~

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

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

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

~~C.11 — Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]~~

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

~~C.12 — Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]~~

~~(a) — When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.~~

~~(b) — The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.~~

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

~~C.13 — 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.14 — Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]~~

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

~~(b) — The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:~~

~~(1) — initial inspection and evaluation;~~

~~(2) — recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or~~

~~(3) — any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.~~

- ~~(c) — A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
 - ~~(1) — monitoring results;~~
 - ~~(2) — review of operation and maintenance procedures and records; and/or~~
 - ~~(3) — inspection of the control device, associated capture system, and the process.~~~~
- ~~(d) — Failure to take reasonable response steps shall be considered a deviation from the permit.~~
- ~~(e) — The Permittee shall maintain the following records:
 - ~~(1) — monitoring data;~~
 - ~~(2) — monitor performance data, if applicable; and~~
 - ~~(3) — corrective actions taken.~~~~

~~C.15 — 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 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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~

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

~~C.16 — 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.17 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 an "authorized individual" as defined by 326 IAC 2-1.1-1(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 Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2254~~
- ~~(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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~
- ~~(e) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.~~

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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 [326 IAC 6-3-2]

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

C.2 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;**

- (2) The potential to emit any regulated pollutant from the entire source, except particulate matter (PM), volatile organic compounds (VOCs), and greenhouse gases (GHGs) 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.
 - (5) The potential to emit greenhouse gases (GHGs) from the entire source shall be limited to less than one hundred thousand (100,000) tons of CO₂ equivalent emissions (CO₂e) per twelve (12) consecutive month period.
- (b) Pursuant to 326 IAC 2-2 (PSD), potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) 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 5-1-1 (Applicability) and 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]

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

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 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.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
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Licensed 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 Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.

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

C.9 Performance Testing [326 IAC 3-6]

- (a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "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)]

- (a) For new units:
Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units shall be implemented on and after the date of initial start-up.
- (b) For existing units:
Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance to begin such monitoring. If, due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance, 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 and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

C.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]

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

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

C.13 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.14 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

- (a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its

normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.

- (b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:**
 - (1) initial inspection and evaluation;**
 - (2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or**
 - (3) any necessary follow-up actions to return operation to normal or usual manner of operation.**
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:**
 - (1) monitoring results;**
 - (2) review of operation and maintenance procedures and records; and/or**
 - (3) inspection of the control device, associated capture system, and the process.**
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.**
- (e) The Permittee shall record the reasonable response steps taken.**

C.15 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 submit a description of its response actions to IDEM, OAQ no later than seventy-five (75) days after the date of the test.**
- (b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) 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 a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

C.16 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. Support information includes the following, where applicable:

- (AA) All calibration and maintenance records.**
- (BB) All original strip chart recordings for continuous monitoring instrumentation.**
- (CC) Copies of all reports required by the FESOP.**

Records of required monitoring information include the following, where applicable:

- (AA) The date, place, as defined in this permit, and time of sampling or measurements.**
- (BB) The dates analyses were performed.**
- (CC) The company or entity that performed the analyses.**
- (DD) The analytical techniques or methods used.**
- (EE) The results of such analyses.**
- (FF) The operating conditions as existing at the time of sampling or measurement.**

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, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.**

C.17 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. Proper notice submittal under Section B – Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.**
- (b) The address for report submittal is:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251**
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other**

means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

- (d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

Stratospheric Ozone Protection

C.18 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 applicable standards for recycling and emissions reduction.

...

D.1.67 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).~~ **A Preventive Maintenance Plan is required for these facilities and any control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.**

D.1.78 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

- (a) ~~In order to demonstrate compliance with Conditions D.1.1, D.1.2, D.1.3 and D.1.4, the Permittee shall perform PM, PM2.5 and PM10 testing for 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, within 180 days of publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM2.5), signed on May 8th, 2008. This testing shall be conducted utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 and PM2.5 includes filterable and condensable PM10.~~ **In order to demonstrate compliance with Conditions D.1.1, D.1.2, D.1.3, and D.1.4 the Permittee shall perform PM, PM10, and PM2.5 testing for 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, at least once every five (5) years from the date of the most recent valid compliance demonstration. This testing shall be conducted utilizing methods approved by the Commissioner and shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM10 and PM2.5 includes filterable and condensable PM10 and PM2.5.**
- (b) In order to demonstrate compliance with Condition D.1.56~~(d)~~ 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 the fan amperage, and the minimum operating temperature to demonstrate compliance with the overall VOC control efficiency in Condition D.1.56~~(d)~~. The overall capture and control efficiency will be

determined by mass balance calculations using the test results. This test shall be repeated no less than **once every** five (5) years from the date of the **most recent** valid compliance demonstration. ~~Testing shall be conducted in accordance with Section C- Performance Testing.~~ **Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee’s obligation with regard to the performance testing required by this condition.**

...

D.1.89 Particulate Control

...

- (d) **In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.**

...

D.1.102 Thermal Oxidizer Temperature

- (a) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizer for measuring operating temperature. For the purpose of this condition, continuous means no less often than once ~~per~~ **every fifteen (15) minutes**. The output of this system shall be recorded as 3-hour average. ~~The 3-hour average temperature that is below 1200 °F is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances, shall be considered a deviation from this permit.~~ **The Permittee shall maintain the thermal oxidizer at or above 1,200°F or the three (3) hour average temperature established during the most recent valid stack test. The Permittee shall take appropriate response whenever the temperature of the thermal oxidizer is below 1,200°F or the three (3) hour average established during the most recent valid stack test. Section C - Response to Excursions or Exceedances contains the Permittee’s obligation with regard to the reasonable response steps required by this condition. A three (3) hour average temperature that is below the minimum established during the latest stack test is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.**
- (b) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with ~~the~~ **limits in Condition D.1.56, as approved by IDEM.**
- (c) On and after the date the ~~approved~~ stack test results are available, the Permittee shall operate the thermal oxidizer at or above the 3-hour average temperature as observed during the compliant stack test. A 3-hour average temperature that is below the 3-hour 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 – Response to Excursion or Exceedances, shall be considered a deviation from this permit.~~ **Section C - Response to Excursions or Exceedances contains the Permittee’s obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.**

D.1.143 Parametric Monitoring

- (a) The Permittee shall determine the fan amperage or the duct pressure from the most recent valid stack test that demonstrates compliance with limits in Condition D.1.56, ~~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 is less than the range of 0.05 and 0.65 inches of water as established by the latest stack test, the permittee shall take reasonable response ~~steps in accordance with Section C - Response to Excursions or Exceedances.~~

A pressure drop that is below the above mentioned minimum is not a deviation from this permit. ~~Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.~~ **Section C- Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.**

D.1.124 Visible Emissions Notations

...

- (e) If abnormal emissions are observed, the Permittee shall take reasonable response ~~steps in accordance with Section C - Response to Excursions or Exceedances.~~ **Section C- Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition.** Failure to take response steps ~~in accordance with Section C - Response to Excursions or Exceedances~~ shall be considered a deviation from this permit.

D.1.135 Baghouse Parametric Monitoring

The Permittee shall record the pressure drop across each of the baghouses identified as PCU-1, PCU-2, and PCU-4, at least once per day when the systems are in operation. When for any one reading, the pressure drop across the baghouses (PCU-1, ~~and PCU-2, and PCU-4~~) is outside the normal range of 2.0 and 8.0 inches of water ~~and the baghouse (PCU-4) is outside the normal range of 0.25 to 12.0 or a range established during the latest stack test,~~ the Permittee shall take reasonable response. ~~steps in accordance with~~ **The normal range for baghouses (PCU-1 and PCU2) is a pressure drop range between 2.0 and 8.0 inches of water unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. The normal range for baghouse (PCU-4) is a pressure drop range between 0.25 and 12.0 inches of water unless a different upper-bound or lower-bound value for this range is determined during the latest stack test.** Section C- Response to Excursions and Exceedances **contains the Permittee's obligation with regard to the reasonable response steps required by this condition.** A pressure reading that is outside the above mentioned range is not a deviation from this permit. ~~Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.~~

The instrument used for determining the pressure ~~and temperature~~ shall comply with Section C - Instruments Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated **or replaced** at least once every six (6) months.

...

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Insignificant Activities :

...

- (b) Activities with emissions below insignificant thresholds (i.e. VOC emission less than 3 lb/hr and particulate emission less than 5 lb/hr):

(2) Immersion Cleaning of Machine Parts, identified as Unit G, using 41,793 pounds per

year of solution containing 100% VOC content. [326 IAC 8-3-2&5]

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

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

Pursuant to 326 IAC 8-3-2, for each of the parts washers, the owner or operator 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.~~

(a) Pursuant to 326 IAC 8-3-2(a), the Permittee shall ensure the following control equipment and operating requirements are met for each of the parts washers:

- (1) Equip the degreaser with a cover.**
- (2) Equip the degreaser with a device for draining cleaned parts.**
- (3) Close the degreaser cover whenever parts are not being handled in the degreaser.**
- (4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases.**
- (5) Provide a permanent, conspicuous label that lists the operating requirements in subdivisions (3), (4), (6), and (7).**
- (6) Store waste solvent only in closed containers.**
- (7) Prohibit the disposal or transfer of waste solvent in such a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.**

(b) Pursuant to 326 IAC 8-3-2(b), the Permittee shall ensure the following additional control equipment and operating requirements are met for each of the parts washers:

- (1) Equip the degreaser with one (1) of the following control devices if the solvent is heated to a temperature of greater than forty-eight and nine-tenths (48.9) degrees Celsius (one hundred twenty (120) degrees Fahrenheit):**
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.**

- (B) A water cover when solvent used is insoluble in, and heavier than, water.
 - (C) A refrigerated chiller.
 - (D) Carbon adsorption.
 - (E) An alternative system of demonstrated equivalent or better control as those outlined in clauses (A) through (D) that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.
- (2) Ensure the degreaser cover is designed so that it can be easily operated with one (1) hand if the solvent is agitated or heated.
 - (3) If used, solvent spray:
 - (A) must be a solid, fluid stream; and
 - (B) shall be applied at a pressure that does not cause excessive splashing.

~~D.2.4 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]~~

- (a) Pursuant 326 IAC 8-3-5(a), the owner or operator shall ensure that the following control equipment requirements are met for each of the eleven (11) parts washers:
 - (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 326 IAC 8-3-5(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 326 IAC 8-3-5(b), the owner or operator shall ensure that the following operating requirements are met for each of the eleven (11) parts washers:~~

- ~~(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.~~

D.2.43 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2(c)]

...

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT

...

~~A certification is not required for this report.~~

...

FESOP Quarterly Report

...

~~Attach a signed certification to complete this report.~~

...

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

...

This report shall be submitted quarterly based on a calendar year. **Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C-General Reporting.** Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked No deviations occurred this reporting period.

...

~~Attach a signed certification to complete this report.~~

Conclusion and Recommendation

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 October 4, 2013. Additional information was provided on November 18, 2013.

The construction and operation of this proposed revision shall be subject to the conditions of the attached proposed FESOP Significant Permit Revision No. 127-33753-00037. The staff recommends to the Commissioner that this FESOP Significant Permit Revision be approved.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Brian Williams at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-5375 or toll free at 1-800-451-6027 extension 4-5375.
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.in.gov/idem

**Appendix A: Emission Calculations
Summary of Emissions**

Company Name: Urschel Laboratories Incorporated
Address City IN Zip: 2503 Calumet Avenue, Valparaiso, Indiana 46384
FESOP Permit No.: 127-33753-00037
Reviewer: Brian Williams

Uncontrolled Potential Emissions (tons/year)									
Pollutant	Sand Handling System	Induction Furnaces, Pouring, Casting & Cooling	Thermal Sand Reclaimer	Sand Handling System	Fume Control System	Immersion Cleaning (Insignificant)	Melting, Pouring, Casting and Cooling (Insignificant)	*Insignificant Activities	TOTAL**
	Unit A (No bake foundry)	Unit B and NBF-12A&B (No bake foundry)	Unit C (No bake foundry)	Unit D (Green Sand Foundry)	Unit E (Green Sand Foundry)	Unit G (cleaning Machine Parts)	Unit K (Investment Casting Foundry)		
PM	509.83	11.47	175.70	125.02	7.34	0.00	0.29	1.18	830.83
PM10	20.39	11.45	175.70	1.51	7.34	0.00	0.29	1.38	218.06
PM2.5	20.39	11.45	175.70	1.51	7.34	0.00	0.29	1.38	218.06
SO2	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.02	0.19
NOx	0.00	0.05	0.00	0.00	0.00	0.00	0.00	3.51	3.56
VOC	27.49	60.34	56.94	0.060	0.00	6.12	0.00	0.24	151.19
CO	0.00	10.99	0.00	0.00	0.00	0.00	3.31	2.95	17.25
GHGs as CO2e	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4,238	4,238
total HAPs	7.14	12.11	0.00	0.10	0.82	0.87	0.11	0.50	21.66
worst case single HAP	4.82	3.65	0.00	0.06	0.48	0.331	0.06	0.23	5.25
	(Xylene)	(Phenol)		(Formaldehyde)	(Manganese)	(Methylene Chloride)	(Chromium)	(Chromium)	(Xylene)

Limited Potential Emissions (tons/year)									
Pollutant	Sand Handling System	Induction Furnaces, Pouring, Casting & Cooling	Thermal Sand Reclaimer	Sand Handling System	Fume Control System	Immersion Cleaning	Melting, Pouring, Casting and Cooling (Insignificant)	Insignificant Activities	TOTAL**
	Unit A (No bake foundry)	Unit B and NBF-12A&B (No bake foundry)	Unit C (No bake foundry)	Unit D (Green Sand Foundry)	Unit E (Green Sand Foundry)	Unit G (cleaning Machine Parts)	Unit K (Investment Casting Foundry)		
PM	43.80	12.75	11.26	18.44	8.02	0.00	0.29	1.18	95.73
PM10	43.80	12.75	11.26	18.44	8.02	0.00	0.29	1.38	95.93
PM2.5	43.80	12.75	11.26	18.44	8.02	0.00	0.29	1.38	95.93
SO2	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.02	0.05
NOx	0.00	0.01	0.00	0.00	0.00	0.00	0.00	3.51	3.52
VOC	6.28	10.94	0.57	0.06	0.00	6.12	0.00	0.24	24.21
CO	0.00	1.99	0.00	0.00	0.00	0.00	3.31	2.95	8.25
GHGs as CO2e	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4,238	4,238
total HAPs	1.29	5.82	0.00	0.06	0.89	0.87	0.11	0.50	9.56
worst case single HAP	0.87	0.66	0.00	0.06	0.52	0.33	0.06	0.23	1.20
	(Xylene)	(Phenol)		(Formaldehyde)	(Manganese)	(Methylene Chloride)	(Chromium)	(Chromium)	(Xylene)

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

Insignificant activities emissions consists of natural gas combustion operations, welding, grinding, laser cutting operations, CO2 laser cutting operations, and pattern shop paint operation.

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

**Company Name: Urschel Laboratories Incorporated
Address City IN Zip: 2503 Calumet Avenue, Valparaiso, Indiana 46384
FESOP Permit No.: 127-33753-00037
Reviewer: Brian Williams**

1. Particulate Matter Emissions From Emission Unit A (Sand Handling System) to Sand Handling System Baghouse (PCU-1) and Through S/V-1

Process	Emission Factor * (lb PM10/ton metal)
Moldmaking, Coremaking and Sand Handling	6
Shakeout and Cleaning	1.76
Total:	7.76

* Emission factors are from AP-42, Table 12.13-2

Pollutant	Maximum Throughput (lb metal/hr)	Uncontrolled Potential Emissions (lb/hr)	Uncontrolled Potential Emissions (ton/yr)	Baghouse Control Efficiency (%)	Controlled Potential Emissions (lb/hr)	Controlled Potential Emissions (ton/yr)	Limited Potential Emissions (lb/hr)	Limited Potential Emissions (tons/yr)
PM **	1200	116.4	509.83	99	1.16	5.10	10.00	43.80
PM10	1200	4.656	20.39	99	0.05	0.20	10.00	43.80
PM2.5	1200	4.656	20.39	99	0.05	0.20	10.00	43.80

Note:

** Based on the stack test PM10 is equal to 4% of total PM.

There is no emission factor for PM2.5 in AP42, PM2.5 = PM10

Methodology

Uncontrolled Emissions (tons/yr) = Max. Metal Processing Rate (lb/hr) x Emission Factor (lb/ton) / 2,000 lb/ton x 8760 hrs/yr x 1ton/2000 lb

Controlled Emissions (tons/yr) = Max. Metal Processing Rate (lb/hr) x Emission Factor (lb/ton) / 2,000 lb/ton x 8760 hrs/yr x 1ton/2000 lb * (1-Control Efficiency)

Limited Emissions (tons/yr) = Limited Emissions (lb/hr) /2,000 lb/ton x 8760 hrs/yr

Pollutant	Emission Factor (lb VOC/ lb binder) *	Maximum Throughput (lb binder/yr)	Uncontrolled Potential Emissions (ton/yr)	Limited Throughput (lb binder/yr)	Limited Potential Emissions (tons/yr)
VOC	0.066	588,672	19.43	106,720	3.52

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.

3. Application of Mold Wash (A)

VOC Emissions

Pollutant	Chemical	VOC Content (lb VOC/gal)	Maximum Usage (gal/yr)	Uncontrolled Potential Emissions (ton/yr)	Limited Usage (gal/yr)	Limited Potential Emissions (tons/yr)
VOC	Ashland Chemical's Zircon	3.069	5,256	8.07	1,800	2.76

Methodology:

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

**Appendix A: Emissions Calculations
No Bake Foundry - Unit A
HAP Emission Calculations**

**Company Name: Urschel Laboratories Incorporated
Address City IN Zip: 2503 Calumet Avenue, Valparaiso, Indiana 46384
FESOP Permit No.: 127-33753-00037
Reviewer: Brian Williams**

Calculation of Hazardous Air Pollutants Released From Sand Binder System During Moldmaking and Coremaking With Phenolic Urethane No-Bake Based on Form R (Reporting of Binder Chemicals Used in Foundries)

Component	Part Fraction in the Sand (%)	Weight Fraction of Component In Each Part	Weight Fraction of Component Released to Air **	Weight Fraction of Component in Binder System Released to Air
Phenol Formaldehyde Polymer (Formaldehyde) *	0.5994	0.50	0.0200	5.994E-03
Aromatic Petroleum Distillates (Xylenes) *		0.30	0.0585	1.052E-02
Phenol *		0.07	0.0000	0.000E+00
Napthalene *		0.04	0.0585	1.403E-03
Dimethyl Glutarate		0.03	0.0000	0.000E+00
Dimethyl Adipate		0.03	0.0000	0.000E+00
Dimethyl Succinate		0.00	0.0000	0.000E+00
Polymeric MDI	0.4000	0.50	0.0000	0.000E+00
Aromatic Petroleum Distillates (Xylenes) *		0.25	0.0585	5.850E-03
Methylene Diphenyldiisocyanate		0.20	0.0000	0.000E+00
Kerosene		0.03	0.0500	6.000E-04
Napthalene *		0.02	0.0585	4.680E-04
Aromatic Petroleum Distillates (Xylenes) *	0.0006	0.65	0.0585	2.282E-05
Phenylpropylpyridine		0.25	0.0000	0.000E+00
Napthalene *		0.05	0.0585	1.755E-06
1,2,4 Trimethylbenzene		0.05	0.0585	1.755E-06

* Hazardous Air Pollutants

** Orgain HAP emission factors for mixing, moldmaking, coremaking and mold storage are based on AFS Document "Form R Reporting of Binder Chemicals Used in Foundries", 1998.

Maximum Sand Mixing Rate = 8400 lbs/hr
 Maximum binder content of Sand = 0.8 %
 Maximum binder usage = 67.2 lb/hr
 Limited binder usage = 12.18 lb/hr

Summary of Organic HAP Emissions from Mixing, Moldmaking, Coremaking and Mold Storage

HAPs from Unit A	Weight Fraction of Component in Binder System Released to Air	Maximum Potential Emission (lb/hr)	Maximum Potential Emissions (ton/yr)	Limited Potential Emission (lb/hr)	Limited Potential Emissions (ton/yr)
Formaldehyde	5.994E-03	0.40	1.76	0.07	0.32
Xylene	1.639E-02	1.10	4.82	0.20	0.87
Napthalene	1.872E-03	0.13	0.55	0.02	0.10
Total HAPs:		1.63	7.14	0.30	1.29

**Appendix A: Emissions Calculations
No Bake Foundry - Unit B
Particulate and VOC Emission Calculations**

**Company Name: Urschel Laboratories Incorporated
Address City IN Zip: 2503 Calumet Avenue, Valparaiso, Indiana 46384
FESOP Permit No.: 127-33753-00037
Reviewer: Brian Williams**

2. Particulate Matter Emissions From Emission Unit B (Fume Control System) to Fume Control Baghouse (PCU-2) and throughS/V-2

Process	Emission Factor * (lb PM10/ton metal)
Electric Induction Furnace	0.09
Pouring and Casting	2.8
Casting Cooling	1.4
Total:	4.29

* Emission factors are from AP-42, Table 12.13-2

Pollutant	Maximum Throughput (lb metal/hr)	Uncontrolled Potential Emissions (lb/hr)	Uncontrolled Potential Emissions (ton/yr)	Baghouse Control Efficiency (%)	Controlled Potential Emissions (lb/hr)	Controlled Potential Emissions (ton/yr)	Limited Potential Emissions (lb/hr)***	Limited Potential Emissions (tons/yr)***
PM/PM10/PM2.5 **	1,200	2,574	11.27	90	0.26	1.13	2.91	12.75

Note: ** It is assumed that PM equal PM10. There is no emission factor for PM2.5 in AP42, PM2.5 = PM10

*** Includes emissions from Unit NBF12A&B, which is also controlled by baghouse PCU-2.

Methodology

Uncontrolled Emissions (tons/yr) = Max. Metal Processing Rate (lb/hr) x Emission Factor (lb/ton) / 2,000 lb/ton x 8760 hrs/yr x 1ton/2000 lb

Controlled Emissions (tons/yr) = Max. Metal Processing Rate (lb/hr) x Emission Factor (lb/ton) / 2,000 lb/ton x 8760 hrs/yr x 1ton/2000 lb * (1-Control Efficiency)

Limited Emissions (tons/yr) = Limited Emissions (lb/hr) /2,000 lb/ton x 8760 hrs/yr

2. Pouring, Cooling and Shakeout (B)

Pollutant	Emission Factor (lb VOC/ lb binder) *	Maximum Throughput (lb binder/yr)	Uncontrolled Potential Emissions (ton/yr)	Limited Throughput (lb binder/yr)	Limited Potential Emissions (tons/yr)
VOC	0.205	588,672	60.34	106,720	10.94

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.

Limited Emissions (tons/yr) = Limited Throughput (lb binder/yr) x Emission Factor (lb VOC/lb binder) /2,000 lb/ton

**Appendix A: Emissions Calculations
No Bake Foundry - Unit B
SO2, NOx and CO Emission Calculations**

**Company Name: Urschel Laboratories Incorporated
Address City IN Zip: 2503 Calumet Avenue, Valparaiso, Indiana 46384
FESOP Permit No.: 127-33753-00037
Reviewer: Brian Williams**

SO2, NOx and CO Emissions From New No Bake Foundry

A. SO2 and NOx Emissions

Emissions of SO2, NOx and CO occur during pouring, cooling and shakeout operations. Most emissions of these pollutants will report to the Fume Control System Baghouse (PCU-2) and be discharged through S/V-2.

Data are as follows:

Pollutant	Concentration of Pollutant in Off Gas (mg/m3)
Sulfur Dioxide (SO2)	0.1
Oxides of Nitrogen (NOx)	0.03
Total VOC as CH4	38.58

Above pollutant concentrations are based on the results of testing emissions of SO2 and NOx and VOC from phenolic urethane no-bake molds during pouring and cooling presented in "Chemical Emissions from Foundry Molds"; W.C. Scott, et al, Southern Research Institute AFS Transactions 77-98.

Convert total hydrocarbons based on stoichiometry as CH4 is equivalent to total gaseous organic compound TGOC or VOC as propane (C3H8):

$$38.58 \text{ (CH}_4\text{)} \times \frac{12 \text{ (C)}}{16 \text{ (CH}_4\text{)}} \times \frac{44 \text{ (C}_3\text{H}_8\text{)}}{36 \text{ (C)}} = 35.36 \text{ ppm TGOC or VOC as C}_3\text{H}_8$$

*VOC emission factor for pouring, cooling and shakeout = 0.205 lbs VOC/ lb binder
 VOC emissions for pouring, cooling and shakeout (tons/yr) = **10.94** limited binder usage of 12.18 lb/hr

* 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.

Potential Sulfur Dioxide (SO2) emissions: $\frac{\text{SO}_2 \times \text{VOC}}{\text{TGOC}} = \frac{(0.10) \times (13.78)}{35.36} = 0.039 \text{ lb SO}_2\text{/hr} = 0.17 \text{ tons/yr}$

Potential Oxides of Nitrogen (NOx) emissions: $\frac{\text{NO}_x \times \text{VOC}}{\text{TGOC}} = \frac{(0.03) \times (13.78)}{35.36} = 0.012 \text{ lb NO}_x\text{/hr} = 0.05 \text{ tons/yr}$

B. Carbon Monoxide Emissions

CO Emission Factor* (lb CO/ ton of metal cast) = 4.18
 Maximum Metal Melting Rate (lb/hr) = 1200
Maximum CO Emission Rate = 2.508 lb CO/hr = 10.99 tons/yr

Maximum Binder Usage =	67.2 lb/hr
Limited Binder Usage =	12.18 lb/hr

Pollutant	Maximum Potential Emissions (lb/hr)	Maximum Potential Emissions (ton/yr)	**Emission Factor (lb/lb binder)	Limited Potential Emissions (lb/hr)	Limited Potential Emissions (ton/yr)
SO2	0.039	0.171	0.001	0.007	0.031
NOx	0.012	0.053	0.000	0.002	0.010
CO	2.508	10.985	0.037	0.455	1.991

* CO emission factor is based on the results of test conducted by the Casting Emissions Reduction Program (CERP) as reported in "Phenolic Urethane/Iron No Bake Baseline Emission Test", Technikon LLC, April 10, 2003.

** Based on maximum hourly binder usage rate of 67.2 pounds per hour.

**Appendix A: Emissions Calculations
No Bake Foundry - Unit B
HAP Emission Calculations**

Company Name: Urschel Laboratories Incorporated
Address City IN Zip: 2503 Calumet Avenue, Valparaiso, Indiana 46384
FESOP Permit No.: 127-33753-00037
Reviewer: Brian Williams

HAP Emissions From Pouring, Cooling and Shakeout at the New No Bake Foundry (Unit B)

Maximum Binder Usage = 67.2 lb binder/hr
Limited Binder Usage = 12.18 lb binder/hr

HAP	Emission Factor (lb/lb binder)	Potential Uncontrolled Emissions		Potential Limited Emissions	
		lbs/hr	tons/yr	lbs/hr	tons/yr
Phenol	1.24E-02	8.33E-01	3.65E+00	1.51E-01	6.62E-01
m,p-Cresol	5.84E-03	3.92E-01	1.72E+00	7.11E-02	3.12E-01
Benzene	3.88E-03	2.61E-01	1.14E+00	4.73E-02	2.07E-01
Toluene	7.24E-04	4.87E-02	2.13E-01	8.82E-03	3.86E-02
o-Cresol	6.33E-04	4.25E-02	1.86E-01	7.71E-03	3.38E-02
m,p-Xylene	3.06E-04	2.06E-02	9.01E-02	3.73E-03	1.63E-02
Formaldehyde	2.52E-04	1.69E-02	7.42E-02	3.07E-03	1.34E-02
Aniline	2.01E-04	1.35E-02	5.92E-02	2.45E-03	1.07E-02
Styrene	1.86E-04	1.25E-02	5.47E-02	2.27E-03	9.92E-03
o-Xylene	1.05E-04	7.06E-03	3.09E-02	1.28E-03	5.60E-03
Ethyl Benzene	8.01E-05	5.38E-03	2.36E-02	9.76E-04	4.27E-03
Biphenyl	5.78E-05	3.88E-03	1.70E-02	7.04E-04	3.08E-03
Acetaldehyde	4.31E-05	2.90E-03	1.27E-02	5.25E-04	2.30E-03
Acrolein	1.13E-05	7.59E-04	3.33E-03	1.38E-04	6.03E-04
Propionaldehyde	7.91E-06	5.32E-04	2.33E-03	9.64E-05	4.22E-04
2-Butanone	4.45E-06	2.99E-04	1.31E-03	5.42E-05	2.37E-04
Hexane	4.39E-06	2.95E-04	1.29E-03	5.35E-05	2.34E-04
POMs	1.36E-03	9.14E-02	4.00E-01	1.66E-02	7.26E-02
Total HAPs:		1.75	7.68	0.32	1.39
Worst Case HAP (Phenol):		0.83	3.65	0.15	0.66

Notes:

* Organic HAP emission factors for Pouring, Cooling and Shakeout 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.

Unit B

Metallic Hazardous Air Pollutant Emissions from NO-Bake Foundry:

Metallic hazardous air pollutant (HAPs) are released during pouring, cooling and shakeout operations. The metallic HAPs are constituents of the metals that will be cast in the new no-bake foundry. The vast majority of castings to be produced in the new no-bake foundry will be stainless steel or bronze. The estimates of metallic HAPs emissions are based on the potential emissions of each HAP present as a constituent in the metals. The highest potential emission rate for each HAP from each of the two metals (stainless steel and bronze) is reported as the potential to emit that HAP. It is assumed that the weight fraction of a HAP in the PM10 emission from pouring and cooling is the same as the weight fraction of the HAP as a constituent of stainless steel and for bronze, the baghouse dust collected in the existing green sand foundry.

**Appendix A: Emissions Calculations
No Bake Foundry - Unit B
HAP Emission Calculations**

**Company Name: Urschel Laboratories Incorporated
Address City IN Zip: 2503 Calumet Avenue, Valparaiso, Indiana 46384
FESOP Permit No.: 127-33753-00037
Reviewer: Brian Williams**

Pollutant	Weight Percent in Typical Stainless Steel (%)	Uncontrolled Potential Emissions (lb/hr)	Uncontrolled Potential Emissions (ton/yr)
Stainless Steel Casting			
Chromium	20.290	0.5222646	2.29E+00
Cobalt	7.960	0.2048904	8.97E-01
Manganese	1.810	0.0465894	2.04E-01
Nickel	8.980	0.2311452	1.01E+00
Selenium	0.025	0.0006435	2.82E-03
Bronze Casting *			
Antimony	0.00071	1.83E-05	8.00E-05
Arsenic	0.00022	5.66E-06	2.48E-05
Cadmium	0.01900	4.89E-04	2.14E-03
Chromium	0.00620	1.60E-04	6.99E-04
Cobalt	0.00056	1.44E-05	6.31E-05
Lead	0.17000	4.38E-03	1.92E-02
Manganese	0.65000	1.67E-02	7.33E-02
Nickel	0.00260	6.69E-05	2.93E-04

* Metal HAPs emission factors from Bronze Casting are based on the analysis of the baghouse dust from the fume control baghouse, which services the existing green sand foundry, provides weight percents of HAPs in baghouse dust.

Worst Case Emissions

Pollutant	Calculated Potential Emissions (ton/yr)		Worst Case Potential Emissions
	Stainless Steel	Bronze	
Antimony	0.00E+00	8.00E-05	8.00E-05
Arsenic	0.00E+00	2.48E-05	2.48E-05
Cadmium	0.00E+00	2.14E-03	2.14E-03
Chromium	2.29E+00	6.99E-04	2.29E+00
Cobalt	8.97E-01	6.31E-05	8.97E-01
Lead	0.00E+00	1.92E-02	1.92E-02
Manganese	2.04E-01	7.33E-02	2.04E-01
Nickel	1.01E+00	2.93E-04	1.01E+00
Selenium	2.82E-03	0.00E+00	2.82E-03
Total HAP:		4.43	
Worst Case HAP:		2.29	

**Appendix A: Emissions Calculations
Electric Induction Bronze Furnace
No Bake Foundry - Unit NBF12A&B**

**Company Name: Urschel Laboratories Incorporated
Address City IN Zip: 2503 Calumet Avenue, Valparaiso, Indiana 46384
FESOP Permit No.: 127-33753-00037
Reviewer: Brian Williams**

One (1) Electric Induction Bronze Furnace, equipped with two (2) crucibles, identified as NBF12A&B

Maximum Metal Throughput		Metallic HAPs - Manganese (% by weight)
(lbs/hr)	(tons/yr)	
900	3,942	

	PM	PM ₁₀	PM _{2.5}	Manganese
Emission Factors (lb/ton metal produced)	0.10	0.09	0.09	NA
Uncontrolled Potential To Emit (tons/yr)	0.20	0.18	0.18	0.0030

Methodology

Emission factors from AP-42, Chapter 12.13, Table 12.13-2 (Steel Foundries) for SCC 3-04-007-05. Percent by weight metallic HAPs is based on physical composition of bronze and was provided by the source.

Uncontrolled Potential to Emit (tons/yr) = Maximum Metal Throughput (tons/yr) x Emission Factor (lb/ton) x 1/2,000 (ton/lbs)

Uncontrolled Potential to Emit Manganese (tons/yr) = Uncontrolled PTE PM (tons/yr) x % by weight Manganese

**Appendix A: Emissions Calculations
No Bake Foundry - Unit C
HAP Emission Calculations**

**Company Name: Urschel Laboratories Incorporated
Address City IN Zip: 2503 Calumet Avenue, Valparaiso, Indiana 46384
FESOP Permit No.: 127-33753-00037
Reviewer: Brian Williams**

3. Particulate Matter Emissions From Emission Unit C (Thermal Sand Reclaimer) to Thermal Sand Reclaimer Baghouse (PCU-4) and Through S/V-3

Pollutant	Outlet Grain Loading (gr/acf)	Baghouse Control Efficiency (%)	Flow Rate (acfm)	Uncontrolled Potential Emissions (lb/hr)	Uncontrolled Potential Emissions (ton/yr)	Controlled Potential Emissions (lb/hr)	Controlled Potential Emissions (ton/yr)	Limited Potential Emissions (lb/hr)	Limited Potential Emissions (tons/yr)
PM/PM10/PM2.5 *	0.0072	99	6500	40.11	175.70	0.40	1.76	2.57	11.26

Note: * It is assumed that PM equal PM10
There is no emission factor for PM2.5 in AP42, PM2.5 = PM10

Methodology

Uncontrolled PM/PM10 = grain loading (gr/acf outlet) * Flow rate (acfm) * (60 min/hr) * (1 lb/7000 gr) * 4.38 (tons/yr / lb/hr) / (1- control efficiency %)
Controlled PM/PM10 = grain loading (gr/acf outlet) * Flow rate (acfm) * (60 min/hr) * (1 lb/7000 gr) * 4.38 (tons/yr / lb/hr)
Limited Emissions (tons/yr) = Limited Emissions (lb/hr) / 2,000 lb/ton x 8760 hrs/yr

4. Thermal Sand Reclamation Operation (C)

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

Pollutant	Uncontrolled Potential Emissions (ton/yr)	Controlled Potential Emissions (tons/yr)
VOC	56.94	0.57

* The control efficiency of the Thermal Oxidizer is 99% based on the diagnostic stack testing analytical results.

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
Green Sand Foundry - Unit D
Particulate and HAPs Emissions**

**Company Name: Urschel Laboratories Incorporated
Address City IN Zip: 2503 Calumet Avenue, Valparaiso, Indiana 46384
FESOP Permit No.: 127-33753-00037
Reviewer: Brian Williams**

1. Green Sand Handling System (Emission Unit ID: D)

Process	Total (lbs)	
Dust captured in the baghouse	2,576	based on June 2003 test run
Sand Handled	189,922	based on June 2003 test run

PM Emission Factor: $\frac{2,576 \text{ lbs dust caught}}{189,922 \text{ Pound of Sand}} = 0.0136 \text{ lb dust / lb sand} \times 2000 \text{ lb / ton} = 27.13 \text{ lb PM/ton sand}$

Pollutant	Emission factor (lb/ton)	Maximum Throughput (tons sand / day)	Uncontrolled Potential Emissions (lb/hr)	Uncontrolled Potential Emissions (ton/yr)	Baghouse Control Efficiency (%)	Controlled Potential Emissions (lb/hr)	Controlled Potential Emissions (ton/yr)	Limited Potential Emissions (lb/hr)	Limited Potential Emissions (tons/yr)
PM	27.13	25	28.54	125.02	99	0.29	1.25	4.21	18.44
PM10	0.33	25	0.344	1.51	99	0.0034	0.015	4.21	18.44
PM2.5	0.33	25	0.344	1.51	99	0.0034	0.015	4.21	18.44
Metallic HAPs	Emission factor (wt%)								
Arsenic	0.000023	25	6.56E-04	2.88E-03	99	6.56E-06	2.88E-05	9.68E-05	4.24E-04
Cadmium	0.000005	25	1.43E-04	6.25E-04	99	1.43E-06	6.25E-06	2.11E-05	9.22E-05
Chromium	0.000033	25	9.42E-04	4.13E-03	99	9.42E-06	4.13E-05	1.39E-04	6.09E-04
Cobalt	0.000009	25	2.57E-04	1.13E-03	99	2.57E-06	1.13E-05	3.79E-05	1.66E-04
Lead	0.000057	25	1.63E-03	7.13E-03	99	1.63E-05	7.13E-05	2.40E-04	1.05E-03
Manganese	0.000200	25	5.71E-03	2.50E-02	99	5.71E-05	2.50E-04	8.42E-04	3.69E-03
Nickel	0.000023		6.56E-04	2.88E-03	99	6.56E-06	2.88E-05	9.68E-05	4.24E-04
Total HAPs:			9.99E-03	4.38E-02		9.99E-05	4.38E-04	1.47E-03	6.45E-03

NOTE: PM10 Emission Factor: Testing conducted on April 4, 2003 for PM10 (captured emissions) was performed at the inlet duct to the Sand Handling Baghouse. The average of the three tests runs demonstrated a captured emission factor of 0.33 pounds of PM10 per ton of sand throughput. There is no Emission Factor for PM 2.5 in AP 42, PM2.5 = PM10

HAP Emission Factors: Samples of the baghouse catch at the baghouse were obtained and analyzed for metallic HAPs by total constituent analyses

**Appendix A: Emissions Calculations
Green Sand Foundry - Unit D
HAPs and VOC Emissions**

**Company Name: Urschel Laboratories Incorporated
Address City IN Zip: 2503 Calumet Avenue, Valparaiso, Indiana 46384
FESOP Permit No.: 127-33753-00037
Reviewer: Brian Williams**

HAPS and Volatile Organic Compounds (VOC) Emissions

1. Green Sand Foundry (D)

Phenol Content in Sand (lb/ton core sand):	56
Formaldehyde Content in Sand (lb/ton core sand):	4

Pollutant	Emission Factor (%) *	Maximum Throughput (Core/hr)	Uncontrolled Potential Emissions (ton/yr)
Phenol	0	0.167	0
Formaldehyde	2	0.167	0.059

Notes:

* VOC emission factors are from the AFS Document, "Form R Reporting of Binder Chemicals Used in Foundries", 1998. VOC emissions from pouring, cooling and shakeout are believed to be negligible because the green sand used for molds does not contain organic binders or coal derivatives.

Methodology:

Uncontrolled Potential Emissions (ton/yr) = VOC content of sand (lb/ton core sand) x VOC emission factor (%) x Max. Throughput (Core/hr) x 1ton/2000 lb x 8760 hrs/ 1 yr.

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

**Company Name: Urschel Laboratories Incorporated
Address City IN Zip: 2503 Calumet Avenue, Valparaiso, Indiana 46384
FESOP Permit No.: 127-33753-00037
Reviewer: Brian Williams**

2. Fume Control System (Emission Unit ID: E)

Process	Total (lbs)
Baghouse dust	1,800
Total amount of Bronze	716,102

based on dust hauled from the plant from February 2000 through April 2003 is 1,800 pounds
based on amount of bronze purchased and assumed to be melted and poured from February 2000 through April 2003 is 716,102

PM/PM10 Emission Factor: $\frac{1,800 \text{ lbs dust caught}}{716,102 \text{ Pound of Sand}} = 0.0025 \text{ lbs dust/lb bronze}$

Pollutant	Emission factor (lb/lb)	Maximum Throughput (lbs/hr)	Uncontrolled Potential Emissions (lb/hr)	Uncontrolled Potential Emissions (ton/yr)	Baghouse Control Efficiency (%)	Controlled Potential Emissions (lb/hr)	Controlled Potential Emissions (ton/yr)	Limited Potential Emissions (lb/hr)	Limited Potential Emissions (tons/yr)
PM/PM10/PM2.5	0.0025	600	1.676	7.340	90	0.17	0.73	1.83	8.02
Metallic HAPs	Emission factor (wt%)								
Antimony	0.00071	600	1.19E-03	5.21E-03	99	1.19E-05	5.21E-05	1.30E-03	5.69E-03
Arsenic	0.00022	600	3.69E-04	1.61E-03	99	3.69E-06	1.61E-05	4.03E-04	1.76E-03
Cadmium	0.01900	600	3.18E-02	1.39E-01	99	3.18E-04	1.39E-03	3.48E-02	1.52E-01
Chromium	0.00620	600	1.04E-02	4.55E-02	99	1.04E-04	4.55E-04	1.13E-02	4.97E-02
Cobalt	0.00056	600	9.38E-04	4.11E-03	99	9.38E-06	4.11E-05	1.02E-03	4.49E-03
Lead	0.01700	600	2.85E-02	1.25E-01	99	2.85E-04	1.25E-03	3.11E-02	1.36E-01
Manganese	0.06500	600	1.09E-01	4.77E-01	99	1.09E-03	4.77E-03	1.19E-01	5.21E-01
Nickel	0.00260	600	4.36E-03	1.91E-02	99	4.36E-05	1.91E-04	4.76E-03	2.08E-02
Total HAPs:			1.86E-01	8.17E-01		7.32E-04	3.21E-03	2.04E-01	8.92E-01

Note:

It is assumed that PM is equal to PM10.

There is no emission factor for PM2.5 in AP42, PM2.5 = PM10

HAP Emission Factors: Samples of the baghouse catch at the baghouse were obtained and analyzed for metallic HAPs by total constituent analyses

Methodology

Uncontrolled Particulate Emissions (tons/yr) = Max. Metal Processing Rate (lb/hr) x Emission Factor (lb/ton) / (Control Efficiency %) / 2,000 lb/ton x 8760 hrs/yr x 1ton/2000 lb

Uncontrolled Metallic HAPs (tons/yr) = Uncontrolled PM (ton/yr) x Emission Factor (wt%)

Controlled Emissions (tons/yr) = Max. Metal Processing Rate (lb/hr) x Emission Factor (lb/ton) / 2,000 lb/ton x 8760 hrs/yr x 1ton/2000 lb * (1-Control Efficiency)

Limited Particulate Emissions (tons/yr) = Limited Potential Emissions (lb/hr) / 2,000 lb/ton x 8,760 hrs/yr

Limited Metallic HAPs (tons/yr) = Limited PM (ton/yr) x Emission Factor (wt%)

**Appendix A: Emissions Calculations
Immersion Cleaning Operation**

**Company Name: Urschel Laboratories Incorporated
Address City IN Zip: 2503 Calumet Avenue, Valparaiso, Indiana 46384
FESOP Permit No.: 127-33753-00037
Reviewer: Brian Williams**

VOC/HAPs Emission Calculation

Immersion Cleaning Operation

Solvent Product	Max. Solvent Consumption (gal/hr)	Solvent Density (lb/gal)	VOC Emissions		HAP	Weight %	HAP Emissions	
			lb/hr	tons/yr			lb/hr	tons/yr
Intex 8270	0.028	7.840	0.216	0.944	Methylene Chloride	35.00	0.075	0.331
					Tetrachloroethylene	10.00	0.022	0.094
Perchem 1347	0.017	8.757	0.145	0.634	Glycol Ether Compounds	5.00	0.007	0.032
VM & P Naptha	0.121	6.255	0.759	3.326	Ethylbenzene	2.00	0.015	0.067
					Xylene	8.00	0.061	0.266
Jet Kleen	0.014	8.340	0.115	0.504	No HAPs			
Super Agitene	0.013	6.505	0.087	0.382	No HAPs			
Ardrox 6130	6.46E-03	7.423	0.048	0.210	No HAPs			
Satin Cement Seal	1.75E-03	7.506	0.013	0.058	Ethylbenzene	20.00	0.003	0.012
					Toluene	20.00	0.003	0.012
					Xylene	60.00	0.008	0.035
CRC Contact Cleaner	3.75E-04	5.755	0.002	0.009	No HAPs			
Acetone	3.34E-04	6.589	0.002	0.010	No HAPs			
Denatured Alcohol	3.34E-04	6.755	0.002	0.010	Methanol	20.00	0.000	0.002
					Methyl Isobutyl Ketone	20.00	0.000	0.002
Methyl Ethyl Ketone	3.34E-04	6.672	0.002	0.010	Methyl Ethyl Ketone	100.00	0.002	0.010
Brakleen	2.08E-04	11.593	0.002	0.011	Methyl Chloroform	70.00	0.002	0.007
					Tetrachloroethylene	24.00	0.001	0.003
Laquer Thinner	3.34E-04	6.505	0.002	0.010	Toluene	20.00	0.000	0.002
					Methyl Ethyl Ketone	20.00	0.000	0.002
Total:			1.40	6.12			0.20	0.87

**Appendix A: Emissions Calculations
Investment Casting Foundry - Unit K**

Company Name: Urschel Laboratories Incorporated
Address City IN Zip: 2503 Calumet Avenue, Valparaiso, Indiana 46384
FESOP Permit No.: 127-33753-00037
Reviewer: Brian Williams

3. Particulate Matter and Metallic HAP Emissions from Existing Investment Casting Foundry (Emission Unit ID: K)

Operations	AP-42 PM/PM10 Emission Factor (lbs/ton metal)	90% Scaled down PM/PM10 Emission Factor (lb/ton metal)
Electric Induction Melting	0.09	0.009
Pouring and Casting	2.80	0.28
Casting Cooling	1.40	0.14
Total:	4.29	0.429

Note: There are no published emission factors for emissions of particulate matter and HAPs from small stainless steel investment casting foundries. Emission Factors in EPA publications apply to large steel foundries employing sand casting processes. Use of the published emission factors are believed to grossly overestimate PM/PM10 emissions from the small stainless steel foundry. To estimate emissions from the stainless steel foundry, emission factors for large steel sand casting foundries, published in EPA's AP-42, page 12.13-6, Table 12.13-2, January 1995 were used. These factors were decreased by 90% to account for the differences in scale.

Pollutant	Emission factor (lb/ton)	Maximum Throughput (lbs metal / hr)	Uncontrolled Potential Emissions (lb/hr)	Uncontrolled Potential Emissions (ton/yr)
PM/PM10	0.429	310	0.066	0.291
CO	4.88	310	0.756	3.313
Metallic HAPs	Emission factor (wt%) *			
Chromium	0.2029		1.35E-02	5.91E-02
Cobalt	0.0796		5.29E-03	2.32E-02
Manganese	0.0181		1.20E-03	5.27E-03
Nickel	0.0898		5.97E-03	2.62E-02
Selenium	0.00025		1.66E-05	7.28E-05
Total HAPs:			2.60E-02	1.14E-01

* Weight fractions of the constituents of stainless steel that are HAPs are the same weight fractions in PM/PM10 emissions.

Methodology

Uncontrolled Emissions (tons/yr) = Max. Metal Processing Rate (lb/hr) x Emission Factor (lb/ton) / 2,000 lb/ton x 8760 hrs/yr x 1ton/2000 lb

Appendix A: Welding and Cutting

Company Name: Urschel Laboratories Incorporated
 Address City IN Zip: 2503 Calumet Avenue, Valparaiso, Indiana 46384
 FESOP Permit No.: 127-33753-00037
 Reviewer: Brian Williams

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)	EMISSION FACTORS * (lb pollutant / lb electrode)		HAP Weight %				EMISSIONS (lb/hr)					TOTAL HAPS (lb/hr)
			PM = PM10		Mn	Ni	Cobalt	Cr	PM = PM10	Mn	Ni	Cobalt	Cr	
Stick Welding (E308L-17)	1	0.21	5.40E-03	0.0118	0.0898	0.0796	0.2029	1.13E-03	1.33812E-05	1.02E-04	9.03E-05	2.30E-04	3.45E-04	
Stick Welding (E309L-17)	1	0.72	5.40E-03	0.0118	0.0898	0.0796	0.2029	3.89E-03	4.58784E-05	3.49E-04	3.09E-04	7.89E-04	1.18E-03	
Stick Welding (E316L-17)	1	0.155	3.20E-03	0.0118	0.0898	0.0796	0.2029	4.96E-04	5.8528E-06	4.45E-05	3.95E-05	1.01E-04	1.51E-04	
EMISSION TOTALS									PM = PM10	Mn	Ni	Cobalt	Cr	Total HAPS
Potential Emissions lbs/hr									0.00	4.96E-04	4.39E-04	1.12E-03	1.68E-03	3.73E-03
Potential Emissions lbs/day									0.00	1.19E-02	1.05E-02	2.69E-02	4.03E-02	8.96E-02
Potential Emissions tons/year									0.000	2.17E-03	1.92E-03	4.90E-03	7.36E-03	1.64E-02

METHODOLGY

* Stick Welding emission factors are from AP-42, Section 12.19-4, Table 12.19-1.
 Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)
 Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day
 Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/day x 1 ton/2,000 lbs.

Appendix A: Welding and Cutting

Company Name: Urschel Laboratories Incorporated
Address City IN Zip: 2503 Calumet Avenue, Valparaiso, Indiana 46384
FESOP Permit No.: 127-33753-00037
Reviewer: Brian Williams

1. PM/PM10 Emissions from Grinding Operations

Grinding operations include the grinding of welds on machine frames, machine parts and covers.

Based on Engineering Judgement, the amount of PM/PM10 emitted from the grinding operation is equal to:

$$0.1 \frac{\text{lbsPM/PM10}}{\text{lb metal removed}}$$

Grinding Operation Properties:

Maximum grinding rate (in/hr): 180
 Maximum Metal Width (inches): 1
 Maximum Depth of Metal (inches): 0.015
 Density of stainless steel (lb/in³): 0.285

Total metal removed = **0.770 lbs metal removed per hour**

$$\frac{0.77 \text{ lbs metal removed}}{\text{hr}} \times \frac{0.10 \text{ lb PM/PM10}}{\text{lb metal removed}} = \frac{0.077 \text{ lbs PM/PM10}}{\text{hr}}$$

$$\frac{0.077 \text{ lbs PM/PM10}}{\text{hr}} \times \frac{8760 \text{ hr}}{\text{yr}} \times \frac{1 \text{ ton}}{2,000 \text{ lbs}} = \frac{0.337 \text{ tons PM/PM10}}{\text{yr}}$$

2. PM/PM10 Emissions from Laser Cutting

Laser cutting is performed on stainless steel sheet material with nominal gauge of 13 to 16 gauge at a maximum speed of 127 inches of cut per minute

Based on mass balance, the amount of PM/PM10 emitted from the Laser cutting is equal to:

$$0.0303 \frac{\text{lbsPM/PM10}}{\text{lb metal removed}}$$

Grinding Operation Properties:

Maximum grinding rate (in/hr): 7620
 Maximum Metal Width (inches): 0.005
 Maximum Metal Thickness (inches): 0.0897
 Density of stainless steel (lb/in³): 0.285

Total metal removed = **0.974 lbs metal removed per hour**

$$\frac{0.974 \text{ lbs metal removed}}{\text{hr}} \times \frac{0.0303 \text{ lb PM/PM10}}{\text{lb metal removed}} = \frac{0.0295 \text{ lbs PM/PM10}}{\text{hr}}$$

$$\frac{0.0295 \text{ lbs PM/PM10}}{\text{hr}} \times \frac{8760 \text{ hr}}{\text{yr}} \times \frac{1 \text{ ton}}{2,000 \text{ lbs}} = \frac{0.129 \text{ tons PM/PM10}}{\text{yr}}$$

**Appendix A: Welding and Cutting
CO2 Laser cutting**

**Company Name: Urschel Laboratories Incorporated
Address City IN Zip: 2503 Calumet Avenue, Valparaiso, Indiana 46384
FESOP Permit No.: 127-33753-00037
Reviewer: Brian Williams**

3. PM/PM10 Emissions from CO2 Laser Cutting

Plasma torch cutting is performed on stainless steel plate with a maximum thickness of 0.75 inch at a maximum speed of 10 inches per minute.

Based on mass balance, the amount of PM/PM10 emitted from the Plasma cutting is equal to:

$$0.0018 \frac{\text{lbsPM/PM10}}{\text{inch cut}}$$

Grinding Operation Properties:

Maximum grinding rate (in/hr):	600
Maximum Metal Thickness (inches):	0.75
Cut width (Inches):	0.038
Density of Stainless steel (lbs/in ³):	0.285
% Metal Emitted	3.03%

Total metal removed = **4.874 lbs metal removed per hour**

$$\frac{4.874 \text{ lbs}}{\text{hr}} \times \frac{0.03 \text{ lb PM/PM10}}{\text{lb metal removed}} = \frac{0.148 \text{ lbs PM/PM10}}{\text{hr}}$$

$$\frac{0.148 \text{ lbs PM/PM10}}{\text{hr}} \times \frac{8760 \text{ hr}}{\text{yr}} \times \frac{1 \text{ ton}}{2,000 \text{ lbs}} = \frac{0.647 \text{ tons PM/PM10}}{\text{yr}}$$

CO2 Laser cutting is performed on stainless steel sheet material with nominal gauge of 13 to 16 gauge at a maximum speed of 60 inches of cut per minute

Based on mass balance, the amount of PM/PM10 emitted from the Laser cutting is equal to:

$$\frac{0.0303 \text{ lbsPM/PM10}}{\text{lb metal removed}}$$

Metallic HAPs emissions from Grinding, Laser cutting and Plasma Cutting Operations

Operation	PM/PM10 Emissions	Weight Percent HAPs *					Total
		Chromium	Cobalt	Nickel	Selenium	Manganese	
	ton/yr	20.29%	7.96%	8.98%	0.025%	1.81%	
		HAP Emissions (tons/yr)					Total
Welding		7.36E-03	4.90E-03	1.92E-03	0	2.17E-03	1.64E-02
Grinding Operation	0.34	6.84E-02	2.68E-02	3.03E-02	8.43E-05	6.10E-03	1.32E-01
Laser Cutting	0.13	2.62E-02	1.03E-02	1.16E-02	3.23E-05	2.33E-03	5.04E-02
CO2 Laser cutting	0.65	1.31E-01	5.15E-02	5.81E-02	1.62E-04	1.17E-02	2.53E-01
Total	1.11	2.33E-01	8.86E-02	9.99E-02	2.78E-04	2.01E-02	4.35E-01

* HAP emission factors represent a typical metallic HAP content in stainless steel. Weight fractions of metallic constituents in stainless steel are the same as the weight fractions of those constituents in particulate matter emissions.

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

**Company Name: Urschel Laboratories Incorporated
Address City IN Zip: 2503 Calumet Avenue, Valparaiso, Indiana 46384
FESOP Permit No.: 127-33753-00037
Reviewer: Brian Williams**

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
8.18	1020	70.2

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.07	0.27	0.27	0.02	3.51	0.19	2.95

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of C
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Emission Factor in lb/MMcf	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	7.372E-05	4.213E-05	2.633E-03	6.319E-02	1.194E-04

Emission Factor in lb/MMcf	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	1.755E-05	3.861E-05	4.915E-05	1.334E-05	7.372E-05

Total HAPs	6.625E-02
Worst Single HAP	6.319E-02
	Hexane

Emission Factor in lb/MMcf	Greenhouse Gas		
	CO2	CH4	N2O
	120,000	2.3	2.2
Potential Emission in tons/yr	4,213	8.07E-02	7.72E-02
Summed Potential Emissions in tons/yr	4,213		
CO2e Total in tons/yr	4,238		

Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

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

**Company Name: Urschel Laboratories Incorporated
Address City IN Zip: 2503 Calumet Avenue, Valparaiso, Indiana 46384
FESOP Permit No.: 127-33753-00037
Reviewer: Brian Williams**

VOC Emissions from Pattern Shop Finishing room in No Bake Foundry

Coating Material	Maximum Annual Consumption (gal/yr)	VOC Content (lb/gal)	Annual Emissions	
			lbs/yr	tons/yr
Sherwin Williams Lacquer Primer (Red Oxide)	3	5.71	17.13	0.0086
Sherwin Williams Lacquer Thinner Fast	3	5.49	16.47	0.0082
Freeman Repro Lam A	13	1.14	14.82	0.0074
Freeman Repro Lam B	13	0.82	10.66	0.0053
Freeman Repro Surface Coat A	3	1.17	3.51	0.0018
Freeman Repro Surface Coat B	3	0.78	2.34	0.0012
Freeman Repro A-R A-Side	13	1.27	16.51	0.0083
Freeman Repro A-R B-Side	13	1.04	13.52	0.0068
Total:			94.96	0.04748

Methodology:

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



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Jennifer Brooks
Urschel Laboratories, Inc.
2503 Calumet Ave.
Valparaiso, Indiana 46383

DATE: January 30, 2014

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

SUBJECT: Final Decision
FESOP
127-33753-00037

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:
David Whitenack, Plant Manager / Urschel Laboratories
Les Chapman, Consultant
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Final Applicant Cover letter.dot 6/13/2013



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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

January 30, 2014

TO: Valparaiso Public Library

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

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: Urschel Laboratories, Inc.
Permit Number: 127-33753-00037

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures
Final Library.dot 6/13/2013

Mail Code 61-53

IDEM Staff	AWELLS 1/30/2014 Urschel Laboratories, Inc. 127-33753-00037 Final		Type of Mail: CERTIFICATE OF MAILING ONLY	AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204		

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		Jennifer Brooks Urschel Laboratories, Inc. 2503 Calumet Ave Valparaiso IN 46383 (Source CAATS) confirmed delivery										
2		David Whitenack Plant Manager Urschel Laboratories, Inc. 2503 Calumet Ave Valparaiso IN 46383 (RO CAATS)										
3		Porter County Board of Commissioners 155 Indiana Ave, Ste 205 Valparaiso IN 46383 (Local Official)										
4		Valparaiso Public Library 103 Jefferson St Valparaiso IN 46383-4899 (Library)										
5		Porter County Health Department 155 Indiana Ave, Suite 104 Valparaiso IN 46383-5502 (Health Department)										
6		Shawn Sobocinski 3229 E. Atlanta Court Portage IN 46368 (Affected Party)										
7		Mr. Ed Dybel 2440 Schrage Avenue Whiting IN 46394 (Affected Party)										
8		Valparaiso City Council and Mayors Office 166 Lincolnway Valparaiso IN 46383-5524 (Local Official)										
9		Mr. Joseph Virgil 128 Kinsale Avenue Valparaiso IN 46385 (Affected Party)										
10		Mark Coleman 107 Diana Road Portage IN 46368 (Affected Party)										
11		Mr. Chris Hernandez Pipefitters Association, Local Union 597 8762 Louisiana St., Suite G Merrillville IN 46410 (Affected Party)										
12		Burns Harbor Town Council 1240 N. Boo Rd Burns Harbor IN 46304 (Local Official)										
13		Eric & Sharon Haussman 57 Shore Drive Ogden Dunes IN 46368 (Affected Party)										
14		Joseph Hero 11723 S Oakridge Drive St. John IN 46373 (Affected Party)										
15		Matt Mikus 1710 Vale Park Rd Apt 302 Valparaiso IN 46383 (Affected Party)										

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is \$50,000 per piece subject to a limit of \$50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is \$500. The maximum indemnity payable is \$25,000 for registered mail, sent with optional postal insurance. See Domestic Mail Manual R900, S913, and S921 for limitations of coverage on inured and COD mail. See International Mail Manual for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
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Mail Code 61-53

IDEM Staff	AWELLS 1/30/2014 Urschel Laboratories, Inc. 127-33753-00037 Final		Type of Mail: CERTIFICATE OF MAILING ONLY	AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
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Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		Les Chapman 130 Lincoln Street Porter IN 46304 (Consultant)										
2		Maureen Cosentino 1230 Bostwick Ave. Chesterton IN 46304 (Affected Party)										
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
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2			