



Indiana Department of Environmental Management

We Protect Hoosiers and Our Environment.

100 N. Senate Avenue • Indianapolis, IN 46204

(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Carol S. Comer
Commissioner

NOTICE OF 30-DAY PERIOD FOR PUBLIC COMMENT

Preliminary Findings Regarding a
Significant Modification to a
Part 70 Operating Permit

for Metal Technologies Auburn, LLC in DeKalb County

Significant Source Modification No.: 033-37263-00042

Significant Permit Modification No.: 033-37273-00042

The Indiana Department of Environmental Management (IDEM) has received an application from Metal Technologies Auburn, LLC, located at 1537 West Auburn Drive, Auburn, Indiana, for a significant modification of its Part 70 Operating Permit issued on April 30, 2013. If approved by IDEM's Office of Air Quality (OAQ), this proposed modification would allow Metal Technologies, LLC to make certain changes at its existing source. Metal Technologies, LLC has applied to make the following changes to the thermal chip drying process:

1. Metal Technologies, LLC intends to add a screening operation (EU-32A) downstream of the thermal chip dryer to remove fines from the processed materials due to casting quality issues. The screening process will include material handling and cooling, which will require particulate controls. Therefore, the source has decided to replace the existing baghouse on the thermal chip dryer with a larger baghouse that will control emissions from the thermal chip dryer and the screening process. This new process has the potential to emit greater than 25 tons of PM, PM10, and PM2.5. As a result, the source will accept PM, PM10, and PM2.5 limits to render 326 IAC 2-2 (PSD) not applicable to this modification. The addition of the new screening operation and larger baghouse will not increase the unlimited potential to emit of the thermal chip dryer.
2. Metal Technologies, LLC has notified IDEM that they plan to remove the secondary heat exchanger downstream of the existing thermal oxidizer. This change will not impact the potential to emit from the thermal chip dryer.
3. Metal Technologies, LLC has notified IDEM that the combined heat input capacity for the smoke hood and thermal oxidizer is 6.545 MMBtu/hr. These units were initially permitted at 4.22 MMBtu/hr. Therefore, the emissions from natural gas combustion have been revised to reflect the increase in the maximum heat input capacity.
4. Metal Technologies, LLC has requested to include an alternative VOC emission limitation for the thermal chip dryer of a maximum VOC outlet concentration of 10 ppmv. Pursuant to 326 IAC 8-1-6 (VOC BACT), the source is currently required to achieve an overall control efficiency of 98%. The alternative VOC emission limit will allow the source to demonstrate compliance even if the overall control efficiency is less than 98%. This change recognizes the limitations of the thermal oxidizer when the inlet VOC concentrations are very low.

The applicant intends to construct and operate new equipment that will emit air pollutants; therefore, the permit contains new or different permit conditions. In addition, some conditions from previously issued permits/approvals have been corrected, changed, or removed. These corrections, changes, and removals may include Title I changes (e.g. changes that add or modify synthetic minor emission limits). IDEM has reviewed this application and has developed preliminary findings, consisting of a draft permit and several supporting documents, which would allow the applicant to make this change.

A copy of the permit application and IDEM's preliminary findings are available at:

Eckhart Public Library
603 South Jackson Street
Auburn, IN 46706

and

IDEM Northern Regional Office
300 N. Michigan Street, Suite 450
South Bend, IN 46601-1295

A copy of the preliminary findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>.

How can you participate in this process?

The date that this notice is published in a newspaper marks the beginning of a 30-day public comment period. If the 30th day of the comment period falls on a day when IDEM offices are closed for business, all comments must be postmarked or delivered in person on the next business day that IDEM is open.

You may request that IDEM hold a public hearing about this draft permit. If adverse comments concerning the **air pollution impact** of this draft permit are received, with a request for a public hearing, IDEM will decide whether or not to hold a public hearing. IDEM could also decide to hold a public meeting instead of, or in addition to, a public hearing. If a public hearing or meeting is held, IDEM will make a separate announcement of the date, time, and location of that hearing or meeting. At a hearing, you would have an opportunity to submit written comments and make verbal comments. At a meeting, you would have an opportunity to submit written comments, ask questions, and discuss any air pollution concerns with IDEM staff.

Comments and supporting documentation, or a request for a public hearing should be sent in writing to IDEM at the address below. If you comment via e-mail, please include your full U.S. mailing address so that you can be added to IDEM's mailing list to receive notice of future action related to this permit. If you do not want to comment at this time, but would like to receive notice of future action related to this permit application, please contact IDEM at the address below. Please refer to permit number SSM 033-37263-00042 and SPM 033-37273-00042 in all correspondence.

Comments should be sent to:

Brian Williams
IDEM, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
(800) 451-6027, ask for extension 4-5375
Or dial directly: (317) 234-5375
Fax: (317) 232-6749 attn: Brian Williams
E-mail: bwilliam@idem.IN.gov

All comments will be considered by IDEM when we make a decision to issue or deny the permit. Comments that are most likely to affect final permit decisions are those based on the rules and laws governing this permitting process (326 IAC 2), air quality issues, and technical issues. IDEM does not have legal authority to regulate zoning, odor, or noise. For such issues, please contact your local officials.

For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: <http://www.in.gov/idem/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/idem/6900.htm>.

What will happen after IDEM makes a decision?

Following the end of the public comment period, IDEM will issue a Notice of Decision stating whether the permit has been issued or denied. If the permit is issued, it may be different than the draft permit because of comments that were received during the public comment period. If comments are received during the public notice period, the final decision will include a document that summarizes the comments and IDEM's response to those comments. If you have submitted comments or have asked to be added to the mailing list, you will receive a Notice of the Decision. The notice will provide details on how you may appeal IDEM's decision, if you disagree with that decision. The final decision will also be available on the Internet at the address indicated above, at the local library indicated above, at the IDEM Regional Office indicated above, and the IDEM public file room on the 12th floor of the Indiana Government Center North, 100 N. Senate Avenue, Indianapolis, Indiana 46204-2251.

If you have any questions, please contact Brian Williams of my staff at the above address.



Iryn Callung, Section Chief
Permits Branch
Office of Air Quality



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DRAFT

Mr. Dan Plant
Metal Technologies Auburn, LLC
1401 South Grandstaff Drive
Auburn, IN 46706

Re: 033-37273-00042
Significant Permit Modification to
Part 70 Renewal No.: T033-32494-00042

Dear Mr. Plant:

Metal Technologies Auburn, LLC was issued Part 70 Operating Permit Renewal No. T033-32494-00042 on April 30, 2013 for a stationary gray and ductile iron foundry located at 1537 West Auburn Drive, Auburn, Indiana. An application requesting changes to this permit was received on June 2, 2016. Pursuant to the provisions of 326 IAC 2-7-12, a Significant Permit Modification to this permit is hereby approved as described in the attached Technical Support Document.

Please find attached the entire Part 70 Operating Permit as modified. The permit references the below listed attachment. Since this attachment has been provided in previously issued approvals for this source, IDEM OAQ has not included a copy of this attachment with this modification:

Attachment A: 40 CFR 63, Subpart EEEEE, National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries

Previously issued approvals for this source containing this attachment are available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>.

Federal rules under Title 40 of United States Code of Federal Regulations may also be found on the U.S. Government Printing Office's Electronic Code of Federal Regulations (eCFR) website, located on the Internet at: http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title40/40tab_02.tpl.

A copy of the permit is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: <http://www.in.gov/idem/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/idem/6900.htm>.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5.

DRAFT

If you have any questions on this matter, please contact Brian, of my staff, OAQ, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana, 46204-2251 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: Modified Permit and Technical Support Document

cc: File - DeKalb County
DeKalb County Health Department
U.S. EPA, Region 5
Compliance and Enforcement Branch
IDEM Northern Regional Office



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Part 70 Operating Permit Renewal OFFICE OF AIR QUALITY

**Metal Technologies Auburn, LLC
1537 West Auburn Drive
Auburn, Indiana 46706**

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

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

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

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|---|--|
| Operation Permit No.: T033-32494-00042 | |
| Issued by: Iryn Calilung, Section Chief Permits Branch Office of Air Quality | Issuance Date: April 30, 2013 Expiration Date: April 30, 2018 |

Administrative Amendment No. 033-34144-00042, issued on February 25, 2014
Significant Permit Modification No.: 033-34870-00042, issued on January 9, 2015
Significant Permit Modification No.: 033-35881-00042, issued on September 9, 2015

| | |
|---|---|
| Significant Permit Modification No.: 033-37273-00042 | |
| Issued by: Iryn Calilung, Section Chief Permits Branch Office of Air Quality | Issuance Date: Expiration Date: April 30, 2018 |



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Attachment A - NESHAP Subpart EEEEE

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(14)][326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary gray and ductile iron foundry.

| | |
|------------------------------|--|
| Source Address: | 1537 West Auburn Drive, Auburn, Indiana 46706 |
| General Source Phone Number: | (260) 925-4717 |
| SIC Code: | 3321 (Gray and Ductile Iron Foundries) |
| County Location: | DeKalb |
| Source Location Status: | Attainment for all criteria pollutants |
| Source Status: | Part 70 Operating Permit Program Major Source, under PSD Rules Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories |

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(14)]

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

- (a) Scrap and charge handling, constructed in 1995 and approved for modification in 2014 to add a return scrap crusher, with a nominal capacity of 30 tons of metal per hour, with no control and exhausting inside the building;

The return scrap crusher consists of 2 massive steel plates and is used to reduce the size of the return scrap.

- (b) One (1) iron charging, melting, ladle metallurgy, holding and transfer system; identified as EU-2; constructed in 1995; a nominal capacity of 30 tons of metal per hour; emissions controlled by baghouses DC-2 and DC-8; emissions exhaust to stacks S-2 & S-8. The transfer operations refer to the transfer of metal from the holding furnace to the ladle. The system consists of the following equipment/operations:

- (1) One (1) furnace charging operation;
- (2) Three (3) electric induction furnaces*;
- (3) One (1) ladle metallurgical station; and
- (4) One (1) electric holding furnace.

* The three (3) electric induction furnaces are considered part of the affected source under 40 CFR Part 63, Subpart EEEEE.

Stack S-8 is a common stack for Baghouse DC-8 and Baghouse DC-7.

Baghouse DC-8 and stack S-8 is also used for the Lines 1, 2, 3, & 4 pouring and casting operations, the EU-6 shot reblast unit, and the EU-5bc waste sand system.

Pouring and Casting Operations

- (c) One (1) Line 1 pouring and casting operation; identified as EU-3a1; constructed in 1995 and modified in 2008; a nominal capacity of 10 tons of metal and 55 tons of sand per hour; particulate emissions controlled by baghouse DC-8; emissions exhaust to Stack S-8.

EU-3a1 is considered part of the affected source under 40 CFR Part 63, Subpart EEEEE.

- (d) One (1) Line 2 pouring and casting operation; identified as EU-3a2; constructed in 1995; modified in 2009, a nominal capacity of 10 tons of metal and 55 tons of sand per hour; particulate emissions controlled by baghouse DC-8; emissions exhaust to stack S-8.

EU-3a2 is considered part of the affected source under 40 CFR Part 63, Subpart EEEEE.

- (e) One (1) Line 3 pouring and casting operation; identified as EU-3a3; constructed in 1995, and approved for modification in 2012; a nominal capacity of 11 tons of metal and 55 tons of sand per hour; particulate emissions controlled by baghouse DC-8; emissions exhaust to stack S-8.

EU-3a3 is considered part of the affected source under 40 CFR Part 63, Subpart EEEEE.

- (f) One (1) Line 4 pouring and casting operation; identified as EU-3a4; constructed in 1995 and approved for modification in 2012; a nominal capacity of 11 tons of metal and 55 tons of sand per hour; particulate emissions controlled by baghouse DC-8; emissions exhaust to stack S-8.

EU-3a4 is considered part of the affected source under 40 CFR Part 63, Subpart EEEEE.

Baghouse DC-8 and stack S-8 is a common control and stack, respectively of the Lines 1, 2, 3, & 4 pouring and casting operations.

Baghouse DC-8 and stack S-8 is also used for the iron charging, melting, ladle metallurgy, holding and transfer system, identified as EU-2, the EU-6 shot reblast unit, and the EU-5bc waste sand system.

Stack S-8 is a common stack for Baghouse DC-8 and Baghouse DC-7.

Casting/Mold Cooling Operations

- (g) One (1) Line 1 casting/mold cooling operation; identified as EU-3b1; constructed in 1995; a nominal capacity of 10 tons of metal and 55 tons of sand per hour; with no control, and emissions exhaust to stack S-3b.

- (h) One (1) Line 2 casting/mold cooling operation; identified as EU-3b2; constructed in 1995; a nominal capacity of 10 tons of metal and 55 tons of sand per hour with no control, and emissions exhaust to stack S-3b.

Stack-3b is a common stack for the casting/mold cooling operations for Line 1 and Line 2.

- (i) One (1) Line 3 casting/mold cooling operation; identified as EU-3b3; constructed in 1995 and approved for modification in 2012; a nominal capacity of 11 tons of metal and 55 tons of sand per hour; with no control, and emissions exhaust to stack S-3d.

- (j) One (1) Line 4 casting/mold cooling operation; identified as EU-3b4; constructed in 1995 and approved for modification in 2012; a nominal capacity of 11 tons of metal and 55 tons of sand per hour; with no control, and emissions exhaust to stack S-3d.

Stack-3d is a common stack for the casting/mold cooling operations for Line 3 and Line 4.

Casting Shakeout Operations

- (k) One (1) Line 3 casting shakeout operation; identified as EU-4a; constructed in 1995 and modified in 2012; with a nominal capacity of 11 tons of metal and 55 tons of sand per hour; particulate emissions controlled by baghouse DC-3 and exhausting to stack S-15.
- (l) One (1) Line 4 casting shakeout operation; identified as EU-4b; constructed in 1995 and modified in 2012; with a nominal capacity of 11 tons of metal and 55 tons of sand per hour; particulate emissions controlled by baghouse DC-4 and stack S-4.
- (m) One (1) Line 1 and Line 2 casting shakeout operation; identified as EU-5a; constructed in 1995; a nominal capacity of 20 tons of metal and 110 tons of sand per hour; particulate emissions controlled by baghouse DC-5; emissions exhaust to stack S-5.

This EU-5a casting shakeout operation is shared by Line 1 and Line 2.

- (n) One (1) return sand/waste sand system; identified as EU-5bc; constructed in 1995; a nominal capacity of 220 tons of sand per hour; emissions controlled by baghouse DC-5, which exhausts to stack S-5 and baghouse DC-8, which exhausts to stack S-5.

Baghouse DC-5 controls the return sand system.

Baghouse DC-8 controls the waste sand system.

Baghouse DC-5 and stack S-5 is a common control and stack, respectively of the Line 1 and Line 2 casting shakeout operation and return sand/waste sand system, identified as EU-5bc.

Stack S-8 is a common stack for Baghouse DC-8 and Baghouse DC-7.

Baghouse DC-8 and stack S-8 is also used for the iron charging, melting, ladle metallurgy, holding and transfer system, identified as EU-2, the Lines 1, 2, 3, and 4 pouring and casting operations, and the shot reblast unit EU-6.

- (o) One (1) shot reblast unit; identified as EU-6; constructed in 1997; a nominal capacity of 1.12 tons of iron castings per hour; emissions controlled by baghouse DC-8, which exhausts to stack S-8.

Stack S-8 is a common stack for Baghouse DC-8 and Baghouse DC-7.

Baghouse DC-8 and stack S-8 is also used for the iron charging, melting, ladle metallurgy, holding and transfer system, identified as EU-2, the Lines 1, 2, 3, and 4 pouring and casting operations, and the EU-5bc waste sand system.

- (p) One (1) shot blast system; consisting of four (4) shot blast units; identified as EU-16 through EU-19; constructed in 1999 and modified in 2012; a total nominal capacity of 27 tons of iron castings per hour, with emissions from EU-16, EU-17, EU-18, and EU-19 controlled by baghouse DC-7, which exhausts to stack S-8.

Stack S-8 is a common stack for Baghouse DC-8 and Baghouse DC-7.

- (q) Sand handling system; identified as (EU-1a); constructed in 1995 and modified in 2011; a nominal capacity of 220 tons of sand per hour; and exhausting to stack S-1, stack S-5 and stack S-10. The sand handling system is described as follows:
- (1) Metal Separation controlled by baghouse DC-5, and exhausting to stack S-5.
 - (2) Sand multi-cooler controlled by baghouse DC-5, and exhausting to stack S-5.
 - (3) Return sand conveyor (no real collection).
 - (4) Return sand distribution conveyor controlled by baghouse DC-1, and exhausting to stack S-1.
 - (5) Four (4) 250 ton return sand storage bins controlled by baghouse DC-1, and exhausting to stack S-1.
 - (6) Two (2) sand mullers, rated at 75 tons of sand per hour, each, controlled by baghouse DC-10 and exhausting to stack S-10.
 - (7) Two (2) sand mullers, rated at 75 tons of sand per hour, each, controlled by baghouse DC-1 and exhausting to stack S-1.

Ductile Iron Conversion Process

- (r) One (1) ductile iron conversion (DIC) process: identified as EU-20; constructed in 2009, with a nominal capacity of 30 tons of metal per hour, and particulate emissions captured by two side draft fume and exhaust hoods and controlled by Baghouse DC-20, exhausting to stack S-20;

In this ductile iron conversion (DIC) process, magnesium and other elements are added to molten iron to produce ductile iron.

Core Making Process

- (s) One (1) Phenolic Urethane Cold Box (PUCB) core production process with a nominal capacity of 2.9 tons of cores per hour, constructed in 2012, consisting of the following units:
- (1) One (1) 65 ton core sand silo identified as EU-30a, controlled by a bin vent filter exhausting inside the building.
 - (2) One (1) Core sand mixer and sand transport system, identified as EU-30b, with a nominal capacity of 2.9 tons per hour, with emissions vented back to the core sand silo.
 - (3) One (1) PUCB core machine, identified as EU30c, with a nominal capacity of 2.9 tons of cores/hour, each using a tertiary amine catalyst gas controlled by an acid scrubber, identified as SC-1 venting to stack SC-1.
 - (4) One (1) water based core wash, identified as EU30d; and
 - (5) One (1) 1.5 MMBtu/hr natural gas fired drying oven, identified as EU-30e.

- (t) One (1) Warm Box Core production process with a nominal capacity of 2.9 tons cores per hour, constructed in 2012, consisting of the following units;
 - (1) One (1) 65 ton core sand silo, identified as EU-31a, controlled by a bin vent filter exhausting inside the building; and
 - (2) One (1) warm box core machine, identified as EU31b, with a nominal capacity of 2.9 tons of cores/hour and 0.6 MMBtu per hr of natural gas.

Thermal Chip Drying Process

- (u) One (1) natural gas-fired thermal chip dryer process, consisting of the following:
 - (1) One (1) thermal chip dryer, identified as EU-32, constructed in 2015 and approved in 2016 for modification to replace the baghouse, with a nominal maximum capacity of 15 tons of metal chips and machining oil per hour, equipped with eight (8) low NOx retort burners (the flame does not directly contact the scrap metal chips), with a combined maximum heat input capacity of 9.50 MMBtu per hour, with particulate matter emissions controlled by cyclone DC-32a and baghouse DC-32c and VOC and CO emissions controlled by a 6.545 MMBtu per hour natural gas-fired smoke hood and thermal oxidizer, and exhausting to Stack S-32b. Emissions from the eight (8) natural gas-fired burners are uncontrolled and exhaust to Stack S-32a; and
 - (2) One (1) chip screening unit and associated material handling equipment, identified as EU-32A, approved in 2016 for construction, with a nominal maximum capacity of 15 tons of metal chips per hour, with particulate matter emissions controlled by baghouse DC-32c, and exhausting to Stack S-32b.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(14)]

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

- (a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment cutting torches, soldering equipment, welding equipment [326 IAC 2-7-1(21)(J)(vi)(EE)][326 IAC 6-3-2].
- (b) One (1) test sample blast machine; identified as EU-1b; constructed in 1995; a nominal capacity of 150 pounds of metal per hour; emissions controlled by and internally vented dust collector, exhausting to stack S-1. [326 IAC 6-3-2]
- (c) One (1) shot reclaim system, controlled by an internally vented dust collector, exhausting to inside the building. [326 IAC 6-3-2]
- (d) Activities with emissions equal to or less than the following thresholds: 5 lb/hr or 25 lb/day PM; 5 lb/hr or 25 lb/day SO₂; 5 lb/hr or 25 lb/day NO_x; 3 lb/hr or 15 lb/day VOC; 0.6 tons per year Pb; 1.0 ton/yr of a single HAP, or 2.5 ton/yr of any combination of HAPs: Scrap receiving operations: All metal scrap is received via truck and deposited into scrap storage bins within a building. A source of fugitive emissions. [326 IAC 6-4]
- (e) Paved and unpaved roads and parking lots with public access. [326 IAC 2-7-1(21)(J)(xiii)][326 IAC 6-4]

- (f) 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, which include the following: Two (2) enclosed grinding units controlled by fabric filters and exhausting inside the building; and One (1) test sample blast machine; identified as EU-1b; constructed in 1995 controlled by fabric filters and exhausting inside the building. [326 IAC 2-7-1(21)(J)(xxiii)][326 IAC 6-3-2]
- (g) Eight (8) grinders; identified together as EU-7; constructed in 1999 and modified in 2012; a combined nominal capacity of 24 tons of iron castings per hour; emissions controlled by individual dust collectors which have a gas flow rate of less than 4,000 cfm each, and which have a grain loading of less than or equal to (0.03) grains per actual cubic foot, and which exhaust indoors. [326 IAC 2-7-1(21)(J)(xxiii)][326 IAC 2-2-3]
- (h) One (1) emergency diesel generator, constructed in 1994, with a maximum output horsepower rating (hp) of 1135 HP, using no control, and exhausting indoors.

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

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

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

SECTION B GENERAL CONDITIONS

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

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)][IC 13-15-3-6(a)]

- (a) This permit, T033-32494-00042, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

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

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

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

B.4 Enforceability [326 IAC 2-7-7][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 2-7-5(5)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

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

B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]

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

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

- (a) A certification required by this permit meets the requirements of 326 IAC 2-7-6(1) if:
- (1) it contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(35), 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) A "responsible official" is defined at 326 IAC 2-7-1(35).

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

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

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

and

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

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

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

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(12)][326 IAC 1-6-3]

- (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 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

B.11 Emergency Provisions [326 IAC 2-7-16]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.

- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, or Northern 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
Northern Regional Office phone: (574) 245-4870; fax: (574) 245-4877.

- (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 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;

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

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(8) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

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

- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

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

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable

requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

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

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

- (a) All terms and conditions of permits established prior to T033-32494-00042 and issued pursuant to permitting programs approved into the state implementation plan have been either:
 - (1) incorporated as originally stated,
 - (2) revised under 326 IAC 2-7-10.5, or
 - (3) deleted under 326 IAC 2-7-10.5.
- (b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit.

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

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

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

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 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 2-7-5(6)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
 - (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.16 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-7-4(a)(2)(D), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

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

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
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 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

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

- (a) No Part 70 permit revision or notice shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

- (b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

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

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b) or (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 preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

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

(4) The Permittee notifies the:

Indiana Department of Environmental Management
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 2-7-20(b)(1) and (c)(1). The Permittee shall make such records available, upon reasonable request, for public review.

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

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

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

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).

- (d) **Alternative Operating Scenarios [326 IAC 2-7-20(d)]**
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

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

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

B.21 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]

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

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
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 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

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

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.24 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314][326 IAC 1-1-6]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-1 (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.3 Open Burning [326 IAC 4-1][IC 13-17-9]

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

C.4 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.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-1(3), 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4, and 326 IAC 1-7-5(a), (b), and (d) are not federally enforceable.

C.7 Asbestos Abatement Projects [326 IAC 14-10][326 IAC 18][40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of

326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
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 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (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. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

Testing Requirements [326 IAC 2-7-6(1)]

C.8 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 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (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 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

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

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

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

C.10 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)][40 CFR 64][326 IAC 3-8]

- (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 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (b) For monitoring required by CAM, at all times, the Permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
- (c) For monitoring required by CAM, except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the Permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

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

- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale. 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 2-7-5][326 IAC 2-7-6]

C.12 Emergency Reduction Plans [326 IAC 1-5-2][326 IAC 1-5-3]

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

- (a) The Permittee shall maintain the most recently submitted written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.13 Risk Management Plan [326 IAC 2-7-5(12)][40 CFR 68]

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

C.14 Response to Excursions or Exceedances [40 CFR 64][326 IAC 3-8][326 IAC 2-7-5]
[326 IAC 2-7-6]

- (I) Upon detecting an excursion where a response step is required by the D Section, or an exceedance of a limitation, not subject to CAM, 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.
- (II)
 - (a) *CAM Response to excursions or exceedances.*
 - (1) Upon detecting an excursion or exceedance, subject to CAM, the Permittee shall restore operation of the pollutant-specific emissions unit (including the 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. 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). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized

distribution control system), or 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.

- (2) 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, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.
- (b) If the Permittee identifies a failure to achieve compliance with an emission limitation, subject to CAM, or standard, subject to CAM, for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the Permittee shall promptly notify the IDEM, OAQ and, if necessary, submit a proposed significant permit modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
 - (c) Based on the results of a determination made under paragraph (II)(a)(2) of this condition, the EPA or IDEM, OAQ may require the Permittee to develop and implement a Quality Improvement Plan (QIP). The Permittee shall develop and implement a QIP if notified to in writing by the EPA or IDEM, OAQ.
 - (d) Elements of a QIP:
The Permittee shall maintain a written QIP, if required, and have it available for inspection. The plan shall conform to 40 CFR 64.8 b (2).
 - (e) If a QIP is required, the Permittee shall develop and implement a QIP as expeditiously as practicable and shall notify the IDEM, OAQ if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.
 - (f) Following implementation of a QIP, upon any subsequent determination pursuant to paragraph (II)(c) of this condition the EPA or the IDEM, OAQ may require that the Permittee make reasonable changes to the QIP if the QIP is found to have:
 - (1) Failed to address the cause of the control device performance problems; or
 - (2) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
 - (g) Implementation of a QIP shall not excuse the Permittee from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.
 - (h) *CAM recordkeeping requirements.*
 - (1) The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to paragraph (II)(c) of this condition

and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this condition (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

- (2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall 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 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

C.16 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

In accordance with the compliance schedule specified in 326 IAC 2-6-3(b)(1), starting in 2004 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

- (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
- (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(33) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

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

The emission statement does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

C.17 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6][326 IAC 2-2][326 IAC 2-3]

- (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 Part 70 permit.

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) If there is a reasonable possibility (as defined in 326 IAC 2-2-8 (b)(6)(A), 326 IAC 2-2-8 (b)(6)(B), 326 IAC 2-3-2 (l)(6)(A), and/or 326 IAC 2-3-2 (l)(6)(B)) that a "project" (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(dd) and/or 326 IAC 2-3-1(y)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), the Permittee shall comply with following:

- (1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, document and maintain the following records:

- (A) A description of the project.
- (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.
- (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
 - (i) Baseline actual emissions;
 - (ii) Projected actual emissions;

- (iii) Amount of emissions excluded under section 326 IAC 2-2-1(pp)(2)(A)(iii) and/or 326 IAC 2-3-1 (kk)(2)(A)(iii); and
 - (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
- (d) If there is a reasonable possibility (as defined in 326 IAC 2-2-8 (b)(6)(A) and/or 326 IAC 2-3-2 (l)(6)(A)) that a "project" (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(dd) and/or 326 IAC 2-3-1(y)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), the Permittee shall comply with following:
 - (1) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and
 - (2) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.18 General Reporting Requirements [326 IAC 2-7-5(3)(C)][326 IAC 2-1.1-11][326 IAC 2-2][40 CFR 64][326 IAC 3-8]

- (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 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35). 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.
- (e) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C - General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (oo) and/or 326 IAC 2-3-1 (jj)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:
 - (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (ww) and/or 326 IAC 2-3-1 (pp), for that regulated NSR pollutant, and
 - (2) The emissions differ from the preconstruction projection as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(ii).
- (f) The report for project at an existing emissions unit shall be submitted no later than sixty (60) days after the end of the year and contain the following:
 - (1) The name, address, and telephone number of the major stationary source.
 - (2) The annual emissions calculated in accordance with (d)(1) and (2) in Section C - General Record Keeping Requirements.
 - (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).
 - (4) Any other information that the Permittee wishes to include in this report such as an explanation as to why the emissions differ from the preconstruction projection.

Reports required in this part 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

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

Stratospheric Ozone Protection

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

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

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Melting, Pouring and Casting Operations

- (a) Scrap and charge handling, constructed in 1995 and approved for modification in 2014 to add a return scrap crusher, with a nominal capacity of 30 tons of metal per hour, with no control and exhausting inside the building;

The return scrap crusher consists of 2 massive steel plates and is used to reduce the size of the return scrap.

- (b) One (1) iron charging, melting, ladle metallurgy, holding and transfer system; identified as EU-2; constructed in 1995; a nominal capacity of 30 tons of metal per hour; emissions controlled by baghouses DC-2 and DC-8; emissions exhaust to stacks S-2 & S-8. The transfer operations refer to the transfer of metal from the holding furnace to the ladle. The system consists of the following equipment/operations:

- (1) One (1) furnace charging operation;
- (2) Three (3) electric induction furnaces*;
- (3) One (1) ladle metallurgical station; and
- (4) One (1) electric holding furnace.

* The three (3) electric induction furnaces are considered part of the affected source under 40 CFR Part 63, Subpart EEEEE.

Stack S-8 is a common stack for Baghouse DC-8 and Baghouse DC-7.

Baghouse DC-8 and stack S-8 is also used for the Lines 1, 2, 3, & 4 pouring and casting operations, the EU-6 shot reblast unit, and the EU-5bc waste sand system.

Pouring and Casting Operations

- (c) One (1) Line 1 pouring and casting operation; identified as EU-3a1; constructed in 1995 and modified in 2008; a nominal capacity of 10 tons of metal and 55 tons of sand per hour; particulate emissions controlled by baghouse DC-8; emissions exhaust to Stack S-8.

EU-3a1 is considered part of the affected source under 40 CFR Part 63, Subpart EEEEE.

- (d) One (1) Line 2 pouring and casting operation; identified as EU-3a2; constructed in 1995; modified in 2009, a nominal capacity of 10 tons of metal and 55 tons of sand per hour; particulate emissions controlled by baghouse DC-8; emissions exhaust to stack S-8.

EU-3a2 is considered part of the affected source under 40 CFR Part 63, Subpart EEEEE.

- (e) One (1) Line 3 pouring and casting operation; identified as EU-3a3; constructed in 1995, and approved for modification in 2012; a nominal capacity of 11 tons of metal and 55 tons of sand per hour; particulate emissions controlled by baghouse DC-8; emissions exhaust to stack S-8.

EU-3a3 is considered part of the affected source under 40 CFR Part 63, Subpart EEEEE.

(f) One (1) Line 4 pouring and casting operation; identified as EU-3a4; constructed in 1995 and approved for modification in 2012; a nominal capacity of 11 tons of metal and 55 tons of sand per hour; particulate emissions controlled by baghouse DC-8; emissions exhaust to stack S-8.

EU-3a4 is considered part of the affected source under 40 CFR Part 63, Subpart EEEEE.

Baghouse DC-8 and stack S-8 is a common control and stack, respectively of the Lines 1, 2, 3, & 4 pouring and casting operations.

Baghouse DC-8 and stack S-8 is also used for the iron charging, melting, ladle metallurgy, holding and transfer system, identified as EU-2, the EU-6 shot reblast unit, and the EU-5bc waste sand system.

Stack S-8 is a common stack for Baghouse DC-8 and Baghouse DC-7.

(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 2-7-5(1)]

D.1.1 Best Available Control Technology (BACT) for PM/PM₁₀ Emissions [326 IAC 2-2-3]

Pursuant to 326 IAC 2-2-3 (PSD - BACT) and PSD T033-21760-00042, issued in 2008, the Permittee shall comply with the following:

- (a) PM and PM₁₀ emissions from the charging, melting, metallurgy, holding and transfer operations shall be controlled by a baghouse.
- (b) PM and PM₁₀ emissions from the Lines 1, 2, 3 and 4 pouring and casting operations shall be controlled by a baghouse.
- (c) The PM and PM₁₀ emissions from the following facilities are limited, as indicated in the table below:

| Process/facility Description (ID) | Control/ Stack | PM and PM ₁₀ (Filterable Emissions) | | PM ₁₀ (Filterable Plus Condensable Emissions) |
|--|---|--|--------------------------|--|
| | | (gr/dscf) | (lb/hr) | (lb/ton iron produced) |
| Charging, melting, metallurgy, holding and transfer operations | Baghouse DC-2 (Stack S-2) and Baghouse DC-8 (Stack S-8) | 0.003 | 3.6 (total for 2 stacks) | 0.06 |
| Lines 1, 2, 3 and 4 Pouring and casting operations | Baghouse DC-8 (Stack S-8) | | | |

PM10 emissions are surrogate for PM2.5 emissions.

- (d) The total iron production of the electric induction furnaces (comprising EU-2) shall not exceed 750 tons per day and 220,000 tons per twelve consecutive month period with compliance determined at the end of each month.

- (e) Visible emissions of the fugitive emissions from building openings shall not exceed twenty percent (20%) opacity, as determined by a six (6) minute average (24 readings taken in accordance with EPA Method 9, Appendix A); except for one 6-minute average per hour that does not exceed twenty seven percent (27%) opacity.

D.1.2 Best Available Control Technology (BACT) for VOC Emissions [326 IAC 2-2-3][326 IAC 8-1-6]

Pursuant to 326 IAC 2-2-3 (PSD - BACT), 326 IAC 8-1-6, and PSD T033-21760-00042, issued in 2008, VOC BACT for the Lines 1, 2, 3 and 4 pouring & casting, Lines 1, 2, 3 and 4 casting cooling, and casting shakeout operations is as follows:

- (a) The Permittee shall use low VOC emitting greensand binding materials and core resin binders.
- (b) The total VOC emissions from Lines 1, 2, 3 and 4 pouring & casting operations, Lines 1, 2, 3 and 4 casting cooling operations (Section D.2) and Lines 1, 2, 3 and 4 casting shakeout operations (Section D.3) shall not exceed:
 - (i) 0.8 pounds per ton of metal poured when using greensand molds without cores, and
 - (ii) 1.7 pounds of VOC per ton of metal poured when using greensand molds with cores.

Compliance with these limits and Condition D.1.1(d) will satisfy the requirements of 326 IAC 2-2.

D.1.3 Best Available Control Technology (BACT) for CO Emissions [326 IAC 2-2-3]

Pursuant to 326 IAC 2-2-3 (PSD) and PSD T033-21760-00042, issued in 2008, the CO emissions from the following operations shall not exceed 6.0 pounds per ton of metal poured:

- (a) Lines 1, 2, 3 and 4 pouring and casting operations (stack S-8) (Section D.1),
- (b) Lines 1, 2, 3 and 4 casting/mold cooling operations (stack S-3b and stack S-3d) (Section D.2), and
- (c) Lines 1, 2, 3 and 4 casting shakeout operations (stack S-4, stack S-8, and stack S-5) (Section D.3).

Compliance with this limit and Condition D.1.1(d) will satisfy the requirements of 326 IAC 2-2.

D.1.4 PSD Minor Limit - Lead Emissions [326 IAC 2-2]

In order to render 326 IAC 2-2 not applicable, the total Lead emissions from the following operations shall not exceed 0.003 pounds per ton of metal poured:

- (a) Charging, melting, metallurgy, holding and transfer operations (stacks S-2 and S-8), and
- (b) Lines 1, 2, 3 and 4 pouring and casting operations (stack S-8).

Compliance with these limits and Conditions D.1.1(d), D.2.4 and D.3.4 will limit the source-wide Lead emissions to less than 0.6 tons per twelve consecutive month period and render the requirements of 326 IAC 2-2 not applicable to the source.

D.1.5 Particulate Emission Limitations from Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the allowable particulate matter (PM) from the scrap and charge handling shall not exceed 40.04 pounds per hour, each, when operating at a process weight rate of 30.0 tons per hour. This limitation was calculated using 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:

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

D.1.6 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan (PMP) is required for these emission units and control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligations with regard to the preventive maintenance plan required by this condition.

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

D.1.7 Particulate and VOC Control

- (a) Pursuant to 326 IAC 2-2, and in order to ensure compliance with Conditions D.1.1 and D.1.4, Baghouse DC-2 and Baghouse DC-8, used to control particulate emissions from the charging, melting, metallurgy, holding and transfer operations, shall be in operation and control at all times the charging, melting, metallurgy, holding and transfer operations are in operation.
- (b) Pursuant to 326 IAC 2-2, and in order to ensure compliance with Conditions D.1.1 and D.1.4, Baghouse DC-8, used to control particulate emissions from the Lines 1, 2, 3 and 4 pouring and casting operations, shall be in operation and control at all times the Lines 1, 2, 3 and 4 pouring and casting operations are in operation.
- (c) Pursuant to 326 IAC 2-2 and 326 IAC 8-1-6, and in order to ensure compliance with Condition D.1.2, the greensand molding materials, percent loss on ignition (%LOI), shell and phenolic urethane cold box core resins and percent resin in the cores shall be consistent with the respective characteristics used during validation testing conducted on July 15, 2008.

D.1.8 Testing Requirements [326 IAC 2-1.1-11]

PM and PM10 testing

- (a) In order to demonstrate the compliance status with Condition D.1.1, the Permittee shall perform PM and PM₁₀ testing for the charging, melting, metallurgy, holding and transfer operations (Stack S-2 and Stack S-8) and the Lines 1, 2, 3 and 4 pouring and casting operations, utilizing methods approved by the Commissioner. The above mentioned operations shall all be in operation when the tests are conducted since a total limit (in lb/hour) is specified for the 2 stacks involved.

PM₁₀ includes filterable and condensable PM₁₀. These tests shall be repeated at least once every five (5) years after completion of the most recent valid compliance stack test.

CO testing

- (b) In order to demonstrate the compliance status with Condition D.1.3, the Permittee shall perform CO testing for the following operations utilizing methods approved by the Commissioner:
- (i) Charging, melting, metallurgy, holding and transfer operations (EU-2) (Stack S-2 and Stack S-8) (Section D.1),
 - (ii) Lines 1, 2, 3 and 4 pouring and casting operations (stack S-8) (Section D.1),
 - (iii) Lines 1, 2, 3 and 4 casting/mold cooling operations (stack S-3b and stack S-3d) (Section D.2), and
 - (iv) Lines 1, 2, 3 and 4 casting shakeout operations (stack S-4, stack S-8, and stack S-5) (Section D.3).

These tests shall be repeated at least once every five (5) years after completion of the most recent valid compliance stack test.

Lead testing

- (c) In order to demonstrate the compliance status with Condition D.1.4, the Permittee shall perform Lead testing for the charging, melting, metallurgy, holding and transfer operations (Stack S-2 and Stack S-8) and the Lines 1, 2, 3 and 4 pouring and casting operations, utilizing methods approved by the Commissioner. The above mentioned operations shall all be in operation when the tests are conducted since a total limit (in lb/ton) is specified for the 2 stacks involved.
- (d) 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.

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

D.1.9 Visible Emissions Notations

- (a) Visible emission notations of the stack exhausts from Baghouse DC-2 (Stack S-2) and Baghouse DC-8 (Stack S-8) shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps. Failure to take response steps shall be considered a deviation from this permit. Section C - Response to Excursions and Exceedances contains the Permittee's obligations with regard to responding to the reasonable response steps required by this condition.

D.1.10 Baghouse Parametric Monitoring

- (a) The Permittee shall record the pressure drop across the baghouses used in conjunction with the charging, melting, metallurgy, holding and transfer operations (EU-2) and Lines 1, 2, 3 and 4 pouring and casting operations (Baghouse DC-2 and Baghouse DC-8) at least once per day when the respective facilities are in operation. When for any one reading, the pressure drop across the dust collector is outside the normal range, the Permittee shall take reasonable response. The normal range for this unit is a pressure drop between 1.5 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. Section C- Response to Excursions or 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.
- (b) The instrument used for determining the pressure drop shall comply with Section C - Instrument 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.1.11 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 process line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (c) For multi-compartment units, If operations continue after bag failure is observed and it will be 10 days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

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

D.1.12 Record Keeping Requirements

- (a) In order to document the compliance status with Condition D.1.1(d), the Permittee shall maintain records of the total metal production of the electric induction furnaces (comprising EU-2).
- (b) In order to document the compliance status with Condition D.1.2, the Permittee shall maintain records of the following:
 - (1) The resin content of the shell and phenolic urethane cold box cores, and

- (2) The %LOI of the greensand mold system.
- (c) In order to document the compliance status with Condition D.1.8, the Permittee shall maintain records of the results from testing required by that condition.
- (d) In order to document the compliance status with Condition D.1.9, the Permittee shall maintain records of the visible emission notations required by that condition. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).
- (e) In order to document the compliance status with Condition D.1.10, the Permittee shall maintain records of the pressure drop readings required by that condition. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of pressure drop reading (e.g. the process did not operate that day).
- (f) For extended periods of time when visible emissions notations and daily parametric monitoring are not required (e.g., the units are venting indoors or during plant shutdown), IDEM, OAQ Compliance Branch has determined that it is sufficient to document the reason daily visible emissions notations and parametric monitoring will not be required on the first day of the period and document when the visible emissions notations and daily parametric monitoring requirement will resume.
- (g) Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

D.1.13 Reporting Requirements

A quarterly summary of the information to document the compliance status with the twelve-month rolling limit in Condition D.1.1(d) shall be submitted no 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 meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Casting/Mold Cooling Operations

Casting/Mold Cooling Operations

- (g) One (1) Line 1 casting/mold cooling operation; identified as EU-3b1; constructed in 1995; a nominal capacity of 10 tons of metal and 55 tons of sand per hour; with no control, and emissions exhaust to stack S-3b.
- (h) One (1) Line 2 casting/mold cooling operation; identified as EU-3b2; constructed in 1995; a nominal capacity of 10 tons of metal and 55 tons of sand per hour with no control, and emissions exhaust to stack S-3b.

Stack-3b is a common stack for the casting/mold cooling operations for Line 1 and Line 2.

- (i) One (1) Line 3 casting/mold cooling operation; identified as EU-3b3; constructed in 1995 and approved for modification in 2012; a nominal capacity of 11 tons of metal and 55 tons of sand per hour; with no control, and emissions exhaust to stack S-3d.
- (j) One (1) Line 4 casting/mold cooling operation; identified as EU-3b4; constructed in 1995 and approved for modification in 2012; a nominal capacity of 11 tons of metal and 55 tons of sand per hour; with no control, and emissions exhaust to stack S-3d.

Stack-3d is a common stack for the casting/mold cooling operations for Line 3 and Line 4.

(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 2-7-5(1)]

D.2.1 Best Available Control Technology (BACT) for PM/PM₁₀ Emissions [326 IAC 2-2-3]

Pursuant to 326 IAC 2-2-3 (PSD - BACT) and PSD T033-21750-00042, issued in 2008, the PM and PM₁₀ emissions from the following facilities are limited, as indicated in the table below:

| Process/facility Description (ID) | Control/Stack | PM and PM ₁₀ (Filterable Emissions) | | PM ₁₀ (Filterable Plus Condensable Emissions) |
|---|-------------------|--|---------|--|
| | | (gr/dscf) | (lb/hr) | (lb/ton iron produced) |
| Line 1 and Line 2 casting/mold cooling operations | None (stack S-3b) | 0.01 | 2.14 | 0.09 |
| Line 3 and Line 4 casting/mold cooling operations | None (stack S-3d) | 0.01 | 2.14 | 0.09 |

PM10 emissions are surrogate for PM2.5 emissions.

Compliance with these limits and Condition D.1.1(d) will satisfy the requirements of 326 IAC 2-2.

D.2.2 Best Available Control Technology (BACT) for VOC Emissions [326 IAC 2-2-3][326 IAC 8-1-6]

Pursuant to 326 IAC 2-2-3 (PSD - BACT), 326 IAC 8-1-6 and PSD T033-21760-00042, issued in 2008, the Permittee shall comply with VOC BACT for the Lines 1, 2, 3 and 4 casting/mold cooling operations in Condition D.1.2.

D.2.3 Best Available Control Technology (BACT) for CO Emissions [326 IAC 2-2-3]

Pursuant to 326 IAC 2-2-3 (PSD - BACT) and PSD T033-21760-00042, issued in 2008 the Permittee shall comply with CO BACT for the Lines 1, 2, 3 and 4 casting/mold cooling operations in Condition D.1.3.

D.2.4 PSD Minor Limit - Lead Emissions [326 IAC 2-2]

In order to render 326 IAC 2-2 not applicable, the Permittee shall comply with the following:

- (a) The Lead emissions from the Line 1 and Line 2 casting/mold cooling operations (stack S-3b) shall not exceed 0.0012 pounds per ton of iron processed.
- (b) The Lead emissions from the Line 3 and Line 4 casting/mold cooling operations (stack S-3d) shall not exceed 0.0012 pounds per ton of iron processed.

Compliance with these limits and Conditions D.1.1(d), D.1.4 and D.3.4 will limit the source-wide lead emissions to less than 0.6 tons per twelve consecutive month period and render the requirements of 326 IAC 2-2 not applicable.

D.2.5 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan (PMP) is required for these emission units and control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligations with regard to the preventive maintenance plan required by this condition.

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

D.2.6 Testing Requirements [326 IAC 2-1.1-11]

PM and PM₁₀ testing

- (a) In order to demonstrate the compliance status with Condition D.2.1, the Permittee shall perform PM and PM₁₀ testing for the Line 1 and Line 2 casting/mold cooling operations (Stack 3b) utilizing methods approved by the Commissioner. The above mentioned operations shall all be in operation when the tests are conducted since a combined limit (in lb/hour) is specified for the operations involved. PM₁₀ includes filterable and condensable PM₁₀. These tests shall be repeated at least once every five (5) years after completion of the most recent valid compliance stack test.
- (b) In order to demonstrate the compliance status with Condition D.2.1, the Permittee shall perform PM and PM₁₀ testing for the Line 3 and Line 4 casting/mold cooling operations (Stack 3d) utilizing methods approved by the Commissioner. The above mentioned operations shall all be in operation when the tests are conducted since a combined limit (in lb/hour) is specified for the operations involved. PM₁₀ includes filterable and condensable PM₁₀. These tests shall be repeated at least once every five (5) years after completion of the most recent valid compliance stack test.

CO Testing

- (c) In order to demonstrate the compliance status with Condition D.2.3, the Permittee shall perform the CO testing for the Lines 1, 2, 3 and 4 casting/mold cooling operations (Stacks 3b and 3d) required by Condition D.1.7(b).

Lead Testing

- (d) In order to demonstrate the compliance status with Condition D.2.4, the Permittee shall perform lead testing for the Line 1 and Line 2 casting/mold cooling operations (Stack 3b) utilizing methods approved by the Commissioner. The above mentioned operations shall all be in operation when the tests are conducted since a combined limit (in lb/hour) is specified for the operations involved. These tests shall be repeated at least once every five (5) years after completion of the most recent valid compliance stack test.
- (e) In order to demonstrate the compliance status with Condition D.2.4, the Permittee shall perform lead testing for the Line 3 and Line 4 casting/mold cooling operations (Stack 3d) utilizing methods approved by the Commissioner. The above mentioned operations shall all be in operation when the tests are conducted since a combined limit (in lb/hour) is specified for the operations involved. These tests shall be repeated at least once every five (5) years after completion of the most recent valid compliance stack test.
- (f) 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.

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

D.2.7 Record Keeping Requirements

- (a) In order to document the compliance status with Condition D.2.6, the Permittee shall maintain records of the results from testing required by that condition.
- (b) Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Casting Shakeout and Waste Sand System

Casting Shakeout Operations

- (k) One (1) Line 3 casting shakeout operation; identified as EU-4a; constructed in 1995 and modified in 2012; with a nominal capacity of 11 tons of metal and 55 tons of sand per hour; particulate emissions controlled by baghouse DC-3 and exhausting to stack S-15.
- (l) One (1) Line 4 casting shakeout operation; identified as EU-4b; constructed in 1995 and modified in 2012; with a nominal capacity of 11 tons of metal and 55 tons of sand per hour; particulate emissions controlled by baghouse DC-4 and stack S-4.
- (m) One (1) Line 1 and Line 2 casting shakeout operation; identified as EU-5a; constructed in 1995; a nominal capacity of 20 tons of metal and 110 tons of sand per hour; particulate emissions controlled by baghouse DC-5; emissions exhaust to stack S-5.

This EU-5a casting shakeout operation is shared by Line 1 and Line 2.

- (n) One (1) return sand/waste sand system; identified as EU-5bc; constructed in 1995; a nominal capacity of 220 tons of sand per hour; emissions controlled by baghouse DC-5, which exhausts to stack S-5 and baghouse DC-8, which exhausts to stack S-5.

Baghouse DC-5 controls the return sand system. Baghouse DC-8 controls the waste sand system. Baghouse DC-5 and stack S-5 is a common control and stack, respectively of the Line 1 and Line 2 casting shakeout operation and return sand/waste sand system, identified as EU-5bc. Stack S-8 is a common stack for Baghouse DC-8 and Baghouse DC-7. Baghouse DC-8 and stack S-8 is also used for the iron charging, melting, ladle metallurgy, holding and transfer system, identified as EU-2, the Lines 1, 2, 3, and 4 pouring and casting operations, and the shot reblast unit EU-6.

(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 2-7-5(1)]

D.3.1 Best Available Control Technology (BACT) for PM/PM₁₀ Emissions [326 IAC 2-2-3]

Pursuant to 326 IAC 2-2-3 (PSD - BACT) and PSD T033-21760-00042, issued in 2008, the Permittee shall comply with the following:

- (a) PM and PM₁₀ emissions from the Line 3 and Line 4 casting shakeout operation shall be controlled by a baghouse.
- (b) PM and PM₁₀ emissions from the Line 1 and Line 2 casting shakeout operation and return sand and waste sand system shall be controlled by a baghouse.
- (c) The PM and PM₁₀ emissions from the following facilities are limited, as indicated in the table below:

| Process/facility Description (ID) | Control/Stack | PM and PM ₁₀ (Filterable Emissions) | | PM ₁₀ (Filterable Plus Condensable Emissions) |
|--|--|--|---------------------------|--|
| | | (gr/dscf) | (lb/hr) | (lb/ton iron produced) |
| Line 3 and Line 4 casting shakeout operation | Baghouse DC-3 (Stack S-15) and Baghouse DC-4 (Stack S-4) | 0.003 | 2.06 (total for 2 stacks) | 0.10 |
| Line 1 and Line 2 casting shakeout operation | Baghouse DC-5 (Stack S-5) and Baghouse DC-8 (Stack S-8) | 0.003 | 3.34 (total for 2 stacks) | 0.12 |
| Return sand and waste sand system | | | | |

PM10 emissions are surrogate for PM2.5 emissions.

Compliance with these limits and Condition D.1.1(d) will satisfy the requirements of 326 IAC 2-2.

D.3.2 Best Available Control Technology (BACT) for VOC Emissions [326 IAC 2-2][326 IAC 8-1-6]

Pursuant to 326 IAC 2-2-3 (PSD - BACT), 326 IAC 8-1-6 and PSD T033-21760-00042, issued in 2008, the Permittee shall comply with VOC BACT for the Lines 1, 2, 3 and 4 casting shakeout operations in Condition D.1.2.

D.3.3 Best Available Control Technology (BACT) for CO Emissions [326 IAC 2-2][326 IAC 8-1-6]

Pursuant to 326 IAC 2-2-3 (PSD - BACT) and PSD T033-21760-00042, issued in 2008, the Permittee shall comply with CO BACT for the Lines 1, 2, 3 and 4 casting shakeout operations in Condition D.1.3.

D.3.4 PSD Minor Limit - Lead Emissions [326 IAC 2-2]

In order to render 326 IAC 2-2 not applicable, the Permittee shall comply with the following:

- (a) The lead emissions from the Line 3 and Line 4 casting shakeout operation (stack S-15 and S-4) shall not exceed 0.0012 pounds per ton of iron processed.
- (b) The lead emissions from the Line 1 and Line 2 casting shakeout operation and return sand and waste sand system (stack S-5 and stack S-8) shall not exceed 0.0012 pounds per ton of iron processed.

Compliance with these limits and Conditions D.1.1(d), D.1.4, and D.2.4 will limit the source-wide lead emissions to less than 0.6 tons per twelve consecutive month period and render the requirements of 326 IAC 2-2 not applicable.

D.3.5 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan (PMP) is required for these emission units and control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligations with regard to the preventive maintenance plan required by this condition.

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

D.3.6 Particulate Control

- (a) Pursuant to 326 IAC 2-2, and in order to ensure compliance with Condition D.3.1, baghouse DC-3 and baghouse DC-4, used to control particulate emissions from the Line 3 and Line 4 casting shakeout operation, shall be in operation and control at all times Line 3 and Line 4 casting shakeout operation are in operation.
- (b) Pursuant to 326 IAC 2-2, and in order to ensure compliance with Condition D.3.1, baghouse DC-5 and baghouse DC-8, used to control particulate emissions from the Line 1 and Line 2 casting shakeout operation and Return sand and waste sand system, shall be in operation and control at all times from the Line 1 and Line 2 casting shakeout operation and Return sand and waste sand system are in operation.

D.3.7 Testing Requirements [326 IAC 2-1.1-11]

PM and PM₁₀ testing

- (a) In order to demonstrate the compliance status with Condition D.3.1, the Permittee shall perform PM and PM₁₀ testing for the Line 3 and Line 4 casting shakeout operations (stack S-15 and S-4), utilizing methods approved by the Commissioner. PM₁₀ includes filterable and condensable PM₁₀. These tests shall be repeated at least once every five (5) years after completion of the most recent valid compliance stack test. The above mentioned operations shall all be in operation when the tests are conducted since a total limit (in lb/hour) is specified for the 2 stacks involved.
- (b) In order to demonstrate the compliance status with Condition D.3.1, the Permittee shall perform PM and PM₁₀ testing for the Line 1 and Line 2 casting shakeout operations (stack S-5) and the return sand and waste sand system (stack S-5 and stack S-8) utilizing methods approved by the Commissioner. PM₁₀ includes filterable and condensable PM₁₀. These tests shall be repeated at least once every five (5) years after completion of the most recent valid compliance stack test. The above mentioned operations shall all be in operation when the tests are conducted since a total limit (in lb/hour) is specified for the 2 stacks involved.

CO testing

- (c) In order to demonstrate the compliance status with Condition D.3.3, the Permittee shall perform the CO testing for the Line 3 and Line 4 casting shakeout operations (stack S-15 and S-4), the Line 1 and Line 2 shakeout operations (stack S-5) required by Condition D.1.7(b).

Lead testing

- (d) In order to demonstrate the compliance status with Condition D.3.4, the Permittee shall perform Lead testing for the Line 3 and Line 4 casting shakeout operations (stack S-15 and S-4), utilizing methods approved by the Commissioner. The above mentioned operations shall all be in operation when the tests are conducted since a combined limit (in lb/hour) is specified for the operations involved. These tests shall be repeated at least once every five (5) years after completion of the most recent valid compliance stack test.
- (e) In order to demonstrate the compliance status with Condition D.3.4, the Permittee shall perform Lead testing for the Line 1 and Line 2 shakeout operations (stack S-5) utilizing methods approved by the Commissioner. The above mentioned operations shall all be in operation when the tests are conducted since a combined limit (in lb/hour) is specified for

the operations involved. These tests shall be repeated at least once every five (5) years after completion of the most recent valid compliance stack test.

- (f) 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.

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

D.3.8 Visible Emissions Notations [40 CFR 64]

Pursuant to 40 CFR 64,

- (a) Visible emission notations of the stack exhaust from the Line 3 and Line 4 casting shakeout operations (stack S-15 and S-4), the Line 1 and Line 2 casting shakeout operations (stack S-5), and the return sand and waste sand system (stack S-5) shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps. Failure to take response steps shall be considered a deviation from this permit. Section C - Response to Excursions or Exceedances contains the Permittee's obligations with regard to responding to the reasonable response steps required by this condition.

D.3.9 Baghouse Parametric Monitoring [40 CFR 64]

Pursuant to 40 CFR 64,

- (a) The Permittee shall record the pressure drop across the baghouses used in conjunction with the Line 3 and Line 4 casting shakeout operations (Baghouse DC-3 and Baghouse DC-4), the Line 1 and Line 2 casting shakeout operations (Baghouse DC-5), and the return sand and waste sand system (Baghouse DC-5 and Baghouse DC-8) at least once per day when the respective facilities are in operation. When for any one reading, the pressure drop across the dust collector is outside the normal range, the Permittee shall take reasonable response. The normal range for this unit is a pressure drop between 1.5 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. Section C - Response to Excursions or 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.
- (b) The instrument used for determining the pressure drop shall comply with Section C - Instrument 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.3.10 Broken or Failed Bag Detection [40 CFR 64]

Pursuant to 40 CFR 64,

- (a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the process line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (c) For multi-compartment units, If operations continue after bag failure is observed and it will be 10 days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

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

D.3.11 Record Keeping Requirements

- (a) In order to document the compliance status with Condition D.3.7, the Permittee shall maintain records of the results from testing required by that condition.
- (b) In order to document the compliance status with Condition D.3.8, the Permittee shall maintain records of the visible emission notations required by that condition. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).
- (c) In order to document the compliance status with Condition D.3.9, the Permittee shall maintain records of the pressure drop readings required by that condition. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of pressure drop reading (e.g. the process did not operate that day).
- (d) For extended periods of time when visible emissions notations and daily parametric monitoring are not required (e.g., the units are venting indoors or during plant shutdown), IDEM, OAQ has determined that it is sufficient to document the reason daily visible emissions notations and parametric monitoring will not be required on the first day of the period and document when the visible emissions notations and daily parametric monitoring requirement will resume.
- (e) Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Grinding, Blasting, Sand Handling

- (o) One (1) shot reblast unit; identified as EU-6; constructed in 1997; a nominal capacity of 1.12 tons of iron castings per hour; emissions controlled by baghouse DC-8, which exhausts to stack S-8.

Stack S-8 is a common stack for Baghouse DC-8 and Baghouse DC-7.

Baghouse DC-8 and stack S-8 is also used for the iron charging, melting, ladle metallurgy, holding and transfer system, identified as EU-2, the Lines 1, 2, 3, and 4 pouring and casting operations, and the EU-5bc waste sand system.

- (p) One (1) shot blast system; consisting of four (4) shot blast units; identified as EU-16 through EU-19; constructed in 1999 and modified in 2012; a total nominal capacity of 27 tons of iron castings per hour, with emissions from EU-16, EU-17, EU-18, and EU-19 controlled by baghouse DC-7, which exhausts to stack S-8.

Stack S-8 is a common stack for Baghouse DC-8 and Baghouse DC-7.

- (q) Sand handling system; identified as (EU-1a); constructed in 1995 and modified in 2011; a nominal capacity of 220 tons of sand per hour; and exhausting to stack S-1, stack S-5 and stack S-10. The sand handling system is described as follows:

- (1) Metal Separation controlled by baghouse DC-5, and exhausting to stack S-5.
- (2) Sand multi-cooler controlled by baghouse DC-5, and exhausting to stack S-5.
- (3) Return sand conveyor (no real collection).
- (4) Return sand distribution conveyor controlled by baghouse DC-1, and exhausting to stack S-1.
- (5) Four (4) 250 ton return sand storage bins controlled by baghouse DC-1, and exhausting to stack S-1.
- (6) Two (2) sand mullers, rated at 75 tons of sand per hour, each, controlled by baghouse DC-10 and exhausting to stack S-10.
- (7) Two (2) sand mullers, rated at 75 tons of sand per hour, each, controlled by baghouse DC-1 and exhausting to stack S-1.

Insignificant Activities:

- (g) Eight (8) grinders; identified together as EU-7; constructed in 1999 and approved for modification in 2012; a combined nominal capacity of 24 tons of iron castings per hour; emissions controlled by individual dust collectors which have a gas flow rate of less than 4,000 cfm each, and which have a grain loading of less than or equal to (0.03) grains per actual cubic foot, and which exhaust indoors. [326 IAC 2-7-1(21)(J)(xxiii)][326 IAC 2-2-3]

(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 2-7-5(1)]

D.4.1 Best Available Control Technology (BACT) for PM and PM₁₀ Emissions [326 IAC 2-2-3]

Pursuant to 326 IAC 2-2-3 (PSD - BACT) and PSD T033-21760-00042, issued in 2008, the Permittee shall comply with the following:

- (a) PM and PM₁₀ emissions from the shot reblast unit (EU-6) shall be controlled by a baghouse.
- (b) PM and PM₁₀ emissions from the shot blast system (EU-16 through EU-19) shall be controlled by a baghouse.
- (c) PM and PM₁₀ emissions from the grinders (EU-7) shall be controlled by dust collectors and exhaust indoors.
- (d) PM and PM₁₀ emissions from the sand handling operations (EU-1a) shall be controlled by a baghouse.
- (e) The PM and PM₁₀ emissions from the following facilities are limited, as indicated in the table below:

| Process/facility Description (ID) | Control/Stack | PM and PM ₁₀ (Filterable Emissions) | |
|--|---|--|---------------------------|
| | | (gr/dscf) | (lb/hr) |
| Shot reblast operation (EU-6) | Baghouse DC-8 (Stack S-8) | 0.003 | 0.15 |
| Shot blast system (EU-16, 17, 18 and 19) | Baghouse DC-7 (Stack S-8) | 0.003 | 0.95 |
| Sand handling operations (EU-1a) | Baghouse DC-1 (Stack S-1) and Baghouse DC-10 (Stack S-10) | 0.003 | 0.64 (total for 2 stacks) |
| Exhausts indoors: Grinders (EU-7) | Individual dust collectors | 0.003 | - |

PM10 emissions are surrogate for PM2.5 emissions.

Compliance with these limits and Condition D.1.1(d) will satisfy the requirements of 326 IAC 2-2.

D.4.2 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

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

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

D.4.3 Particulate Control

- (a) Pursuant to 326 IAC 2-2, and in order to ensure compliance with Condition D.4.1, Baghouse DC-8, used to control particulate emissions from the shot reblast operation, shall be in operation and control at all times the shot reblast operation EU-6 is in operation.
- (b) Pursuant to 326 IAC 2-2, and in order to comply with Condition D.4.1, baghouse DC-7, used to control particulate emissions from the Shot blast system, shall be in operation and control at all times Shot blast system (EU-16, EU-17, EU-18, and EU-19) are in operation.

- (c) Pursuant to 326 IAC 2-2, baghouse DC-1 and baghouse DC-10, used to control particulate emissions from the sand handling operations, shall be in operation at all times the sand handling operations EU-1a is in operation.
- (d) Pursuant to 326 IAC 2-2, the dust collectors used in conjunction with EU-7, used to control particulate emissions from the eight (8) grinders, shall be in operation and control at all times the eight (8) grinders, identified together as EU-7, are in operation.

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

D.4.4 Visible Emissions Notations [40 CFR 64]

Pursuant to 40 CFR 64,

- (a) Visible emission notations of the each of the stack exhausts from the shot reblast operation (Stack S-8), Shot blast system EU-16 through EU-19 (Stack S-8), and the sand handling operations EU1a (Stacks S-1 and S-10) shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps. Section C - Response to Excursions and Exceedances contains the Permittee's obligations with regard to responding to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.4.5 Baghouse Parametric Monitoring [40 CFR 64]

Pursuant to 40 CFR 64,

- (a) The Permittee shall record the pressure drop across the baghouses used in conjunction with the shot reblast operation (Baghouse DC-8), the shot blast system EU-16 through EU-19 (Baghouse DC-7), and the sand handling operations EU-1a (Baghouses DC-1 and DC-10) at least once per day when the respective facilities are in operation. When for any one reading, the pressure drop across the dust collector is outside the normal range, the Permittee shall take reasonable response. The normal range for this unit is a pressure drop between 1.5 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. Section C - Response to Excursions or 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.
- (b) The instrument used for determining the pressure drop shall comply with Section C - Instrument 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.4.6 Broken or Failed Bag Detection [40 CFR 64]

Pursuant to 40 CFR 64,

- (a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the process line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (c) For multi-compartment units, If operations continue after bag failure is observed and it will be 10 days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

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

D.4.7 Record Keeping Requirements

- (a) In order to document the compliance status with Condition D.4.4, the Permittee shall maintain records of the visible emission notations required by that condition. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).
- (b) In order to document the compliance status with Condition D.4.5, the Permittee shall maintain records of the pressure drop readings required by that condition. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of pressure drop reading (e.g. the process did not operate that day).
- (c) For extended periods of time when visible emissions notations and daily parametric monitoring are not required (e.g., the units are venting indoors or during plant shutdown), IDEM, OAQ Compliance Branch has determined that it is sufficient to document the reason daily visible emissions notations and parametric monitoring will not be required on the first day of the period and document when the visible emissions notations and daily parametric monitoring requirement will resume.
- (d) Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Ductile Iron Conversion Process

- (r) One (1) ductile iron conversion (DIC) process: identified as EU-20; constructed in 2009, with a nominal capacity of 30 tons of metal per hour, and particulate emissions captured by two side draft fume and exhaust hoods and controlled by Baghouse DC-20, exhausting to stack S-20;
- In this ductile iron conversion (DIC) process, magnesium and other elements are added to molten iron to produce ductile iron.

(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 2-7-5(1)]

D.5.1 PSD Minor Limits [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) not applicable to this 2009 modification to the existing PSD major source, the following conditions shall apply:

- (a) The PM emissions from the ductile iron conversion process shall be limited to less than 25 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) The PM₁₀ emissions from the ductile iron conversion process shall be limited to less than 15 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with these limits shall limit the PM and PM₁₀ emissions to less than 25 and 15 tons per twelve consecutive month period, respectively, and render the requirements of 326 IAC 2-2 not applicable to Significant Permit Modification No. 033-27652-00042, issued in 2009.

Pursuant to SPM No. 033-27652-00042, issued in 2009, SPM No. 033-29247-00042, issued in 2010, and SPM No. 033-34870-00042, PM₁₀ emissions are surrogate for PM_{2.5} emissions.

D.5.2 Particulate Emission Limitations from Manufacturing Processes [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 ductile iron conversion process, identified as EU-20, shall not exceed 39.96 pounds per hour when operating at a process weight rate of 30 tons per hour. The pounds per hour limitation was calculated using the following equation:

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

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

D.5.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

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

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

D.5.4 Particulate Control

- (a) In order to ensure compliance with Conditions D.5.1 and D.5.2, baghouse DC-20 shall be in operation and control at all times when the ductile iron conversion (DIC) process is in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.5.5 Testing Requirements [326 IAC 2-7-6(1), (6)][326 IAC 2-1.1-11]

In order to demonstrate compliance with Conditions D.5.1 and D.5.2, the Permittee shall perform inlet and outlet PM and PM₁₀ testing on baghouse DC-20 controlling the ductile iron conversion (DIC) process (EU-20) using methods as approved by the Commissioner. PM₁₀ includes filterable and condensable PM₁₀. These tests shall be repeated at least once every five (5) years after completion of the most recent valid compliance stack test. 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.5.6 PM and PM10 Emissions

Compliance with Condition D.5.1 shall be determined no later than 30 days after the end of each month. For a particular month, this shall be based on the total PM and PM10 emitted for that month added to the previous eleven (11)-month total PM and PM10 emitted so as to arrive at the PM and PM10 emissions for the most recent twelve (12) consecutive month period. The PM and PM10 emissions for a month can be arrived at using the following equations:

$$(a) \quad PM = \frac{(P_{DIC} \times EFPM_{DICc} + P_{DIC} \times EFPM_{DICu} \times \frac{(1-CE)}{CE})}{2,000}$$

Where:

PM = tons of PM emitted for that month

P_{DIC} = tons of ductile iron processed for that month

EFPM_{DICc} = Controlled PM emission factor (0.0023 lbs/ton of ductile iron processed based on June 2, 2010 stack test or the emission factor determined from the most recent valid stack test)

EFPM_{DICu} = Uncontrolled PM emission factor (0.32 lbs/ton of ductile iron processed based on June 2, 2010 stack test or the emission factor determined from the most recent valid stack test)

CE = Percent Capture Efficiency (70%)

$$(b) \quad PM10 = \frac{(P_{DIC} \times EFPM_{10DICc} + P_{DIC} \times EFPM_{10DICu} \times \frac{(1-CE)}{CE})}{2,000}$$

Where:

PM10 = tons of PM10 emitted for that month

P_{DIC} = tons of ductile iron processed for that month

EFPM_{10DICc} = Controlled PM10 emission factor (0.0023 lbs/ton of ductile iron processed based on June 2, 2010 stack test or the emission factor determined from the most recent valid stack test)

EFPM_{10DICu} = Uncontrolled PM10 emission factor (0.29 lbs/ton of ductile iron processed based on June 2, 2010 stack test or the emission factor determined from the most recent valid stack test)
CE = Percent Capture Efficiency (70%)

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

D.5.7 Parametric Monitoring [40 CFR 64]

Pursuant to 40 CFR 64, the Permittee shall record the fan amperage of the baghouse DC-20 used in conjunction with the ductile iron conversion (DIC) process at least once per day when the DIC process is in operation. When for any one reading, the fan amperage across the baghouse is outside the normal range, the Permittee shall take reasonable response steps. The normal range for this unit is a fan amperage between 43 and 47 amps unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. Section C - Responses to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A fan amperage 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.

D.5.8 Broken or Failed Bag Detection [40 CFR 64]

Pursuant to 40 CFR 64,

- (a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the process line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (c) For multi-compartment units, If operations continue after bag failure is observed and it will be 10 days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

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

D.5.9 Record Keeping Requirements

- (a) In order to document the compliance status with Condition D.5.1, the Permittee shall maintain records of the total ductile iron produced each month (comprising EU-20).
- (b) In order to document the compliance status with Condition D.5.5, the Permittee shall maintain records of the results from the testing required by that condition.

- (c) In order to document the compliance status with Condition D.5.7, the Permittee shall maintain records of the fan amperage required by that condition. The Permittee shall include in its daily record when a fan amperage is not taken and the reason for the lack of a fan amperage (e.g. the process did not operate that day).
- (d) Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

D.5.10 Reporting Requirements

Quarterly summaries of the information to document the compliance status with Conditions D.5.1(a) and D.5.1(b) shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting Requirements contains the Permittee's obligation with regard to the reporting required by this condition. The reports submitted by the Permittee do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

SECTION D.6 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Core Making

- (s) One (1) Phenolic Urethane Cold Box (PUCB) core production process with a nominal capacity of 2.9 tons of cores per hour, constructed in 2012, consisting of the following units:
 - (1) One (1) 65 ton core sand silo identified as EU-30a, controlled by a bin vent filter exhausting inside the building.
 - (2) One (1) Core sand mixer and sand transport system, identified as EU-30b, with a nominal capacity of 2.9 tons per hour, with emissions vented back to the core sand silo.
 - (3) One (1) PUCB core machine, identified as EU30c, with a nominal capacity of 2.9 tons of cores/hour, each using a tertiary amine catalyst gas controlled by an acid scrubber, identified as SC-1 venting to stack SC-1.
 - (4) One (1) water based core wash, identified as EU30d; and
 - (5) One (1) 1.5 MMBtu/hr natural gas fired drying oven, identified as EU-30e.
- (t) One (1) Warm Box Core production process with a nominal capacity of 2.9 tons cores per hour, constructed in 2012, consisting of the following units;
 - (1) One (1) 65 ton core sand silo, identified as EU-31a, controlled by a bin vent filter exhausting inside the building; and
 - (2) One (1) warm box core machine, identified as EU31b, with a nominal capacity of 2.9 tons of cores/hour and 0.6 MMBtu per hr of natural gas.

(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 2-7-5(1)]

D.6.1 PSD Minor Limits [326 IAC 2-2]

In order to render 326 IAC 2-2 not applicable to this 2012 modification to the existing PSD major source, the Permittee shall comply with the following limits:

PUCB Core Production

- (a) The throughput of sand to the PUCB Core Production shall be less than 25,404 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (b) The total PM emissions from the PUCB Core Production shall be less than 0.925 pound per ton of sand throughput.
- (c) The total PM₁₀ emissions from the PUCB Core Production shall be less than 0.52 pound per ton of sand throughput, each.
- (d) The total PM_{2.5} emissions from the PUCB Core Production shall be less than 0.32 pound per ton of sand throughput.

The sand throughput is equivalent to the core throughput. The above emissions limitations include all emission units related to the PUCB Core Production: the sand silo, sand mixer, core machine, core wash, and drying oven.

Warm Box Core Production

- (e) The throughput of sand to the Warm Box Core Production shall be less than 25,404 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (f) The total PM emissions from Warm Box Core Production shall be less than 0.925 pound per ton of sand throughput.
- (g) The total PM₁₀ emissions from Warm Box Core Production shall be less than 0.52 pound per ton of sand throughput.
- (h) The total PM_{2.5} emissions from the Warm Box Core Production shall be less than 0.32 pound per ton of sand throughput.

The sand throughput is equivalent to the core throughput. The above emissions limitations include all emission units related to the Warm Box Core Production: the sand silo and core machine.

Compliance with these limits, and pursuant to the Actual-to-Projected-Actual (ATPA) Analysis for Significant Permit Modification No. 033-31732-00042 will ensure that the total emissions from the PUCB Core Production and Warm Box Core Production for PM are less than 25 tons per year, PM10 emissions less than 15 tons per year and PM2.5 emissions are less than 10 tons per year, and render the requirements of 326 IAC 2-2 (PSD) not applicable to Significant Permit Modification No. 033-31732-00042, issued in 2012.

D.6.2 Particulate Emission Limitations from Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the allowable particulate matter (PM) from the PUCB Core Production and the Warm Box Core Production shall not exceed 8.37 pounds per hour, each, when operating at a process weight rate of 2.9 tons per hour, each. This limitation was calculated using 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:

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

D.6.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

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

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

D.6.4 Particulate Emissions Control

In order to ensure compliance with Condition D.6.1 and Condition 6.2, fabric bin vent filter for particulate control shall be in operation and control emissions from the Core Sand Silos and Core Sand Handling at all times that the associated emission unit are in operation.

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

D.6.5 Record Keeping Requirements

- (a) To document the compliance status with Condition D.6.1(a), the Permittee shall maintain records of the sand throughput to the Core Production and the Warm Box Core Production for each month.

- (b) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the record keeping required by this condition.

D.6.6 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.6.1(a) shall be submitted not later than thirty (30) days following the end of each 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 meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

SECTION D.7 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Thermal Chip Dryer

Thermal Chip Drying Process

- (u) One (1) natural gas-fired thermal chip dryer process, consisting of the following:
- (1) One (1) thermal chip dryer, identified as EU-32, constructed in 2015 and approved in 2016 for modification to replace the baghouse, with a nominal maximum capacity of 15 tons of metal chips and machining oil per hour, equipped with eight (8) low NOx retort burners (the flame does not directly contact the scrap metal chips), with a combined maximum heat input capacity of 9.50 MMBtu per hour, with particulate matter emissions controlled by cyclone DC-32a and baghouse DC-32c and VOC and CO emissions controlled by a 6.545 MMBtu per hour natural gas-fired smoke hood and thermal oxidizer, and exhausting to Stack S-32b. Emissions from the eight (8) natural gas-fired burners are uncontrolled and exhaust to Stack S-32a; and
 - (2) One (1) chip screening unit and associated material handling equipment, identified as EU-32A, approved in 2016 for construction, with a nominal maximum capacity of 15 tons of metal chips per hour, with particulate matter emissions controlled by baghouse DC-32c, and exhausting to Stack S-32b.

(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 2-7-5(1)]

D.7.1 PSD Minor Limits [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) not applicable to the 2015 and 2016 modifications to the existing PSD major source, the following conditions shall apply:

- (a) The PM emissions from the thermal chip dryer (EU-32) and chip screening process (EU-32A), controlled by baghouse DC-32c, shall not exceed 9.47 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (b) The PM₁₀ emissions from the thermal chip dryer (EU-32) and chip screening process (EU-32A), controlled by baghouse DC-32c, shall not exceed 9.47 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (c) The PM_{2.5} emissions from the thermal chip dryer (EU-32) and chip screening process (EU-32A), controlled by baghouse DC-32c, shall not exceed 9.47 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (d) The VOC emissions from the thermal chip dryer (EU-32) shall not exceed 39.58 tons of VOC per twelve (12) consecutive month period, with compliance determined at the end of each month.

These emissions exclude natural gas combustion emissions from the thermal chip dryer (EU-32).

Compliance with these emission limits will ensure that the potential to emit from this 2015 and 2016 modification is less than twenty-five (25) tons of PM per year, fifteen (15) tons of PM₁₀ per year, ten (10) tons of direct PM_{2.5} per year, and forty (40) tons of VOC per, and therefore will render the requirements of 326 IAC 2-2 not applicable to the 2015 and 2016 modifications.

D.7.2 Particulate Emission Limitations from Manufacturing Processes [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 thermal chip dryer and chip screening process, identified as EU-32 and EU-32A, shall each not exceed 25.16 pounds per hour when operating at a process weight rate of 15 tons per hour. The pound per hour limitation was calculated using the following equation:

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

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

D.7.3 Best Available Control Technology (BACT) for VOC [326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6 (BACT) and Significant Source Modification No. 033-35828-00042, issued on August 19, 2015 and approved in 2016 in Significant Source Modification No. 033-37263-00042 to add a ppmv limit, the Permittee shall control the VOC emissions from thermal chip dryer using Best Available Control Technology (BACT). The BACT for the thermal chip dryer has been determined to be the following:

- (a) The thermal chip dryer (EU-32) shall use a thermal oxidizer to control VOC emissions with an overall control efficiency equal to or greater than 98% (VOC capture efficiency of 100% and minimum VOC destruction efficiency of 98%) or the VOC outlet concentration shall not exceed 10 ppmv.
- (b) The VOC emission rate after controls from the thermal chip dryer and exhausted to Stack S-32b shall not exceed 0.16 pounds per ton of metal chips processed.

Compliance with these conditions equates to 10.51 tons of VOC emitted (excluding natural gas combustion emissions from the retort burners, which exhaust through Stack S-32a) per twelve (12) consecutive month period, based on the thermal chip dryer operating at a maximum capacity of 15 tons of metal chips per hour. Compliance with this condition shall satisfy the requirements of 326 IAC 8-1-6 (General Reduction Requirements).

D.7.4 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

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

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

D.7.5 Volatile Organic Compound (VOC)

- (a) In order to comply with Conditions D.7.1(d) and D.7.3, the thermal oxidizer for VOC control shall be in operation and control emissions from the thermal chip dryer, at all times that the process is in operation.
- (b) Compliance with the VOC emission limitation contained in Condition D.7.1(d), shall be determined using the following equation:

$$\text{VOC} = \frac{M \times EFC}{2,000 \text{ lbs/ton}}$$

Where:

VOC = tons of VOC emitted for previous 12 consecutive month period

M = tons of metal chips processed in previous 12 months

EF_C = controlled VOC emission factor (0.16 pounds of VOC per ton of metal chips processed or the controlled emission factor determined from most recent valid compliance demonstration)

D.7.6 Particulate Matter (PM)

- (a) In order to comply with Conditions D.7.1(a), D.7.1(b), and D.7.1(c), the baghouse for particulate matter control shall be in operation and control emissions from the thermal chip dryer (EU-32) and chip screening process (EU-32A), at all times that either process is in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.
- (c) Compliance with the PM emission limitation contained in Condition D.7.1(a), shall be determined using the following equation:

$$PM = \frac{M \times EF_{PM}}{2,000 \text{ lbs/ton}}$$

Where:

PM = tons of PM emitted for previous 12 consecutive month period

M = tons of metal chips processed in previous 12 months

EF_{PM} = controlled PM emission factor (0.15 pounds of PM per ton of metal chips processed or the controlled emission factor determined from most recent valid compliance demonstration)

- (d) Compliance with the PM10 emission limitation contained in Condition D.7.1(b), shall be determined using the following equation:

$$PM_{10} = \frac{M \times EF_{PM_{10}}}{2,000 \text{ lbs/ton}}$$

Where:

PM10 = tons of PM10 emitted for previous 12 consecutive month period

M = tons of metal chips processed in previous 12 months

$EF_{PM_{10}}$ = controlled PM10 emission factor (0.15 pounds of PM10 per ton of metal chips processed or the controlled emission factor determined from most recent valid compliance demonstration)

- (e) Compliance with the PM2.5 emission limitation contained in Condition D.7.1(c), shall be determined using the following equation:

$$PM_{2.5} = \frac{M \times EF_{PM_{2.5}}}{2,000 \text{ lbs/ton}}$$

Where:

PM2.5 = tons of PM2.5 emitted for previous 12 consecutive month period

M = tons of metal chips processed in previous 12 months

$EF_{PM_{2.5}}$ = controlled PM2.5 emission factor (0.15 pounds of PM2.5 per ton of metal chips processed or the controlled emission factor determined from most recent valid compliance demonstration)

D.7.7 Testing Requirements [326 IAC 2-7-6(1), (6)][326 IAC 2-1.1-11]

PM, PM₁₀, and PM_{2.5} testing

- (a) In order to verify the uncontrolled PM, PM₁₀ and PM_{2.5} emissions from the thermal chip dryer, the Permittee shall perform uncontrolled PM, PM₁₀, and PM_{2.5} testing on the thermal chip dryer no later than sixty (60) days after achieving maximum capacity, but not later than one hundred and eighty (180) days after initial start-up, 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 PM_{2.5} includes filterable and condensable PM₁₀ and PM_{2.5}.
- (b) In order to demonstrate compliance with Conditions D.7.1(a), D.7.1(b), D.7.1(c), and D.7.2, the Permittee shall perform PM, PM₁₀, and PM_{2.5} testing on the thermal chip dryer and chip screening process baghouse (DC-32c) no later than sixty (60) days after the chip screening process achieves its maximum capacity, but not later than one hundred and eighty (180) days after initial start-up of the chip screening process, 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 PM_{2.5} includes filterable and condensable PM₁₀ and PM_{2.5}.

VOC testing

- (c) In order to demonstrate compliance with Conditions D.7.1(d) and D.7.3, the Permittee shall perform VOC testing, including emission rate, destruction efficiency, and capture efficiency of the thermal chip dryer control system no later than sixty (60) days after achieving maximum capacity, but not later than one hundred and eighty (180) days after initial start-up, utilizing methods as approved by the Commissioner. This testing shall be repeated at least 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.

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

D.7.8 Parametric Monitoring

- (a) The Permittee shall determine the appropriate duct pressure or fan amperage from the most recent valid stack test.
- (b) The duct pressure or fan amperage shall be observed at least once per day for the thermal oxidizer whenever the thermal oxidizer is operating. On and after the date the stack test results are available, the duct pressure or fan amperage shall be maintained at the minimum operating fan amperage of twelve (12) amps or within the normal range as established in the most recent valid compliant stack test.

D.7.9 Thermal Oxidizer Operating Temperature

- (a) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizer for measuring operating temperature, when controlling the VOC emissions from the thermal chip dryer. For the purpose of this condition, continuous means no less than once per fifteen (15) minutes. The output of this system shall be recorded as a 3-hour rolling average. From the date of issuance of this permit until the

stack test results are available, the Permittee shall operate the thermal oxidizer at or above the 3-hour rolling average temperature of 1,400°F.

- (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.7.1(d) and D.7.3.
- (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 rolling average temperature as observed during the compliant stack test.

D.7.10 Visible Emissions Notation

- (a) Visible emission notations of stack S-32b shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligations with regard to responding to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.7.11 Parametric Monitoring

The Permittee shall record the pressure drop across Baghouse DC-32c used in conjunction with the thermal chip dryer and chip screening process, at least once per day when the thermal chip dryer and chip screening process are in operation. When for any one reading, the pressure drop across Baghouse DC-32c is outside the normal range the Permittee shall take reasonable response. The normal range for Baghouse DC-32c is a pressure drop range between 1.5 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. Section C- Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside of the above mentioned ranges 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 - Instrument 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.7.12 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 baghouses' pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

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

D.7.13 Record Keeping Requirements

- (a) To document the compliance status with Condition D.7.1, the Permittee shall maintain monthly records of the amount of metal chips processed in the thermal chip dryer and chip screening process.
- (b) To document the compliance status with Condition D.7.8, the Permittee shall maintain once per day records of the thermal oxidizer duct pressure or fan amperage. The Permittee shall include in its daily record when duct pressure or fan amperage is not taken and the reason for the lack of duct pressure or fan amperage notation (e.g. the process being controlled by the thermal oxidizer did not operate that day, etc.).
- (c) To document the compliance status with Condition D.7.9, the Permittee shall maintain the continuous temperature records (on a 3-hour rolling average basis) for the thermal oxidizer and the 3-hour rolling average temperature used to demonstrate compliance during the most recent compliant stack test.
- (d) To document the compliance status with Condition D.7.10, the Permittee shall maintain a daily record of visible emission notations of the stack S-32b exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (e.g. the process did not operate that day).
- (e) To document the compliance status with Condition D.7.11, the Permittee shall maintain daily records of the pressure drop across Baghouse DC-32c. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).
- (f) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

D.7.14 Reporting Requirements

Quarterly summaries of the information to document the compliance status with Condition D.7.1 shall be submitted no later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting Requirements contains the Permittee's obligations with regard to the records required by this condition. The reports submitted by the Permittee do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

SECTION D.8 EMISSIONS UNIT OPERATION CONDITIONS

Regulated Insignificant Activities:

- (a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment cutting torches, soldering equipment, welding equipment [326 IAC 2-7-1(21)(J)(vi)(EE)][326 IAC 6-3-2].
- (b) One (1) test sample blast machine; identified as EU-1b; constructed in 1995; a nominal capacity of 150 pounds of metal per hour; emissions controlled by and internally vented dust collector, exhausting to stack S-1. [326 IAC 6-3-2]
- (c) One (1) shot reclaim system, controlled by an internally vented dust collector, exhausting to inside the building. [326 IAC 6-3-2]
- (d) Activities with emissions equal to or less than the following thresholds: 5 lb/hr or 25 lb/day PM; 5 lb/hr or 25 lb/day SO₂; 5 lb/hr or 25 lb/day NO_x; 3 lb/hr or 15 lb/day VOC; 0.6 tons per year Pb; 1.0 ton/yr of a single HAP, or 2.5 ton/yr of any combination of HAPs: Scrap receiving operations: All metal scrap is received via truck and deposited into scrap storage bins within a building. A source of fugitive emissions. [326 IAC 6-4]
- (e) Paved and unpaved roads and parking lots with public access. [326 IAC 2-7-1(21)(J)(xiii)][326 IAC 6-4]
- (f) 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, which include the following: Two (2) enclosed grinding units controlled by fabric filters and exhausting inside the building; and One (1) test sample blast machine; identified as EU-1b; constructed in 1995 controlled by fabric filters and exhausting inside the building. [326 IAC 2-7-1(21)(J)(xxiii)][326 IAC 6-3-2]
- (h) One (1) emergency diesel generator, constructed in 1994, with a maximum output horsepower rating (hp) of 1135 HP, using no control, and exhausting indoors.

(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 2-7-5(1)]

D.8.1 Particulate Emission Limitations from Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the particulate emissions from the insignificant grinding, brazing, soldering, and welding operations and test sample blast machine shall be limited by the following:

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

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

SECTION E.1

NESHAP

Emissions Unit Description: Melting, Pouring and Casting Operations

- (a) Scrap and charge handling, constructed in 1995 and approved for modification in 2014 to add a return scrap crusher, with a nominal capacity of 30 tons of metal per hour, with no control and exhausting inside the building;

The return scrap crusher consists of 2 massive steel plates and is used to reduce the size of the return scrap.

- (b) One (1) iron charging, melting, ladle metallurgy, holding and transfer system; identified as EU-2; constructed in 1995; a nominal capacity of 30 tons of metal per hour; emissions controlled by baghouses DC-2 and DC-8; emissions exhaust to stacks S-2 & S-8. The transfer operations refer to the transfer of metal from the holding furnace to the ladle. The system consists of the following equipment/operations:

- (1) One (1) furnace charging operation;
- (2) Three (3) electric induction furnaces*;
- (3) One (1) ladle metallurgical station; and
- (4) One (1) electric holding furnace.

* The three (3) electric induction furnaces are considered part of the affected source under 40 CFR Part 63, Subpart EEEEE.

Stack S-8 is a common stack for Baghouse DC-8 and Baghouse DC-7. Baghouse DC-8 and stack S-8 is also used for the Lines 1, 2, 3, & 4 pouring and casting operations and the EU-6 shot reblast unit.

Pouring and Casting Operations

- (c) One (1) Line 1 pouring and casting operation; identified as EU-3a1; constructed in 1995 and modified in 2008; a nominal capacity of 10 tons of metal and 55 tons of sand per hour; particulate emissions controlled by baghouse DC-8; emissions exhaust to Stack S-8.

EU-3a1 is considered part of the affected source under 40 CFR Part 63, Subpart EEEEE.

- (d) One (1) Line 2 pouring and casting operation; identified as EU-3a2; constructed in 1995; modified in 2009, a nominal capacity of 10 tons of metal and 55 tons of sand per hour; particulate emissions controlled by baghouse DC-8; emissions exhaust to stack S-8.

EU-3a2 is considered part of the affected source under 40 CFR Part 63, Subpart EEEEE.

- (e) One (1) Line 3 pouring and casting operation; identified as EU-3a3; constructed in 1995, and approved for modification in 2012; a nominal capacity of 11 tons of metal and 55 tons of sand per hour; particulate emissions controlled by baghouse DC-8; emissions exhaust to stack S-8.

EU-3a3 is considered part of the affected source under 40 CFR Part 63, Subpart EEEEE.

- (f) One (1) Line 4 pouring and casting operation; identified as EU-3a4; constructed in 1995 and approved for modification in 2012; a nominal capacity of 11 tons of metal and 55 tons of sand per hour; particulate emissions controlled by baghouse DC-8; emissions exhaust to stack S-8.

EU-3a4 is considered part of the affected source under 40 CFR Part 63, Subpart EEEEE.

Baghouse DC-8 and stack S-8 is a common control and stack, respectively of the Lines 1, 2, 3, & 4 pouring and casting operations.

Baghouse DC-8 and stack S-8 is also used for the iron charging, melting, ladle metallurgy, holding and transfer system, identified as EU-2, and the EU-6 shot reblast unit.

Stack S-8 is a common stack for Baghouse DC-8 and Baghouse DC-7.

(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 - 40 CFR Part 63, Subpart EEEEE [326 IAC 2-7-5(1)]

E.1.1 General Provisions Relating to National Emissions Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1][326 IAC 20-92][40 CFR Part 63, Subpart A]

(a) Pursuant to 326 IAC 20-92 and 40 CFR 63.7760, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1-1, for the iron and steel foundry and all activities associated with the iron and steel foundry as specified in 40 CFR 63.7682(b), and in Table 1 of 40 CFR Part 63, Subpart EEEEE in accordance with schedule in 40 CFR Part 63, Subpart EEEEE.

(b) Pursuant to 326 IAC 20-92 and 40 CFR 63.10, 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.1.2 National Emissions Standards for Hazardous Air Pollutants for Iron and Steel Foundries: Requirements [40 CFR Part 63, Subpart EEEEE]

Except as specified in 40 CFR 63.7683(b), pursuant to 326 IAC 20-92 and 40 CFR 63.7683(a), the Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart EEEEE (included as Attachment A to the operating permit) for the electric induction furnaces associated with facility EU-2, the pouring and casting operations (EU-3a1, EU-3a2, EU-3a3 and EU-3a4) and the fugitive emissions from foundry operations no later than April 23, 2007:

- (1) 40 CFR 63.7681
- (2) 40 CFR 63.7682
- (3) 40 CFR 63.7683 (a), (b), (f)
- (4) 40 CFR 63.7690 (a)(1), (a)(5), (a)(7)
- (5) 40 CFR 63.7700 (a), (b), (c)(1)(i), (c)(2), (c)(3)
- (6) 40 CFR 63.7710 (a), (b)(1), (b)(3) - (b)(6)
- (7) 40 CFR 63.7720
- (8) 40 CFR 63.7730 (a), (b)
- (9) 40 CFR 63.7731
- (10) 40 CFR 63.7732 (a), (b)(1), (b)(2), (b)(4), (c)(1), (c)(2), (c)(4), (d), (h)
- (11) 40 CFR 63.7733 (e), (f)
- (12) 40 CFR 63.7734 (a)(1), (a)(5), (a)(7)

- (13) 40 CFR 63.7735 (a), (b)
- (14) 40 CFR 63.7736 (c), (d)
- (15) 40 CFR 63.7740 (b), (f)
- (15) 40 CFR 63.7741 (b)(14)
- (16) 40 CFR 63.7742
- (17) 40 CFR 63.7743 (a)(1), (a)(5), (a)(7), (c)
- (18) 40 CFR 63.7744 (a)
- (19) 40 CFR 63.7745
- (20) 40 CFR 63.7746
- (21) 40 CFR 63.7747 (b) - (d)
- (22) 40 CFR 63.7750 (a), (b), (d), (e)
- (23) 40 CFR 63.7751
- (24) 40 CFR 63.7752
- (25) 40 CFR 63.7753
- (26) 40 CFR 63.7760
- (27) 40 CFR 63.7761
- (28) 40 CFR 63.7765
- (29) Table 1 of Subpart EEEEE

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

E.1.3 Testing Requirements [326 IAC 2-1.1-11] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

In order to demonstrate compliance with Condition E.1.2, not later than five (5) years from the most recent compliant stack test, the Permittee shall perform the stack testing required under NESHAP 40 CFR 63, Subpart EEEEE, utilizing methods as approved by the Commissioner.

This testing shall be repeated at least 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.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
PART 70 OPERATING PERMIT
CERTIFICATION**

Source Name: Metal Technologies Auburn, LLC
Source Address: 1537 West Auburn Drive, Auburn, Indiana 46706
Part 70 Permit No.: T033-32494-00042

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

- Annual Compliance Certification Letter
- Test Result (specify) _____.
- Report (specify) _____.
- Notification (specify) _____.
- Affidavit (specify) _____.
- Other (specify) _____.

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

Signature:

Printed Name:

Title/Position:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: (317) 233-0178
Fax: (317) 233-6865**

**PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT**

Source Name: Metal Technologies Auburn, LLC
Source Address: 1537 West Auburn Drive, Auburn, Indiana 46706
Part 70 Permit No.: T033-32494-00042

This form consists of 2 pages

Page 1 of 2

- This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (4) daytime 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 |
| 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

Part 70 Quarterly Report

Source Name: Metal Technologies Auburn, LLC
Source Address: 1537 West Auburn Drive, Auburn, Indiana 46706
Part 70 Permit No.: T033-32494-00042
Facility: Electric Induction Furnaces (comprising EU-2)
Parameter: Metal production
Limit: The total iron production shall not exceed 220,000 tons per twelve consecutive month period with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

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

- 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

Part 70 Quarterly Report

Source Name: Metal Technologies Auburn, LLC
Source Address: 1537 West Auburn Drive, Auburn, Indiana 46706
Part 70 Permit No.: T033-32494-00042
Facility: Ductile Iron Conversion Process (EU-20)
Parameter: PM Emissions
Limit: The PM emissions from the ductile iron conversion process shall be limited to less than 25 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

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

- 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

Part 70 Quarterly Report

Source Name: Metal Technologies Auburn, LLC
Source Address: 1537 West Auburn Drive, Auburn, Indiana 46706
Part 70 Permit No.: T033-32494-00042
Facility: Ductile Iron Conversion Process (EU-20)
Parameter: PM10 Emissions
Limit: The PM10 emissions from the ductile iron conversion process shall be limited to less than 15 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

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

- 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

Part 70 Quarterly Report

Source Name: Metal Technologies Auburn, LLC
Source Address: 1537 West Auburn Drive, Auburn, Indiana 46706
Part 70 Permit No.: T033-32494-00042
Facility: PUCB Core Production
Parameter: Sand Throughput
Limit: Less than 25,404 tons per twelve consecutive month period with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

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

- 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

Part 70 Quarterly Report

Source Name: Metal Technologies Auburn, LLC
Source Address: 1537 West Auburn Drive, Auburn, Indiana 46706
Part 70 Permit No.: T033-32494-00042
Facility: Warm Box Core Production
Parameter: Sand Throughput
Limit: Less than 25,404 tons per twelve consecutive month period with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

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

- 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

Part 70 Quarterly Report

Source Name: Metal Technologies Auburn, LLC
Source Address: 1537 West Auburn Drive, Auburn, Indiana 46706
Part 70 Permit No.: T033-32494-00042
Facility: Thermal Chip Dryer (EU-32)
Parameter: VOC Emissions
Limit: The VOC emissions from the thermal chip dryer (excluding natural gas combustion emissions) shall not exceed 39.58 tons of VOC per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

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

- 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**

Part 70 Quarterly Report

Source Name: Metal Technologies Auburn, LLC
 Source Address: 1537 West Auburn Drive, Auburn, Indiana 46706
 Part 70 Permit No.: T033-32494-00042
 Facility: Thermal Chip Dryer (EU-32) and Chip Screening Process (EU-32A)
 Parameter: PM, PM10, and PM2.5 Emissions
 Limit: The PM, PM10, and PM2.5 emissions excluding natural gas combustion emissions from the thermal chip dryer (EU-32) and chip screening process (EU-32A), controlled by baghouse DC-32c, shall not exceed 9.54 tons per twelve (12) consecutive month period, each, with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

| Month | Column 1 | | | Column 2 | | | Column 1 + Column 2 | | |
|-------|------------|------|-------|--------------------|------|-------|---------------------|------|-------|
| | This Month | | | Previous 11 Months | | | 12 Month Total | | |
| | PM | PM10 | PM2.5 | PM | PM10 | PM2.5 | PM | PM10 | PM2.5 |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

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

Source Name: Metal Technologies Auburn, LLC
Source Address: 1537 West Auburn Drive, Auburn, Indiana 46706
Part 70 Permit No.: T033-32494-00042

Months: _____ to _____ Year: _____

| | |
|---|-------------------------------|
| <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**

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

Source Description and Location

| | |
|---|--|
| Source Name: | Metal Technologies Auburn, LLC |
| Source Location: | 1537 West Auburn Drive, Auburn, Indiana 46706 |
| County: | DeKalb |
| SIC Code: | 3321 (Gray and Ductile Iron Foundries) |
| Operation Permit No.: | T 033-32494-00042 |
| Operation Permit Issuance Date: | April 30, 2013 |
| Significant Source Modification No.: | 033-37263-00042 |
| Significant Permit Modification No.: | 033-37273-00042 |
| Permit Reviewer: | Brian Williams |

Existing Approvals

The source was issued Part 70 Operating Permit No. 033-32494-00042 on April 30, 2013. The source has since received the following approval:

- (a) Administrative Amendment No. 033-34144-00042, issued on February 25, 2014;
- (b) Significant Permit Modification No. 033-34870-00042, issued on January 9, 2015; and
- (c) Significant Permit Modification No. 033-35881-00042, issued on September 9, 2015.

County Attainment Status

The source is located in DeKalb County.

| Pollutant | Designation |
|-------------------|--|
| SO ₂ | Better than national standards. |
| CO | Unclassifiable or attainment effective November 15, 1990. |
| O ₃ | Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard. ¹ |
| PM _{2.5} | Unclassifiable or attainment effective April 5, 2005, for the annual PM _{2.5} standard. |
| PM _{2.5} | Unclassifiable or attainment effective December 13, 2009, for the 24-hour PM _{2.5} standard. |
| PM ₁₀ | Unclassifiable effective November 15, 1990. |
| NO ₂ | Cannot be classified or better than national standards. |
| Pb | Unclassifiable or attainment effective December 31, 2011. |

¹Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.

- (a) **Ozone Standards**
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. DeKalb County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

- (b) **PM_{2.5}**
 DeKalb County has been classified as attainment for PM_{2.5}. 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**
 DeKalb County has been classified as attainment or unclassifiable in Indiana for all the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

Since this source is classified as a secondary metal production plant it is considered one (1) of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7. Therefore, fugitive emissions are counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Greenhouse Gas (GHG) Emissions

On June 23, 2014, in the case of *Utility Air Regulatory Group v. EPA*, cause no. 12-1146, (available at http://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf) the United States Supreme Court ruled that the U.S. EPA does not have the authority to treat greenhouse gases (GHGs) as an air pollutant for the purpose of determining operating permit applicability or PSD Major source status. On July 24, 2014, the U.S. EPA issued a memorandum to the Regional Administrators outlining next steps in permitting decisions in light of the Supreme Court’s decision. U.S. EPA’s guidance states that U.S. EPA will no longer require PSD or Title V permits for sources “previously classified as ‘Major’ based solely on greenhouse gas emissions.”

The Indiana Environmental Rules Board adopted the GHG regulations required by U.S. EPA at 326 IAC 2-2-1(zz), pursuant to Ind. Code § 13-14-9-8(h) (Section 8 rulemaking). A rule, or part of a rule, adopted under Section 8 is automatically invalidated when the corresponding federal rule, or part of the rule, is invalidated. Due to the United States Supreme Court Ruling, IDEM, OAQ cannot consider GHG emissions to determine operating permit applicability or PSD applicability to a source or modification.

Source Status - Existing Source

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

| Process / Emission Unit | Source-Wide Emissions Before Modification (ton/year) | | | | | | | | | |
|-----------------------------|--|------------------|-------------------|-----------------|-----------------|------|------|------|-------------|---------------|
| | PM | PM ₁₀ | PM _{2.5} | SO ₂ | NO _x | VOC | CO | Lead | Single HAP* | Combined HAPs |
| Total for Source | >100 | >100 | >100 | <100 | <100 | >100 | >100 | <25 | >10 | >25 |
| PSD Major Source Thresholds | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 25 | -- | -- |

*Single highest source-wide HAP.

- (a) This existing source is a major stationary source, under PSD (326 IAC 2-2), because a PSD regulated pollutant, PM, PM₁₀, PM_{2.5}, VOC, and CO, is emitted at a rate of 100 tons per year or more, and it is one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).
- (b) This existing source is a major source of HAPs, as defined in 40 CFR 63.2, because HAP emissions are equal to or greater than ten (10) tons per year for a single HAP and equal to or greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, this source is a major source under Section 112 of the Clean Air Act (CAA).

- (c) These emissions are based on the TSD to Significant Permit Modification No. 033-35881-00042, issued on September 9, 2015.

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed an application, submitted by Metal Technologies Auburn, LLC on June 2, 2016, relating to modifications to the existing natural gas-fired thermal chip dryer process, which was constructed in 2015 and became operational on January 28, 2016. Metal Technologies Auburn, LLC has requested to make the following changes to the thermal chip drying process:

1. The source intends to add a screening operation (EU-32A) downstream of the thermal chip dryer to remove fines from the processed materials due to casting quality issues. The screening process will include material handling and cooling, which will require particulate controls. Therefore, the source has decided to replace the existing baghouse on the thermal chip dryer with a larger baghouse that will control emissions from the thermal chip dryer and the screening process. This new process has the potential to emit greater than 25 tons of PM, PM10, and PM2.5. As a result, the source will accept PM, PM10, and PM2.5 limits to render 326 IAC 2-2 (PSD) not applicable to this modification. The addition of the new screening operation and larger baghouse will not increase the unlimited potential to emit of the thermal chip dryer.
2. The source has notified IDEM that they plan to remove the secondary heat exchanger downstream of the existing thermal oxidizer. This change will not impact the potential to emit from the thermal chip dryer.
3. The source has notified IDEM that the combined heat input capacity for the smoke hood and thermal oxidizer is 6.545 MMBtu/hr. These units were initially permitted at 4.22 MMBtu/hr. Therefore, the emissions from natural gas combustion have been revised to reflect the increase in the maximum heat input capacity.
4. The source has requested to include an alternative VOC emission limitation for the thermal chip dryer of a maximum VOC outlet concentration of 10 ppmv. Pursuant to 326 IAC 8-1-6 (VOC BACT), the source is currently required to achieve an overall control efficiency of 98%. The alternative VOC emission limit will allow the source to demonstrate compliance even if the overall control efficiency is less than 98%. This change recognizes the limitations of the thermal oxidizer when the inlet VOC concentrations are very low.

The following is a list of the proposed and modified emission units and pollution control device(s):

Thermal Chip Drying Process

- (a) One (1) natural gas-fired thermal chip dryer process, consisting of the following:
- (1) One (1) thermal chip dryer, identified as EU-32, constructed in 2015 and approved in 2016 for modification to replace the baghouse, with a nominal maximum capacity of 15 tons of metal chips and machining oil per hour, equipped with eight (8) low NOx retort burners, (the flame does not directly contact the scrap metal chips), with a combined maximum heat input capacity of 9.50 MMBtu per hour, with particulate matter emissions controlled by cyclone DC-32a and baghouse DC-32c and VOC and CO emissions controlled by a 6.545 MMBtu per hour natural gas-fired smoke hood and thermal oxidizer, and exhausting to Stack S-32b. Emissions from the eight (8) natural gas-fired burners are uncontrolled and exhaust to Stack S-32a; and
 - (2) One (1) chip screening unit and associated material handling equipment, identified as EU-32A, approved in 2016 for construction, with a nominal maximum capacity of 15 tons of metal chips per hour, with particulate matter emissions controlled by baghouse DC-32c, and exhausting to Stack S-32b.

Enforcement Issues

There are no pending enforcement actions related to this modification.

Emission Calculations

See Appendix A of this Technical Support Document for detailed emission calculations.

Permit Level Determination – Part 70 Modification to an Existing Source

Pursuant to 326 IAC 2-1.1-1(12), Potential to Emit is defined as “the maximum capacity of a stationary source or emission unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, IDEM, or the appropriate local air pollution control agency.”

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5 and 326 IAC 2-7-11. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit. If the control equipment has been determined to be integral, the table reflects the PTE after consideration of the integral control device.

| PTE Before Controls of the New Emission Units (ton/year) | | | | | | | | | | |
|---|-----------|------------------------|-------------------------|-----------------------|-----------------------|------------|-----------|-----------|-------------------|----------------------|
| Process / Emission Unit | PM | PM₁₀ | PM_{2.5} | SO₂ | NO_x | VOC | CO | Pb | Single HAP | Combined HAPs |
| Chip Screening Process | 65.70 | 65.70 | 65.70 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total: | 65.70 | 65.70 | 65.70 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| PTE Change of the Modified Emission Units/Process (ton/year) | | | | | | | | | | |
|--|-----------|------------------------|-------------------------|-----------------------|-----------------------|------------|-----------|-----------|-------------------|----------------------|
| Thermal Chip Dryer - Process Emissions and Natural Gas Combustion | PM | PM₁₀ | PM_{2.5} | SO₂ | NO_x | VOC | CO | Pb | Single HAP | Combined HAPs |
| PTE Before Modification | 6.54 | 5.80 | 3.57 | 11.40 | 3.85 | 39.80 | 5.72 | 0.34 | 0.34 | 0.47 |
| PTE After Modification | 6.56 | 5.88 | 3.65 | 11.40 | 4.85 | 39.96 | 6.56 | 0.34 | 0.34 | 0.49 |
| PTE Increase From Modification | 0.02 | 0.08 | 0.08 | 0 | 1.00 | 0.16 | 0.84 | 0 | 0 | 0.02 |

| Total PTE Increase Due to the Modification (ton/year) | | | | | | | | | | |
|--|-----------|------------------------|-------------------------|-----------------------|-----------------------|------------|-----------|-----------|-------------------|----------------------|
| Process / Emission Unit | PM | PM₁₀ | PM_{2.5} | SO₂ | NO_x | VOC | CO | Pb | Single HAP | Combined HAPs |
| PTE of New Emission units | 65.70 | 65.70 | 65.70 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PTE Increase of Modified Emission Units/Process | 0.02 | 0.08 | 0.08 | 0 | 1.00 | 0.16 | 0.84 | 0 | 0 | 0.02 |
| Total PTE of the Modification | 65.72 | 65.78 | 65.78 | 0 | 1.00 | 0.16 | 0.84 | 0 | 0 | 0.02 |

Appendix A of this TSD reflects the potential emissions of the modification in detail.

Pursuant to 326 IAC 2-7-10.5(g)(4), a Significant Source Modification is required because this modification has the potential to emit PM, PM10, and direct PM2.5 at greater than or equal to twenty-five (25) tons per year, each.

Pursuant to 326 IAC 2-7-12(d)(1), this change to the permit is being made through a Significant Permit Modification because this modification does not qualify as a Minor Permit Modification or as an Administrative Amendment.

| |
|--|
| PSD Evaluation – Actual to Potential (ATP) Emissions Test |
|--|

(a) Actual to Potential (ATP) Applicability Test

The source is using the Actual to Potential (ATP) applicability test, specified in 326 IAC 2-2-2(d)(4), to demonstrate that the modification is not subject to PSD major review.

(b) New Emissions Units Only

This project only involves the construction of new emission units and/or emissions units considered as new for this evaluation. The thermal chip drying process provides an alternative to the use of purchased scrap as input to the melt process. It is no way debottlenecks the processes downstream which have and can continue to operate using traditional scrap supplies. The addition of this process will not cause emissions from downstream processes to increase or decrease.

Pursuant to 326 IAC 2-2-1(t)(1), a new emissions unit is any emissions unit that is, or will be, newly constructed and that has existed for less than two (2) years from the date the emissions unit first operated.

There are no existing emissions units involved in this applicability test.

The following emissions units are considered as new emissions units for this evaluation.

Thermal Chip Drying Process

(a) One (1) natural gas-fired thermal chip dryer process, consisting of the following:

- (1) One (1) thermal chip dryer, identified as EU-32, constructed in 2015 and approved in 2016 for modification to replace the baghouse, with a nominal maximum capacity of 15 tons of metal chips and machining oil per hour, equipped with eight (8) low NOx retort burners (the flame does not directly contact the scrap metal chips), with a combined maximum heat input capacity of 9.50 MMBtu per hour, with particulate matter emissions controlled by cyclone DC-32a and baghouse DC-32c and VOC and CO emissions controlled by a 6.545 MMBtu per hour natural gas-fired smoke hood and thermal oxidizer, and exhausting to Stack S-32b. Emissions from the eight (8) natural gas-fired burners are uncontrolled and exhaust to Stack S-32a; and
- (2) One (1) chip screening unit and associated material handling equipment, identified as EU-32A, approved in 2016 for construction, with a nominal maximum capacity of 15 tons of metal chips per hour, with particulate matter emissions controlled by baghouse DC-32c, and exhausting to Stack S-32b.

(c) Baseline Actual Emissions

For a new emissions unit, the baseline actual emissions for purposes of determining the emissions increase that will result from the initial construction and operation of the unit shall equal zero (0) and thereafter, for all other purposes, shall equal the unit's potential to emit.

(d) Actual to Potential (ATP) Summary

Since this project only involves the construction of new emission units and/or emissions units considered new for this evaluation, an Actual to Potential (ATP) applicability test has been

conducted. The emissions increase of the project is the sum of the difference between the potential to emit (PTE) from each new emissions unit following completion of the project and the baseline actual emissions of these units before the project (which are equal to zero).

$$ATP_{(new\ unit)} = PTE_{(new\ unit)} - 0.$$

See Appendix A of this Technical Support Document for detailed emission calculations.

| Project Emissions (ton/year) | | | | | | | | |
|---|-------------|------------------|---------------------|-----------------|-----------------|--------------|-------------|-------------|
| Process/Emission Unit | PM | PM ₁₀ | PM _{2.5} * | SO ₂ | NO _x | VOC | CO | Pb |
| Thermal Chip Dryer - Process Emissions (ATP) | 9.47 | 9.47 | 9.47 | 11.36 | 0 | 39.58 | 0.77 | 0.34 |
| Chip Screening Process (ATP) | | | | 0 | 0 | 0 | 0 | 0 |
| Natural Gas Combustion - Retort Burners, Smoke Hood, and Thermal Oxidizer (ATP) | 0.13 | 0.52 | 0.52 | 0.04 | 4.85 | 0.38 | 5.79 | 0 |
| Project Emissions | 9.60 | 9.99 | 9.99 | 11.40 | 4.85 | 39.96 | 6.56 | 0.34 |
| Significant Levels | 25 | 15 | 10 | 40 | 40 | 40 | 100 | 0.6 |

*PM2.5 listed is direct PM2.5.

For these new emissions units, the source has taken the following limits in order to render the requirements of 326 IAC 2-2 not applicable:

- (a) The PM emissions from the thermal chip dryer (EU-32) and chip screening process (EU-32A), controlled by baghouse DC-32c, shall not exceed 9.47 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (b) The PM₁₀ emissions from the thermal chip dryer (EU-32) and chip screening process (EU-32A), controlled by baghouse DC-32c, shall not exceed 9.47 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (c) The PM_{2.5} emissions from the thermal chip dryer (EU-32) and chip screening process (EU-32A), controlled by baghouse DC-32c, shall not exceed 9.47 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (d) The VOC emissions from the thermal chip dryer (EU-32) shall not exceed 39.58 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

These emissions exclude natural gas combustion emissions from the thermal chip dryer (EU-32).

These are new PM, PM₁₀, and PM_{2.5} emission limits due to this modification and were proposed by the source. The VOC limit is an existing limit that the source accepted in Significant Permit Modification No. 033-35881-00042, issued on September 9, 2015. Equations will be used to demonstrate compliance with these limits.

Compliance with these emission limits will ensure that the potential to emit from the modification is less than twenty-five (25) tons of PM per year, fifteen (15) tons of PM₁₀ per year, ten (10) tons of direct PM_{2.5} per year, and forty (40) tons of VOC per year, and therefore will render the requirements of 326 IAC 2-2 (PSD) not applicable to the 2015 and 2016 modifications.

- (e) Conclusion
 Based on this ATP applicability test, this proposed modification is not subject to PSD major review under 326 IAC 2-2-1, because the project emissions are less than the significance levels (i.e., the modification does not cause a significant emissions increase).

Federal Rule Applicability Determination

Due to the modification at this source, federal rule applicability has been reviewed as follows:

New Source Performance Standards (NSPS):

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

National Emission Standards for Hazardous Air Pollutants (NESHAP):

- (a) The requirements of the National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production, 40 CFR 63.1500, Subpart RRR and 326 IAC 20-70, are not included for this proposed modification for the thermal chip dryer and dryer screening process, since this source does not process aluminum and is not located at a secondary aluminum production facility.
- (b) The requirements of the National Emission Standards for Hazardous Air for Iron and Steel Foundries, 40 CFR 63.7680, Subpart EEEEE, and 326 IAC 20-92, are not included for this proposed modification for the thermal chip dryer and dryer screening process, since it does not meet the definition of a scrap preheater in 40 CFR 63.7765. The flame from the thermal chip dryer burners will not directly contact the scrap metal chips.
- (c) There are no National Emission Standards for Hazardous Air Pollutants under 40 CFR 63, 326 IAC 14 and 326 IAC 20 included for this proposed modification.

Compliance Assurance Monitoring (CAM):

- (a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to each existing pollutant-specific emission unit that meets the following criteria:
- (1) has a potential to emit before controls equal to or greater than the major source threshold for the pollutant involved;
 - (2) is subject to an emission limitation or standard for that pollutant; and
 - (3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.
- (b) Pursuant to 40 CFR 64.2(b)(1)(i), emission limitations or standards proposed after November 15, 1990 pursuant to a NSPS or NESHAP under Section 111 or 112 of the Clean Air Act are exempt from the requirements of CAM. Therefore, an evaluation was not conducted for any emission limitations or standards proposed after November 15, 1990 pursuant to a NSPS or NESHAP under Section 111 or 112 of the Clean Air Act.
- (c) Pursuant to 40 CFR 64.2(b)(1)(iii), Acid Rain requirements pursuant to Sections 404, 405, 406, 407(a), 407(b), or 410 of the Clean Air Act are exempt emission limitations or standards. Therefore, CAM was not evaluated for emission limitations or standards for SO₂ and NO_x under the Acid Rain Program.
- (d) Pursuant to 40 CFR 64.3(d), if a continuous emission monitoring system (CEMS) is required pursuant to other federal or state authority, the owner or operator shall use the CEMS to satisfy the requirements of CAM according to the criteria contained in 40 CFR 64.3(d).

The following table is used to identify the applicability of CAM to each existing emission unit and each emission limitation or standard for a specified pollutant based on the criteria specified under 40 CFR 64.2:

| Emission Unit / Pollutant | Control Device | Applicable Emission Limitation | Uncontrolled PTE (tons/year) | Controlled PTE (tons/year) | CAM Applicable (Y/N) | Large Unit (Y/N) |
|---|----------------|--------------------------------|------------------------------|----------------------------|----------------------|------------------|
| Chip Screening Process PM* | BH | 326 IAC 2-2 326 IAC 6-3-2 | <100 | -- | N ¹ | -- |
| Chip Screening Process PM10 | BH | 326 IAC 2-2 | <100 | -- | N ² | -- |
| Chip Screening Process PM2.5 | BH | 326 IAC 2-2 | <100 | -- | N ² | -- |
| Uncontrolled PTE (tpy) and controlled PTE (tpy) are evaluated against the Major Source Threshold for each pollutant. Major Source Threshold for criteria pollutants (PM10, PM2.5, SO2, NOX, VOC and CO) is 100 tpy, for a single HAP ten (10) tpy, and for total HAPs twenty-five (25) tpy. | | | | | | |
| PM* Under 326 IAC 6-3-2. PM is limited as a surrogate for the Part 70 regulated pollutant, PM10. Therefore, uncontrolled PTE and controlled PTE reflect the emissions of PM10. | | | | | | |
| N ¹ Under the Part 70 Permit program (40 CFR 70), PM is not a regulated pollutant. | | | | | | |
| N ² CAM does not apply for PM10 and PM2.5 because the uncontrolled PTE of each is less than the major source threshold. | | | | | | |
| Controls: BH = Baghouse | | | | | | |
| Emission units without air pollution controls are not subject to CAM. Therefore, they are not listed. | | | | | | |

Based on this evaluation, the requirements of 40 CFR Part 64, CAM, is not applicable to the chip screening process. As determined in Significant Permit Modification No. 033-35881-00042, issued on September 9, 2015, the requirements of 40 CFR Part 64, CAM are applicable to the thermal chip dryer for VOC upon issuance of the next Title V Renewal. A CAM plan must be submitted as part of the next Renewal application.

State Rule Applicability Determination

Due to the modification at this source, state rule applicability has been reviewed as follows:

326 IAC 2-2 (PSD)

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

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

The operation of thermal chip dryer and chip screening process will emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 2-7-6(5) (Annual Compliance Certification)

The U.S. EPA Federal Register 79 FR 54978 notice does not exempt Title V Permittees from the requirements of 40 CFR 70.6(c)(5)(iv) or 326 IAC 2-7-6(5)(D), but the submittal of the Title V annual compliance certification to IDEM satisfies the requirement to submit the Title V annual compliance certifications to EPA. IDEM does not intend to revise any permits since the requirements of 40 CFR 70.6(c)(5)(iv) or 326 IAC 2-7-6(5)(D) still apply, but Permittees can note on their Title V annual compliance certifications that submission to IDEM has satisfied reporting to EPA per Federal Register 79 FR 54978. This only applies to Title V Permittees and Title V compliance certifications.

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

Pursuant to 326 IAC 6-3-1(a), the requirements of 326 IAC 6-3-2 are applicable to the chip dryer screening process, since it is a manufacturing process not exempted from this rule under 326 IAC 6-3-1(b) and is not subject to a particulate matter limitation that is as stringent as or more stringent than the particulate limitation established in this rule as specified in 326 IAC 6-3-1(c).

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the thermal chip dryer and chip screening process shall not exceed 25.16 pounds per hour, each, when each process is operating at a process weight rate of 15.0 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:

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

Based on calculations, a control device is not needed to comply with this limit.

326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)

The thermal chip dryer is currently subject to the requirements of 326 IAC 8-1-6 because the potential VOC emissions from this process is greater than twenty-five (25) tons per year and the operations were constructed after January 1, 1980. The addition of the maximum VOC outlet concentration of 10 ppmv does not require reevaluation of the existing BACT requirements for this process. This additional limit recognizes the limitations of the thermal oxidizer when the inlet VOC concentrations are very low to ensure the source can demonstrate compliance with 326 IAC 8-1-6.

Pursuant to 326 IAC 8-1-6 (BACT) and Significant Source Modification No. 033-35828-00042, issued on August 19, 2015 and approved in 2016 in Significant Source Modification No. 033-37263-00042 to add a ppmv limit, the Permittee shall control the VOC emissions from thermal chip dryer using Best Available Control Technology (BACT). The BACT for the thermal chip dryer has been determined to be the following:

- (a) The thermal chip dryer (EU-32) shall use a thermal oxidizer to control VOC emissions with an overall control efficiency equal to or greater than 98% (VOC capture efficiency of 100% and minimum VOC destruction efficiency of 98%) or the VOC outlet concentration shall not exceed 10 ppmv.
- (b) The VOC emission rate after controls from the thermal chip dryer and exhausted to Stack S-32b shall not exceed 0.16 pounds per ton of metal chips processed.

The overall control efficiency and VOC emission rate limits have not been revised in the modification. The VOC outlet concentration is a new alternative limit being added in this modification.

Compliance with these conditions equates to 10.51 tons of VOC emitted (excluding natural gas combustion emissions from the retort burners, which exhaust through Stack S-32a) per twelve (12) consecutive month period, based on the thermal chip dryer operating at a maximum capacity of 15 tons of metal chips per hour. Compliance with this condition shall satisfy the requirements of 326 IAC 8-1-6 (General Reduction Requirements).

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to assure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

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

- (a) The Compliance Determination Requirements applicable to this modification are as follows:
- (1) The source will use the following equations to demonstrate compliance with the PSD minor limits for the thermal chip dryer and chip screening process:

- (a) Compliance with the VOC emission limitation shall be determined using the following equation:

$$\text{VOC} = \frac{M \times EF_C}{2,000 \text{ lbs/ton}}$$

Where:

VOC = tons of VOC emitted for previous 12 consecutive month period
M = tons of metal chips processed in previous 12 months
EF_C = controlled VOC emission factor (0.16 pounds of VOC per ton of metal chips processed or the controlled emission factor determined from most recent valid compliance demonstration)

- (b) Compliance with the PM emission limitation shall be determined using the following equation:

$$\text{PM} = \frac{M \times EF_{PM}}{2,000 \text{ lbs/ton}}$$

Where:

PM = tons of PM emitted for previous 12 consecutive month period
M = tons of metal chips processed in previous 12 months
EF_{PM} = controlled PM emission factor (0.15 pounds of PM per ton of metal chips processed or the controlled emission factor determined from most recent valid compliance demonstration)

- (c) Compliance with the PM10 emission limitation shall be determined using the following equation:

$$\text{PM10} = \frac{M \times EF_{PM10}}{2,000 \text{ lbs/ton}}$$

Where:

PM10 = tons of PM10 emitted for previous 12 consecutive month period
M = tons of metal chips processed in previous 12 months

EF_{PM10} = controlled PM10 emission factor (0.15 pounds of PM10 per ton of metal chips processed or the controlled emission factor determined from most recent valid compliance demonstration)

- (d) Compliance with the PM2.5 emission limitation shall be determined using the following equation:

$$PM2.5 = \frac{M \times EF_{PM2.5}}{2,000 \text{ lbs/ton}}$$

Where:

PM2.5 = tons of PM2.5 emitted for previous 12 consecutive month period

M = tons of metal chips processed in previous 12 months

$EF_{PM2.5}$ = controlled PM2.5 emission factor (0.15 pounds of PM2.5 per ton of metal chips processed or the controlled emission factor determined from most recent valid compliance demonstration)

The PM, PM10, and PM2.5 emission factor was provided by the source and is based on a conservative controlled emission level of 0.0075 gr/dscf, a exhaust flow rate of 35,000 acfm, and a maximum throughput rate of 15 tons of metal chips per hour.

$$EF (0.15 \text{ lb/ton}) = 0.0075 \text{ gr/dscf} \times 35,000 \text{ acfm} \times 60 \text{ min/hr} / 7,000 \text{ gr/lb} / 15 \text{ ton/hr}$$

- (2) The testing requirements applicable to the modification are as follows:

| Summary of Testing Requirements | | | | | |
|---|-----------------|---|---------------------|----------------------|------------------|
| Emission Unit | Control Device | Timeframe for Testing | Pollutant | Frequency of Testing | Authority |
| Thermal Chip Dryer and Chip Screening Process | Baghouse DC-32c | No later than sixty (60) days after the chip screening process achieves maximum capacity but not later than one hundred eighty (180) days after initial startup of the chip screening process, whichever occurs first | PM, PM10, and PM2.5 | Every 5 years | 326 IAC 2-7-5(1) |

These new testing requirements are necessary to demonstrate compliance with 326 IAC 2-2 (PSD) and 326 IAC 6-3-2 (Particulate Emissions Limitations for Manufacturing Processes).

IDEM OAQ Permits Branch is aware that Metal Technologies Auburn, LLC has submitted a request to the IDEM OAQ Compliance and Enforcement Branch (CEB) requesting to delay and/or remove the existing testing requirements for the thermal chip dryer. At this time the CEB is still reviewing the request. Therefore, the existing uncontrolled PM, PM10, and PM2.5 and controlled VOC testing requirements for the thermal chip dryer will not change as a result of this modification.

(b) The Compliance Monitoring Requirements applicable to this proposed modification are as follows:

| Emission Unit/Control | Operating Parameters | Frequency |
|---|----------------------------|--------------|
| Thermal Chip Dryer and Chip Screening Process/Baghouse DC-32c | Visible Emission Notations | Once per day |
| | Pressure Drop | Once per day |

These monitoring conditions are necessary because the baghouse for the thermal chip dryer and chip screening process must operate properly to assure compliance with 326 IAC 2-2 (PSD) and 326 IAC 6-3-2 (Particulate Emissions Limitations for Manufacturing Processes). These are new monitoring conditions due to this modification.

The existing compliance monitoring requirements for the thermal oxidizer controlling the VOC emissions from thermal chip dryer will not change as a result of this modification. The source shall continue to comply with the applicable requirements and permit conditions as contained in Significant Permit Modification No. 033-35881-00042, issued on September 9, 2015.

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|-------------------------|
| Proposed Changes |
|-------------------------|

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

- (1) The descriptive information in Sections A.2 and D.7 have been revised to reflect the changes to the thermal chip dryer process.
- (2) Condition D.7.1 has been revised to include new PM, PM10, and PM2.5 emission limits.
- (3) Condition D.7.2 has been revised to include the new chip screening process.
- (4) Condition D.7.3 has been revised to include a maximum VOC outlet concentration limit.
- (5) Condition D.7.5 has been revised due to the addition of the PM, PM10, and PM2.5 emission limits in Condition D.7.1.
- (6) A new Condition D.7.6 has been added to the permit, which contains newly applicable compliance determination requirements for particulate matter.
- (7) Section D.7 has been revised to include new testing requirements, compliance monitoring, and record keeping requirements for particulate matter.
- (8) IDEM has included new record keeping requirements for the thermal oxidizer, which were inadvertently omitted from Significant Permit Modification No. 033-35881-00042, issued on September 9, 2015.
- (9) A new Part 70 Quarterly Report has been added for PM, PM10, and PM2.5 emissions in order to document compliance with the new PSD minor limits.

...
 A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(14)]

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

...
 Thermal Chip Drying Process

(u) **One (1) natural gas-fired thermal chip dryer process, consisting of the following:**

- (1) One (1) natural gas-fired thermal chip dryer, identified as EU-32, **constructed approved in 2015 for construction and approved in 2016 for modification to replace the baghouse**, with a **nominal** maximum capacity of

15 tons of metal chips and machining oil per hour, equipped with eight (8) low NOx retort burners (**the flame does not directly contact the scrap metal chips**), with a combined maximum heat input capacity of 9.50 MMBtu per hour, with particulate matter emissions controlled by cyclone DC-32a and baghouse DC-32c and VOC and CO emissions controlled by a 4-22 **6.545** MMBtu per hour natural gas-fired smoke hood and thermal oxidizer, and exhausting to Stack S-32b. Emissions from the eight (8) natural gas-fired burners are uncontrolled and exhaust to Stack S-32a; **and**

- (2) **One (1) chip screening unit and associated material handling equipment, identified as EU-32A, approved in 2016 for construction, with a nominal maximum capacity of 15 tons of metal chips per hour, with particulate matter emissions controlled by baghouse DC-32c, and exhausting to Stack S-32b.**

...
SECTION D.7 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Thermal Chip Dryer

Thermal Chip Drying Process

(u) **One (1) natural gas-fired thermal chip dryer process, consisting of the following:**

- (1) One (1) natural gas-fired thermal chip dryer, identified as EU-32, **constructed approved in 2015 for construction and approved in 2016 for modification to replace the baghouse**, with a **nominal** maximum capacity of 15 tons of metal chips and machining oil per hour, equipped with eight (8) low NOx retort burners (**the flame does not directly contact the scrap metal chips**), with a combined maximum heat input capacity of 9.50 MMBtu per hour, with particulate matter emissions controlled by cyclone DC-32a and baghouse DC-32c and VOC and CO emissions controlled by a 4-22 **6.545** MMBtu per hour natural gas-fired smoke hood and thermal oxidizer, and exhausting to Stack S-32b. Emissions from the eight (8) natural gas-fired burners are uncontrolled and exhaust to Stack S-32a; **and**
- (2) **One (1) chip screening unit and associated material handling equipment, identified as EU-32A, approved in 2016 for construction, with a nominal maximum capacity of 15 tons of metal chips per hour, with particulate matter emissions controlled by baghouse DC-32c, and exhausting to Stack S-32b.**

(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 2-7-5(1)]

D.7.1 PSD Minor Limits [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) not applicable to ~~this~~ **the 2015 and 2016 modifications** to the existing PSD major source, the following conditions shall apply:

- (a) **The PM emissions from the thermal chip dryer (EU-32) and chip screening process (EU-32A), controlled by baghouse DC-32c, shall not exceed 9.47 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.**
- (b) **The PM10 emissions from the thermal chip dryer (EU-32) and chip screening process (EU-32A), controlled by baghouse DC-32c, shall not exceed 9.47 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.**

- (c) **The PM_{2.5} emissions from the thermal chip dryer (EU-32) and chip screening process (EU-32A), controlled by baghouse DC-32c, shall not exceed 9.47 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.**
- (ad) The VOC emissions from the thermal chip dryer (**EU-32**) (~~excluding natural gas combustion emissions~~) shall not exceed 39.58 tons of VOC per twelve (12) consecutive month period, with compliance determined at the end of each month.

These emissions exclude natural gas combustion emissions from the thermal chip dryer (EU-32).

Compliance with these emission limits will ensure that the potential to emit from this 2015 and 2016 modification is less than **twenty-five (25) tons of PM per year, fifteen (15) tons of PM₁₀ per year, ten (10) tons of direct PM_{2.5} per year, and forty (40) tons of VOC per**, and therefore will render the requirements of 326 IAC 2-2 not applicable **to the 2015 and 2016 modifications.**

D.7.2 Particulate Emission Limitations from Manufacturing Processes [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 thermal chip dryer **and chip screening process**, identified as EU-32 **and EU-32A**, shall **each** not exceed 25.16 pounds per hour when operating at a process weight rate of 15 tons per hour. The pound per hour limitation was calculated using the following equation:

...

D.7.3 Best Available Control Technology (BACT) for VOC [326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6 (BACT) and Significant Source Modification No. 033-35828-00042, **issued on August 19, 2015, and approved in 2016 in Significant Source Modification No. 033-37263-00042 to add a ppmv limit**, the Permittee shall control the VOC emissions from thermal chip dryer using Best Available Control Technology (BACT). The BACT for the thermal chip dryer has been determined to be the following:

- (a) The thermal chip dryer (EU-32) shall use a thermal oxidizer to control VOC emissions with an overall control efficiency equal to or greater than 98% (VOC capture efficiency of 100% and minimum VOC destruction efficiency of 98%) **or the VOC outlet concentration shall not exceed 10 ppmv.**

...

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

D.7.5 Volatile Organic Compound (VOC)

- (a) In order to comply with Conditions D.7.1(ad) and D.7.3, the thermal oxidizer for VOC control shall be in operation and control emissions from the thermal chip dryer, at all times that the process is in operation.
- (b) Compliance with the VOC emission limitation contained in Condition D.7.1(ad), shall be determined using the following equation:

$$\text{VOC} = \frac{M \times \text{EF}_c}{2,000 \text{ lbs/ton}}$$

Where:

VOC = tons of VOC emitted for previous 12 consecutive month period

M = tons of metal chips processed in previous 12 months

EF_c = controlled VOC emission factor (0.16 pounds of VOC per ton of metal chips processed or the controlled emission factor determined from most recent valid compliance demonstration)

D.7.6 Particulate Matter (PM)

- (a) In order to comply with Conditions D.7.1(a), D.7.1(b), and D.7.1(c), the baghouse for particulate mater control shall be in operation and control emissions from the thermal chip dryer (EU-32) and chip screening process (EU-32A), at all times that either process is in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.
- (c) Compliance with the PM emission limitation contained in Condition D.7.1(a), shall be determined using the following equation:

$$PM = \frac{M \times EF_{PM}}{2,000 \text{ lbs/ton}}$$

Where:

PM = tons of PM emitted for previous 12 consecutive month period
M = tons of metal chips processed in previous 12 months
EF_{PM} = controlled PM emission factor (0.15 pounds of PM per ton of metal chips processed or the controlled emission factor determined from most recent valid compliance demonstration)

- (d) Compliance with the PM10 emission limitation contained in Condition D.7.1(b), shall be determined using the following equation:

$$PM10 = \frac{M \times EF_{PM10}}{2,000 \text{ lbs/ton}}$$

Where:

PM10 = tons of PM10 emitted for previous 12 consecutive month period
M = tons of metal chips processed in previous 12 months
EF_{PM10} = controlled PM10 emission factor (0.15 pounds of PM10 per ton of metal chips processed or the controlled emission factor determined from most recent valid compliance demonstration)

- (e) Compliance with the PM2.5 emission limitation contained in Condition D.7.1(c), shall be determined using the following equation:

$$PM2.5 = \frac{M \times EF_{PM2.5}}{2,000 \text{ lbs/ton}}$$

Where:

PM2.5 = tons of PM2.5 emitted for previous 12 consecutive month period
M = tons of metal chips processed in previous 12 months
EF_{PM2.5} = controlled PM2.5 emission factor (0.15 pounds of PM2.5 per ton of metal chips processed or the controlled emission factor determined from most recent valid compliance demonstration)

D.7.67 Testing Requirements [326 IAC 2-7-6(1), (6)][326 IAC 2-1.1-11]

PM, PM₁₀, and PM_{2.5} testing

- (a) In order to verify the uncontrolled PM, PM₁₀ and PM_{2.5} emissions from the thermal chip dryer, the Permittee shall perform uncontrolled PM, PM₁₀, and PM_{2.5} testing on the thermal chip dryer no later than sixty (60) days after achieving maximum capacity, but not later than one hundred and eighty (180) days after initial start-up, 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 PM_{2.5} includes filterable and condensable PM₁₀ and PM_{2.5}.
- (b) In order to demonstrate compliance with Conditions D.7.1(a), D.7.1(b), D.7.1(c), and D.7.2, the Permittee shall perform PM, PM₁₀, and PM_{2.5} testing on the thermal chip dryer and chip screening process baghouse (DC-32c) no later than sixty (60) days after the chip screening process achieves its maximum capacity, but not later than one hundred and eighty (180) days after initial start-up of the chip screening process, 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 PM_{2.5} includes filterable and condensable PM₁₀ and PM_{2.5}.**

VOC testing

- (bc)** In order to demonstrate compliance with Conditions D.7.1(~~ad~~) and D.7.3, the Permittee shall perform VOC testing, including emission rate, destruction efficiency, and capture efficiency of the thermal chip dryer control system no later than sixty (60) days after achieving maximum capacity, but not later than one hundred and eighty (180) days after initial start-up, utilizing methods as approved by the Commissioner. This testing shall be repeated at least 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.

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

D.7.78 Parametric Monitoring

- (a) The Permittee shall determine the appropriate duct pressure or fan amperage from the most recent valid stack test.
- (b) The duct pressure or fan amperage shall be observed at least once per day for the thermal oxidizer whenever the thermal oxidizer is operating. On and after the date the stack test results are available, the duct pressure or fan amperage shall be maintained at the minimum operating fan amperage of twelve (12) amps or within the normal range as established in the most recent valid compliant stack test.

D.7.89 Thermal Oxidizer Operating Temperature

...

- (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.7.1(~~ad~~) and D.7.3.

...

D.7.10 Visible Emissions Notation

- (a) Visible emission notations of stack S-32b shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.**
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.**
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.**
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.**
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligations with regard to responding to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.**

D.7.11 Parametric Monitoring

The Permittee shall record the pressure drop across Baghouse DC-32c used in conjunction with the thermal chip dryer and chip screening process, at least once per day when the thermal chip dryer and chip screening process are in operation. When for any one reading, the pressure drop across Baghouse DC-32c is outside the normal range the Permittee shall take reasonable response. The normal range for Baghouse DC-32c is a pressure drop range between 1.5 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. Section C-Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside of the above mentioned ranges 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 - Instrument 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.7.12 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 baghouses' pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas

temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

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

D.7.913 Record Keeping Requirements

- (a) To document the compliance status with Condition D.7.1(a), the Permittee shall maintain monthly records of the amount of metal chips processed in the thermal chip dryer **and chip screening process.**
- (b) To document the compliance status with Condition D.7.78, the Permittee shall maintain once per day records of the thermal oxidizer duct pressure or fan amperage. The Permittee shall include in its daily record when duct pressure or fan amperage is not taken and the reason for the lack of duct pressure or fan amperage notation (e.g. the process being controlled by the thermal oxidizer did not operate that day, etc.).
- (c) **To document the compliance status with Condition D.7.9, the Permittee shall maintain the continuous temperature records (on a 3-hour rolling average basis) for the thermal oxidizer and the 3-hour rolling average temperature used to demonstrate compliance during the most recent compliant stack test.**
- (d) **To document the compliance status with Condition D.7.10, the Permittee shall maintain a daily record of visible emission notations of the stack S-32b exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (e.g. the process did not operate that day).**
- (e) **To document the compliance status with Condition D.7.11, the Permittee shall maintain daily records of the pressure drop across Baghouse DC-32c. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).**
- (ef) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

D.7.1014 Reporting Requirements

Quarterly summaries of the information to document the compliance status with Condition D.7.1(a) shall be submitted no later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting Requirements contains the Permittee's obligations with regard to the records required by this condition. The reports submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34 35).

...

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

Part 70 Quarterly Report

Source Name: Metal Technologies Auburn, LLC
Source Address: 1537 West Auburn Drive, Auburn, Indiana 46706
Part 70 Permit No.: T033-32494-00042
Facility: Thermal Chip Dryer (EU-32) and Chip Screening Process (EU-32A)
Parameter: PM, PM10, and PM2.5 Emissions
Limit: The PM, PM10, and PM2.5 emissions excluding natural gas combustion emissions from the thermal chip dryer (EU-32) and chip screening process (EU-32A), controlled by baghouse DC-32c, shall not exceed 9.47 tons per twelve (12) consecutive month period, each, with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

| Month | Column 1 | | | Column 2 | | | Column 1 + Column 2 | | |
|-------|------------|------|-------|--------------------|------|-------|---------------------|------|-------|
| | This Month | | | Previous 11 Months | | | 12 Month Total | | |
| | PM | PM10 | PM2.5 | PM | PM10 | PM2.5 | PM | PM10 | PM2.5 |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

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

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

...
Additional Changes

IDEM, OAQ made additional changes to the permit as described below in order to update the language to match the most current version of the applicable rule, to eliminate redundancy within the permit, and to provide clarification regarding the requirements of these conditions.

- (1) IDEM, OAQ revised the CAM portion of the Section C.15 Response to Excursions or Exceedances to provide clarity.

 In paragraph (II)(c), the acronym QIP is being spelled out as Quality Improvement Plan (QIP) because this is the first time it is mentioned in the condition.

 In paragraphs (II)(f) and (II)(h)(1), the reference to paragraph (II)(a)(2) is being changed to paragraph (II)(c). Referencing paragraph (II)(a)(2) is correct, however IDEM, OAQ believes that referencing paragraph (II)(c) provides clarity.
- (2) 326 IAC 2-7-1 was updated on August 1, 2014. This rule update changed the rule cite for the definition of "Regulated Pollutant" used only for purposes of "Emission Reporting". Therefore, Section C Emission Statement has been updated accordingly.
- (3) On November 3, 2011, the Indiana Air Pollution Control Board issued a revision to 326 IAC 2. The revision resulted in a change to the rule site of the "responsible official" definition. Section D.7 - Reporting Requirements has been revised to reflect this change.
- (4) IDEM has removed all instances of the "note" from the permit.

- (5) IDEM added the rule citation 326 IAC 2-7-5(1) to the Compliance Determination Requirements subsection title in Sections D.1, D.2, D.3, D.4, D.5, D.6, and D.7 to clarify the authority of these conditions.
- (6) For clarity, IDEM, OAQ 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." Therefore, Condition D.4.4(e) has been revised to reflect this change.
- (7) IDEM has revised Section D.5 and D.7 - Reporting Requirements to reflect that the source must submit multiple summaries to document the compliance status with respective limits in these Sections.
- (8) The word "status" has been added to Section D.6 - Record Keeping Requirements. The Permittee has the obligation to document the compliance status. The wording has been revised to properly reflect this.
- (9) IDEM revised Sections E.1 and E.2 for clarity.
- (10) IDEM has clarified that the source has applicable testing requirements in 40 CFR 63, Subpart EEEEE. Therefore, a testing condition has been added to Section E.1. The source last performed the testing required by 40 CFR 63, Subpart EEEEE on March 17, 2015. This testing must be repeated at least once every five (5) years.
- (11) The Quarterly Report form has been modified to remove the numbered months. The Permittee should state which months are being reported.
- (12) 326 IAC 2-7-16 states that the Permittee must notify IDEM within "four (4) daytime business hours" for emergencies. The Emergency Occurrence Report Form lacked the word 'daytime'. 'Daytime' is being added to be consistent with the rule.

Entire Permit

Note:

...

C.14 Response to Excursions or Exceedances [40 CFR 64][326 IAC 3-8][326 IAC 2-7-5]
[326 IAC 2-7-6]

...

(II)

...

(c) Based on the results of a determination made under paragraph (II)(a)(2) of this condition, the EPA or IDEM, OAQ may require the Permittee to develop and implement a **Quality Improvement Plant (QIP)**. The Permittee shall develop and implement a QIP if notified to in writing by the EPA or IDEM, OAQ.

...

(f) Following implementation of a QIP, upon any subsequent determination pursuant to paragraph (II)(~~a~~)(2)(**c**) of this condition the EPA or the IDEM, OAQ may require that the Permittee make reasonable changes to the QIP if the QIP is found to have:

...

(h) *CAM recordkeeping requirements.*

(1) The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to paragraph (II)(~~a~~)(2)(**c**) of this condition and any activities undertaken to implement a quality improvement plan, and other supporting information required to be

maintained under this condition (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

...
C.16 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6-3(a)(1)] Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit by July 1 of each year an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

- ... (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(~~32~~ **33**) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

... Sections D.1 through D.7

... Compliance Determination Requirements [**326 IAC 2-7-5(1)**]

... D.4.4 Visible Emissions Notations [40 CFR 64]

Pursuant to 40 CFR 64,

- ... (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps ~~in accordance with~~ Section C - Response to Excursions and Exceedances **contains the Permittee's obligations with regard to responding to the reasonable response steps required by this condition.** Failure to take response steps ~~in accordance with Section C - Response to Excursions and Exceedances~~, shall be considered a deviation from this permit.

... D.5.10 Reporting Requirements

~~A~~ Quarterly summaries of the information to document the compliance status with Conditions D.5.1(a) and D.5.1(b) shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting Requirements contains the Permittee's obligation with regard to the reporting required by this condition. The reports submitted by the Permittee ~~does~~ require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

... D.6.5 Record Keeping Requirements

- (a) To document ~~the~~ compliance **status** with Condition D.6.1(a), the Permittee shall maintain records of the sand throughput to the Core Production and the Warm Box Core Production for each month.

SECTION E.1 ~~EMISSIONS UNIT OPERATION CONDITIONS~~ **NESHAP**

... NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP) REQUIREMENTS [326 IAC 2-7-5(1)]

... E.1.2 National Emissions Standards for Hazardous Air Pollutants for Iron and Steel Foundries: Requirements [40 CFR Part 63, Subpart EEEEE]

Except as specified in 40 CFR 63.7683(b), pursuant to 326 IAC 20-92 and 40 CFR 63.7683(a), the Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart EEEE **(included as Attachment A to the operating permit)** for the electric induction furnaces associated with facility EU-2, the pouring and casting operations (EU-3a1, EU-3a2, EU-3a3 and EU-3a4) and the fugitive emissions from foundry operations no later than April 23, 2007:

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

E.1.3 Testing Requirements [326 IAC 2-1.1-11] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

In order to demonstrate compliance with Condition E.1.2, not later than five (5) years from the most recent compliant stack test, the Permittee shall perform the stack testing required under NESHAP 40 CFR 63, Subpart EEEEE, utilizing methods as approved by the Commissioner.

This testing shall be repeated at least 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.

...
QUARTERLY REPORT FORMS:

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

...
EMERGENCY OCCURRENCE REPORT FORM:

- This is an emergency as defined in 326 IAC 2-7-1(12)
 - The Permittee must notify the Office of Air Quality (OAQ), within four (4) **daytime** business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and

...

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 June 2, 2016.

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 033-37263-00042. The operation of this proposed modification shall be subject to the conditions of the attached Significant Permit Modification No 033-37273-00042.

The staff recommends to the Commissioner that the Part 70 Significant Source Modification and Significant Permit Modification 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 IGCM 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 Permit Guide on the Internet at: <http://www.in.gov/idem/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/idem/6900.htm>.

**Appendix A: Emission Calculations
Summary of Modification**

Company Name: Metal Technologies Auburn, LLC
Source Address: 1537 West Auburn Drive, Auburn, IN 46706
Significant Source Modification No: 033-37263-00042
Significant Permit Modification No: 033-37273-00042
Reviewer: Brian Williams

| Unlimited Potential to Emit of New Emission Unit (tons/year)* | | | | | | | | | | |
|---|--------------|--------------|--------------|----------|----------|----------|----------|----------|------------|------------|
| Process | PM | PM10 | PM2.5 | SO2 | NOx | VOC | CO | Pb | Total HAPs | Single HAP |
| Chip Screening Process | 65.70 | 65.70 | 65.70 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 65.70 | 65.70 | 65.70 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

*Unlimited PTE for purposes of determining the appropriate permit level under 326 IAC 2-7-10.5 and 326 IAC 2-7-11.

| PTE Change of the Modified Emission Units/Process (tons/year) | | | | | | | | | | |
|---|-------------|-------------|-------------|----------|-------------|-------------|-------------|----------|-------------|------------|
| Thermal Chip Dryer - Process and Natural Gas Combustion Emissions | PM | PM10 | PM2.5 | SO2 | NOx | VOC | CO | Pb | Total HAPs | Single HAP |
| PTE Before Modification | 6.54 | 5.80 | 3.57 | 11.40 | 3.85 | 39.80 | 5.72 | 0.34 | 0.47 | 0.34 Lead |
| PTE After Modification | 6.56 | 5.88 | 3.65 | 11.40 | 4.85 | 39.96 | 6.56 | 0.34 | 0.49 | 0.34 Lead |
| PTE Increase from Modification | 0.02 | 0.08 | 0.08 | 0 | 1.00 | 0.16 | 0.84 | 0 | 0.02 | 0 |

| Total PTE Increase Due to the Modification (tons/year) | | | | | | | | | | |
|--|--------------|--------------|--------------|----------|-------------|-------------|-------------|----------|-------------|------------|
| Process | PM | PM10 | PM2.5 | SO2 | NOx | VOC | CO | Pb | Total HAPs | Single HAP |
| PTE of New Emission Units | 65.70 | 65.70 | 65.70 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PTE Increase of Modified Emission Units/Process | 0.02 | 0.08 | 0.08 | 0 | 1.00 | 0.16 | 0.84 | 0 | 0.02 | 0 |
| Total PTE of the Modification | 65.72 | 65.78 | 65.78 | 0 | 1.00 | 0.16 | 0.84 | 0 | 0.02 | 0 |

| Limited Potential to Emit of Modification (tons/year)* | | | | | | | | | | |
|---|-------------|-------------|-------------|--------------|-------------|--------------|-------------|-------------|-------------|------------------|
| Process | PM | PM10 | PM2.5 | SO2 | NOx | VOC | CO | Pb | Total HAPs | Single HAP |
| Thermal Chip Dryer - Process Emissions ^{1,2} | 9.47 | 9.47 | 9.47 | 11.36 | 0 | 39.58 | 0.77 | 0.34 | 0.36 | 0.34 Lead |
| Chip Screening Process ¹ | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Natural Gas Combustion - Retort Burners, Smoke Hood, and Thermal Oxidizer | 0.13 | 0.52 | 0.52 | 0.04 | 4.85 | 0.38 | 5.79 | 0 | 0.13 | 0.12 Hexane |
| Total | 9.60 | 9.99 | 9.99 | 11.40 | 4.85 | 39.96 | 6.56 | 0.34 | 0.49 | 0.34 Lead |
| PSD Major Source Modification Threshold | 25 | 15 | 10 | 40 | 40 | 40 | 100 | 0.60 | NA | NA |

* Limited PTE for purposes of determining PSD applicability of 2016 modification.

¹ PM, PM10, and PM2.5 emissions limited to render 326 IAC 2-2 (PSD) not applicable.

² VOC emissions limited to render 326 IAC 2-2 (PSD) not applicable. This process is also subject to 326 IAC 8-1-6 (BACT) limits for VOC.

Appendix A: Emissions Calculations

Gray Iron Foundries

Emissions Summary

Company Name: Metal Technologies Auburn, LLC

Source Address: 1537 West Auburn Drive, Auburn, IN 46706

Significant Source Modification No: 033-35828-00042

Significant Permit Modification No: 033-35891-00042

Reviewer: Brian Williams

Summary of Emission Units

| Process Description | | Emission Unit ID(s) | Control / Stack ID | Nominal Throughput (ton/hour) | Nominal Throughput (lb/hour) | Nominal Throughput (tons/yr) | |
|---------------------------------------|-----------------------------|--|---|---|--------------------------------------|---|-------|
| Raw Material Handling and Preparation | Scrap and Charge Handling | Scrap and charge handling | No control; indoors | 30.00 | 60,000 | 262,800 | |
| | Sand Handling | EU-5bc Return Sand System | Baghouse DC-5 (Stack S-5) and Baghouse DC-8 (Stack S-8) | 220.00 | 440,000 | 1,927,200 | |
| | | EU-1 Sand System & Mullers for Lines 1 & 2 | Baghouse DC-1 (Stack S-1) | | | | |
| | | EU-1 Sand System & Mullers for Lines 3 & 4 | Baghouse DC-10 (Stack S-10) | | | | |
| | Magnesium Treatment | EU-20 (Ductile Iron Conversion Process) | Baghouse DC-20 (Stack S-20) | 30.00 | 60,000 | 262,800 | |
| | Thermal Chip Dryer | EU-32 | Cyclone D-32a, Thermal Oxidizer D-32b, and Baghouse D-32c (Stack S-32b) | 15.00 | 30,000.00 | 131,400 | |
| Chip Sreening Process | EU-32A | Baghouse D-32c (Stack S-32b) | 15.00 | 30,000.00 | 131,400 | | |
| Metal Melting | Electric Induction Furnaces | EU-2 (3 EIF furnaces total) | Baghouses DC-2 and DC-8 (Stacks S-2 and S-8) | 30.00 | 60,000 | 262,800 | |
| Casting and Finishing | Pouring/Casting | EU-3a1 Pouring & Casting Line 1 | Baghouse DC-8 (Stack S-8) | 10.00 | 84,000 | 367,920 | |
| | | EU-3a2 Pouring & Casting Line 2 | | 10.00 | | | |
| | | EU-3a3 Pouring & Casting Line 3 | | 11.00 | | | |
| | | EU-3a4 Pouring & Casting Line 4 | | 11.00 | | | |
| | Casting/Mold Cooling | EU-3b1 Casting/Mold Cooling Line 1 | No control (Stack S-3b) | 10.00 | 84,000 | 367,920 | |
| | | EU-3b2 Casting/Mold Cooling Line 2 | | 10.00 | | | |
| | | EU-3b3 Casting/Mold Cooling Line 3 | No control (Stack S-3d) | 11.00 | | | |
| | | EU-3b4 Casting/Mold Cooling Line 4 | | 11.00 | | | |
| | Casting Shakeout | EU-4a Casting Shakeout Line 3 | Baghouse DC-3 (Stack S-15) | 11.00 | 84,000 | 367,920 | |
| | | EU-4b Casting Shakeout Line 4 | Baghouse DC-4 (Stack S-4) | 11.00 | | | |
| | | EU-5a Casting Shakeout Line 1 and 2 | Baghouse DC-5 (Stack S-5) | 20.00 | | | |
| | Grinding* | EU-7 Grinding | Internally vented dust collectors | 24.00 | 36,000 | 157,680 | |
| | Blasting* | EU-16 Shot Blast | Baghouse DC-7 (Stack S-8) | 27.00 | 36,000 | 157,680 | |
| | | EU-17 Shot Blast | | | | | |
| EU-18 Shot Blast | | | | | | | |
| EU-1b Sample Blast | | Internally vented dust collector | 0.08 | | | | |
| EU-6 Re-blast | | Baghouse DC-8 (Stack S-8) | 1.12 | | | | |
| Mold and Core Production | Core Making | EU-30a PUCB Sand Silo | bin vent filter | 2.90 | 5,800 | 25,404 | |
| | | EU-30 PUCB core mixing | no control | | | | |
| | | EU-30 PUCB core making (DMIPA) | Acid Scrubber SC 1 (Stack SC-1) | | | | |
| | | EU-31 Warm Box Core production | no control | | | | |
| EU-31a Warm Box Sand Silo | bin vent filter | 2.90 | 5,800 | 25,404 | | | |
| Natural Gas Combustion | | | | Heat Input Capacity (MMBtu/hr) | Total Heat Input Capacity (MMBtu/hr) | | |
| | | | | PUCB drying oven | | no control | 1.50 |
| | | | | Warm Box core machine | | no control | 0.60 |
| | | | | Thermal Chip Dryer Retort Burners (Low-NOx) | | no control (Stack S-32a) | 6.545 |
| | | | | Smoke Hood and Thermal Oxidizer Burners | | Thermal Oxidizer D-32a and Baghouse D-32c | 4.18 |
| | | | | Output Horsepower Rating (hp) | | | |
| Emergency Generator | | | | Emergency Generator | no control | 1135 | |

Notes

* Amount of metal finished (Grinding and Blasting) is equal to 60% of the total metal melted

Methodology

Nominal Throughput (lb/hour) = Nominal Throughput (ton/hr) * 2,000 lb/hr

Nominal Throughput (tons/yr) = Nominal Throughput (ton/hr) * 8,760 hours/yr

Appendix A: Emissions Calculations

Gray Iron Foundries
Emissions Summary
Company Name: Metal Technologies Auburn, LLC
Source Address: 1537 West Auburn Drive, Auburn, IN 46706
Significant Source Modification No: 033-35828-00042
Significant Permit Modification No: 033-35881-00042
Reviewer: Brian Williams

Summary of Unlimited PTE

| | | Unlimited Potential to Emit (tons/year) | | | | | | | | | | |
|---|--|---|-----------------|-----------------|-----------------|-----------------|---------------|-----------------|--------------------------|-----------------|--------------|---------------|
| | | Criteria Pollutants | | | | | | | Hazardous Air Pollutants | | | |
| Process Description | | PM | PM10 | PM2.5 | SO ₂ | NO _x | VOC | CO | Lead | Beryllium (Be) | Organic HAPs | Metallic HAPs |
| Scrap and Charge Handling | Scrap and charge handling | 78.84 | 78.84 | 78.84 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Sand Handling | EU-5bc Return Sand System | | | | | | | | | | | |
| | EU-1 Sand System & Mullers for Lines 1 & 2 | 3,784.32 | 835.70 | 835.70 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | EU-1 Sand System & Mullers for Lines 3 & 4 | | | | | | | | | | | |
| Thermal Chip Dryer and Natural Gas Combustion | EU-32 | 6.56 | 5.88 | 3.65 | 11.40 | 4.85 | 525.98 | 6.56 | 0.34 | 0.00 | 0.13 | 0.36 |
| Chip Screening Process | EU-32A | 65.70 | 65.70 | 65.70 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Magnesium Treatment | EU-20 (Ductile Iron Conversion Process) | 236.52 | 236.52 | 236.52 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Electric Induction Furnaces | EU-2 (3 EF furnaces total) | 118.26 | 113.00 | 113.00 | 0.00 | 0.00 | 0.00 | 0.00 | 5.58 | 1.18E-04 | 0.00 | 9.46 |
| Pouring/Casting | EU-3a1 Pouring & Casting Line 1 | | | | | | | | | | | |
| | EU-3a2 Pouring & Casting Line 2 | 772.63 | 378.96 | 378.96 | 3.68 | 1.84 | | | | | | |
| | EU-3a3 Pouring & Casting Line 3 | | | | | | | | | | | |
| | EU-3a4 Pouring & Casting Line 4 | | | | | | | | | | | |
| Casting/Mold Cooling | EU-3b1 Casting/Mold Cooling Line 1 | | | | | | | | | | | |
| | EU-3b2 Casting/Mold Cooling Line 2 | 257.54 | 257.54 | 257.54 | 0.00 | 0.00 | 312.73 | 1,103.76 | 1.16 | 0.00 | 51.51 | 61.81 |
| | EU-3b3 Casting/Mold Cooling Line 3 | | | | | | | | | | | |
| | EU-3b4 Casting/Mold Cooling Line 4 | | | | | | | | | | | |
| Casting Shakeout | EU-4a Casting Shakeout Line 3 | | | | | | | | | | | |
| | EU-4b Casting Shakeout Line 4 | 588.67 | 412.07 | 412.07 | 0.00 | 0.00 | | | | | | |
| | EU-5a Casting shakeout Line 1 and 2 | | | | | | | | | | | |
| Grinding/Cleaning | EU-7 Grinding | 1,340.28 | 134.03 | 134.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | EU-16 Shot Blast | | | | | | | | | | | |
| | EU-17 Shot Blast | | | | | | | | | | | |
| | EU-18 Shot Blast | 1,340.28 | 134.03 | 134.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | EU-19 Shot Blast | | | | | | | | | | | |
| Core Making | EU-6 Re-blast | | | | | | | | | | | |
| | EU-30a PUCB Sand Silo | 45.73 | 6.86 | 6.86 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | EU-30 PUCB core mixing | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 15.62 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | EU-30 PUCB core making (DMIPA) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.94E-03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | EU-31 Warm Box Core production | 13.97 | 13.97 | 13.97 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| EU-31a Warm Box Sand Silo | 45.73 | 6.86 | 6.86 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Natural Gas Combustion | | 0.02 | 0.07 | 0.07 | 0.01 | 0.90 | 0.05 | 0.76 | 0.00 | 0.00 | 0.02 | 4.84E-05 |
| Emergency Generator | | 0.20 | 0.11 | 0.11 | 1.15 | 6.81 | 0.50 | 1.56 | 0.00 | 0.00 | 3.13E-03 | 0.00 |
| Fugitive Emissions | | 1.46 | 0.28 | 0.28 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total Unlimited/ Uncontrolled PTE | | 8,696.71 | 2,680.43 | 2,678.20 | 16.24 | 14.40 | 854.59 | 1,112.64 | 7.08 | 1.18E-04 | 51.66 | 71.64 |

Notes

PM10 emissions are surrogate for PM2.5 emissions.

Methodology

Except where noted in the following pages, uncontrolled/unlimited emission factors are based on AP-42 Chapter 12.10 Gray Iron Foundries and US EPA Fire Version 6.25. Where emission factors are not available for PM2.5, it is assumed that PM2.5 = PM10.

See following pages for detailed emissions calculations, methodology and emission factors.

123.29 Total HAPs

Appendix A: Emissions Calculations
 Gray Iron Foundries
 Emissions Summary
 Company Name: Metal Technologies Auburn, LLC
 Source Address: 1537 West Auburn Drive, Auburn, IN 46706
 Significant Source Modification No: 033-37263-00042
 Significant Permit Modification No: 033-37273-00042
 Reviewer: Brian Williams

Summary of Limited PTE

| Emission Unit | Control / Stack ID | Type of Foundry Process | Limited Potential to Emit (tons/year)* | | | | | | | | | | | |
|---|--|--|--|---------------|---------------|-----------------|-----------------|---------------|---------------|--------------------------|-----------------|--------------|---------------|---|
| | | | Criteria Pollutants | | | | | | | Hazardous Air Pollutants | | | | |
| | | | PM | PM10 | PM2.5 | SO ₂ | NO _x | VOC | CO | Lead | Beryllium (Bt) | Organic HAPs | Metallic HAPs | |
| Scrap and charge handling | No control, indoors | Scrap and Charge Handling | 66.00 | 66.00 | 66.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Thermal Chip Dryer | Cyclone D-32a, Thermal Oxidizer D-32b, and Baghouse D-32c (Stack S-32b) | Wet Metal Machining Chip Drying | 9.47 | 9.47 | 9.47 | 11.36 | 0 | 39.58 | 0.77 | 0.34 | 0 | 0 | 0.36 | |
| Chip Screening Process | Baghouse D-32c (Stack S-32b) | Screening metal chips | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Thermal Chip Dryer Natural Gas Burners, Smoke Hood, and Thermal Oxidizer | Burners - no control (Stack S-32a) Smoke Hood and Oxidizer (Stack S-32b) | Natural Gas Combustion | 0.13 | 0.52 | 0.52 | 0.04 | 4.85 | 0.38 | 5.79 | 0 | 0 | 0.13 | 3.61E-04 | |
| EU-2 (3 EIF furnaces total) | DC-2 (Stack S-2) | Metal Melting: Electric Induction Furnaces | | | | 0 | 0 | 0 | 0 | | 1.18E-04 | 0 | 9.46 | |
| EU-3a1 Pouring & Casting Line 1 | DC-8 (Stack S-8) | Casting and Finishing: Pouring/Casting | 15.77 | 6.60 | 6.60 | 2.20 | 1.10 | | | 0.33 | | | | |
| EU-3a2 Pouring & Casting Line 2 | | | | | | | | | | | | | | |
| EU-3a3 Pouring & Casting Line 3 | | | | | | | | | | | | | | |
| EU-3a4 Pouring & Casting Line 4 | | | | | | | | | | | | | | |
| EU-3b1 Casting/Mold Cooling Line 1 | Uncontrolled, Stack S-3b | Castings and Finishing: Casting/Mold Cooling | 9.37 | 4.95 | 4.95 | 0 | 0 | 187.00 | 660.00 | 0.07 | 0 | 51.51 | 61.81 | |
| EU-3b2 Casting/Mold Cooling Line 2 | | | | | | | | | | | | | | |
| EU-3b3 Casting/Mold Cooling Line 3 | | | | | | | | | | | | | | |
| EU-3b4 Casting/Mold Cooling Line 4 | Uncontrolled, Stack S-3d | | 9.37 | 4.95 | 4.95 | | | | | 0.07 | | | | |
| EU-4a Casting Shakeout Line 3 | | | | | | | | | | | | | | |
| EU-4b Casting Shakeout Line 4 | DC-3 (Stack S-15) | Casting and Finishing: Casting Shakeout | 9.02 | 5.50 | 5.50 | 0 | 0 | | | 0.07 | | | | |
| EU-5a Casting Shakeout Line 1 and 2 | DC-4 (Stack S-4) | | | | | | | | | | | | | |
| EU-5b Casting Shakeout Line 1 and 2 | DC-5 (Stack S-5) | | | | | | | | | | | | | |
| EU-5bc Return Sand System | DC-5 (Stack S-5) and DC-8 (Stack S-8) | Raw Material Handling and Preparation: Sand Handling | 14.63 | 6.60 | 6.60 | 0 | 0 | 0 | 0 | 0.07 | 0 | 0 | 0 | |
| EU-1 Sand System & Mullers for Lines 1 & 2 | DC-1 (Stack S-1) | | | | | | | | | | | | | |
| EU-1 Sand System & Mullers for Lines 3 & 4 | DC-10 (Stack S-10) | Casting and Finishing: Blasting | 2.80 | 2.80 | 2.80 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| EU-16 Shot Blast | | | | | | | | | | | | | | |
| EU-17 Shot Blast | | | | | | | | | | | | | | |
| EU-18 Shot Blast | | | | | | | | | | | | | | |
| EU-19 Shot Blast | DC-7 (Stack S-8) | | 4.16 | 4.16 | 4.16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| EU-1b Sample Blast | | | | | | | | | | | | | | |
| EU-6 Re-blast | DC-8 (Stack S-8) | Casting and Finishing: Grinding | 0.66 | 0.66 | 0.66 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| EU-7 Grinding | vented internally | | | | | | | | | | | | | |
| EU-20 DIC Station | DC-20 (Stack S-20) | Magnesium Treatment | 24.90 | 14.90 | 14.90 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| EU-30a PUCB Sand Silo | bin vent filter | Mold & Core Production | 11.75 | 6.61 | 4.06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| EU-30 PUCB core mixing | no control | | | | | | | | | | | | | |
| EU-30 PUCB core making (DMPA) | Acid Scrubber SC-1 (Stack SC-1) | | | | | | | | | | | | | |
| EU-31 Warm Box Core production | no control | | | | | | | | | | | | | |
| EU-31a Warm Box Sand Silo | bin vent filter | | | | | | | | | | | | | |
| Natural Gas Combustion | | | 0.02 | 0.07 | 0.07 | 0.01 | 0.90 | 0.05 | 0.76 | 4.51E-06 | 0 | 1.70E-02 | 4.94E-05 | |
| Emergency Generator | | | 0.20 | 0.11 | 0.11 | 1.15 | 6.81 | 0.20 | 1.56 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Fugitive Emissions | | | 1.46 | 0.28 | 0.28 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Total Limited PTE | | | 195.21 | 144.55 | 139.47 | 14.76 | 13.66 | 242.84 | 668.88 | 0.93 | 1.18E-04 | 51.66 | 71.64 | |

Methodology

*Limited Production Capacity for all melt = 750 tons/day or 220,000 tons/year
 This production limit is the total for all EIF melting furnaces. Therefore, each Line (1 through 4) will have a production limit of 1/4 of the total melt production, or 55,000 tons/yr. Any limits combining two (2) lines out of the total four (4) lines will then divide the production capacity by half.
 Limited PM and PM10 (tons/yr) = Limited PM and PM10 (lb/hr) * Limited Production Capacity (ton/yr) * 1 ton/2,000 lb
 Limited PM (tons/yr) = [PM Limit (Filterable) (lb/hr) * 8,760 hr/yr / Limited Production Capacity (ton/yr)] * Limited Production Capacity (ton/yr) * 1 ton/2,000 lb
 PM is filterable PM only.
 PM10 is filterable and condensable PM10 combined.
 PM10 emissions are surrogate for PM2.5 emissions.
 PM2.5 is filterable and condensable PM2.5 combined.
 For EU-16 through EU-19 shot blast and EU-1b Sample Blast and EU-6 Re-blast, PM limits are in lb/hr, hrs/yr * 1 ton/2,000 lbs
 Methodology: Limited PM/PM10/PM2.5 (tons/yr) = Limited PM/PM10/PM2.5 (lb/hr) * 8,760 hrs/yr
 EU-20 DIC Station Limited PTE based on controlled blower limits for PM and PM10 and melt rate for ductile iron limitation.
 EU-7 Grinding Limited PTE based on grain loading limit and air flow rate of control device.
 For Emission Units without specific pollutant limits listed on the following page, the methodology is the same as Unlimited PTE.

123.29 Total HAPs

Appendix A: Emissions Calculations
Gray Iron Foundries
Emissions Summary
Company Name: Metal Technologies Auburn, LLC
Source Address: 1537 West Auburn Drive, Auburn, IN 46706
Significant Source Modification No: 033-37263-00042
Significant Permit Modification No: 033-37273-00042
Reviewer: Brian Williams

Detailed Permit Limits

| Total Iron Production Limit | |
|-----------------------------|---------|
| ton/day | ton/yr |
| 750 | 220,000 |

This production limit is the total for all EIF melting furnaces. Therefore, each Line (1 through 4) will have a production limit of 1/4 of the total melt production, or 55,000 tons/yr in determining potential to emit after limitations.

| Limit | Type of Foundry Process | Emission Unit(s) | Control / Stack ID | Permit Limits | | |
|--|--|--|---|------------------------------------|----------------------------------|--|
| | | | | PM and PM10 (Filterable) (gr/dscf) | PM and PM10 (Filterable) (lb/hr) | PM10 (Filterable and Condensable) (lb/ton) |
| PSD - BACT for PM, PM10 (T033-21760-00042) | Metal Melting: Electric Induction Furnaces | EU-2 (3 EIF furnaces total) | Baghouses DC-2 and DC-8 (Stacks S-2 and S-8) | | | |
| | Casting and Finishing: Pouring/Casting | EU-3a1 Pouring & Casting Line 1 | Baghouse DC-8 (Stack S-8) | 0.003 | 3.6 | 0.06 |
| | | EU-3a2 Pouring & Casting Line 2 | | | | |
| | | EU-3a3 Pouring & Casting Line 3 | | | | |
| | | EU-3a4 Pouring & Casting Line 4 | | | | |
| | Casting and Finishing: Blasting | EU-6 Re-blast | Baghouse DC-8 (Stack S-8) | 0.003 | 0.15 | - |
| | Raw Material Handling and Preparation: Sand Handling | EU-5bc Return Sand System | Baghouse DC-5 (Stack S-5) and Baghouse DC-8 (Stack S-8) | 0.003 | 3.34 | 0.12 |
| | | EU-5a Casting Shakeout Line 1 and 2 | Baghouse DC-5 (Stack S-5) | | | |
| | Casting and Finishing: Casting Shakeout | EU-4 Casting Shakeout Line 4 | Baghouse DC-4 (Stack S-4) | 0.003 | 2.06 | 0.10 |
| | | EU-4 Casting Shakeout Line 3 | Baghouse DC-3 (Stack S-15) | | | |
| | Casting and Finishing: Blasting | EU-16 Shot Blast *** | Baghouse DC-7 (Stack S-8) | 0.003 | 0.95 | - |
| | | EU-17 Shot Blast *** | | | | |
| | | EU-18 Shot Blast *** | | | | |
| | Raw Material Handling and Preparation: Sand Handling | EU-1 Sand System & Mullers for Lines 1 & 2 *** | Baghouse DC-1 (Stack S-1) | 0.003 | 0.64 | - |
| | | EU-1 Sand System & Mullers for Lines 3 & 4 *** | Baghouse DC-10 (Stack S-10) | | | |
| Casting and Finishing: Grinding | EU-7 Grinding *** | Internally vented dust collectors | 0.003 | - | - | |
| Casting and Finishing: Casting Cooling | EU-3b1 Casting/Mold Cooling Line 1 | No control (Stack S-3b) | 0.01 | 2.14 | 0.09 | |
| | EU-3b2 Casting/Mold Cooling Line 2 | | | | | |
| | EU-3b3 Casting/Mold Cooling Line 3 | | | | | |
| | EU-3b4 Casting/Mold Cooling Line 4 | No control (Stack S-3d) | 0.01 | 2.14 | 0.09 | |

*** Limited emissions (lb/hr) are filterable and condensable PM10

| 326 IAC 6-3-2 | Casting and Finishing --- Blasting | EU16 Sample Blast | Internally vented dust collector | lb/hr limit: | Process Weight Rate = 0.08 tons/hr |
|---------------|------------------------------------|-------------------|----------------------------------|--------------|------------------------------------|
| | | | | 0.75 | |

| Limited & Controlled PTE | | | | | | |
|---------------------------------|-------------------|-------|--------------------------------------|-------|---------|-----------|
| Casting and Finishing: Grinding | EU-7 Grinding *** | 4,000 | Limit, Filterable PMP/PM10 (gr/dscf) | 0.003 | (lb/hr) | (tons/yr) |
| | | | | | | |
| | | | | | 0.10 | 0.45 |

Methodology
 PTE of PM (lb/hr) = Air Flow Rate (acfm) * Outlet Grain Loading (gr/dscf) * 60 min/hr * 1 lb/7,000 gr
 PTE of PM (tons/yr) = Air Flow Rate (acfm) * Outlet Grain Loading (gr/dscf) * 60 min/hr * 1 lb/7,000 gr * 8,760 hrs/yr * 1 ton/2,000 lbs

| | VOC BACT Limits | ib/ton greensand molds w/out cores | | CO BACT Limits | | Lead PSD Minor Limits | |
|-------------------------------------|------------------------------------|------------------------------------|-----------------------------------|-----------------|-------------------------|-----------------------|--------|
| | | ib/ton greensand molds w/out cores | ib/ton greensand molds with cores | ib/ton of metal | ib/ton of iron produced | | |
| EU-2 (3 EIF furnaces total) | - | - | - | - | - | - | - |
| Pouring, Cooling, and Shakeout | EU-3a1 Pouring & Casting Line 1 | 0.8 | 1.7 | 6.0 | 0.003 | 0.0012 | 0.0012 |
| | EU-3a2 Pouring & Casting Line 2 | | | | | | |
| | EU-3a3 Pouring & Casting Line 3 | | | | | | |
| | EU-3a4 Pouring & Casting Line 4 | | | | | | |
| | EU-3b1 Casting/Mold Cooling Line 1 | | | | | | |
| | EU-3b2 Casting/Mold Cooling Line 2 | | | | | | |
| | EU-3b3 Casting/Mold Cooling Line 3 | | | | | | |
| | EU-3b4 Casting/Mold Cooling Line 4 | | | | | | |
| | EU-4 Casting Shakeout Line 4 | | | | | | |
| | EU-4 Casting Shakeout Line 3 | | | | | | |
| EU-5a Casting Shakeout Line 1 and 2 | - | - | - | - | - | - | |
| EU-5bc Return Sand System | - | - | - | - | - | - | |

| PSD Minor Limit for EU-20 | | Limited (ton/yr) | | Uncontrolled (lb/ton) | | Controlled (lb/ton) | | 326 IAC 6-3-2 Limit (lb/hour) | |
|---------------------------|--------------------|------------------|-------|------------------------|------|---------------------|--------|-------------------------------|-------|
| Emission Unit | Control | PM | PM10 | Capture Efficiency (%) | PM | PM10 | PM | PM10 | |
| EU-20 DIC Station | DC-20 (Stack S-20) | 24.90 | 14.90 | 70.00% | 0.32 | 0.29 | 0.0023 | 0.0023 | 39.96 |

| PSD Minor Limit for Mold & Core Production | | lb/ton of core throughput limit | | |
|--|---------------------------|---------------------------------|------|-------|
| Emission Unit | Sand throughput (tons/yr) | PM | PM10 | PM2.5 |
| EU-30a PUCB Sand Silo EU-31a Warm Box Sand Silo | 25,404 | 0.925 | 0.52 | 0.32 |

| PSD Minor Limit for Thermal Chip Dryer | | Limited VOC Emissions (ton/yr) |
|--|--------------------------------|--------------------------------|
| Emission Unit | Limited VOC Emissions (ton/yr) | |
| EU-32 Thermal Chip Dryer | 39.58 | |

| 326 IAC 8-1-6 Limit for Thermal Chip Dryer | | lb/ton of metal chips and oil throughput limit |
|--|---|--|
| Emission Unit | Maximum Metal Chip Throughput (tons/yr) | VOC |
| EU-32 Thermal Chip Dryer | 131,400 | 0.16 |

| PSD Minor Limit for Thermal Chip Dryer and Chip Screening Process | | | |
|---|------------------|------|-------|
| Emission Unit | Limited (ton/yr) | | |
| | PM | PM10 | PM2.5 |
| EU-32 Thermal Chip Dryer and EU-32A Chip Screening Process | 9.47 | 9.47 | 9.47 |

**Appendix A: Emissions Calculations
Gray Iron Foundries**

Raw Material Handling and Preparation

Company Name: Metal Technologies Auburn, LLC

Source Address: 1537 West Auburn Drive, Auburn, IN 46706

Significant Source Modification No: 033-37263-00042

Significant Permit Modification No: 033-37273-00042

Reviewer: Brian Williams

Emission Factors

| Raw Material Handling and Preparation | | Emission Unit ID(s) | Nominal Throughput (tons/yr) | Uncontrolled Emission Factors (lb/ton) | | | | | | | | | | | |
|---------------------------------------|-------------------|--|------------------------------|--|------|-------|-----------------|-----------------|-----|----|---------------------------|------|----------------|--------------|---------------|
| | | | | PM | PM10 | PM2.5 | SO ₂ | NO _x | VOC | CO | GHGs as CO ₂ e | Lead | Beryllium (Be) | Organic HAPs | Metallic HAPs |
| Scrap and Charge Handling | (SCC 3-04-003-15) | Scrap and charge handling | 262,800 | 0.6 | 0.6 | 0.6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sand Handling | (SCC 3-04-003-50) | EU-5bc Return Sand System | 1,927,200 | 3.60 | 0.54 | 0.54 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | EU-1 Sand System & Mullers for Lines 1 & 2 | | | | | | | | | | | | | |
| | | EU-1 Sand System & Mullers for Lines 3 & 4 | | | | | | | | | | | | | |
| Magnesium Treatment | (SCC 3-04-003-21) | EU-20 (Ductile Iron Conversion Process) | 262,800 | 1.80 | 1.80 | 1.80 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Notes

Emission factors from AP-42 Chapter 12.10 Gray Iron Foundries and US EPA Fire Version 6.25, except as otherwise noted

Summary of Emissions (Uncontrolled)

| Raw Material Handling and Preparation | | Uncontrolled Potential to Emit (tons/yr) | | | | | | | | | | | |
|---------------------------------------|--|--|--------|--------|-----------------|-----------------|------|------|---------------------------|------|----------------|--------------|---------------|
| | | PM | PM10 | PM2.5 | SO ₂ | NO _x | VOC | CO | GHGs as CO ₂ e | Lead | Beryllium (Be) | Organic HAPs | Metallic HAPs |
| Scrap and Charge Handling | Scrap and charge handling | 78.84 | 78.84 | 78.84 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Sand Handling | EU-5bc Return Sand System | 3,468.96 | 520.34 | 520.34 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | EU-1 Sand System & Mullers for Lines 1 & 2 | | | | | | | | | | | | |
| | EU-1 Sand System & Mullers for Lines 3 & 4 | | | | | | | | | | | | |
| Magnesium Treatment | EU-20 (Ductile Iron Conversion Process) | 236.52 | 236.52 | 236.52 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Totals | | 3,784.32 | 835.70 | 835.70 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Methodology

Uncontrolled PTE (tons/yr) = Maximum Throughput (tons/yr) * Emission Factor (lb/ton) * 1 ton/2,000 lbs

**Appendix A: Emissions Calculations
Process Emissions - Thermal Chip Dryer**

Company Name: Metal Technologies Auburn, LLC
Source Address: 1537 West Auburn Drive, Auburn, IN 46706
Significant Source Modification No: 033-37263-00042
Significant Permit Modification No: 033-37273-00042
Reviewer: Brian Williams

| Process | Emission Unit ID | Maximum Chip and Oil Throughput (tons/hr) | Combustible Organic Content (Oil) On Chips (By Weight) ¹ (%) | Percent VOC of Oil ² (%) | Maximum Oil Throughput (kgal/hr) | Particulate Control Efficiency (%) | VOC Destruction Efficiency (%) | CO Destruction Efficiency (%) |
|--------------------|------------------|---|---|-------------------------------------|----------------------------------|------------------------------------|--------------------------------|-------------------------------|
| Thermal Chip Dryer | EU-32 | 15.00 | 1.00% | 40.00% | 0.04 | 99.00% | 98.00% | 95.00% |

| | |
|-----------------------|------|
| A = Weight % Ash = | 0.65 |
| L = Weight % Lead = | 0.04 |
| S = Weight % Sulfur = | 0.5 |

| | PM ⁴ | PM10 ⁴ | PM2.5 ⁵ | Condensable PM ⁶ | SO ₂ | VOC | CO | Lead | Arsenic | Cadmium | Chromium | Cobalt | Nickel | Combined HAPs |
|--|-----------------|-------------------|--------------------|-----------------------------|-----------------|------|-------|-----------------|----------|----------|----------|----------|----------|---------------|
| Uncontrolled Emission Factors (lb/kgal) ³ | 41.6 (64A) | 33.15 (51A) | 18.72 (28.8A) | 1.50 | 73.5 (147S) | NA | 5.0 | 2.2000 (55L) | 1.1E-01 | 9.3E-03 | 2.0E-02 | 2.1E-04 | 1.1E-02 | 2.3505 |
| Uncontrolled Emission Factors (lb/ton) | 0.10 | 0.08 | 0.04 | 0.004 | 0.17 | 8.00 | 0.012 | 5.18E-03 | 2.59E-04 | 2.19E-05 | 4.71E-05 | 4.94E-07 | 2.59E-05 | 5.53E-03 |

Summary of Emissions (Uncontrolled)

| Process | Uncontrolled Potential to Emit (tons/yr) ⁷ | | | | | | | | | | | | |
|--------------------|---|-------------|-------------|-----------------|---------------|-------------|-------------|-------------|-----------------|-----------------|-----------------|-----------------|---------------|
| | PM | PM10 | PM2.5 | SO ₂ | VOC | CO | Lead | Arsenic | Cadmium | Chromium | Cobalt | Nickel | Combined HAPs |
| Thermal Chip Dryer | 6.43 | 5.36 | 3.13 | 11.36 | 525.60 | 0.77 | 0.34 | 0.02 | 1.44E-03 | 3.09E-03 | 3.25E-05 | 1.70E-03 | 0.36 |
| Totals | 6.43 | 5.36 | 3.13 | 11.36 | 525.60 | 0.77 | 0.34 | 0.02 | 1.44E-03 | 3.09E-03 | 3.25E-05 | 1.70E-03 | 0.36 |

| Process | Controlled Potential to Emit (tons/yr) ⁷ | | | | | | | | | | | | |
|--------------------|---|-------------|-------------|-----------------|--------------|-------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | PM | PM10 | PM2.5 | SO ₂ | VOC | CO | Lead | Arsenic | Cadmium | Chromium | Cobalt | Nickel | Combined HAPs |
| Thermal Chip Dryer | 0.06 | 0.05 | 0.03 | 11.36 | 10.51 | 0.04 | 3.40E-03 | 1.70E-04 | 1.44E-05 | 3.09E-05 | 3.25E-07 | 1.70E-05 | 3.63E-03 |
| Totals | 0.06 | 0.05 | 0.03 | 11.36 | 10.51 | 0.04 | 3.40E-03 | 1.70E-04 | 1.44E-05 | 3.09E-05 | 3.25E-07 | 1.70E-05 | 3.63E-03 |

Notes

- (1) 1% is max operating design of dryer
- (2) Based on OmniSource Ft. Wayne permit 29387. Actual expected 15%-30%, using 40% to be conservative
- (3) No emission factors exist for thermal chip drying. Therefore, source has used the emission factors for waste oil combustion found in AP-42, Chapter 1.11, SCC 1-03-013-02 (Supplement B 10/96). Source is assuming emissions generated by the dryer are a function of the amount of oil on the chips.
- (4) No information was given in AP-42 regarding whether the PM/PM10 emission factors included filterable and condensable PM.
- (5) No direct PM2.5 emission factor was given. Direct PM2.5 is a subset of PM10. If one assumes all PM10 to be all direct PM2.5, then a worst case assumption of direct PM2.5 can be made, notwithstanding the filterable and condensable issue forementioned.
- (6) AP-42 1.3 "Fuel Oil Combustion" used for condensables due to lack of "Waste Oil Combustion" CPM EF
- (7) Source will perform controlled testing to demonstrate compliance with VOC emission limit to render 326 IAC 2-2 (PSD) not applicable

Methodology

Maximum Oil Throughput (kgal/hr) = Max. Chip & Oil Throughput (tons/hr) * Combustible Organic Content (Oil) On Chips (% By Weight) * 2,000 (lb/tons) / 8.5 (lbs/gal of oil) / 1,000 (kgal/gal)
 Uncontrolled Emission Factors (lb/ton) = Max. Chip & Oil Throughput (tons/hr) * Maximum Oil Throughput (kgal/hr) / Uncontrolled Emission Factors (lb/kgal)
 Uncontrolled PTE (tons/yr) = Max. Chip & Oil Throughput (tons/hr) * Emission Factor (lb/ton) * 8,760 (hrs/yr) * 1 ton/2,000 lbs

**Appendix A: Emissions Calculations
Thermal Chip Dryer Screening Process**

Company Name: Metal Technologies Auburn, LLC
Source Address: 1537 West Auburn Drive, Auburn, IN 46706
Significant Source Modification No: 033-37263-00042
Significant Permit Modification No: 033-37273-00042
Reviewer: Brian Williams

| Process | Emission Unit ID | Maximum Chip Throughput (tons/hr) | PM/PM10/PM2.5 Emission Factor (lb/ton metal)* | Uncontrolled PM/PM10/PM2.5 (lb/hr) | Uncontrolled PM/PM10/PM2.5 (tons/year) | Particulate Control Efficiency (%) | Controlled PM/PM10/PM2.5 (lb/hr) | Controlled PM/PM10/PM2.5 (tons/year) |
|------------------------|------------------|-----------------------------------|---|------------------------------------|--|------------------------------------|----------------------------------|--------------------------------------|
| Chip Screening Process | EU-32A | 15.00 | 1.00 | 15.00 | 65.70 | 99.00% | 0.15 | 0.66 |

Notes

*Emissions estimated based on data provided by screen manufacturer.

Methodology

Uncontrolled PTE (lb/hr) = Max. Chip Throughput (tons/hr) * Emission Factor (lb/ton)

Uncontrolled PTE (tons/yr) = Max. Chip Throughput (tons/hr) * Emission Factor (lb/ton) * 8,760 (hrs/yr) * 1 ton/2,000 lbs

Controlled PTE (lb/hr) = Uncontrolled PTE (lb/hr) * (1-CE%)

Controlled PTE (ton/yr) = Uncontrolled PTE (ton/yr) * (1-CE%)

Appendix A: Emissions Calculations
Gray Iron Foundries
Metal Melting
Company Name: Metal Technologies Auburn, LLC
Source Address: 1537 West Auburn Drive, Auburn, IN 46706
Significant Source Modification No: 033-37263-00042
Significant Permit Modification No: 033-37273-00042
Reviewer: Brian Williams

Emission Factors

| Metal Melting | | Emission Unit ID(s) | Nominal Throughput (tons/yr) | Uncontrolled Emission Factors (lb/ton) | | | | | | | | | | | |
|-----------------------------|-------------------|-----------------------------|------------------------------|--|------|-------|-----------------|-----------------|-----|----|---------------------------|----------|-------------------------------|--------------|------------------------------|
| | | | | PM | PM10 | PM2.5 | SO ₂ | NO _x | VOC | CO | GHGs as CO ₂ e | Lead | Beryllium (Be) ⁽¹⁾ | Organic HAPs | Metallic HAPs ⁽²⁾ |
| Electric Induction Furnaces | (SCC-3-04-003-03) | EU-2 (3 EIF furnaces total) | 262,800.00 | 0.90 | 0.86 | 0.86 | 0 | 0 | 0 | 0 | 0 | 4.25E-02 | 9.00E-07 | 0 | 7.20E-02 |

Notes

Emission factors from AP-42 Chapter 12.10 Gray Iron Foundries and US EPA Fire Version 6.25, except as otherwise noted

(1) Uncontrolled Beryllium emissions are based on 0.0001% of the uncontrolled PM emission factor per data from the 1998 foundry ICR.

(2) Metallic HAPs based on assumption that 8% of PM emissions are metallic HAPs, consistent with the ratio of emissions from the Iron and Steel Foundry MACT Standard (40 CFR 63, Subpart EEEEE)

Summary of Emissions (Uncontrolled)

| Metal Melting | | Uncontrolled Potential to Emit (tons/yr) | | | | | | | | | | | |
|-----------------------------|-------------------|--|--------|--------|-----------------|-----------------|------|------|---------------------------|------|----------------|--------------|---------------|
| | | PM | PM10 | PM2.5 | SO ₂ | NO _x | VOC | CO | GHGs as CO ₂ e | Lead | Beryllium (Be) | Organic HAPs | Metallic HAPs |
| Electric Induction Furnaces | (SCC-3-04-003-03) | 118.26 | 113.00 | 113.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 5.58 | 1.18E-04 | 0.00 | 9.46 |
| Totals | | 118.26 | 113.00 | 113.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 5.58 | 1.18E-04 | 0.00 | 9.46 |

Methodology

Uncontrolled PTE (tons/yr) = Maximum Throughput (tons/yr) * Emission Factor (lb/ton) * 1 ton/2,000 lbs

Appendix A: Emissions Calculations
Gray Iron Foundries
Mold and Core Production
Company Name: Metal Technologies Auburn, LLC
Source Address: 1537 West Auburn Drive, Auburn, IN 46706
Significant Source Modification No: 033-37263-00042
Significant Permit Modification No: 033-37273-00042
Reviewer: Brian Williams

| Mold and Core Production | | Emission Unit ID(s) | Nominal Throughput (tons/yr) | Uncontrolled Emission Factors (lb/ton) | | | | | | | | | | | | |
|--------------------------|---------------------------------|--|------------------------------|--|------|-------|-----------------|-----------------|--------------------|----|--------------------------|------|----------------|--------------|---------------|---|
| | | | | PM | PM10 | PM2.5 | SO ₂ | NO _x | VOC ⁽¹⁾ | CO | GHGs as CO _{2e} | Lead | Beryllium (Be) | Organic HAPs | Metallic HAPs | |
| PUCB Core Production | Sand Handling (SCC 3-04-003-50) | EU-30a PUCB Sand Silo | 25,404.00 | 3.6 | 0.54 | 0.54 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Core Making (SCC 3-04-003-19) | EU-30 PUCB core mixing EU-30 PUCB core making (DMIPA) | | 0 | 0 | 0 | 0 | 0.0 | 1.23 0.00031 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Warm Box Core Production | Sand Handling (SCC 3-04-003-50) | EU-31 Warm Box Core production | 25,404.00 | 1.1 | 1.1 | 1.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Core Making (SCC 3-04-003-19) | EU-31a Warm Box Sand Silo | | 3.6 | 0.54 | 0.54 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | lbs/hr | lbs/yr | tons/year | |
|-------------------------------|--------|------------|-----------|---|
| Part 1 and Part 2 PUCB Resins | 71.340 | 624,938.40 | 312 | based on resin at 1.23% of core weight |
| DMIPA Catalyst Gas | 1.798 | 15,750.48 | 7.88 | based on DMIPA at 0.031% of core weight |

Notes
 Emission factors from AP-42 Chapter 12.10 Gray Iron Foundries and US EPA Fire Version 6.25, except as otherwise noted
 (1) Site-specific emission factors for VOC. Uncontrolled VOC emissions from the core resins and catalyst gas are based on a mass balance assuming 5% VOC loss from the core resins, 100% of the loss of DMIPA catalyst gas, and the specific ratios of resins and catalyst gas that will be used for the PUCB cores.

Methodology
 Core Resin Usage (lb/hr) = 1.23% * Nominal Throughput of Core Making (ton/hr) * 2,000 lb/ton
 Core Resin Usage (lb/yr) = Core Resin Usage (lb/hr) * 8,760 hr/yr
 Core Resin Usage (ton/yr) = Core Resin Usage (lb/hr) * 8,760 hr/yr * 1 ton/2,000 lb

Summary of Emissions (Uncontrolled)

| Mold and Core Production | | Uncontrolled Potential to Emit (tons/yr) | | | | | | | | | | | |
|--------------------------|--------------------------------|--|--------------|--------------|-----------------|-----------------|--------------|-------------|--------------------------|-------------|----------------|--------------|---------------|
| | | PM | PM10 | PM2.5 | SO ₂ | NO _x | VOC | CO | GHGs as CO _{2e} | Lead | Beryllium (Be) | Organic HAPs | Metallic HAPs |
| PUCB Core Production | EU-30a PUCB Sand Silo | 45.73 | 6.86 | 6.86 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | EU-30 PUCB core mixing | 0 | 0 | 0 | 0 | 0 | 15.62 | 0 | 0 | 0 | 0 | 0 | 0 |
| | EU-30 PUCB core making (DMIPA) | 0 | 0 | 0 | 0 | 0 | 3.94E-03 | 0 | 0 | 0 | 0 | 0 | 0 |
| Warm Box Core Production | EU-31 Warm Box Core production | 13.97 | 13.97 | 13.97 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | EU-31a Warm Box Sand Silo | 45.73 | 6.86 | 6.86 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Totals | | 105.43 | 27.69 | 27.69 | 0.00 | 0.00 | 15.63 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Methodology
 Uncontrolled PTE (tons/yr) = Throughput (tons/yr) * Emission Factor (lb/ton) * 1 ton/2,000 lbs

Controlled VOC Emissions

| | | Throughput (lb/year) | VOC emissions | | Controlled VOC PTE (tons/yr)* |
|----------------------------|--------------------------|----------------------|---------------|-------------|-------------------------------|
| EU-W9 PUCB Core Production | Core Making Resins | 624,938 | 0.05 | lb/lb resin | 15.62 |
| | Core Making Catalyst Gas | 15,750 | 0.01 | lb/lb DMIPA | 7.88E-02 |
| Sum: | | | | | 15.70 |

Notes
 *Control device: SC-1 Acid Scrubber (Stack SC-1), for catalyst gas

Methodology
 Core Resin Usage throughput methodology is the same as above.
 Limited VOC PTE (tons/year) = Throughput (lb/year) * VOC Limit (lb/lb) * 1 ton/2,000 lb

Appendix A: Emissions Calculations
Gray Iron Foundries
Mold and Core Production
Company Name: Metal Technologies Auburn, LLC
Source Address: 1537 West Auburn Drive, Auburn, IN 46706
Significant Source Modification No: 033-37263-00042
Significant Permit Modification No: 033-37273-00042
Reviewer: Brian Williams

| PSD Minor Limit for Mold & Core Production | | lb/ton of core throughput limit | | |
|--|---------------------------|---------------------------------|------|-------|
| Emission Unit | Sand throughput (tons/yr) | PM | PM10 | PM2.5 |
| EU-30a PUCB Sand Silo | 25,404 | 0.925 | 0.52 | 0.32 |
| EU-31a Warm Box Sand Silo | 25,404 | 0.925 | 0.52 | 0.32 |

Summary of Emissions (Limited)

| Mold and Core Production | | Limited Potential to Emit (tons/yr) | | | | | | | | | | | |
|---------------------------------|--------------------------------|-------------------------------------|--------------|-------------|-----------------|-----------------|--------------|-------------|--------------------------|-------------|----------------|--------------|---------------|
| | | PM | PM10 | PM2.5 | SO ₂ | NO _x | VOC | CO | GHGs as CO _{2e} | Lead | Beryllium (Be) | Organic HAPs | Metallic HAPs |
| PUCB Core Production | EU-30a PUCB Sand Silo | 11.75 | 6.61 | 4.06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | EU-30 PUCB core mixing | | | | 0 | 0 | 15.62 | 0 | 0 | 0 | 0 | 0 | 0 |
| | EU-30 PUCB core making (DMIPA) | | | | 0 | 0 | 3.94E-03 | 0 | 0 | 0 | 0 | 0 | 0 |
| Warm Box Core Production | EU-31a Warm Box Sand Silo | 11.75 | 6.61 | 4.06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | EU-31 Warm Box Core production | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Totals | | 23.50 | 13.21 | 8.13 | 0.00 | 0.00 | 15.63 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

2012 Modification: Significant Source Modification No. 033-31731-00042, issued on July 20, 2012 and Significant Permit Modification No. 033-31732-00042, issued on August 7, 2012

| | | | | | | | |
|--|--------------|--------------|-------------|-------------|-------------|--------------|-------------|
| Plantwide ATPA (Projected Actual - Baseline - Could Have Accommodated Emissions) | 1.28 | 1.33 | 1.33 | 0.01 | 0.90 | 15.75 | 0.76 |
| Combustion units | 0.02 | 0.07 | 0.07 | 0.01 | 0.90 | 0.05 | 0.76 |
| Total | 24.80 | 14.61 | 9.53 | 0.02 | 1.80 | 31.43 | 1.52 |
| PSD Significant Threshold | 25 | 15 | 10 | 40 | 40 | 40 | 100 |

See Technical Support document to Significant Permit Modification No. 033-31732-00042 for ATPA analysis for this modification.

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
PUCB Drying Oven and Warm Box Core**

**Company Name: Metal Technologies Auburn, LLC
Source Address: 1537 West Auburn Drive, Auburn, IN 46706
Significant Source Modification No: 033-37263-00042
Significant Permit Modification No: 033-37273-00042
Reviewer: Brian Williams**

| | | |
|---------------------------------|-----------------------|---------------------------------|
| Heat Input Capacity MMBtu/hr | HHV mmBtu mmscf | Potential Throughput MMCF/yr |
| 2.1 | 1020 | 18.0 |

| 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 | 0.02 | 0.07 | 0.07 | 0.01 | 0.90 | 0.05 | 0.76 |

*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

| 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 | 1.894E-05 | 1.082E-05 | 6.763E-04 | 1.623E-02 | 3.066E-05 |

| 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 | 4.509E-06 | 9.919E-06 | 1.262E-05 | 3.427E-06 | 1.894E-05 |

Worst HAP
1.623E-02
(Hexane)

Total HAPs
1.702E-02

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
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 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.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

**Appendix A: Emission Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Thermal Chip Dryer**

**Company Name: Metal Technologies Auburn, LLC
Source Address: 1537 West Auburn Drive, Auburn, IN 46706
Significant Source Modification No: 033-37263-00042
Significant Permit Modification No: 033-37273-00042
Reviewer: Brian Williams**

1. Process Description

| Emission Unit ID | Heat Input Capacity (MMBtu/hr) |
|---|--------------------------------|
| Chip Dryer Retort Burners (Low-NOx) | 9.50 |
| Smoke Hood and Thermal Oxidizer Burners | 6.545 |
| Total | 16.05 |

2. Combustion Emissions - Criteria Pollutants

| NOx Burner Type | Fuel Heat Value (MMBtu/MMCF) | Emission Factor (lbs/MMCF) | | | | | | |
|------------------|------------------------------|----------------------------|-------|--------------|-----------------|-------|-----|------|
| | | PM* | PM10* | direct PM2.5 | SO ₂ | NOx** | VOC | CO |
| Low-NOx Burners | 1,020 | 1.9 | 7.6 | 7.6 | 0.6 | 50 | 5.5 | 84.0 |
| Ordinary Burners | 1,020 | 1.9 | 7.6 | 7.6 | 0.6 | 100 | 5.5 | 84.0 |

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

** Emission factors for NOx: Uncontrolled = 100 lbs/MMCF, Low NOx Burners = 50 lbs/MMCF

Emission factors are from AP 42, Chapter 1.4, Tables 1.4-1, and 1.4-2, SCC 1-01-006-02, 1-02-006-02, 1-03-006-02, 1-03-006-03. (7/98)

| Emission Unit ID | Potential Throughput (MMCF/yr) | Potential To Emit (tons/yr) | | | | | | |
|---|--------------------------------|-----------------------------|-------------|--------------|-----------------|-------------|-------------|-------------|
| | | PM | PM10 | direct PM2.5 | SO ₂ | NOx | VOC | CO |
| Chip Dryer Retort Burners (Low-NOx) | 81.59 | 0.08 | 0.31 | 0.31 | 0.02 | 2.04 | 0.22 | 3.43 |
| Smoke Hood and Thermal Oxidizer Burners | 56.21 | 0.05 | 0.21 | 0.21 | 0.02 | 2.81 | 0.15 | 2.36 |
| Total | 137.80 | 0.13 | 0.52 | 0.52 | 0.04 | 4.85 | 0.38 | 5.79 |

Methodology

Maximum Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 (hrs/yr) x 1 MMCF/1,000 MMBtu

Potential To Emit (tons/year) = Throughput (MMCF/yr) x Emission Factor (lbs/MMCF) x 1 ton/2,000 lb:

3. Combustion Emissions - HAP Pollutants

| Emission Factor (lbs/MMCF) | | | | | | | | | |
|----------------------------|-----------------|--------------|---------|---------|---------|----------|-----------|---------|---------|
| Benzene | Dichlorobenzene | Formaldehyde | Hexane | Toluene | Cadmium | Chromium | Manganese | Mercury | Nickel |
| 2.1E-03 | 1.2E-03 | 7.5E-02 | 1.8E+00 | 3.4E-03 | 1.1E-03 | 1.4E-03 | 3.8E-04 | 2.6E-04 | 2.1E-03 |

| Emission Unit ID | Potential To Emit (tons/yr) | | | | | | | | | |
|---|-----------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | Benzene | Dichlorobenzene | Formaldehyde | Hexane | Toluene | Cadmium | Chromium | Manganese | Mercury | Nickel |
| Chip Dryer Retort Burners (Low-NOx) | 8.57E-05 | 4.90E-05 | 3.06E-03 | 7.34E-02 | 1.39E-04 | 4.49E-05 | 5.71E-05 | 1.55E-05 | 1.06E-05 | 8.57E-05 |
| Smoke Hood and Thermal Oxidizer Burners | 5.90E-05 | 3.37E-05 | 2.11E-03 | 5.06E-02 | 9.56E-05 | 3.09E-05 | 3.93E-05 | 1.07E-05 | 7.31E-06 | 5.90E-05 |
| Total | 1.45E-04 | 8.27E-05 | 5.17E-03 | 1.24E-01 | 2.34E-04 | 7.58E-05 | 9.65E-05 | 2.62E-05 | 1.79E-05 | 1.45E-04 |

HAP emission factors are from AP 42, Chapter 1.4, Tables 1.4-3 and 1.4-4. (7/98)

| | |
|-----------------------------|-----------------|
| Total HAP = | 0.13 |
| Highest Single HAP = | 1.24E-01 |
| | Hexane |

Methodology

Potential To Emit (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lbs/MMCF) x 1 ton/2,000 lb:

**Appendix A: Emission Calculations
Large Reciprocating Internal Combustion Engines - Diesel Fuel
Output Rating (>600 HP)**

**Company Name: Metal Technologies Auburn, LLC
Source Address: 1537 West Auburn Drive, Auburn, IN 46706
Significant Source Modification No: 033-37263-00042
Significant Permit Modification No: 033-37273-00042
Reviewer: Brian Williams**

Emissions calculated based on output rating (hp)

| | |
|--|---------|
| Output Horsepower Rating (hp) | 1135.0 |
| Maximum Hours Operated per Year | 500 |
| Potential Throughput (hp-hr/yr) | 567,500 |
| Sulfur Content (S) of Fuel (% by weight) | 0.500 |

| | Pollutant | | | | | | |
|-------------------------------|-----------|----------|---------------|-----------------------|-------------------------|----------|----------|
| | PM* | PM10* | direct PM2.5* | SO2 | NOx | VOC | CO |
| Emission Factor in lb/hp-hr | 7.00E-04 | 4.01E-04 | 4.01E-04 | 4.05E-03 (.00809S) | 2.40E-02 **see below | 7.05E-04 | 5.50E-03 |
| Potential Emission in tons/yr | 0.20 | 0.11 | 0.11 | 1.15 | 6.81 | 0.20 | 1.56 |

*PM10 emission factor in lb/hp-hr was calculated using the emission factor in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

**NOx emission factor: uncontrolled = 0.024 lb/hp-hr, controlled by ignition timing retard = 0.013 lb/hp-hr

Hazardous Air Pollutants (HAPs)

| | Pollutant | | | | | | |
|---------------------------------|-----------|----------|----------|--------------|--------------|----------|-------------------|
| | Benzene | Toluene | Xylene | Formaldehyde | Acetaldehyde | Acrolein | Total PAH HAPs*** |
| Emission Factor in lb/hp-hr**** | 5.43E-06 | 1.97E-06 | 1.35E-06 | 5.52E-07 | 1.76E-07 | 5.52E-08 | 1.48E-06 |
| Potential Emission in tons/yr | 1.54E-03 | 5.58E-04 | 3.83E-04 | 1.57E-04 | 5.01E-05 | 1.57E-05 | 4.21E-04 |

***PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter

****Emission factors in lb/hp-hr were calculated using emission factors in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

| | |
|---|-----------------|
| Potential Emission of Total HAPs (tons/yr) | 3.13E-03 |
|---|-----------------|

Green House Gas Emissions (GHG)

| | Pollutant | | |
|-------------------------------|-----------|----------|----------|
| | CO2 | CH4 | N2O |
| Emission Factor in lb/hp-hr | 1.16E+00 | 6.35E-05 | 9.30E-06 |
| Potential Emission in tons/yr | 3.29E+02 | 1.80E-02 | 2.64E-03 |

| | |
|--|-----------------|
| Summed Potential Emissions in tons/yr | 3.29E+02 |
| CO2e Total in tons/yr | 3.30E+02 |

Methodology

Emission Factors are from AP 42 (Supplement B 10/96) Tables 3.4-1 , 3.4-2, 3.4-3, and 3.4-4.

CH4 and N2O Emission Factor from 40 CFR 98 Subpart C Table C-2.

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] * [Maximum Hours Operated per Year

Potential Emission (tons/yr) = [Potential Throughput (hp-hr/yr)] * [Emission Factor (lb/hp-hr)] / [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: Fugitive Emissions

Company Name: Metal Technologies Auburn, LLC
Source Address: 1537 West Auburn Drive, Auburn, IN 46706
Significant Source Modification No: 033-37263-00042
Significant Permit Modification No: 033-37273-00042
Reviewer: Brian Williams

| Total Fugitives (ton/yr) | PM | PM10 |
|---------------------------------|-------------|-------------|
| Truck Dumping | 4.12E-04 | 1.95E-04 |
| Paved Roads | 1.45 | 0.28 |
| Storage Piles | 8.65E-04 | 4.09E-04 |
| Storage Pile Handling | 7.02E-07 | 3.32E-07 |
| Total | 1.46 | 0.28 |

Truck Dumping (see AP-42 for more information)

Waste sand is the only material dumped on-site. All other materials are either unloaded indoors or unloaded into a silo.

$E = k(0.0032) * (U/5)^{1.3} / (M/2)^{1.4}$ AP-42 Chapter 13.2.4, Equation 1

- E = Emission Factor (lbs/ton)
- k = 0.35 particle size multiplier for PM-10
0.74 particle size multiplier for PM
- U = 1 mean wind speed (mph)
- M = 7.4 material moisture content (fraction)

PM Emission Factor:

E = 4.6799E-05 lb/ton

PM-10 Emission Factor:

E = (0.35)(0.0032) * (12.7/5)^{1.3} / (10%/2)^{1.4}
 E = 2.2135E-05 lb/ton

Annual potential amount of dry material delivered by truck = 17,600 tpy

Potential PM Emissions (tons/year) = Emission factor (lb/ton) * Gypsum delivered (tpy) / 2000 (lbs/ton)
 Potential PM Emissions (tons/year) = **0.000411833 tpy**

Potential PM-10 Emissions (tons/year) = Emission factor (lb/ton) * Gypsum delivered (tpy) / 2000 (lbs/ton)
 Potential PM-10 Emissions (tons/year) = **0.000194786 tpy**

Appendix A: Fugitive Emissions

Company Name: Metal Technologies Auburn, LLC
Source Address: 1537 West Auburn Drive, Auburn, IN 46706
Significant Source Modification No: 033-37263-00042
Significant Permit Modification No: 033-37273-00042
Reviewer: Brian Williams

Paved Roads (see AP-42 for more information)

Maximum Vehicular Speed: 10 mph
 Average Distance of Haul: 0.25 miles

| Vehicle Type | No. of One Way Trips per Hour | Weight |
|--------------|-------------------------------|--------|
| Dump Truck | 8 | 40 |

total 8
 Weighted Average Gross Weight: 40 tons

Calculations:

$$E = k(sL/2)^{0.65} * (W/3)^{1.5} \quad \text{AP-42 Chapter 13.2.1, Equation 1}$$

$E =$ Emission factor (lbs/vehicle miles traveled(VMT))
 $k =$ 0.016 particle size multiplier for PM-10
 0.082 particle size multiplier for PM
 $sL =$ 0.015 road surface silt content (g/m²)
 $W =$ 40 weighted average vehicle weight (tons) (calculate from table above)

source: AP-42, chapter 13.2.1, p. 13.2.1-6.

VMT= 17520 (miles/yr)

$E = \frac{PM}{VMT} = 0.16596319 \text{ lbs/VMT}$

Potential PM Emissions (ton/yr) = Emission factor (lbs/VMT) * VMT / 2000 (lbs/ton)
 Potential PM Emissions (ton/yr) = **1.45 tpy**

$E = \frac{PM-10}{VMT} = 0.03238306 \text{ lbs/VMT}$

Potential PM-10 Emissions (ton/yr) = Emission factor (lbs/VMT) * VMT / 2000 (lbs/ton)
 Potential PM-10 Emissions (ton/yr) = **0.28 tpy**

Appendix A: Fugitive Emissions

Company Name: Metal Technologies Auburn, LLC
Source Address: 1537 West Auburn Drive, Auburn, IN 46706
Significant Source Modification No: 033-37263-00042
Significant Permit Modification No: 033-37273-00042
Reviewer: Brian Williams

Storage Piles (if applicable) (see AP-42 for more information)

The section that discusses storage piles, AP-42 Section 13.2.4, indicates that the largest contribution to emissions from the storage pile is the loading into the pile. An equation for the storage pile was not available. Therefore, it is assumed that the emissions from the storage pile is equal to the emissions from the truck dumping.

Potential PM Emissions (tons/year) = **0.000864849 tpy**
 Potential PM-10 Emissions (tons/year) = **0.00040905 tpy**

Storage Pile Handling (if applicable) (see AP-42 for more information)

$$EF \text{ (lb/ton)} = k * (0.0032) * (U/5)^{1.3} / (M/2)^{1.4}$$

where:

k value for:

| | |
|------|------|
| PM | PM10 |
| 0.74 | 0.35 |

U value =

| |
|---|
| 1 |
|---|

 mph

M value =

| |
|-----|
| 7.4 |
|-----|

 %

Storage capacity =

| |
|----|
| 60 |
|----|

 tons

PM EF =

| |
|----------|
| 4.68E-05 |
|----------|

 lb/ton

PM10 EF =

| |
|----------|
| 2.21E-05 |
|----------|

 lb/ton

PM Emissions (ton/yr) = EF (lb/ton) * Storage Capacity (tons) * use rate (1/year) * 1/2000 ton/lb
PM Emissions (ton/yr) = 7.02E-07

PM10 Emissions (ton/yr) = EF (lb/ton) * Storage Capacity (tons) * use rate (1/year) * 1/2000 ton/lb
PM10 Emissions (ton/yr) = 3.32E-07



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Michael R. Pence
Governor

Carol S. Comer
Commissioner

Notice of Public Comment

July 11, 2016

Metal Technologies, Auburn, LLC
033-37263-00042 & 033-37273-00042

Dear Concerned Citizen(s):

You have been identified as someone who could potentially be affected by this proposed air permit. The Indiana Department of Environmental Management, in our ongoing efforts to better communicate with concerned citizens, invites your comment on the draft permit.

Enclosed is a Notice of Public Comment, which has been placed in the Legal Advertising section of your local newspaper. The application and supporting documentation for this proposed permit have been placed at the library indicated in the Notice. These documents more fully describe the project, the applicable air pollution control requirements and how the applicant will comply with these requirements.

If you would like to comment on this draft permit, please contact the person named in the enclosed Public Notice. Thank you for your interest in the Indiana's Air Permitting Program.

Please Note: *If you feel you have received this Notice in error, or would like to be removed from the Air Permits mailing list, please contact Patricia Pear with the Air Permits Administration Section at 1-800-451-6027, ext. 3-6875 or via e-mail at PPEAR@IDEM.IN.GOV. If you have recently moved and this Notice has been forwarded to you, please notify us of your new address and if you wish to remain on the mailing list. Mail that is returned to IDEM by the Post Office with a forwarding address in a different county will be removed from our list unless otherwise requested.*

Enclosure
PN AAA Cover.dot 2/17/2016



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Governor

Carol S. Comer
Commissioner

AFFECTED STATE NOTIFICATION OF PUBLIC COMMENT PERIOD DRAFT INDIANA AIR PERMIT

July 11, 2016

A 30-day public comment period has been initiated for:

Permit Number: 033-37263-00042 & 033-37273-00042
Applicant Name: Metal Technologies Auburn, LLC
Location: Auburn, DeKalb County, Indiana

The public notice, draft permit and technical support documents can be accessed via the **IDEM Air Permits Online** site at:

<http://www.in.gov/ai/appfiles/idem-caats/>

Questions or comments on this draft permit should be directed to the person identified in the public notice by telephone or in writing to:

Indiana Department of Environmental Management
Office of Air Quality, Permits Branch
100 North Senate Avenue
Indianapolis, IN 46204

Questions or comments regarding this email notification or access to this information from the EPA Internet site can be directed to Chris Hammack at chammack@idem.IN.gov or (317) 233-2414.

Affected States Notification.dot 2/17/2016



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Governor

Carol S. Comer
Commissioner

July 11, 2016

Mr. Dan Plant
Metal Technologies Auburn, LLC
1401 S Grandstaff Drive
Auburn, IN 46706

Re: Public Notice
Metal Technologies Auburn, LLC
Permit Level: Significant Permit Modification &
Significant Source Modification
Permit Number: 033-37263-00042 &
033-37273-00042

Dear Mr. Plant:

Enclosed is a copy of your draft Significant Permit and Source Modifications, Technical Support Document, emission calculations, and the Public Notice which will be printed in your local newspaper.

The Office of Air Quality (OAQ) has prepared two versions of the Public Notice Document. The abbreviated version will be published in the newspaper, and the more detailed version will be made available on the IDEM's website and provided to interested parties. Both versions are included for your reference. The OAQ has requested that the Auburn Evening Star in Auburn, Indiana publish the abbreviated version of the public notice no later than July 14, 2016. You will not be responsible for collecting any comments, nor are you responsible for having the notice published in the newspaper.

OAQ has submitted the draft permit package to the Eckhart Public Library, 603 South Jackson Street in Auburn, Indiana. As a reminder, you are obligated by 326 IAC 2-1.1-6(c) to place a copy of the complete permit application at this library no later than ten (10) days after submittal of the application or additional information to our department. We highly recommend that even if you have already placed these materials at the library, that you confirm with the library that these materials are available for review and request that the library keep the materials available for review during the entire permitting process.

Please review the enclosed documents carefully. This is your opportunity to comment on the draft permit and notify the OAQ of any corrections that are needed before the final decision. Questions or comments about the enclosed documents should be directed to Brian Williams, Indiana Department of Environmental Management, Office of Air Quality, 100 N. Senate Avenue, Indianapolis, Indiana, 46204 or call (800) 451-6027, and ask for extension 4-5375 or dial (317) 234-5375.

Sincerely,

Greg Hotopp

Greg Hotopp
Permits Branch
Office of Air Quality

Enclosures
PN Applicant Cover letter 2/17/2016



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Governor

Carol S. Comer
Commissioner

July 11, 2016

To: Eckhart Public Library

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

Subject: **Important Information to Display Regarding a Public Notice for an Air Permit**

Applicant Name: Metal Technology Auburn, LLC
Permit Number: 033-37263-00042 & 033-37273-00042

Enclosed is a copy of important information to make available to the public. This proposed project is regarding a source that may have the potential to significantly impact air quality. Librarians are encouraged to educate the public to make them aware of the availability of this information. The following information is enclosed for public reference at your library:

- Notice of a 30-day Period for Public Comment
- Request to publish the Notice of 30-day Period for Public Comment
- Draft Permit and Technical Support Document

You will not be responsible for collecting any comments from the citizens. Please refer all questions and request for the copies of any pertinent information to the person named below.

Members of your community could be very concerned in how these projects might affect them and their families. **Please make this information readily available until you receive a copy of the final package.**

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. Questions pertaining to the permit itself should be directed to the contact listed on the notice.

Enclosures
PN Library.dot 2/16/2016



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Michael R. Pence
Governor

Carol S. Comer
Commissioner

ATTENTION: PUBLIC NOTICES, LEGAL ADVERTISING

July 11, 2016

Auburn Evening Star
118 West Ninth Street
Auburn, IN 46706

Enclosed, please find one Indiana Department of Environmental Management Notice of Public Comment for Metal Technologies Auburn, LLC, DeKalb County, Indiana.

Since our agency must comply with requirements which call for a Notice of Public Comment, we request that you print this notice one time, no later than July 14, 2016.

Please send a notarized form, clippings showing the date of publication, and the billing to the Indiana Department of Environmental Management, Accounting, Room N1345, 100 North Senate Avenue, Indianapolis, Indiana, 46204.

To ensure proper payment, please reference account # 100174737.

We are required by the Auditor's Office to request that you place the Federal ID Number on all claims. If you have any conflicts, questions, or problems with the publishing of this notice or if you do not receive complete public notice information for this notice, please call Greg Hotopp at 800-451-6027 and ask for extension 4-3493 or dial 317-234-3493.

Sincerely,

Greg Hotopp

Greg Hotopp
Permit Branch
Office of Air Quality

Permit Level: Significant Source Modification & Significant Permit Modification
Permit Number: 033-37263-00042 & 033-37273-00042

Enclosure

PN Newspaper.dot 2/17/2016

Mail Code 61-53

| | | | | |
|----------------------------|---|---|--|--|
| IDEM Staff | GHOTOPP 7/11/2016 Metal Technologies Auburn, LLC 033-37263/37273-00042 Draft | | 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 | Type of Mail: CERTIFICATE OF MAILING ONLY | |

| 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 | | Dan Plant Metal Technologies Auburn, LLC 1401 S Grandstaff Dr Auburn IN 46706 (Source CAATS) | | | | | | | | | | |
| 2 | | Jeffrey L Turner Secretary Metal Technologies Auburn, LLC 1401 S Grandstaff Dr Auburn IN 46706 (RO CAATS) | | | | | | | | | | |
| 3 | | Eckhart Public Library 603 South Jackson Street Auburn IN 46706 (Library) | | | | | | | | | | |
| 4 | | DeKalb County Building Department 301 S Union St Auburn IN 46706 (Local Official) | | | | | | | | | | |
| 5 | | Mr. Steve Roosz NISWMD 2320 W 800 S, P.O. Box 370 Ashley IN 46705 (Affected Party) | | | | | | | | | | |
| 6 | | Ms. Karen Sponhower 803 S. Van Buren Auburn IN 46706 (Affected Party) | | | | | | | | | | |
| 7 | | Ms. Diane Leroy 303 N. Jackson St. Auburn IN 46706 (Affected Party) | | | | | | | | | | |
| 8 | | Mr. Barry Fordanish R#3 1480 CR 66 Auburn IN 46706 (Affected Party) | | | | | | | | | | |
| 9 | | Auburn City Council and Mayors Office P.O. Box 506 Auburn IN 46706-0506 (Local Official) | | | | | | | | | | |
| 10 | | DeKalb County Health Department 220 E 7th St #110 Auburn IN 46706 (Health Department) | | | | | | | | | | |
| 11 | | Daniel & Sandy Trimmer 15021 Yellow River Road Columbia City IN 46725 (Affected Party) | | | | | | | | | | |
| 12 | | Brown & Sons Fuel Co. P.O. Box 665 Kendallville IN 46755 (Affected Party) | | | | | | | | | | |
| 13 | | Mr. Marty K. McCurdy 2550 County Road 27 Waterloo IN 46793 (Affected Party) | | | | | | | | | | |
| 14 | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | |

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|---|--|--|--|
| 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. |
| 13 | | | |