INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: November 8, 2005
RE: Enkei America, Inc., Enkei Wheel Corporation / 005-21647-00042
FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval – Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-17-3-4 and 326 IAC 2, this permit modification is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-7-3 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

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

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

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

Enclosures
FNTV-PMOD.doc 1/10/05

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November 8, 2005

Mr. Luke Huls
Enkei America, Inc., Enkei Wheel Corporation
2900 West Inwood Drive
Columbus, IN 47201

Re: 005-21647-00042
Fifth Significant Permit Modification to
Part 70 No.: T 005-7715-00042

Dear Mr. Huls:

Enkei America, Inc., Enkei Wheel Corporation was issued a permit on January 7, 2003 for an aluminum foundry operation for the production and surface coating of aluminum wheels. A letter requesting changes to this permit was received on July 22, 2005. Pursuant to the provisions of 326 IAC 2-7-12 a significant permit modification to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of the construction and operation of three (3) aluminum casting lines. Enkei also requested that condition D.2.10 of the Part 70 permit be revised to change the lower end of the pressure drop range for the baghouses from 1.0 to 0.3 based on information from the baghouse manufacturer which was submitted to OAQ. They also requested that condition D.2.7 of the Part 70 permit be revised to reflect that the stack testing is not required to demonstrate compliance with condition D.2.5(a) of the Part 70 permit which requires 99% control efficiency for existing baghouse #CO3. Additionally, Enkei requested that references to equipment that has been removed from the source or never constructed be removed from the Part 70 permit. Finally, Enkei requested that the aluminum casting lines previously identified as MAP 4A and MAP 4B be changed to Line G and Line H, Melt Furnaces 4A and 4B be changed to Melt Furnaces G and H, and Solution Furnaces 4A and 4B be changed to Solution Furnaces G and H.

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Trish Earls, c/o OAQ, 100 North Senate Avenue, Indianapolis, Indiana, 46204, or call at (973) 575-2555, ext. 3219, or dial (800) 451-6027, and ask for extension 3-6878.

Sincerely,
Origin signed by

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments
TE/EVP
cc: File - Bartholomew County
U.S. EPA, Region V
Bartholomew County Health Department
Air Compliance Section Inspector – Vaughn Ison
Compliance Data Section
Administrative and Development
Technical Support and Modeling

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PART 70 OPERATING PERMIT
OFFICE OF AIR QUALITY

Enkei America, Inc., Enkei Wheel Corporation
2900 West Inwood Drive
Columbus, Indiana 47201

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

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

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

Operation Permit No.: T005-7715-00042	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: January 7, 2003 Expiration Date: January 7, 2008

First Administrative Amendment No.: 005-16814-00042, issued on December 29, 2003;
First Minor Source Modification No.: 005-18439-00042, issued on February 18, 2004;
First Significant Permit Modification No. 005-18547-00042, issued on April 8, 2004;
Second Significant Permit Modification No. 005-18123-00042, issued on August 10, 2004;
Third Significant Permit Modification No. 005-18909-00042, issued on October 25, 2004;
Second Minor Source Modification No.: 005-20372-00042, issued on February 3, 2005; and
Fourth Significant Permit Modification No.: 005-19981-00042, issued on May 13, 2005.

Fifth Significant Permit Modification No.: 005-21647-00042	Pages Affected: 5 - 9, 33 - 41
Issued by: Original signed by Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: November 8, 2005 Expiration Date: January 7, 2008

SECTION A SOURCE SUMMARY

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

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

The Permittee owns and operates an aluminum foundry operation for the production and surface coating of aluminum wheels.

Responsible Official:	Executive Vice President
Source Address:	2900 West Inwood Drive, Columbus, IN 47201
Mailing Address:	2900 West Inwood Drive, Columbus, IN 47201
General Source Phone Number:	812-342-2000
SIC Code:	3365
County Location:	Bartholomew
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Minor Source, under PSD Rules; Major Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

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

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

(1) The following surface coating operations:

(a) One (1) high volume low pressure (HVLP) spray coating facility, identified as Spray Booth A (SB-A), constructed in 1987, with a maximum capacity of coating 306 aluminum wheels per hour, consisting of the following equipment:

1. one (1) spray booth using a waterwash for overspray control and exhausting through one stack, identified as S/V ID SB-A1 and one (1) spray booth using dry filter media for overspray control and exhausting through one stack identified as S/V ID SB-A2.

2. one (1) natural gas-fired flash-off oven, rated at 2 MMBtu/hr, exhausting through one (1) stack (S/V ID SF-A);

3. one (1) natural gas-fired drying oven, rated at 2 MMBtu/hr, exhausting through one (1) stack (S/V ID SO-A);

(b) One (1) low pressure high volume (LPHV) spray coating facility, identified as Spray Booth B (SB-B), constructed in 1987, with a maximum capacity of coating 306 aluminum wheels per hour, consisting of the following:

1. two (2) spray booths, each using a waterwash for overspray control and exhausting through two (2) stacks, (S/V ID SB-B1 and SB-B2);

2. one (1) natural gas-fired flash-off oven, rated at 2 MMBtu/hr, exhausting through one (1) stack (S/V ID SF-B);

3. one (1) natural gas-fired drying oven, rated at 2 MMBtu/hr, exhausting through one (1) stack (S/V ID SO-B);

(2) The following aluminum processing operations:

(a) One (1) No. 2 fuel oil-fired reverberatory melt furnace rated at 5.6 million (mm) British thermal units (Btu) per hour, identified as Melt Furnace #1 (MF1), constructed in 1987, with a maximum capacity of processing 3.00 tons of aluminum ingot per hour and a maximum chlorine flux of 1 pound per hour, utilizing a cyclone and baghouse, identified as MF1, to control particulate matter emissions, and exhausting through one (1) stack (S/V ID MF1-S);

(b) Aluminum Casting Line #3, with a total capacity of processing 2.64 tons per hour of aluminum, consisting of the following:

1. four (4) natural gas-fired reverberatory jet melt furnaces, identified as Melt Furnaces A,B,C and D, (MF-A,B,C,D), each constructed in 1995, each rated at 3.02 MMBtu per hour, and each with a capacity of processing 1320 pounds of aluminum per hour and a maximum chlorine flux of 0.84 pounds per hour, and controlled by two (2) baghouses, identified as #C01 and #C02; units MF-A, and MF-B utilize baghouse #C01, and units MF-C and MF-D utilize baghouse #C02. Both baghouses (#C01 and #C02) are exhausted through one stack (S/V ID MF-S);

(c) One (1) natural gas-fired holding furnace, rated at 4.26 MMBtu per hour, identified as Holding Furnace H (MPH), constructed in 1990, with a maximum molten aluminum storage capacity of 10,000 pounds, and a maximum chlorine flux usage rate of 0.5 pound per hour, exhausting through one stack (S/V ID MPH-S).

(d) One (1) aluminum casting line, identified as MAP E, constructed in 2004, consisting of the following:

1. one (1) natural gas-fired reverberatory melt furnace, identified as Melt Furnace E, with a maximum heat input capacity of 3.36 million British thermal units (MMBtu) per hour, with a maximum capacity of processing 0.88 tons of aluminum per hour, utilizing a non-chlorine flux, controlled by one (1) baghouse, identified as #CO3, exhausting through one (1) stack (S/V S-CO3);
2. two (2) die casting machines, using a water-based die coating;
3. one (1) heat treat process including one (1) solution oven, identified as Solution Furnace E, with a maximum heat input capacity of 0.715 MMBtu per hour, and one (1) aging oven, identified as Age Oven EF, with a maximum heat input capacity of 0.536 MMBtu per hour, which is shared with aluminum casting line MAP F.

(e) One (1) aluminum casting line, identified as MAP F, constructed in 2004, consisting of the following:

1. one (1) natural gas-fired reverberatory melt furnace, identified as Melt Furnace F, with a maximum heat input capacity of 3.36 MMBtu per hour, with a maximum capacity of processing 0.88 tons of aluminum per hour, utilizing a non-chlorine flux, controlled by one (1) baghouse, identified as #CO3, exhausting through one (1) stack (S/V S-CO3);
2. two (2) die casting machines, using a water-based die coating;

3. one (1) heat treat process including one (1) solution oven, identified as Solution Furnace F, with a maximum heat input capacity of 0.715 MMBtu per hour, and one (1) aging oven, identified as Age Oven EF, with a maximum heat input capacity of 0.536 MMBtu per hour, which is shared with aluminum casting line MAP E.

(f) One (1) aluminum casting line, identified as Line G, to be constructed in 2005, consisting of the following:

1. one (1) natural gas-fired reverberatory melt furnace, identified as Melt Furnace G, with a maximum heat input capacity of 3.36 million British thermal units (MMBtu) per hour, with a maximum capacity of processing 0.88 tons of aluminum per hour, utilizing a non-chlorine flux, controlled by one (1) baghouse, identified as #CO3, exhausting through one (1) stack (S/V S-CO3);
2. two (2) die casting machines, using a water-based die coating;
3. one (1) heat treat process including one (1) natural gas-fired solution oven, identified as Solution Furnace G, with a maximum heat input capacity of 0.715 MMBtu per hour, and one (1) natural gas-fired aging oven, identified as Age Oven 4, with a maximum heat input capacity of 0.536 MMBtu per hour, which is shared with aluminum casting line Line H.

(g) One (1) aluminum casting line, identified as Line H, to be constructed in 2005, consisting of the following:

1. one (1) natural gas-fired reverberatory melt furnace, identified as Melt Furnace H, with a maximum heat input capacity of 3.36 MMBtu per hour, with a maximum capacity of processing 0.88 tons of aluminum per hour, utilizing a non-chlorine flux, controlled by one (1) baghouse, identified as #CO3, exhausting through one (1) stack (S/V S-CO3);
2. two (2) die casting machines, using a water-based die coating;
3. one (1) heat treat process including one (1) natural gas-fired solution oven, identified as Solution Furnace H, with a maximum heat input capacity of 0.715 MMBtu per hour, and one (1) natural gas-fired aging oven, identified as Age Oven 4, with a maximum heat input capacity of 0.536 MMBtu per hour, which is shared with aluminum casting line Line G.

(h) One (1) aluminum casting line, identified as MAP I, to be constructed in 2005, consisting of the following:

(1) one (1) natural gas-fired reverberatory melt furnace, identified as Melt Furnace I, with a maximum heat input capacity of 3.36 million British thermal units (MMBtu) per hour, with a maximum capacity of processing 0.88 tons of aluminum per hour, utilizing a non-chlorine flux, controlled by one (1) baghouse, identified as #MFHI, exhausting through one (1) stack (S/V S-MFHI); and
(2) two (2) die casting machines, using a water-based die coating;

(i) One (1) aluminum casting line, identified as MAP J, to be constructed in 2005, consisting of the following:

(1) one (1) natural gas-fired reverberatory melt furnace, identified as Melt Furnace J, with a maximum heat input capacity of 3.36 MMBtu per hour, with a maximum capacity of processing 0.88 tons of aluminum per hour, utilizing a non-chlorine flux, controlled by one (1) baghouse, identified as #MFHI, exhausting through one (1) stack (S/V S-MFHI); and
(2) two (2) die casting machines, using a water-based die coating;

(j) One (1) aluminum casting line, identified as MAP K, to be constructed in 2005, consisting of the following:
(1) one (1) natural gas-fired reverberatory melt furnace, identified as Melt Furnace K, with a maximum heat input capacity of 3.36 MMBtu per hour, with a maximum capacity of processing 0.88 tons of aluminum per hour, utilizing a non-chlorine flux, controlled by one (1) baghouse, identified as #MFHI, exhausting through one (1) stack (S/V S-MFHI); and
(2) two (2) die casting machines, using a water-based die coating.

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

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

(a) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6;

(b) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection trim material recovery device such as a bag filter or cyclone.

(1) sawing/cutting of gates and risers from wheels with particulate recovery and filtration (13 riser cutting saws);

(2) rework areas with particulate filtration and recovery;

(c) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.

(1) two (2) enclosed steel-shotblasters associated with Aluminum Casting Line #3, each with a maximum capacity of blasting 1320 pounds of aluminum per hour, and each fully enclosed and equipped with particulate filtration equipment (baghouses). The facilities are exhausted internally.
(2) one (1) enclosed Wheelabrator steel-shotblaster identified, as SB#1, constructed in 1993, with a maximum capacity of blasting 2.41 tons of aluminum per hour, equipped with a baghouse (WDC#1) for particulate control, and exhausted inside the plant; and
(3) one (1) enclosed Wheelabrator steel-shotblaster, identified as SB#2, constructed in 2002, with a maximum blasting capacity of 3.0 tons of aluminum per hour, equipped with a baghouse (WDC#2) for particulate control, and exhausted inside the plant.

(d) One (1) powder coating facility, constructed in 2000, with a maximum capacity of coating 330 aluminum wheels per hour, identified as Powder Booth D (PB-D), consisting of the following equipment:

(1) One (1) powder coating booth, identified as Booth D, with an estimated maximum capacity of coating 330 aluminum wheels per hour, vented through an attached vacuum reclamation system, and located in a totally enclosed room. The vacuum reclamation system is considered an integral part of the powder coating booth.
(2) One (1) natural gas-fired curing oven, rated at 2 MMBtu/hr, exhausting through two (2) stacks (S/V ID SC-D).

(e) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour:

(1) seven (7) holding furnaces, each rated at 0.6 MMBtu per hour;
(2) six (6) solution furnaces, each rated at 1.275 MMBtu per hour; and
(3) three (3) aging furnaces, each rated at 0.347 MMBtu per hour.

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 D.2 FACILITY OPERATION CONDITIONS

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

(2) The following aluminum processing operations:

(a) One (1) No. 2 fuel oil-fired reverberatory melt furnace rated at 5.6 million (mm) British thermal units (Btu) per hour, identified as Melt Furnace #1 (MF1), constructed in 1987, with a maximum capacity of processing 3.00 tons of aluminum ingot per hour and a maximum chlorine flux of 1 pound per hour, utilizing a cyclone and baghouse, identified as MF1, to control particulate matter emissions, and exhausting through one (1) stack (S/V ID MF1-S);

(b) Aluminum Casting Line #3, with a total capacity of processing 2.64 tons per hour of aluminum, consisting of the following:

1. four (4) natural gas-fired reverberatory jet melt furnaces, identified as Melt Furnaces A,B,C and D, (MF-A,B,C,D), each constructed in 1995, each rated at 3.02 MMBtu per hour, and each with a capacity of processing 1320 pounds of aluminum per hour and a maximum chlorine flux of 0.84 pounds per hour, and controlled by two (2) baghouses, identified as #C01 and #C02; units MF-A, and MF-B utilize baghouse #C01, and units MF-C and MF-D utilize baghouse #C02. Both baghouses (#C01 and #C02) are exhausted through one stack (S/V ID MF-S);

(c) One (1) natural gas-fired holding furnace, rated at 4.26 MMBtu per hour, identified as Holding Furnace H (MPH), constructed in 1990, with a maximum molten aluminum storage capacity of 10,000 pounds, and a maximum chlorine flux usage rate of 0.5 pound per hour, exhausting through one stack (S/V ID MPH-S).

(d) One (1) aluminum casting line, identified as MAP E, constructed in 2004, consisting of the following:

1. one (1) natural gas-fired reverberatory melt furnace, identified as Melt Furnace E, with a maximum heat input capacity of 3.36 million British thermal units (MMBtu) per hour, with a maximum capacity of processing 0.88 tons of aluminum per hour, utilizing a non-chlorine flux, controlled by one (1) baghouse, identified as #CO3, exhausting through one (1) stack (S/V S-CO3);
2. two (2) die casting machines, using a water-based die coating;
3. one (1) heat treat process including one (1) solution oven, identified as Solution Furnace E, with a maximum heat input capacity of 0.715 MMBtu per hour, and one (1) aging oven, identified as Age Oven EF, with a maximum heat input capacity of 0.536 MMBtu per hour, which is shared with aluminum casting line MAP F.

(e) One (1) aluminum casting line, identified as MAP F, constructed in 2004, consisting of the following:

1. one (1) natural gas-fired reverberatory melt furnace, identified as Melt Furnace F, with a maximum heat input capacity of 3.36 MMBtu per hour, with a maximum capacity of processing 0.88 tons of aluminum per hour, utilizing a non-chlorine flux, controlled by one (1) baghouse, identified as #CO3, exhausting through one (1) stack (S/V S-CO3);
2. two (2) die casting machines, using a water-based die coating;
3. one (1) heat treat process including one (1) solution oven, identified as Solution Furnace F, with a maximum heat input capacity of 0.715 MMBtu per hour, and one (1) aging oven, identified as Age Oven EF, with a maximum heat input capacity of 0.536 MMBtu per hour, which is shared with aluminum casting line MAP E.

(f) One (1) aluminum casting line, identified as Line G, to be constructed in 2005, consisting of the following:

1. one (1) natural gas-fired reverberatory melt furnace, identified as Melt Furnace G, with a maximum heat input capacity of 3.36 million British thermal units (MMBtu) per hour, with a maximum capacity of processing 0.88 tons of aluminum per hour, utilizing a non-chlorine flux, controlled by one (1) baghouse, identified as #CO3, exhausting through one (1) stack (S/V S-CO3);
2. two (2) die casting machines, using a water-based die coating;
3. one (1) heat treat process including one (1) natural gas-fired solution oven, identified as Solution Furnace G, with a maximum heat input capacity of 0.715 MMBtu per hour, and one (1) natural gas-fired aging oven, identified as Age Oven 4, with a maximum heat input capacity of 0.536 MMBtu per hour, which is shared with aluminum casting line Line H.

(g) One (1) aluminum casting line, identified as Line H, to be constructed in 2005, consisting of the following:
1. one (1) natural gas-fired reverberatory melt furnace, identified as Melt Furnace H, with a maximum heat input capacity of 3.36 MMBtu per hour, with a maximum capacity of processing 0.88 tons of aluminum per hour, utilizing a non-chlorine flux, controlled by one (1) baghouse, identified as #CO3, exhausting through one (1) stack (S/V S-CO3);
2. two (2) die casting machines, using a water-based die coating;
3. one (1) heat treat process including one (1) natural gas-fired solution oven, identified as Solution Furnace H, with a maximum heat input capacity of 0.715 MMBtu per hour, and one (1) natural gas-fired aging oven, identified as Age Oven 4, with a maximum heat input capacity of 0.536 MMBtu per hour, which is shared with aluminum casting line Line G.

(h) One (1) aluminum casting line, identified as MAP I, to be constructed in 2005, consisting of the following:
(1) one (1) natural gas-fired reverberatory melt furnace, identified as Melt Furnace I, with a maximum heat input capacity of 3.36 million British thermal units (MMBtu) per hour, with a maximum capacity of processing 0.88 tons of aluminum per hour, utilizing a non-chlorine flux, controlled by one (1) baghouse, identified as #MFHI, exhausting through one (1) stack (S/V S-MFHI); and
(2) two (2) die casting machines, using a water-based die coating;

(i) One (1) aluminum casting line, identified as MAP J, to be constructed in 2005, consisting of the following:
(1) one (1) natural gas-fired reverberatory melt furnace, identified as Melt Furnace J, with a maximum heat input capacity of 3.36 MMBtu per hour, with a maximum capacity of processing 0.88 tons of aluminum per hour, utilizing a non-chlorine flux, controlled by one (1) baghouse, identified as #MFHI, exhausting through one (1) stack (S/V S-MFHI); and
(2) two (2) die casting machines, using a water-based die coating;

(j) One (1) aluminum casting line, identified as MAP K, to be constructed in 2005, consisting of the following:
(1) one (1) natural gas-fired reverberatory melt furnace, identified as Melt Furnace K, with a maximum heat input capacity of 3.36 MMBtu per hour, with a maximum capacity of processing 0.88 tons of aluminum per hour, utilizing a non-chlorine flux, controlled by one (1) baghouse, identified as #MFHI, exhausting through one (1) stack (S/V S-MFHI); and
(2) two (2) die casting machines, using a water-based die coating.

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(c) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.

(2) one (1) enclosed Wheelabrator steel-shotblaster identified, as SB#1, constructed in 1993, with a maximum capacity of blasting 2.41 tons of aluminum per hour, equipped with a baghouse (WDC#1) for particulate control, and exhausted inside the plant; and

(3) one (1) enclosed Wheelabrator steel-shotblaster, identified as SB#2, constructed in 2002, with a maximum blasting capacity of 3.0 tons of aluminum per hour, equipped with a baghouse (WDC#2) for particulate control, and exhausted inside the plant.

(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 Secondary Metal Production [326 IAC 2-2]

As of March 24, 2003, the effective date of the NESHAP for secondary aluminum production (40 CFR Part 63, Subpart RRR), the source shall melt only “clean charge,” “customer returns,” or “internal scrap” and shall not operate a “thermal chip dryer” as each is defined in 40 CFR 63.1503. Violation of this condition would cause the source to be considered a secondary metal production facility for purposes of 40 CFR 63.1503. Violation of this condition may also constitute a violation of 40 CFR 52.21 and 326 IAC 2-2 (PSD).

Compliance with this condition renders the requirements of 40 CFR 63, Subpart RRR not applicable. Compliance with this condition is necessary to make the source a minor source under PSD.

D.2.2 Particulate [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from Melt Furnace #1 (MF1) shall not exceed 8.56 pounds per hour when operating at a process weight rate of 3.0 tons per hour.

(b) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from Melt Furnace A (MF-A) shall not exceed 3.10 pounds per hour when operating at a process rate of 0.66 tons per hour.

(c) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from Melt Furnace B (MF-B) shall not exceed 3.10 pounds per hour when operating at a process rate of 0.66 tons per hour.

(d) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from Melt Furnace C (MF-C) shall not exceed 3.10 pounds per hour when operating at a process rate of 0.66 tons per hour.

(e) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from Melt Furnace D (MF-D) shall not exceed 3.10 pounds per hour when operating at a process rate of 0.66 tons per hour.

(f) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the shotblaster identified as SB#1 shall not exceed 7.39 pounds per hour when operating at a process weight rate of 2.41 tons per hour.

(g) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the shotblaster identified as SB#2 shall not exceed 4.99 pounds per hour when operating at a process weight rate of 1.34 tons per hour.

(h) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from Melt Furnace E shall not exceed 3.76 pounds per hour when operating at a process weight rate of 0.88 tons per hour.

(i) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from Melt Furnace F shall not exceed 3.76 pounds per hour when operating at a process weight rate of 0.88 tons per hour.

(j) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from Melt Furnace G shall not exceed 3.76 pounds per hour when operating at a process weight rate of 0.88 tons per hour.

(k) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from Melt Furnace H shall not exceed 3.76 pounds per hour when operating at a process weight rate of 0.88 tons per hour.

(l) For purposes of determining compliance with the particulate limits pursuant to 326 IAC 6-3-2 for the four (4) melt furnaces (E, F, G, and H) all of which exhaust through the baghouse identified as CO3, the allowable particulate emission rate from baghouse CO3 shall not exceed 15.04 pounds per hour.

(m) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from Melt Furnace I shall not exceed 3.76 pounds per hour when operating at a process weight rate of 0.88 tons per hour.

(n) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from Melt Furnace J shall not exceed 3.76 pounds per hour when operating at a process weight rate of 0.88 tons per hour.

(o) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from Melt Furnace K shall not exceed 3.76 pounds per hour when operating at a process weight rate of 0.88 tons per hour.

(p) For purposes of determining compliance with the particulate limits pursuant to 326 IAC 6-3-2 for the three (3) melt furnaces (I, J and K) all of which exhaust through the baghouse identified as MFHI, the allowable particulate emission rate from baghouse MFHI shall not exceed 11.28 pounds per hour.

Interpolation of the data for the process weight rate up for one hundred (100) pounds up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

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

D.2.3 Particulate Matter (PM10) and Sulfur Dioxide (SO_2) [326 IAC 2-2][40 CFR 52.21]

(a) The PM10 emissions from the Melt Furnace #1 (MF1) shall not exceed 8.44 pounds per hour.

(b) The PM10 emissions from the Melt Furnace A (MF-A) shall not exceed 3.06 pounds per hour.

(c) The PM10 emissions from the Melt Furnace B (MF-B) shall not exceed 3.06 pounds per hour.

(d) The PM10 emissions from the Melt Furnace C (MF-C) shall not exceed 3.06 pounds per hour.

(e) The PM10 emissions from the Melt Furnace D (MF-D) shall not exceed 3.06 pounds per hour.

(f) The PM10 emissions from the shotblaster identified as SB#1 shall not exceed 7.28 pounds per hour.

(g) The PM10 emissions from the shotblaster identified as SB#2 shall not exceed 4.92 pounds per hour.

(h) The PM10 emissions from baghouse CO3 controlling emissions from Melt Furnace E, Melt Furnace F, Melt Furnace G, and Melt Furnace H shall not exceed 6.80 pounds per hour.

(i) The PM10 emissions from baghouse MFHI controlling emissions from Melt Furnace I, Melt Furnace J, and Melt Furnace K shall not exceed 6.94 pounds per hour.

(j) The SO2 emissions from the Melt Furnace #1 (MF1) shall not exceed 5.88 pounds per hour.

The above limitations will limit total PM10 and SO_2 emissions to less than 250 tons per year each, therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 do not apply.

D.2.4 Particulate Matter (PM) [326 IAC 2-2][40 CFR 52.21]

(a) The PM emissions from the Melt Furnace #1 shall not exceed 6.69 pounds per hour.

(b) The PM emissions from the Melt Furnace A (MF-A) shall not exceed 2.42 pounds per hour.

(c) The PM emissions from the Melt Furnace B (MF-B) shall not exceed 2.42 pounds per hour.

(d) The PM emissions from the Melt Furnace C (MF-C) shall not exceed 2.42 pounds per hour.

(e) The PM emissions from the Melt Furnace D (MF-D) shall not exceed 2.42 pounds per hour.

(f) The PM emissions from the shotblaster identified as SB#1 shall not exceed 5.78 pounds per hour.

(g) The PM emissions from the shotblaster identified as SB#2 shall not exceed 3.90 pounds per hour.

(h) The PM emissions from baghouse CO3 controlling emissions from Melt Furnace E, Melt Furnace F, Melt Furnace G, and Melt Furnace H shall not exceed 10.88 pounds per hour.

(i) The PM emissions from baghouse MFHI controlling emissions from Melt Furnace I, Melt Furnace J, and Melt Furnace K shall not exceed 11.37 pounds per hour.

The above limitations will limit total source-wide PM emissions to less than 250 tons per year, therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 do not apply.

D.2.5 Particulate Matter (PM) and Particulate Matter Less Than or Equal to 10 Microns (PM-10)

The two (2) aluminum casting lines, MAP E and MAP F, including Melt Furnaces E and F controlled by baghouse #CO3, and the two (2) aluminum casting lines, Line G and Line H, including Melt Furnaces G and H also controlled by baghouse #CO3, shall meet the requirements of 326 IAC 2-7-10.5(d)(4)(C), including the following:

(a) A ninety-nine percent (99%) control efficiency must be achieved and maintained for the baghouse #CO3;

(b) There shall be no visible emissions from the two (2) casting lines identified as MAP E and MAP F;

(c) There shall be no visible emissions from the two (2) casting lines identified as Line G and Line H;

(d) The Permittee shall certify to the OAQ that the control device supplier guarantees that a specific outlet concentration, in conjunction with design air flow, will result in actual emissions from MAP E and MAP F of less than 25 tons per year of PM or 15 tons per year of PM-10 and actual emissions from Line G and Line H of less than 25 tons per year of PM or 15 tons per year of PM-10.

(e) The combined PM emissions from MAP E and MAP F shall not exceed 0.0236 grains per dry standard cubic foot, and 5.68 pounds per hour;

(f) The combined PM10 emissions from MAP E and MAP F shall not exceed 0.014 grains per dry standard cubic foot, and 3.40 pounds per hour;

(g) The combined PM emissions from Line G and Line H shall not exceed 0.0236 grains per dry standard cubic foot, and 5.68 pounds per hour;

(h) The combined PM10 emissions from Line G and Line H shall not exceed 0.014 grains per dry standard cubic foot, and 3.40 pounds per hour.

The above limitations and the limitations in conditions D.2.3 and D.2.4 will also limit total source-wide PM and PM-10 emissions to less than 250 tons per year each, therefore, the requirements of 326 IAC 2-2 (PSD) do not apply.

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

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for each facility and its control device.

Compliance Determination Requirements

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

(a) During the period between July, 2008 and January, 2009, in order to demonstrate compliance with Conditions D.2.2, D.2.3, and D.2.4, the Permittee shall perform PM and PM-10 testing on furnaces MF1 and either MF-A and MF-B together or MF-C and MF-D together utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

(b) Within 180 days after issuance of Significant Permit Modification No. 005-18547-00042, in order to demonstrate compliance with Conditions D.2.2(h), D.2.2(i) and D.2.5(e) and (f), the Permittee shall perform PM and PM-10 testing on Melt Furnaces E and F utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensable PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

(c) Within 60 days after achieving the maximum production rate but no later than 180 days after startup of the Melt Furnaces G and H, in order to demonstrate compliance with Conditions D.2.2(j), D.2.2(k), D.2.2(l), D.2.3(h), D.2.4(h) and D.2.5(g) and (h), the Permittee shall perform PM and PM-10 testing on baghouse CO3 controlling emissions from Melt Furnaces G and H utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensable PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

D.2.8 Particulate Matter (PM)

(a) In order to comply with D.2.2, D.2.3, and D.2.4, the baghouses and cyclone for PM and PM10 control shall be in operation and control emissions from the melt furnaces MF1, MF-A, MF-B, MF-C, MF-D, and the shotblasters SB#1 and SB#2 at all times that the melt furnaces MF1, MF-A, MF-B, MF-C, MF-D, and the shotblasters SB#1 and SB#2 are in operation.

(b) In order to comply with conditions D.2.2, D.2.3, D.2.4, and D.2.5, the baghouse for PM and PM10 control shall be in operation and control emissions from the melt furnaces E, F, G and H at all times that the melt furnaces E, F, G and H are in operation.

(c) In order to comply with condition D.2.2, the baghouse MFHI for PM control shall be in operation and control emissions from the melt furnaces I, J, and K at all times that the melt furnaces I, J, and K are in operation.

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

D.2.9 Visible Emissions Notations

(a) Visible emission notations of each of the melt furnaces MF1, MF-A, MF-B, MF-C, MF-D stack exhausts, each of the shotblasters SB#1 and SB#2 stack exhausts, the baghouse #CO3 stack exhaust (S/V S - CO3), and the baghouse #MFHI stack exhaust (S/V S-MFHI) shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

D.2.10 Parametric Monitoring

The Permittee shall record the total static pressure drop across each of the baghouses used in conjunction with the melt furnaces MF1, MF-A, MF-B, MF-C, MF-D, with shotblasters SB#1 and SB#2, with melt furnaces E, F, G and H, and with melt furnaces I, J, and K at least once per shift when the facilities are in operation when venting to the atmosphere. When for any one reading, the pressure drop across any of the baghouses is outside the normal range of 0.3 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

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

D.2.11 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the melt furnaces MF1, MF-A, MF-B, MF-C, MF-D, the shotblasters SB#1 and SB#2, melt furnaces E, F, G and H and melt furnaces I, J, and K when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.2.12 Cyclone Inspections

An inspection shall be performed each calendar quarter of all cyclones controlling the melt furnace (MF1) when venting to the atmosphere. A cyclone inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors.

D.2.13 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be 10 days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

(b) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

D.2.14 Cyclone Failure Detection

In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

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

D.2.15 Record Keeping Requirements

(a) To document compliance with Condition D.2.1, the Permittee shall maintain records of the type of aluminum melted in the furnaces sufficient to show compliance with Condition D.2.1.

(b) To document compliance with Condition D.2.9, the Permittee shall maintain records of visible emission notations of the baghouse stack exhaust from each facility once per shift.

(c) To document compliance with Condition D.2.10, the Permittee shall maintain once per shift records of the differential static pressure during normal operation when venting to the atmosphere.

(d) To document compliance with Conditions D.2.11 and D.2.12, the Permittee shall maintain records of the results of the inspections required under Conditions D.2.11 and D.2.12 and the dates the vents are redirected.

(e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Indiana Department of Environmental Management
Office of Air Quality

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

Source Name:	Enkei America, Inc., Enkei Wheel Corporation
Source Location:	2900 West Inwood Drive, Columbus, Indiana 47201
County:	Bartholomew
SIC Code:	3365
Source Modification No.:	005-21561-00042
Permit Modification No.:	005-21647-00042
Permit Reviewer:	Trish Earls/EVP

On September 9, 2005, the Office of Air Quality (OAQ) had a notice published in The Republic, Columbus, Indiana, stating that Enkei America, Inc., Enkei Wheel Corporation had applied for a Significant Source Modification and Significant Permit Modification to add three (3) new aluminum casting lines to its aluminum foundry operation for the production and surface coating of aluminum wheels. The notice also stated that OAQ proposed to issue a permit for this installation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On September 24, 2005, Tom Rarick of Keramida Environmental, Inc. submitted comments on the proposed permit on behalf of Enkei America, Inc., Enkei Wheel Corporation. The comments and corresponding responses are as follows:

Comment #1

Enkei America, Inc., Enkei Wheel Corporation is requesting that condition subsections D.2.3(i) and D.2.4(i) be deleted from the permit. Condition subsections D.2.3(i) and D.2.4(i) list a pound per hour limit for furnaces I, J, and K that is the calculated potential to emit derived from an AP-42 emission factor. Listing the PTE as a limit under 326 IAC 2-2 and 40 CFR 52.21 is confusing and could be interpreted as a BACT limit or a limit required to render 326 IAC 2-2 and 40 CFR 52.21 not applicable. The permit language in strike out text below represents the language that Enkei America, Inc., Enkei Wheel Corporation wishes to be deleted.

D.2.3 Particulate Matter (PM10) and Sulfur Dioxide (SO_2) [326 IAC 2-2][40 CFR 52.21]

~~(i) The PM10 emissions from baghouse MFHI controlling emissions from Melt Furnace I, Melt Furnace J, and Melt Furnace K shall not exceed 6.94 pounds per hour.~~

(j) The SO2 emissions from the Melt Furnace #1 (MF1) shall not exceed 5.88 pounds per hour.

The above limitations will limit total PM10 and SO2 emissions to less than 250 tons per year each, therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 do not apply.

D.2.4 Particulate Matter (PM) [326 IAC 2-2][40 CFR 52.21]

~~(i) The PM emissions from baghouse MFHI controlling emissions from Melt Furnace I, Melt Furnace J, and Melt Furnace K shall not exceed 11.37 pounds per hour.~~

The above limitations will limit total source-wide PM emissions to less than 250 tons per year, therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 do not apply.

Response #1

The limits included in conditions D.2.3 and D.2.4 are included in the permit to ensure that the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) do not apply. Although the limits are equivalent to the potential emissions from the furnaces, IDEM, OAQ included the limits so that there are federally enforceable limits in the permit to ensure that source-wide PM and PM10 emissions are each limited to less than 250 tons per year so that the requirements of 326 IAC 2-2 (PSD) do not apply. There have been no changes made to the permit as a result of this comment.

Comment #2

References to Melt Furnace #2 should be deleted from the permit. Permit Modification 005-19981-00042, issued May 13, 2005 removed Melt furnace #2 from the permit descriptions and several conditions. However, the Melt Furnace #1 description contains MF#2 references that should be removed and several conditions continue to reference MF2. The bold language should be added to the permit and strike out text below represents the language that Enkei America, Inc., Enkei Wheel Corporation wishes to be deleted.

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

(2) The following aluminum processing operations:

(a) One (1) No. 2 fuel oil-fired reverberatory melt furnace rated at 5.6 million (mm) British thermal units (Btu) per hour, identified as Melt Furnace #1 (MF1), constructed in 1987, with a maximum capacity of processing 3.00 tons of aluminum ingot per hour and a maximum chlorine flux of 1 pound per hour, utilizing a cyclone and ~~the #2 melt furnace~~ baghouse**, identified as MF1** to control particulate matter emissions, and exhausting through one (1) stack (S/V ID ~~MF2-S~~ **MF1-S**);

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

(a) During the period between July, 2008 and January, 2009, in order to demonstrate compliance with Conditions D.2.2, D.2.3, and D.2.4, the Permittee shall perform PM and PM-10 testing on furnaces MF1~~, MF2,~~ and either MF-A and MF-B together or MF-C and MF-D together utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

D.2.8 Particulate Matter (PM)

(a) In order to comply with D.2.2, D.2.3, and D.2.4, the baghouses and cyclone for PM and PM10 control shall be in operation and control emissions from the melt furnaces MF1, ~~MF2,~~ MF-A, MF-B, MF-C, MF-D, and the shotblasters SB#1 and SB#2 at all times that the melt furnaces MF1, ~~MF2,~~ MF-A, MF-B, MF-C, MF-D, and the shotblasters SB#1 and SB#2 are in operation.

D.2.9 Visible Emissions Notations

(a) Visible emission notations of each of the melt furnaces MF1, ~~MF2~~, MF-A, MF-B, MF-C, MF-D stack exhausts, each of the shotblasters SB#1 and SB#2 stack exhausts, the baghouse #CO3 stack exhaust (S/V S - CO3), and the baghouse #MFHI stack exhaust (S/V S-MFHI) shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

D.2.10 Parametric Monitoring

The Permittee shall record the total static pressure drop across each of the baghouses used in conjunction with the melt furnaces MF1, ~~MF2,~~ MF-A, MF-B, MF-C, MF-D, with shotblasters SB#1 and SB#2, with melt furnaces E, F, G and H, and with melt furnaces I, J, and K at least once per shift when the facilities are in operation when venting to the atmosphere. When for any one reading, the pressure drop across any of the baghouses is outside the normal range of 0.3 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

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

D.2.11 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the melt furnaces MF1, ~~MF2,~~ MF-A, MF-B, MF-C, MF-D, the shotblasters SB#1 and SB#2, melt furnaces E, F, G and H and melt furnaces I, J, and K when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

<u>Response #2</u>

Since Melt Furnace #2 has been removed from the source the Part 70 permit is revised as follows:

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

….

(2) The following aluminum processing operations:

(a) One (1) No. 2 fuel oil-fired reverberatory melt furnace rated at 5.6 million (mm) British thermal units (Btu) per hour, identified as Melt Furnace #1 (MF1), constructed in 1987, with a maximum capacity of processing 3.00 tons of aluminum ingot per hour and a maximum chlorine flux of 1 pound per hour, utilizing a cyclone and ~~the #2 melt furnace~~ baghouse**, identified as MF1,** to control particulate matter emissions, and exhausting through one (1) stack (S/V ID MF~~2~~**1**-S);

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

(a) During the period between July, 2008 and January, 2009, in order to demonstrate compliance with Conditions D.2.2, D.2.3, and D.2.4, the Permittee shall perform PM and PM-10 testing on furnaces MF1~~, MF2,~~ and either MF-A and MF-B together or MF-C and MF-D together utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

D.2.8 Particulate Matter (PM)

(a) In order to comply with D.2.2, D.2.3, and D.2.4, the baghouses and cyclone for PM and PM10 control shall be in operation and control emissions from the melt furnaces MF1, ~~MF2,~~ MF-A, MF-B, MF-C, MF-D, and the shotblasters SB#1 and SB#2 at all times that the melt furnaces MF1, ~~MF2,~~ MF-A, MF-B, MF-C, MF-D, and the shotblasters SB#1 and SB#2 are in operation.

D.2.9 Visible Emissions Notations

(a) Visible emission notations of each of the melt furnaces MF1, ~~MF2,~~ MF-A, MF-B, MF-C, MF-D stack exhausts, each of the shotblasters SB#1 and SB#2 stack exhausts, the baghouse #CO3 stack exhaust (S/V S - CO3), and the baghouse #MFHI stack exhaust (S/V S-MFHI) shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

D.2.10 Parametric Monitoring

The Permittee shall record the total static pressure drop across each of the baghouses used in conjunction with the melt furnaces MF1, ~~MF2,~~ MF-A, MF-B, MF-C, MF-D, with shotblasters SB#1 and SB#2, with melt furnaces E, F, G and H, and with melt furnaces I, J, and K at least once per shift when the facilities are in operation when venting to the atmosphere. When for any one reading, the pressure drop across any of the baghouses is outside the normal range of 0.3 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

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

D.2.11 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the melt furnaces MF1, ~~MF2,~~ MF-A, MF-B, MF-C, MF-D, the shotblasters SB#1 and SB#2, melt furnaces E, F, G and H and melt furnaces I, J, and K when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

Upon further review IDEM, OAQ has made the following change to the Part 70 permit (additions in bold, deletions in ~~strikeout~~):

1. The company name on the cover page of the Significant Source Modification and the Significant Permit Modification has been corrected as follows:

Enkei America, Inc.~~,~~**,** Enkei Wheel Corporation
2900 West Inwood Drive
Columbus, Indiana 47201

2. The signature box on the cover page of the Significant Permit Modification has been revised to include the expiration date of the permit modification, which is the same as the expiration date of the Part 70 permit as follows:

Fifth Significant Permit Modification No.: 005-21647-00042	Pages Affected: 5 - 9, 33 - 41
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: **Expiration Date: January 7, 2008**

Indiana Department of Environmental Management
Office of Air Quality

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

Source Background and Description

Source Name:	**Enkei America, Inc., Enkei Wheel Corporation**
Source Location:	**2900 West Inwood Drive, Columbus, Indiana 47201**
County:	**Bartholomew**
SIC Code:	**3365**
Operation Permit No.:	**T 005-7715-00042**
Operation Permit Issuance Date:	**January 7, 2003**
Source Modification No.:	**005-21561-00042**
Permit Modification No.:	**005-21647-00042**
Permit Reviewer:	**Trish Earls/EVP**

The Office of Air Quality (OAQ) has reviewed a modification application from Enkei America, Inc., Enkei Wheel Corporation (Enkei) relating to the construction and operation of three (3) aluminum casting lines in its aluminum foundry operation for the production and surface coating of aluminum wheels. The modification also includes changes to the Part 70 permit as a result of the resolution of some appeal issues with IDEM, OAQ.

History

On July 22, 2005, Enkei submitted an application to the OAQ requesting to add three (3) additional aluminum casting lines to their existing plant. Enkei also requested that condition D.2.10 of the Part 70 permit be revised to change the lower end of the pressure drop range for the baghouses from 1.0 to 0.3 based on information from the baghouse manufacturer which was submitted to OAQ. They also requested that condition D.2.7 of the Part 70 permit be revised to reflect that the stack testing is not required to demonstrate compliance with condition D.2.5(a) of the Part 70 permit which requires 99% control efficiency for existing baghouse #CO3. Additionally, Enkei requested that references to equipment that has been removed from the source or never constructed be removed from the Part 70 permit. Finally, Enkei requested that the aluminum casting lines previously identified as MAP 4A and MAP 4B be changed to Line G and Line H, Melt Furnaces 4A and 4B be changed to Melt Furnaces G and H, and Solution Furnaces 4A and 4B be changed to Solution Furnaces G and H.

The information supplied by the manufacturer of the baghouses used at this source was determined to be sufficient to allow the pressure drop range included in condition D.2.10 of the Part 70 permit to be revised as requested.

The stack testing on melt furnaces E, F, 4A (now identified as G), and 4B (now identified as H), which are all controlled by baghouse #CO3 will continue to be required to demonstrate compliance with the PM and PM10 emission limits in condition D.2.5(e) through (h) and not the control efficiency required in condition D.2.5(a). Condition D.2.7 will be revised to clarify this.

Enkei was issued a Part 70 permit (T005-7715-00042) on January 7, 2003. The significant source modification will be incorporated into the Part 70 permit through a Significant Permit Modification No. 005-21647-00042.

The modification consists of the construction of the following emission units and pollution control devices:

(a) One (1) aluminum casting line, identified as MAP I, to be constructed in 2005, consisting of the following:
  (1) one (1) natural gas-fired reverberatory melt furnace, identified as Melt Furnace I, with a maximum heat input capacity of 3.36 million British thermal units (MMBtu) per hour, with a maximum capacity of processing 0.88 tons of aluminum per hour, utilizing a non-chlorine flux, controlled by one (1) baghouse, identified as #MFHI, exhausting through one (1) stack (S/V S-MFHI); and
  (2) two (2) die casting machines, using a water-based die coating;

(b) One (1) aluminum casting line, identified as MAP J, to be constructed in 2005, consisting of the following:
  (1) one (1) natural gas-fired reverberatory melt furnace, identified as Melt Furnace J, with a maximum heat input capacity of 3.36 MMBtu per hour, with a maximum capacity of processing 0.88 tons of aluminum per hour, utilizing a non-chlorine flux, controlled by one (1) baghouse, identified as #MFHI, exhausting through one (1) stack (S/V S-MFHI); and
  (2) two (2) die casting machines, using a water-based die coating;

(c) One (1) aluminum casting line, identified as MAP K, to be constructed in 2005, consisting of the following:
  (1) one (1) natural gas-fired reverberatory melt furnace, identified as Melt Furnace K, with a maximum heat input capacity of 3.36 MMBtu per hour, with a maximum capacity of processing 0.88 tons of aluminum per hour, utilizing a non-chlorine flux, controlled by one (1) baghouse, identified as #MFHI, exhausting through one (1) stack (S/V S-MFHI); and
  (2) two (2) die casting machines, using a water-based die coating.

Emission Units and Pollution Control Equipment Removed From This Source

The following permitted emission unit has been removed from this source:

(a) two (2) natural gas fired reverberatory melting furnaces each rated at 0.32 MMBtu per hour, identified as Melt Furnaces H and Melt Furnace I, (MFH,I), both constructed in 1994, with a combined total capacity to melt and cast 1.98 tons per hour of aluminum ingot and a combined maximum chlorine flux of 1 pound per hour, utilizing one (1) baghouse for particulate matter emissions control, and exhausting through two (2) stacks (S/V ID MFH-S and MFI-S), respectively;

The following permitted emission unit was never constructed at this source and will not be constructed at any future time:

(b) One (1) aluminum casting line, identified as MAP 4C, to be constructed in 2005, consisting of the following:
  1. one (1) natural gas-fired reverberatory melt furnace, identified as Melt Furnace 4C, with a maximum heat input capacity of 3.36 MMBtu per hour, with a maximum capacity of processing 0.88 tons of aluminum per hour, utilizing a non-chlorine flux, controlled by one (1) baghouse, identified as #CO3, exhausting through one (1) stack (S/V S-CO3);
  2. two (2) die casting machines, using a water-based die coating;

3. one (1) heat treat process including one (1) natural gas-fired solution oven, identified as Solution Furnace 4C, with a maximum heat input capacity of 0.715 MMBtu per hour, and one (1) natural gas-fired aging oven, identified as Age Oven 4, with a maximum heat input capacity of 0.536 MMBtu per hour, which is shared with aluminum casting lines MAP 4A and MAP 4B.

Existing Approvals

The source was issued a Part 70 Operating Permit (T005-7715-00042) on January 7, 2003. The source has since received the following:

(a) First Administrative Amendment No.: 005-16814-00042, issued on December 29, 2003;

(b) First Minor Source Modification No.: 005-18439-00042, issued on February 18, 2004;

(c) First Significant Permit Modification No. 005-18547-00042, issued on April 8, 2004;

(d) Second Significant Permit Modification No. 005-18123-00042, issued on August 10, 2004;

(e) Third Significant Permit Modification No. 005-18909-00042, issued on October 25, 2004;

(f) Second Minor Source Modification No.: 005-20372-00042, issued on February 3, 2005; and

(g) Fourth Significant Permit Modification No.: 005-19981-00042, issued on May 13, 2005.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
S-MFHI	Baghouse MFHI	53.0	2.5	28,000	<140

Recommendation

The staff recommends to the Commissioner that the Significant Source Modification and Significant Permit Modification be approved. This recommendation is based on the following facts and conditions:

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

An application for the purposes of this review was received on July 22, 2005.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (6 pages).

Potential To Emit Before Controls (Modification)

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

Pollutant	Potential To Emit (tons/year)
PM	49.80
PM-10	30.40
SO_2	10.67
VOC	5.97
CO	3.71
NO_x	13.33

HAPs	Potential To Emit (tons/year)
Hydrofluoric Acid	Less than 10
Chromium Cmpds.	Less than 10
Hexane	Less than 10
TOTAL	Less than 25

Justification for Modification

The Title V permit is being modified through a Significant Source Modification because potential PM and PM10 emissions are greater than twenty-five (25) tons per year. This modification is being performed pursuant to 326 IAC 2-7-10.5(f)(4)(A).

The modification will give the source approval to construct the new emission units. A Significant Permit Modification (005-21647-00042) will be issued and will incorporate the source modification into the Part 70 permit and give the source approval to operate the new emission units. The Significant Source Modification is being incorporated into the Part 70 permit through a Significant Permit Modification because additional compliance monitoring requirements are being added to the Part 70 permit, which are considered significant.

County Attainment Status

The source is located in Bartholomew County.

Pollutant	Status
PM2.5	Attainment
PM-10	Attainment
SO_2	Attainment
NO_2	Attainment
1-hour Ozone	Attainment
8-hour Ozone	Attainment
CO	Attainment
Lead	Attainment

(a) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC emissions and NOx are considered when evaluating the rule applicability relating to ozone. Bartholomew County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions and NOx were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

(b) Bartholomew County has been classified as unclassifiable or attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM 2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions. See the State Rule Applicability for the source section.

(c) Bartholomew County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

(d) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 or 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	Less than 250
PM-10	Less than 250
SO_2	Less than 250
VOC	Less than 250
CO	Less than 250
NOx	Less than 250

(a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.

(b) These emissions are based upon all previous approvals issued to this source.

Potential to Emit After Controls for the Modification

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units for the modification.

	Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
Reverberatory Melt Furnaces I, J, and K (combustion)	0.08	0.34	0.03	0.24	3.71	4.42	0.08
Melting/Fluxing/ Casting(1)	0.50	0.30	10.64	3.93	0.0	8.91	8.17
Die Coating in Die Casting Machines	0.0	0.0	0.0	1.80	0.0	0.0	0.23
Total Emissions from Modification	0.58	0.64	10.67	5.97	3.71	13.33	8.48
PSD Significant Modification Threshold	250	250	250	250	250	250	n/a
Total Source Emissions (new and existing emission units)(2)	112.56	93.90	87.87	61.88	26.36	87.18	108.23

(1) PM and PM10 emissions are after control.
(2) Total source emissions do not include emissions from melt furnaces H and I and casting line MAP 4C which were removed from the source or not constructed at the source.

This modification to an existing minor stationary source is not major because the emission increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

Federal Rule Applicability

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

(b) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR 63.1500 through 63.1519, Subpart RRR, were not included in the Part 70 permit because pursuant to 40 CFR 63.1500 (d), the requirements of this subpart do not apply to manufacturers of aluminum die castings, aluminum foundries, or aluminum extruders that melt no materials other than clean charge and materials generated within the facility; and that also do not operate a thermal chip dryer, sweat furnace or scrap dryer/delacquering kiln/decoating kiln. This source, including the new units added in this modification, only melts clean charge and does not operate a thermal chip dryer, sweat furnace or scrap dryer/delacquering kiln/decoating kiln, therefore, the requirements of this rule were not included.

(c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) included in this modification.

40 CFR 64 Compliance Assurance Monitoring

(a) This minor source modification does not involve a pollutant-specific emissions unit as defined in 40 CFR 64.1 for any of the criteria pollutants:
   (1) with the potential to emit before controls equal to or greater than the major source threshold for any criteria pollutants;
   (2) that is subject to an emission limitation or standard for any criteria pollutants; and
   (3) uses a control device as defined in 40 CFR 64.1 to comply with that emission limitation or standard.

Therefore, the requirements of 40 CFR 64, Compliance Assurance Monitoring, are not applicable to this modification.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

This source was previously determined to qualify as one of the 28 listed source categories as a secondary metal production plant. This source has indicated that it melts only aluminum ingot and internal returns. The only metal purification that occurs at the plant is a light fluxing operation which removes oxidation. No "demagging" occurs at this plant. Therefore, as determined in the Part 70 permit issued to this source (T005-7715-00042), the source will not be considered as one of the 28 listed source categories as a secondary metal production plant under 326 IAC 2-2 (Prevention of Significant Deterioration). Therefore, the major source threshold under 326 IAC 2-2 for all regulated pollutants is 250 tons per year.

This proposed modification is not considered a major modification because it has the potential to emit less than the PSD significant emission thresholds for any regulated pollutant. Potential emissions of all pollutants from the modification plus emissions from the existing source are less than 250 tons per year. Therefore, 326 IAC 2-2 will not apply and the source will remain an existing minor PSD source. PM and PM10 emissions from the new melt furnaces I, J, and K will be limited to their potential emissions in the permit to ensure that the requirements of 326 IAC 2-2 do not apply.

326 IAC 2-6 (Emission Reporting)

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

326 IAC 5-1 (Opacity Limitations)

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

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

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

State Rule Applicability - Individual Facilities

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

Pursuant to 326 IAC 2-4.1 (New Source Toxics Control), any new process or production unit, which in and of itself emits or has the potential to emit (PTE) 10 tons per year of any HAP or 25 tons per year of any combination of HAPs, must be controlled using technologies consistent with Maximum Achievable Control Technology (MACT). Potential single and total HAP emissions from this modification are less than 10 and 25 tons per year, respectively. Therefore, this rule does not apply.

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

Pursuant to 326 IAC 6-3-2 the particulate from each of the melt furnaces (I, J, and K) in the three (3) casting lines shall not exceed 3.76 pounds per hour when each is operating at a process weight rate of 0.88 ton per hour based on 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:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour
P = 0.88 ton/hr for each casting line

The baghouse (MFHI) shall be in operation at all times the three (3) melt furnaces (I, J, and K) in the three (3) aluminum casting lines (MAP I, MAP J, and MAP K) are in operation, in order to comply with this limit.

For purposes of determining compliance with the particulate limits pursuant to 326 IAC 6-3-2 for the three (3) new melt furnaces (I, J, and K) all of which exhaust through the baghouse identified as MFHI, the allowable particulate emission rate from baghouse MFHI shall not exceed 11.28 pounds per hour.

326 IAC 8-1-6 (New Facilities, General Reduction Requirements)
This modification is not subject to this rule because potential VOC emissions are less than 25 tons per year.

326 IAC 8-2-9 (Miscellaneous Metal Coating)
The die coating in the die casting machines is not subject to 326 IAC 8-2-9 (Miscellaneous Metal Coatings) because actual VOC emissions are less than 15 pounds per day. Therefore, the requirements of 326 IAC 8-2-9 (Miscellaneous Metal Coatings) are not applicable.

Testing Requirements

Since all emissions were calculated using AP-42 emission factors or mass balance, there are no applicable testing requirements.

Compliance Requirements

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

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

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

1. The three (3) aluminum casting lines, identified as MAP I, MAP J, and MAP K have applicable compliance monitoring conditions as specified below:

(a) Visible emission notations of the baghouse #MFHI stack exhaust (S/V S-MFHI) shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

(f) The Permittee shall record the total static pressure drop across the baghouse used in conjunction with Melt Furnaces I, J, and K at least once per shift when the Melt Furnaces I, J, and K are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 0.3 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

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

(g) An inspection shall be performed each calendar quarter of all bags controlling the Melt Furnaces I, J, and K. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.

(h) In the event that bag failure has been observed:

(1) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be 10 days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

(2) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

These monitoring conditions are necessary because the baghouse for the Melt Furnaces I, J, and K must operate properly to ensure compliance with 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) and 326 IAC 2-7 (Part 70).

Changes Proposed

The changes listed below have been made to the Part 70 Operating Permit (T005-7715-00042).

1. Section A.2 is revised as follows:

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

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

(1) The following surface coating operations:

(a) One (1) high volume low pressure (HVLP) spray coating facility, identified as Spray Booth A (SB-A), constructed in 1987, with a maximum capacity of coating 306 aluminum wheels per hour, consisting of the following equipment:

1. one (1) spray booth using a waterwash for overspray control and exhausting through one stack, identified as S/V ID SB-A1 and one (1) spray booth using dry filter media for overspray control and exhausting through one stack identified as S/V ID SB-A2.

2. one (1) natural gas-fired flash-off oven, rated at 2 MMBtu/hr, exhausting through one (1) stack (S/V ID SF-A);

3. one (1) natural gas-fired drying oven, rated at 2 MMBtu/hr, exhausting through one (1) stack (S/V ID SO-A);

(b) One (1) low pressure high volume (LPHV) spray coating facility, identified as Spray Booth B (SB-B), constructed in 1987, with a maximum capacity of coating 306 aluminum wheels per hour, consisting of the following:

1. two (2) spray booths, each using a waterwash for overspray control and exhausting through two (2) stacks, (S/V ID SB-B1 and SB-B2);

2. one (1) natural gas-fired flash-off oven, rated at 2 MMBtu/hr, exhausting through one (1) stack (S/V ID SF-B);

3. one (1) natural gas-fired drying oven, rated at 2 MMBtu/hr, exhausting through one (1) stack (S/V ID SO-B);

(2) The following aluminum processing operations:

(a) One (1) No. 2 fuel oil-fired reverberatory melt furnace rated at 5.6 million (mm) British thermal units (Btu) per hour, identified as Melt Furnace #1 (MF1), constructed in 1987, with a maximum capacity of processing 3.00 tons of aluminum ingot per hour and a maximum chlorine flux of 1 pound per hour, utilizing a cyclone and the #2 melt furnace baghouse to control particulate matter emissions, and exhausting through one (1) stack (S/V ID MF2-S);

~~(b) two (2) natural gas fired reverberatory melting furnaces each rated at 0.32 MMBtu per hour, identified as Melt Furnaces H and Melt Furnace I, (MFH,I), both constructed in 1994, with a combined total capacity to melt and cast 1.98 tons per hour of aluminum ingot and a combined maximum chlorine flux of 1 pound per hour, utilizing one (1) baghouse for particulate matter emissions control, and exhausting through two (2) stacks (S/V ID MFH-S and MFI-S), respectively;~~

~~(c)~~**(b)** Aluminum Casting Line #3, with a total capacity of processing 2.64 tons per hour of aluminum, consisting of the following:

1. four (4) natural gas-fired reverberatory jet melt furnaces, identified as Melt Furnaces A,B,C and D, (MF-A,B,C,D), each constructed in 1995, each rated at 3.02 MMBtu per hour, and each with a capacity of processing 1320 pounds of aluminum per hour and a maximum chlorine flux of 0.84 pounds per hour, and controlled by two (2) baghouses, identified as #C01 and #C02; units MF-A, and MF-B utilize baghouse #C01, and units MF-C and MF-D utilize baghouse #C02. Both baghouses (#C01 and #C02) are exhausted through one stack (S/V ID MF-S);

~~(d)~~**(c)** One (1) natural gas-fired holding furnace, rated at 4.26 MMBtu per hour, identified as Holding Furnace H (MPH), constructed in 1990, with a maximum molten aluminum storage capacity of 10,000 pounds, and a maximum chlorine flux usage rate of 0.5 pound per hour, exhausting through one stack (S/V ID MPH-S).

~~(e)~~**(d)** One (1) aluminum casting line, identified as MAP E, constructed in 2004, consisting of the following:

1. one (1) natural gas-fired reverberatory melt furnace, identified as Melt Furnace E, with a maximum heat input capacity of 3.36 million British thermal units (MMBtu) per hour, with a maximum capacity of processing 0.88 tons of aluminum per hour, utilizing a non-chlorine flux, controlled by one (1) baghouse, identified as #CO3, exhausting through one (1) stack (S/V S-CO3);
2. two (2) die casting machines, using a water-based die coating;
3. one (1) heat treat process including one (1) solution oven, identified as Solution Furnace E, with a maximum heat input capacity of 0.715 MMBtu per hour, and one (1) aging oven, identified as Age Oven EF, with a maximum heat input capacity of 0.536 MMBtu per hour, which is shared with aluminum casting line MAP F.

~~(f)~~**(e)** One (1) aluminum casting line, identified as MAP F, constructed in 2004, consisting of the following:

1. one (1) natural gas-fired reverberatory melt furnace, identified as Melt Furnace F, with a maximum heat input capacity of 3.36 MMBtu per hour, with a maximum capacity of processing 0.88 tons of aluminum per hour, utilizing a non-chlorine flux, controlled by one (1) baghouse, identified as #CO3, exhausting through one (1) stack (S/V S-CO3);
2. two (2) die casting machines, using a water-based die coating;
3. one (1) heat treat process including one (1) solution oven, identified as Solution Furnace F, with a maximum heat input capacity of 0.715 MMBtu per hour, and one (1) aging oven, identified as Age Oven EF, with a maximum heat input capacity of 0.536 MMBtu per hour, which is shared with aluminum casting line MAP E.

~~(g)~~**(f)** One (1) aluminum casting line, identified as ~~MAP 4A~~ **Line G**, to be constructed in 2005, consisting of the following:

1. one (1) natural gas-fired reverberatory melt furnace, identified as Melt Furnace ~~4A~~**G**, with a maximum heat input capacity of 3.36 million British thermal units (MMBtu) per hour, with a maximum capacity of processing 0.88 tons of aluminum per hour, utilizing a non-chlorine flux, controlled by one (1) baghouse, identified as #CO3, exhausting through one (1) stack (S/V S-CO3);
2. two (2) die casting machines, using a water-based die coating;
3. one (1) heat treat process including one (1) natural gas-fired solution oven, identified as Solution Furnace ~~4A~~**G**, with a maximum heat input capacity of 0.715 MMBtu per hour, and one (1) natural gas-fired aging oven, identified as Age Oven 4, with a maximum heat input capacity of 0.536 MMBtu per hour, which is shared with aluminum casting line~~s MAP 4B and MAP 4C~~ **Line H**.

~~(h)~~**(g)** One (1) aluminum casting line, identified as ~~MAP 4B~~ **Line H**, to be constructed in 2005, consisting of the following:

1. one (1) natural gas-fired reverberatory melt furnace, identified as Melt Furnace ~~4B~~**H**, with a maximum heat input capacity of 3.36 MMBtu per hour, with a maximum capacity of processing 0.88 tons of aluminum per hour, utilizing a non-chlorine flux, controlled by one (1) baghouse, identified as #CO3, exhausting through one (1) stack (S/V S-CO3);
2. two (2) die casting machines, using a water-based die coating;

3. one (1) heat treat process including one (1) natural gas-fired solution oven, identified as Solution Furnace ~~4B~~**H**, with a maximum heat input capacity of 0.715 MMBtu per hour, and one (1) natural gas-fired aging oven, identified as Age Oven 4, with a maximum heat input capacity of 0.536 MMBtu per hour, which is shared with aluminum casting line~~s MAP 4A and MAP 4C~~ **Line G**.

~~(i) One (1) aluminum casting line, identified as MAP 4C, to be constructed in 2005, consisting of the following:~~

~~1. one (1) natural gas-fired reverberatory melt furnace, identified as Melt Furnace 4C, with a maximum heat input capacity of 3.36 MMBtu per hour, with a maximum capacity of processing 0.88 tons of aluminum per hour, utilizing a non-chlorine flux, controlled by one (1) baghouse, identified as #CO3, exhausting through one (1) stack (S/V S-CO3);~~
~~2. two (2) die casting machines, using a water-based die coating;~~
~~3. one (1) heat treat process including one (1) natural gas-fired solution oven, identified as Solution Furnace 4C, with a maximum heat input capacity of 0.715 MMBtu per hour, and one (1) natural gas-fired aging oven, identified as Age Oven 4, with a maximum heat input capacity of 0.536 MMBtu per hour, which is shared with aluminum casting lines MAP 4A and MAP 4B.~~

(h) One (1) aluminum casting line, identified as MAP I, to be constructed in 2005, consisting of the following:
(1) one (1) natural gas-fired reverberatory melt furnace, identified as Melt Furnace I, with a maximum heat input capacity of 3.36 million British thermal units (MMBtu) per hour, with a maximum capacity of processing 0.88 tons of aluminum per hour, utilizing a non-chlorine flux, controlled by one (1) baghouse, identified as #MFHI, exhausting through one (1) stack (S/V S-MFHI); and
(2) two (2) die casting machines, using a water-based die coating;

(i) One (1) aluminum casting line, identified as MAP J, to be constructed in 2005, consisting of the following:
(1) one (1) natural gas-fired reverberatory melt furnace, identified as Melt Furnace J, with a maximum heat input capacity of 3.36 MMBtu per hour, with a maximum capacity of processing 0.88 tons of aluminum per hour, utilizing a non-chlorine flux, controlled by one (1) baghouse, identified as #MFHI, exhausting through one (1) stack (S/V S-MFHI); and
(2) two (2) die casting machines, using a water-based die coating;

(j) One (1) aluminum casting line, identified as MAP K, to be constructed in 2005, consisting of the following:
(1) one (1) natural gas-fired reverberatory melt furnace, identified as Melt Furnace K, with a maximum heat input capacity of 3.36 MMBtu per hour, with a maximum capacity of processing 0.88 tons of aluminum per hour, utilizing a non-chlorine flux, controlled by one (1) baghouse, identified as #MFHI, exhausting through one (1) stack (S/V S-MFHI); and
(2) two (2) die casting machines, using a water-based die coating.

2. Section D.2 is revised as follows:

SECTION D.2 FACILITY OPERATION CONDITIONS

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

(2) The following aluminum processing operations:

(a) One (1) No. 2 fuel oil-fired reverberatory melt furnace rated at 5.6 million (mm) British thermal units (Btu) per hour, identified as Melt Furnace #1 (MF1), constructed in 1987, with a maximum capacity of processing 3.00 tons of aluminum ingot per hour and a maximum chlorine flux of 1 pound per hour, utilizing a cyclone and the #2 melt furnace baghouse to control particulate matter emissions, and exhausting through one (1) stack (S/V ID MF2-S);

~~(b) two (2) natural gas fired reverberatory melting furnaces each rated at 0.32 MMBtu per hour, identified as Melt Furnaces H and Melt Furnace I, (MFH,I), both constructed in 1994, with a combined total capacity to melt and cast 1.98 tons per hour of aluminum ingot and a combined maximum chlorine flux of 1 pound per hour, utilizing one (1) baghouse for particulate matter emissions control, and exhausting through two (2) stacks (S/V ID MFH-S and MFI-S), respectively;~~

~~(c)~~**(b)** Aluminum Casting Line #3, with a total capacity of processing 2.64 tons per hour of aluminum, consisting of the following:

1. four (4) natural gas-fired reverberatory jet melt furnaces, identified as Melt Furnaces A,B,C and D, (MF-A,B,C,D), each constructed in 1995, each rated at 3.02 MMBtu per hour, and each with a capacity of processing 1320 pounds of aluminum per hour and a maximum chlorine flux of 0.84 pounds per hour, and controlled by two (2) baghouses, identified as #C01 and #C02; units MF-A, and MF-B utilize baghouse #C01, and units MF-C and MF-D utilize baghouse #C02. Both baghouses (#C01 and #C02) are exhausted through one stack (S/V ID MF-S);

~~(d)~~**(c)** One (1) natural gas-fired holding furnace, rated at 4.26 MMBtu per hour, identified as Holding Furnace H (MPH), constructed in 1990, with a maximum molten aluminum storage capacity of 10,000 pounds, and a maximum chlorine flux usage rate of 0.5 pound per hour, exhausting through one stack (S/V ID MPH-S).

~~(e)~~**(d)** One (1) aluminum casting line, identified as MAP E, constructed in 2004, consisting of the following:

1. one (1) natural gas-fired reverberatory melt furnace, identified as Melt Furnace E, with a maximum heat input capacity of 3.36 million British thermal units (MMBtu) per hour, with a maximum capacity of processing 0.88 tons of aluminum per hour, utilizing a non-chlorine flux, controlled by one (1) baghouse, identified as #CO3, exhausting through one (1) stack (S/V S-CO3);
2. two (2) die casting machines, using a water-based die coating;
3. one (1) heat treat process including one (1) solution oven, identified as Solution Furnace E, with a maximum heat input capacity of 0.715 MMBtu per hour, and one (1) aging oven, identified as Age Oven EF, with a maximum heat input capacity of 0.536 MMBtu per hour, which is shared with aluminum casting line MAP F.

~~(f)~~**(e)** One (1) aluminum casting line, identified as MAP F, constructed in 2004, consisting of the following:

1. one (1) natural gas-fired reverberatory melt furnace, identified as Melt Furnace F, with a maximum heat input capacity of 3.36 MMBtu per hour, with a maximum capacity of processing 0.88 tons of aluminum per hour, utilizing a non-chlorine flux, controlled by one (1) baghouse, identified as #CO3, exhausting through one (1) stack (S/V S-CO3);
2. two (2) die casting machines, using a water-based die coating;
3. one (1) heat treat process including one (1) solution oven, identified as Solution Furnace F, with a maximum heat input capacity of 0.715 MMBtu per hour, and one (1) aging oven, identified as Age Oven EF, with a maximum heat input capacity of 0.536 MMBtu per hour, which is shared with aluminum casting line MAP E.

~~(g)~~**(f)** One (1) aluminum casting line, identified as ~~MAP 4A~~ **Line G**, to be constructed in 2005, consisting of the following:

1. one (1) natural gas-fired reverberatory melt furnace, identified as Melt Furnace ~~4A~~**G**, with a maximum heat input capacity of 3.36 million British thermal units (MMBtu) per hour, with a maximum capacity of processing 0.88 tons of aluminum per hour, utilizing a non-chlorine flux, controlled by one (1) baghouse, identified as #CO3, exhausting through one (1) stack (S/V S-CO3);
2. two (2) die casting machines, using a water-based die coating;
3. one (1) heat treat process including one (1) natural gas-fired solution oven, identified as Solution Furnace ~~4A~~**G**, with a maximum heat input capacity of 0.715 MMBtu per hour, and one (1) natural gas-fired aging oven, identified as Age Oven 4, with a maximum heat input capacity of 0.536 MMBtu per hour, which is shared with aluminum casting line~~s MAP 4B and MAP 4C~~ **Line H**.

~~(h)~~**(g)** One (1) aluminum casting line, identified as ~~MAP 4B~~ **Line H**, to be constructed in 2005, consisting of the following:

1. one (1) natural gas-fired reverberatory melt furnace, identified as Melt Furnace ~~4B~~**H**, with a maximum heat input capacity of 3.36 MMBtu per hour, with a maximum capacity of processing 0.88 tons of aluminum per hour, utilizing a non-chlorine flux, controlled by one (1) baghouse, identified as #CO3, exhausting through one (1) stack (S/V S-CO3);
2. two (2) die casting machines, using a water-based die coating;
3. one (1) heat treat process including one (1) natural gas-fired solution oven, identified as Solution Furnace ~~4B~~**H**, with a maximum heat input capacity of 0.715 MMBtu per hour, and one (1) natural gas-fired aging oven, identified as Age Oven 4, with a maximum heat input capacity of 0.536 MMBtu per hour, which is shared with aluminum casting line~~s MAP 4A and MAP 4C~~ **Line G**.

~~(i) One (1) aluminum casting line, identified as MAP 4C, to be constructed in 2005, consisting of the following:~~

~~1. one (1) natural gas-fired reverberatory melt furnace, identified as Melt Furnace 4C, with a maximum heat input capacity of 3.36 MMBtu per hour, with a maximum capacity of processing 0.88 tons of aluminum per hour, utilizing a non-chlorine flux, controlled by one (1) baghouse, identified as #CO3, exhausting through one (1) stack (S/V S-CO3);~~

~~2. two (2) die casting machines, using a water-based die coating;~~

~~3. one (1) heat treat process including one (1) natural gas-fired solution oven, identified as Solution Furnace 4C, with a maximum heat input capacity of 0.715 MMBtu per hour, and one (1) natural gas-fired aging oven, identified as Age Oven 4, with a maximum heat input capacity of 0.536 MMBtu per hour, which is shared with aluminum casting lines MAP 4A and MAP 4B.~~

(h) One (1) aluminum casting line, identified as MAP I, to be constructed in 2005, consisting of the following:

(1) one (1) natural gas-fired reverberatory melt furnace, identified as Melt Furnace I, with a maximum heat input capacity of 3.36 million British thermal units (MMBtu) per hour, with a maximum capacity of processing 0.88 tons of aluminum per hour, utilizing a non-chlorine flux, controlled by one (1) baghouse, identified as #MFHI, exhausting through one (1) stack (S/V S-MFHI); and

(2) two (2) die casting machines, using a water-based die coating;

(i) One (1) aluminum casting line, identified as MAP J, to be constructed in 2005, consisting of the following:

(1) one (1) natural gas-fired reverberatory melt furnace, identified as Melt Furnace J, with a maximum heat input capacity of 3.36 MMBtu per hour, with a maximum capacity of processing 0.88 tons of aluminum per hour, utilizing a non-chlorine flux, controlled by one (1) baghouse, identified as #MFHI, exhausting through one (1) stack (S/V S-MFHI); and

(2) two (2) die casting machines, using a water-based die coating;

(j) One (1) aluminum casting line, identified as MAP K, to be constructed in 2005, consisting of the following:

(1) one (1) natural gas-fired reverberatory melt furnace, identified as Melt Furnace K, with a maximum heat input capacity of 3.36 MMBtu per hour, with a maximum capacity of processing 0.88 tons of aluminum per hour, utilizing a non-chlorine flux, controlled by one (1) baghouse, identified as #MFHI, exhausting through one (1) stack (S/V S-MFHI); and

(2) two (2) die casting machines, using a water-based die coating.

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(d) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.

(1) one (1) enclosed Wheelabrator steel-shotblaster identified, as SB#1, constructed in 1993, with a maximum capacity of blasting 2.41 tons of aluminum per hour, equipped with a baghouse (WDC#1) for particulate control, and exhausted inside the plant; and

(2) one (1) enclosed Wheelabrator steel-shotblaster, identified as SB#2, constructed in 2002, with a maximum blasting capacity of 3.0 tons of aluminum per hour, equipped with a baghouse (WDC#2) for particulate control, and exhausted inside the plant.

(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 Secondary Metal Production [326 IAC 2-2]

As of March 24, 2003, the effective date of the NESHAP for secondary aluminum production (40 CFR Part 63, Subpart RRR), the source shall melt only “clean charge,” “customer returns,” or “internal scrap” and shall not operate a “thermal chip dryer” as each is defined in 40 CFR 63.1503. Violation of this condition would cause the source to be considered a secondary metal production facility for purposes of 40 CFR 63.1503. Violation of this condition may also constitute a violation of 40 CFR 52.21 and 326 IAC 2-2 (PSD).

Compliance with this condition renders the requirements of 40 CFR 63, Subpart RRR not applicable. Compliance with this condition is necessary to make the source a minor source under PSD.

D.2.2 Particulate [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from Melt Furnace #1 (MF1) shall not exceed 8.56 pounds per hour when operating at a process weight rate of 3.0 tons per hour.

~~(b) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from Melt Furnace H shall not exceed 4.07 pounds per hour when operating at a process weight rate of 0.99 tons per hour.~~

~~(c) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from Melt Furnace I shall not exceed 4.07 pounds per hour when operating at a process weight rate of 0.99 tons per hour.~~

~~(d)~~**(b)** Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from Melt Furnace A (MF-A) shall not exceed 3.10 pounds per hour when operating at a process rate of 0.66 tons per hour.

~~(e)~~**(c)** Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from Melt Furnace B (MF-B) shall not exceed 3.10 pounds per hour when operating at a process rate of 0.66 tons per hour.

~~(f)~~**(d)** Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from Melt Furnace C (MF-C) shall not exceed 3.10 pounds per hour when operating at a process rate of 0.66 tons per hour.

~~(g)~~**(e)** Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from Melt Furnace D (MF-D) shall not exceed 3.10 pounds per hour when operating at a process rate of 0.66 tons per hour.

~~(h)~~**(f)** Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the shotblaster identified as SB#1 shall not exceed 7.39 pounds per hour when operating at a process weight rate of 2.41 tons per hour.

~~(i)~~**(g)** Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the shotblaster identified as SB#2 shall not exceed 4.99 pounds per hour when operating at a process weight rate of 1.34 tons per hour.

~~(j)~~**(h)** Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from Melt Furnace E shall not exceed 3.76 pounds per hour when operating at a process weight rate of 0.88 tons per hour.

~~(k)~~**(i)** Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from Melt Furnace F shall not exceed 3.76 pounds per hour when operating at a process weight rate of 0.88 tons per hour.

~~(l)~~**(j)** Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from Melt Furnace ~~4A~~**G** shall not exceed 3.76 pounds per hour when operating at a process weight rate of 0.88 tons per hour.

~~(m)~~**(k)** Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from Melt Furnace ~~4B~~**H** shall not exceed 3.76 pounds per hour when operating at a process weight rate of 0.88 tons per hour.

~~(n) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from Melt Furnace 4C shall not exceed 3.76 pounds per hour when operating at a process weight rate of 0.88 tons per hour.~~

~~(o)~~**(l)** For purposes of determining compliance with the particulate limits pursuant to 326 IAC 6-3-2 for the ~~five (5)~~ **four (4)** melt furnaces (E, F, ~~4A~~**G**, **and** ~~4B~~**H**~~, and 4C~~) all of which exhaust through the baghouse identified as CO3, the allowable particulate emission rate from baghouse CO3 shall not exceed ~~18.8~~ **15.04** pounds per hour.

(m) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from Melt Furnace I shall not exceed 3.76 pounds per hour when operating at a process weight rate of 0.88 tons per hour.

(n) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from Melt Furnace J shall not exceed 3.76 pounds per hour when operating at a process weight rate of 0.88 tons per hour.

(o) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from Melt Furnace K shall not exceed 3.76 pounds per hour when operating at a process weight rate of 0.88 tons per hour.

(p) For purposes of determining compliance with the particulate limits pursuant to 326 IAC 6-3-2 for the three (3) melt furnaces (I, J and K) all of which exhaust through the baghouse identified as MFHI, the allowable particulate emission rate from baghouse MFHI shall not exceed 11.28 pounds per hour when the furnaces are operating at maximum capacity.

Interpolation of the data for the process weight rate up for one hundred (100) pounds up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

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

D.2.3 Particulate Matter (PM10) and Sulfur Dioxide (SO_2) [326 IAC 2-2][40 CFR 52.21]

(a) The PM10 emissions from the Melt Furnace #1 (MF1) shall not exceed 8.44 pounds per hour.

~~(b) The PM10 emissions from the Melt Furnace H (MFH) shall not exceed 4.01 pounds per hour.~~

~~(c) The PM10 emissions from the Melt Furnace I (MFI) shall not exceed 4.01 pounds per hour.~~

~~(d)~~**(b)** The PM10 emissions from the Melt Furnace A (MF-A) shall not exceed 3.06 pounds per hour.

~~(e)~~**(c)** The PM10 emissions from the Melt Furnace B (MF-B) shall not exceed 3.06 pounds per hour.

~~(f)~~**(d)** The PM10 emissions from the Melt Furnace C (MF-C) shall not exceed 3.06 pounds per hour.

~~(g)~~**(e)** The PM10 emissions from the Melt Furnace D (MF-D) shall not exceed 3.06 pounds per hour.

~~(h)~~**(f)** The PM10 emissions from the shotblaster identified as SB#1 shall not exceed 7.28 pounds per hour.

~~(i)~~**(g)** The PM10 emissions from the shotblaster identified as SB#2 shall not exceed 4.92 pounds per hour.

~~(j)~~**(h)** The PM10 emissions from baghouse CO3 controlling emissions from Melt Furnace E, Melt Furnace F, Melt Furnace ~~4A~~**G**, **and** Melt Furnace ~~4B~~**H**~~, and Melt Furnace 4C~~ shall not exceed 6.80 pounds per hour.

(i) The PM10 emissions from baghouse MFHI controlling emissions from Melt Furnace I, Melt Furnace J, and Melt Furnace K shall not exceed 6.94 pounds per hour.

~~(k)~~**(j)** The SO2 emissions from the Melt Furnace #1 (MF1) shall not exceed 5.88 pounds per hour.

The above limitations will limit total PM10 and SO_2 emissions to less than 250 tons per year each, therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 do not apply.

D.2.4 Particulate Matter (PM) [326 IAC 2-2][40 CFR 52.21]

(a) The PM emissions from the Melt Furnace #1 shall not exceed 6.69 pounds per hour.

~~(b) The PM emissions from the Melt Furnace H (MFH) shall not exceed 3.19 pounds per hour.~~

~~(c) The PM emissions from the Melt Furnace I (MFI) shall not exceed 3.19 pounds per hour.~~

~~(d)~~**(b)** The PM emissions from the Melt Furnace A (MF-A) shall not exceed 2.42 pounds per hour.

~~(e)~~**(c)** The PM emissions from the Melt Furnace B (MF-B) shall not exceed 2.42 pounds per hour.

~~(f)~~**(d)** The PM emissions from the Melt Furnace C (MF-C) shall not exceed 2.42 pounds per hour.

~~(g)~~**(e)** The PM emissions from the Melt Furnace D (MF-D) shall not exceed 2.42 pounds per hour.

~~(h)~~**(f)** The PM emissions from the shotblaster identified as SB#1 shall not exceed 5.78 pounds per hour.

~~(i)~~**(g)** The PM emissions from the shotblaster identified as SB#2 shall not exceed 3.90 pounds per hour.

~~(j)~~**(h)** The PM emissions from baghouse CO3 controlling emissions from Melt Furnace E, Melt Furnace F, Melt Furnace ~~4A~~**G**, **and** Melt Furnace ~~4B~~**H**~~, and Melt Furnace 4C~~ shall not exceed 10.88 pounds per hour.

(i) The PM emissions from baghouse MFHI controlling emissions from Melt Furnace I, Melt Furnace J, and Melt Furnace K shall not exceed 11.37 pounds per hour.

The above limitations will limit total source-wide PM emissions to less than 250 tons per year, therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 do not apply.

D.2.5 Particulate Matter (PM) and Particulate Matter Less Than or Equal to 10 Microns (PM-10)

The two (2) aluminum casting lines, MAP E and MAP F, including Melt Furnaces E and F controlled by baghouse #CO3, and the ~~three (3)~~ **two (2)** aluminum casting lines, ~~MAP 4A,~~ **Line G and** ~~MAP 4B~~ **Line H**~~, and MAP 4C~~, including Melt Furnaces ~~4A,~~ **G and** ~~4B~~**H**~~, and 4C~~ also controlled by baghouse #CO3, shall meet the requirements of 326 IAC 2-7-10.5(d)(4)(C), including the following:

(a) A ninety-nine percent (99%) control efficiency must be achieved and maintained for the baghouse #CO3;

(b) There shall be no visible emissions from the two (2) casting lines identified as MAP E and MAP F;

(c) There shall be no visible emissions from the ~~three (3)~~ **two (2)** casting lines identified as ~~MAP 4A,~~ **Line G and** ~~MAP 4B~~ **Line H**~~, and MAP 4C~~;

(d) The Permittee shall certify to the OAQ that the control device supplier guarantees that a specific outlet concentration, in conjunction with design air flow, will result in actual emissions from MAP E and MAP F of less than 25 tons per year of PM or 15 tons per year of PM-10 and actual emissions from ~~MAP 4A,~~ **Line G and** ~~MAP 4B, and MAP 4C~~ **Line H** of less than 25 tons per year of PM or 15 tons per year of PM-10.

(e) The combined PM emissions from MAP E and MAP F shall not exceed 0.0236 grains per dry standard cubic foot, and 5.68 pounds per hour;

(f) The combined PM10 emissions from MAP E and MAP F shall not exceed 0.014 grains per dry standard cubic foot, and 3.40 pounds per hour;

(g) The combined PM emissions from ~~MAP 4A,~~ **Line G and** ~~MAP 4B, and MAP 4C~~ **Line H** shall not exceed 0.0236 grains per dry standard cubic foot, and 5.68 pounds per hour;

(h) The combined PM10 emissions from ~~MAP 4A,~~ **Line G and** ~~MAP 4B, and MAP 4C~~ **Line H** shall not exceed 0.014 grains per dry standard cubic foot, and 3.40 pounds per hour.

The above limitations and the limitations in conditions D.2.3 and D.2.4 will also limit total source-wide PM and PM-10 emissions to less than 250 tons per year each, therefore, the requirements of 326 IAC 2-2 (PSD) do not apply.

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

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for each facility and its control device.

Compliance Determination Requirements

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

(a) During the period between July, 2008 and January, 2009, in order to demonstrate compliance with Conditions D.2.2, D.2.3, and D.2.4, the Permittee shall perform PM and PM-10 testing on furnaces MF1, MF2, ~~MFH and MFI together,~~ and either MF-A and MF-B together or MF-C and MF-D together utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

(b) Within 180 days after issuance of Significant Permit Modification No. 005-18547-00042, in order to demonstrate compliance with Conditions D.2.2~~(j)~~**(h)**, D.2.2~~(k)~~**(i)** and D.2.5**(e) and (f)**, the Permittee shall perform PM and PM-10 testing on Melt Furnaces E and F utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensable PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

(c) Within 60 days after achieving the maximum production rate but no later than 180 days after startup of the Melt Furnaces ~~4A,~~ **G and** ~~4B~~**H**, ~~and 4C,~~ in order to demonstrate compliance with Conditions D.2.2~~(l)~~**(j)**, D.2.2~~(m)~~**(k)**, D.2.2~~(n)~~**(l)**, ~~D.2.2(o),~~ D.2.3~~(j)~~**(h)**, D.2.4~~(j)~~**(h)** and D.2.5**(g) and (h)**, the Permittee shall perform PM and PM-10 testing on baghouse CO3 controlling emissions from Melt Furnaces ~~4A,~~ **G and** ~~4B, and 4C~~ **H** utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensable PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

D.2.8 Particulate Matter (PM)

(a) In order to comply with D.2.2, D.2.3, and D.2.4, the baghouses and cyclone for PM and PM10 control shall be in operation and control emissions from the melt furnaces MF1, MF2, MF-A, MF-B, MF-C, MF-D, ~~MF-H, MF-I~~ and the shotblasters SB#1 and SB#2 at all times that the melt furnaces MF1, MF2, MF-A, MF-B, MF-C, MF-D, ~~MF-H, MF-I~~ and the shotblasters SB#1 and SB#2 are in operation.

(b) In order to comply with conditions **D.2.2,** D.2.3, D.2.4, and D.2.5, the baghouse for PM and PM10 control shall be in operation and control emissions from the melt furnaces E, F, ~~4A,~~ **G and** ~~4B, and 4C~~ **H** at all times that the melt furnaces E, F, ~~4A,~~ **G and** ~~4B, and 4C~~ **H** are in operation.

(c) In order to comply with condition D.2.2, the baghouse MFHI for PM control shall be in operation and control emissions from the melt furnaces I, J, and K at all times that the melt furnaces I, J, and K are in operation.

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

D.2.9 Visible Emissions Notations

(a) Visible emission notations of each of the melt furnaces MF1, MF2, MF-A, MF-B, MF-C, MF-D, ~~MF-H, MF-I~~ stack exhausts, each of the shotblasters SB#1 and SB#2 stack exhausts, ~~and~~ the baghouse #CO3 stack exhaust (S/V S - CO3)**, and the baghouse #MFHI stack exhaust (S/V S-MFHI)** shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

D.2.10 Parametric Monitoring

The Permittee shall record the total static pressure drop across each of the baghouses used in conjunction with the melt furnaces MF1, MF2, MF-A, MF-B, MF-C, MF-D, ~~MF-H, MF-I,~~ with shotblasters SB#1 and SB#2, ~~and~~ with melt furnaces E, F, ~~4A,~~ **G and** ~~4B~~**H**, ~~and 4C~~ **and with melt furnaces I, J, and K** at least once per shift when the facilities are in operation when venting to the atmosphere. When for any one reading, the pressure drop across any of the baghouses is outside the normal range of ~~1.0~~ **0.3** and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

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

D.2.11 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the melt furnaces MF1, MF2, MF-A, MF-B, MF-C, MF-D, ~~MF-H, MF-I,~~ the shotblasters SB#1 and SB#2, ~~and~~ melt furnaces E, F, ~~4A,~~ **G and** ~~4B~~**H**~~, and 4C~~ **and melt furnaces I, J, and K** when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.2.12 Cyclone Inspections

An inspection shall be performed each calendar quarter of all cyclones controlling the melt furnace (MF1) when venting to the atmosphere. A cyclone inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors.

D.2.13 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be 10 days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

(b) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

D.2.14 Cyclone Failure Detection

In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

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

D.2.15 Record Keeping Requirements

(a) To document compliance with Condition D.2.1, the Permittee shall maintain records of the type of aluminum melted in the furnaces sufficient to show compliance with Condition D.2.1.

(b) To document compliance with Condition D.2.9, the Permittee shall maintain records of visible emission notations of the baghouse stack exhaust from each facility once per shift.

(c) To document compliance with Condition D.2.10, the Permittee shall maintain once per shift records of the differential static pressure during normal operation when venting to the atmosphere.

(d) To document compliance with Conditions D.2.11 and D.2.12, the Permittee shall maintain records of the results of the inspections required under Conditions D.2.11 and D.2.12 and the dates the vents are redirected.

(e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Conclusion

The operation of this aluminum foundry operation for the production and surface coating of aluminum wheels shall be subject to the conditions of the attached proposed Significant Source Modification No. 005-21561-00042 and Significant Permit Modification No. 005-21647-00042.

Appendix A: Emission Calculations

Company Name: Enkei America, Inc., Enkei Wheel Corporation
Address City IN Zip: 2900 West Inwood Drive, Columbus, IN 47201
Source Modification: 005-21647
Plt ID: 005-00042
Reviewer: TE/EVP

Uncontrolled Potential Emissions (tons/year)

	Emissions Generating Activity			
Pollutant	Foundry Operations Melting/Fluxing/Casting	Die Coating in Casting Machines	Natural Gas Combustion	**TOTAL**
PM	49.72	0.00	0.08	49.80
PM10	30.06	0.00	0.34	30.40
SO2	10.64	0.00	0.03	10.67
NOx	8.91	0.00	4.42	13.33
VOC	3.93	1.80	0.24	5.97
CO	0.00	0.00	3.71	3.71
total HAPs	8.17	0.23	0.08	8.48
worst case single HAP	(Hydrofluoric Acid) 8.17	(Chromium Cmpd.) 0.23	(Hexane) 0.079	(Hydrofluoric Acid) 8.17

Total emissions based on rated capacity at 8,760 hours/year.

Controlled Potential Emissions (tons/year)

	Emissions Generating Activity			
Pollutant	Foundry Operations Melting/Fluxing/Casting	Die Coating in Casting Machines	Natural Gas Combustion	**TOTAL**
PM	0.50	0.00	0.08	0.58
PM10	0.30	0.00	0.34	0.64
SO2	10.64	0.00	0.03	10.67
NOx	8.91	0.00	4.42	13.33
VOC	3.93	1.80	0.24	5.97
CO	0.00	0.00	3.71	3.71
total HAPs	8.17	0.23	0.08	8.48
worst case single HAP	(Hydrofluoric Acid) 8.17	(Chromium Cmpd.) 0.23	(Hexane) 0.079	(Hydrofluoric Acid) 8.17

Total emissions based on rated capacity at 8,760 hours/year, after control.

Appendix A: Secondary Metal Production
Aluminum

Company Name: Enkei America, Inc., Enkei Wheel Corporation
Address City IN Zip: 2900 West Inwood Drive, Columbus, IN 47201
Source Modification: 005-21647
Plt ID: 005-00042
Reviewer: TE/EVP

SCC# 3-04-001-03
Melting Furnace/Reverberatory (Melt Furnaces I, J, and K)

TYPE OF MATERIAL		Throughput LBS/HR	1 TON/2000 lbs	TON/HR	Control Device: Baghouse MFHI Control Efficiency: 99.00%	
Aluminum		5280	2000	2.64		
	PM * **lbs/ton Produced**	**PM10 *** **lbs/ton Produced**	**SOx** **lbs/ton Produced**	**NOx** **lbs/ton Produced**	**VOC *** **lbs/ton Produced**	**CO** **lbs/tons Produced**
	4.3	2.6	0.9	0.76	0.2	--
Potential Emissions lbs/hr	11.35	6.86	2.38	2.01	0.53	--
Potential Emissions lbs/day	272.45	164.74	57.02	48.15	12.67	--
Potential Emissions tons/year	49.72	30.06	10.41	8.79	2.31	--
Controlled Emissions lbs/hr	0.11	0.07	2.38	2.01	0.53	--
Controlled Emissions lbs/day	2.72	1.65	57.02	48.15	12.67	--
Controlled Emissions tons/year	0.50	0.30	10.41	8.79	2.31	--

SCC# 3-04-001-14
Pouring/Casting

TYPE OF MATERIAL		Throughput LBS/HR	1 TON/2000 lbs	TON/HR		
Aluminum		5280	2000	2.64		
	PM **lbs/ton metal charged**	**PM10** **lbs/ton metal charged**	**SOx *** **lbs/ton metal charged**	**NOx *** **lbs/ton metal charged**	**VOC *** **lbs/ton metal charged**	**CO** **lbs/tons metal charged**
	--	--	0.02	0.01	0.14	--
Potential Emissions lbs/hr	0.00	0.00	0.05	0.03	0.37	--
Potential Emissions lbs/day	0.00	0.00	1.27	0.63	8.87	--
Potential Emissions tons/year	0.00	0.00	0.23	0.12	1.62	--

* Note: Emission factor is from FIRE version 6.24.
The only metal purification that occurs at the plant is a light fluxing operation which removes oxidation. No “demagging” occurs at this plant. The flux used contains no chlorine.
Metal is poured into die cast machines, and no sand molds are used. Therefore, no PM or PM10 emissions were estimated to be emitted from pouring/casting.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Company Name: Enkei America, Inc., Enkei Wheel Corporation
Address City IN Zip: 2900 W. Inwood Drive, Columbus, Indiana 47201
Source Modification: 005-21647
Plt ID: 005-00042
Reviewer: TE/EVP

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
10.08	88.3

Facilities	MMBtu/hr
MFI	3.36
MFJ	3.36
MFK	3.36
Total	**10.08**

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.08	0.34	0.03	4.42	0.24	3.71

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions

Company Name: Enkei America, Inc., Enkei Wheel Corporation
Address City IN Zip: 2900 W. Inwood Drive, Columbus, Indiana 47201
Source Modification: 005-21647
Plt ID: 005-00042
Reviewer: TE/EVP

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	9.272E-05	5.298E-05	3.311E-03	7.947E-02	1.501E-04

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	2.208E-05	4.857E-05	6.181E-05	1.678E-05	9.272E-05

Methodology is the same as page 3.

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

Appendix A: Flux Usage Emission Calculations

Company Name: Enkei America, Inc., Enkei Wheel Corporation
Address City IN Zip: 2900 West Inwood Drive, Columbus, IN 47201
Source Modification: 005-21647
Plt ID: 005-00042
Reviewer: TE/EVP

Emission Unit	Maximum Flux Usage (lbs/yr)	Pollutant	EF (lb/lb org flux)	Potential Emissions (tons/yr)
Melt Furnaces I, J, and K	30,000	PM	N/A	negl.
		PM10	N/A	negl.
		HF	0.5447	8.17
		Total HAP		**8.17**

Note: Emission factor for HF has been calculated as follows:
Flux consists of 51.75% flouride (F) (worst case). Emission factor assumes 100% conversion to HF.
51.75% * (20.0(mw HF)/19.0(mw F)) = 0.5447 lb/lb flux

Appendix A: Emissions Calculations
VOC, Particulate and HAP Emissions
From Die Surface Coating Operations

Company Name: Enkei America, Inc., Enkei Wheel Corporation
Address City IN Zip: 2900 West Inwood Drive, Columbus, IN 47201
Source Modification: 005-21647
Plt ID: 005-00042
Reviewer: TE/EVP

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/year)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Dycote 200	15.0	80.00%	0.0%	80.0%	0.0%	20.00%	300.0	12.02	12.02	1.80	0.00	60.08	100%

Potential Emissions **1.80** **0.00**

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/year) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (gal/year) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

Material	Density (Lb/Gal)	Gal of Mat. (gal/year)	Weight % Chromium Compound	Chromium Compound Emissions (tons/yr)
Dycote 200	15.0	300.0	10.00%	**0.23**