



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: April 15, 2010

RE: Advanced Magnesium Alloys / 095 - 29016 - 00114

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

Notice of Decision: Approval - Effective Immediately

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

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-7-3 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER-MOD.dot 12/3/07



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Mr. Arie Shaked
Advanced Magnesium Alloys Corporation
1820 East 32nd Street
Anderson, Indiana 46013

April 15, 2010

Re: 095-29016-00114
First Minor Revision to
F095-21966-00114

Dear Mr. Shaked:

Company Name was issued a Federally Enforceable State Operating Permit (FESOP) Renewal No. F095-21966-00114 on July 23, 2007 for a stationary scrap magnesium recycling facility located at 1820 East 32nd Street, Anderson, Indiana 46013. On February 23, 2010, the Office of Air Quality (OAQ) received an application from the source requesting to construct a new natural gas-fired scrap magnesium melting furnace. In addition, the source requested that IDEM add an emission unit description to the permit for an existing hydrochloric acid tank. The attached Technical Support Document (TSD) provides additional explanation of the changes to the source/permit. Pursuant to the provisions of 326 IAC 2-8-11.1, these changes to the permit are required to be reviewed in accordance with the Minor Permit Revision (MPR) procedures of 326 IAC 2-8-11.1(e). Pursuant to the provisions of 326 IAC 2-8-11.1, a minor permit revision to this permit is hereby approved as described in the attached Technical Support Document (TSD).

The following construction conditions are applicable to the proposed project:

1. General Construction Conditions
The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
2. This approval to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

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

please find the entire revised 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 Brian Williams, of my staff, at 317-234-5375 or 1-800-451-6027, and ask for extension 4-5375.

Sincerely,



Iryn Calilung, Section Chief
Permits Branch
Office of Air Quality

Attachments: Technical Support Document and revised permit

IC/BMW

cc: File - Madison County
Madison County Health Department
U.S. EPA, Region V
Compliance and Enforcement Branch
Billing, Licensing and Training Section



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Federally Enforceable State Operating Permit Renewal OFFICE OF AIR QUALITY

**Advanced Magnesium Alloys Corporation
1820 East 32nd Street
Anderson, Indiana 46013**

(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 provision of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; and denial of a permit renewal application. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No. F095-21966-00114	
Original signed by: Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: July 23, 2007 Expiration Date: July 23, 2017

First Administrative Amendment No. 095-25684-00114, issued January 22, 2008
Second Administrative Amendment No. 095-28364-00114, issued on September 24, 2009

First Minor Permit Revision No.:095-29016-00114	
Issued by:  Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: April 15, 2010 Expiration Date: July 23, 2017

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Attachment A: NESHAP Subaprt TTTTTT - Standards for Hazardous Air Pollutants for Secondary Nonferrous Metals Processing Area Sources

SECTION A SOURCE SUMMARY

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

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

The Permittee owns and operates a stationary scrap magnesium recycling facility.

Source Address:	1820 East 32 nd Street, Anderson, Indiana 46013
Mailing Address:	1820 East 32 nd Street, Anderson, Indiana 46013
General Source Phone:	(765) 643-5873
SIC Code:	3341
County Location:	Madison
Source Location Status:	Attainment or unclassifiable for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD Rules Minor Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

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

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

- (a) Two (2) furnace lines, constructed in 2001, each line consisting of one (1) electric melting furnace, one (1) electric continuous refining furnace and one (1) continuous ingot pouring operation, with a total maximum throughput of 21,120 pounds of scrap magnesium per hour, and venting through stack #3.

These units are considered an affected source under 40 CFR 63, Subpart TTTTTT.

- (b) One (1) natural gas-fired melting furnace, identified as FCE 2310, approved for construction in 2010, with a maximum capacity of 940 pounds of scrap magnesium per hour, with a maximum heat input capacity of 4.0 MMBtu/hr, and venting through stack #3.

This unit is considered an affected source under 40 CFR 63, Subpart TTTTTT.

- (c) One (1) salt furnace, constructed in 2001 with a maximum capacity of 3,260 tons of salt per year, and venting through stack # 3.
- (d) One (1) melting electric resistance crucible furnace, identified as FCE 4310, with a maximum throughput rate of 1,500 pounds of scrap per hour, and exhausting to stack # 3. This unit has not been constructed as of this renewal.

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

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

- (a) Two (2) electric resistance heaters to dry scrap magnesium, identified as HTR-2110 and HTR-2210, total maximum throughput of 21,120 pounds of scrap magnesium per hour, and venting through stacks 1 and 2. [326 IAC 6-3-2]
- (b) One (1) shredder, with a maximum throughput of 60,000 pounds of scrap magnesium per hour, and venting internally. [326 IAC 6-3-2]

- (c) Two (2) casting conveyors, with a total maximum throughput of 21,120 pounds of molten magnesium per hour, and venting internally. [326 IAC 6-3-2]
- (d) Two (2) cooling conveyors, with a total maximum throughput of 21,120 pounds of molten magnesium per hour, and venting internally. [326 IAC 6-3-2]
- (e) Four (4) heater feed conveyors, each with a maximum throughput of 10,560 pounds of scrap magnesium per hour, and venting internally. [326 IAC 6-3-2]
- (f) One (1) shredder feed conveyor, with a maximum throughput of 60,000 pounds of scrap magnesium per hour, and venting internally. [326 IAC 6-3-2]
- (g) One (1) shredder discharge conveyor, with a maximum throughput of 60,000 pounds of scrap magnesium per hour, and venting internally. [326 IAC 6-3-2]
- (h) One (1) tramp iron removal magnet system, with a maximum throughput of 60,000 pounds of scrap magnesium per hour, and venting internally. [326 IAC 6-3-2]
- (i) One (1) shuttle conveyor, with a maximum throughput of 60,000 pounds of scrap magnesium per hour, and venting internally. [326 IAC 6-3-2]
- (j) Four (4) feed storage bins, with a total maximum capacity of 90 tons, and a maximum throughput of 61,760 tons per year and venting internally. [326 IAC 6-3-2]
- (k) Five (5) natural gas space heaters with a total maximum heat capacity of 8 MMBtu, and venting internally. [326 IAC 6-2-4]
- (l) Two (2) natural gas tool heaters with a maximum heat capacity of 0.5 MMBtu, and venting internally. [326 IAC 6-2-4]
- (m) Two (2) natural gas mold heaters with a maximum heat capacity of 0.2 MMBtu, and venting internally. [326 IAC 6-2-4]
- (n) Activities or emission units not regulated by a NESHAP, with potential uncontrolled emissions that are equal to or less than one (1) pound per day on an emission unit basis for any single HAP or combination of HAPs, consisting of the following:
 - (1) One (1) hydrochloric acid tank, with a maximum capacity of 60 gallons, and venting indoors.

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

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

SECTION B GENERAL CONDITIONS

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

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

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

- (a) This permit F095-21966-00114, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-4-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

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

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

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

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

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

B.5 Severability [326 IAC 2-8-4(4)]

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

B.6 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

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

B.7 Duty to Provide Information [326 IAC 2-8-4(5)(E)]

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1 when furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

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

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

B.9 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

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

B.10 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

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

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

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
 - (5) Such other facts as specified in Sections D of this permit, IDEM, OAQ, may require to determine the compliance status of the source.

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

B.11 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs), including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation, Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

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

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:
- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch) or,
Telephone No.: 317-233-0178 (ask for Compliance and Enforcement Branch)
Facsimile No.: 317-233-6865

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

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

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

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

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

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
 - (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
 - (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
 - (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
 - (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital

investment, or loss of product or raw material of substantial economic value.

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

- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report. Any emergencies that have been previously reported pursuant to paragraph (b)(5) of this condition and certified by an "authorized individual" need only referenced by the date of the original report.

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

- (a) All terms and conditions of permits established prior to F095-21966-00114 and issued pursuant to permitting programs approved into the state implementation plan have been either
- (1) incorporated as originally stated,
 - (2) revised, or
 - (3) deleted.
- (b) All previous registrations and permits are superseded by this permit.

B.14 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

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

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

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

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

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

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The

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

- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
 - (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

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

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

If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

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

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

Any such application shall be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

B.19 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

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

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

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

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

(4) The Permittee notifies the:

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

and

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

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

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

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

- (b) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (c) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.
- (d) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.20 Source Modification Requirement [326 IAC 2-8-11.1]

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

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

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

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

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

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

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

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)][326 IAC 2-8-16][326 IAC 2-1.1-7]

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

B.24 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][326 IAC 1-1-6]

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

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

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

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

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable;
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) The potential to emit particulate matter (PM) from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.3 Opacity [326 IAC 5-1]

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

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

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

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

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

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

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

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

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

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

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

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

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

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers

and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

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

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

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

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

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

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

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ, not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.10 Compliance Requirements [326 IAC 2-1.1-11]

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

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

C.11 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of this permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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

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

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

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

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

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

C.14 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]

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

C.15 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]

- (a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
 - (1) initial inspection and evaluation;
 - (2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or

- (3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
 - (1) monitoring results;
 - (2) review of operation and maintenance procedures and records;
 - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
 - (1) monitoring data;
 - (2) monitor performance data, if applicable; and
 - (3) corrective actions taken.

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

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

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

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

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

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

Stratospheric Ozone Protection

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

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

- (a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 FACILITY OPERATION CONDITIONS

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

- (a) Two (2) furnace lines, constructed in 2001, each line consisting of one (1) electric melting furnace, one (1) electric continuous refining furnace and one (1) continuous ingot pouring operation, with a total maximum throughput of 21,120 pounds of scrap magnesium per hour, and venting through stack #3.

These units are considered an affected source under 40 CFR 63, Subpart TTTTTT.

- (b) One (1) natural gas-fired melting furnace, identified as FCE 2310, approved for construction in 2010, with a maximum capacity of 940 pounds of scrap magnesium per hour, with a maximum heat input capacity of 4.0 MMBtu/hr, and venting through stack #3.

This unit is considered an affected source under 40 CFR 63, Subpart TTTTTT.

- (c) One (1) salt furnace, constructed in 2001 with a maximum capacity of 3,260 tons of salt per year, and venting through stack # 3.

- (d) One (1) melting electric resistance crucible furnace (identified as FCE 4310), with a maximum throughput rate of 1,500 pounds of scrap per hour, and exhausting to stack # 3. This unit has not been constructed as of this renewal.

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

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

D.1.1 Particulate [326 IAC 6-3-2]

Particulate emissions from the following units shall be limited as follows when operating at the listed process weight rate.

Emission Unit	Process Weight Rate (tons/hr)	Emission Limit (lb/hr)
Each One (1) Furnace Line	5.28	12.5
Salt Furnace	0.372	2.1

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

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour (lb/hr), and}$$

$$P = \text{process weight rate in tons per hour (tons/hr)}$$

D.1.2 Hazardous Air Pollutants (HAPs) [326 IAC 2-8-4] [326 IAC 2-4.1]

- (a) The total amount of make-up process salt of ten percent (10%) Mg Cl₂ to the two (2) furnace lines and one (1) melting furnace (FCE 2310) shall be limited to less than 3,322 tons of process salt per twelve (12) consecutive month period with compliance determined at the end of each month. The HCl emissions shall not exceed 4.84 pounds per ton of process salt used in the two (2) furnace lines and one (1) melting furnace (FCE 2310).
- (b) The total amount of make-up process salt of ten percent (10%) Mg Cl₂ to the salt furnace with a maximum capacity of 3,260 tons of process salt per twelve (12) consecutive month

period with compliance determined at the end of each month. The HCl emissions shall not exceed 1.20 pounds per ton of process salt.

This limit is required to limit the potential to emit of a single HAP (HCl) to less than ten (10) tons per twelve (12) consecutive month period. Compliance with this limit satisfies the requirements of 326 IAC 2-8-4 (FESOP) and render 326 IAC 2-4.1-1 (Major Sources of Hazardous Air Pollutants) not applicable.

D.1.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility.

Compliance Determination Requirements

D.1.4 Testing Requirements [326 IAC 2-8-5(a)(1), (4)][326 IAC 2-1.1-11]

- (a) Pursuant to Air-014-NPD and in order to verify compliance with 326 IAC 2-2 and 326 IAC 2-8-4 when operating at maximum capacity, the Permittee shall perform PM and PM₁₀ testing on one (1) of the two (2) furnace lines, prior to March 13, 2014, utilizing methods as approved by the Commissioner. This test shall be repeated once every five (5) years from the date of the most recent valid compliance test.
- (b) Pursuant to Air-014-NPD and in order to verify compliance with 326 IAC 2-2 and 326 IAC 2-8-4 when operating at maximum capacity, the Permittee shall perform PM and PM₁₀ testing on the salt furnace, prior to March 12, 2014, utilizing methods as approved by the Commissioner. This test shall be repeated once every five (5) years from the date of the most recent valid compliance test.
- (c) In order to demonstrate compliance with Condition D.1.2(a), the Permittee shall perform hydrogen chloride (HCl) testing on one (1) of the two (2) furnace lines, prior to March 13, 2009, utilizing methods as approved by the Commissioner. The test shall be repeated once every five (5) years from this date.
- (d) In order to demonstrate compliance with Condition D.1.2(b), the Permittee shall perform hydrogen chloride (HCl) testing on the salt furnace, prior to March 12, 2009, utilizing methods as approved by the Commissioner. This test shall be repeated once every five (5) years from this date.

PM₁₀ includes filterable and condensable PM₁₀. All testing shall be conducted in accordance with Section C – Performance Testing.

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

D.1.5 Visible Emissions Notations

- (a) Visible emission notations of the furnace line stack exhaust (stack # 3) shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

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

D.1.6 Record Keeping Requirements

- (a) To document compliance with Condition D.1.2, the Permittee shall maintain records of the amount of salt fed to the two (2) furnace lines, one (1) melting furnace (FCE 2310), and the salt furnace.
- (b) To document compliance with Condition D.1.2, the Permittee shall maintain records of the test data recorded under D.1.4 (Testing Requirements).
- (c) To document compliance with Condition D.1.5, the Permittee shall maintain a daily record of visible emission notations of the furnace line stack exhaust (stack # 3). The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (i.e. the process did not operate that day).
- (d) All records shall be maintained in accordance with Section C – General Record Keeping Requirements, of this permit.

D.1.7 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.2 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.2

FACILITY OPERATION CONDITIONS

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

- (a) Two (2) electric resistance heaters to dry scrap magnesium, identified as HTR-2110 and HTR-2210, total maximum throughput of 21,120 pounds of scrap magnesium per hour, and venting through stacks 1 and 2. [326 IAC 6-3-2]
- (b) One (1) shredder, with a maximum throughput of 60,000 pounds of scrap magnesium per hour, and venting internally. [326 IAC 6-3-2]
- (c) Two (2) casting conveyors, with a total maximum throughput of 21,120 pounds of molten magnesium per hour, and venting internally. [326 IAC 6-3-2]
- (d) Two (2) cooling conveyors, with a total maximum throughput of 21,120 pounds of molten magnesium per hour, and venting internally. [326 IAC 6-3-2]
- (e) Four (4) heater feed conveyors, each with a maximum throughput of 10,560 pounds of scrap magnesium per hour, and venting internally. [326 IAC 6-3-2]
- (f) One (1) shredder feed conveyor, with a maximum throughput of 60,000 pounds of scrap magnesium per hour, and venting internally. [326 IAC 6-3-2]
- (g) One (1) shredder discharge conveyor, with a maximum throughput of 60,000 pounds of scrap magnesium per hour, and venting internally. [326 IAC 6-3-2]
- (h) One (1) tramp iron removal magnet system, with a maximum throughput of 60,000 pounds of scrap magnesium per hour, and venting internally. [326 IAC 6-3-2]
- (i) One (1) shuttle conveyor, with a maximum throughput of 60,000 pounds of scrap magnesium per hour, and venting internally. [326 IAC 6-3-2]
- (j) Four (4) feed storage bins, with a total maximum capacity of 90 tons, and a maximum throughput of 61,760 tons per year and venting internally. [326 IAC 6-3-2]
- (k) Five (5) natural gas space heaters with a total maximum heat capacity of 8 MMBtu, and venting internally. [326 IAC 6-2-4]
- (l) Two (2) natural gas tool heaters with a maximum heat capacity of 0.5 MMBtu, and venting internally. [326 IAC 6-2-4]
- (m) Two (2) natural gas mold heaters with a maximum heat capacity of 0.2 MMBtu, and venting internally. [326 IAC 6-2-4]

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

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

D.2.1 Particulate Emission Limitations [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the particulate emissions from the following insignificant activities shall each be limited as shown in the following table:

Emission Unit	Process Weight Rate (tons/hr)	Emission Limit (lb/hr)
two (2) electric resistance heaters (HTR-2110 and HTR 2210)	10.56	19.9
one (1) shredder	30	40
two (2) casting conveyors (total)	10.56	19.9
two (2) cooling conveyors (total)	10.56	19.9
four (4) heater feed conveyors (each)	5.28	12.5
one (1) shredder feed conveyor	30	40
one (1) shredder discharge conveyor	30	40
one (1) tramp iron removal magnet system	30	40
one (1) shuttle conveyor	30	40
Four (4) feed storage bins	7.05	15.17

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

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

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

D.2.2 Particulate Emission Limitations [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4(a), for indirect heating units constructed after September 1, 1983 and having a total source heat input capacity less than 10 million British thermal units per hour, the PM emissions shall not exceed 0.6 pounds per million British thermal unit. Therefore, the PM from the five (5) natural gas space heaters, the two (2) natural gas tool heaters and the two (2) natural gas mold heaters is limited to 0.6 pound per million British thermal units total.

SECTION E.1 EMISSIONS UNIT OPERATION CONDITIONS

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

- (a) Two (2) furnace lines, constructed in 2001, each line consisting of one (1) electric melting furnace, one (1) electric continuous refining furnace and one (1) continuous ingot pouring operation, with a total maximum throughput of 21,120 pounds of scrap magnesium per hour, and venting through stack #3.

These units are considered an affected source under 40 CFR 63, Subpart TTTTTT.

- (b) One (1) natural gas-fired melting furnace, identified as FCE 2310, approved for construction in 2010, with a maximum capacity of 940 pounds of scrap magnesium per hour, with a maximum heat input capacity of 4.0 MMBtu/hr, and venting through stack #3.

This unit is considered an affected source under 40 CFR 63, Subpart TTTTTT.

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

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-8-4(1)]

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

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

E.1.2 National Emission Standards for Hazardous Air Pollutants for Secondary Nonferrous Metals Processing Area Sources (40 CFR 63, Subpart TTTTTT)

The Permittee, which engages in secondary nonferrous metal processing at an area source of HAP emissions shall comply with the following provisions of 40 CFR Part 63, Subpart TTTTTT (included as Attachment A of this permit):

- (1) 40 CFR 63.11462
- (2) 40 CFR 63.11463
- (3) 40 CFR 63.11464
- (4) 40 CFR 63.11465
- (5) 40 CFR 63.11466
- (6) 40 CFR 63.11467
- (7) 40 CFR 63.11468
- (8) 40 CFR 63.11469
- (9) 40 CFR 63.11470
- (10) 40 CFR 63.11471
- (11) 40 CFR 63.11472
- (12) 40 CFR 63.11473
- (13) Table 1

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: Advanced Magnesium Alloys Corporation
Source Address: 1820 East 32nd Street, Anderson, Indiana 46013
Mailing Address: 1820 East 32nd Street, Anderson, Indiana 46013
FESOP No.: F095-21966-00014

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

Please check what document is being certified:

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

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

Signature:

Printed Name:

Title/Position:

Date:

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

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

Source Name: Advanced Magnesium Alloys Corporation
Source Address: 1820 East 32nd Street, Anderson, Indiana 46013
Mailing Address: 1820 East 32nd Street, Anderson, Indiana 46013
FESOP No.: F095-21966-00114

This form consists of 2 pages

Page 1 of 2

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

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

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

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

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM ₁₀ , SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____
Title / Position: _____
Date: _____
Phone: _____

A certification is not required for this report.

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

FESOP Quarterly Report

Source Name: Advanced Magnesium Alloys Corporation
Source Address: 1820 East 32nd Street, Anderson, Indiana 46013
Mailing Address: 1820 East 32nd Street, Anderson, Indiana 46013
FESOP No.: F095-21966-00144
Facility: Two (2) Furnace lines and one (1) melting furnace (FCE 2310)
Parameter: Make-up Process Salt of ten percent (10%) MgCl₂
Limit: 3,322 tons per twelve (12) consecutive month period

YEAR: _____

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

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

FESOP Quarterly Report

Source Name: Advanced Magnesium Alloys Corporation
Source Address: 1820 East 32nd Street, Anderson, Indiana 46013
Mailing Address: 1820 East 32nd Street, Anderson, Indiana 46013
FESOP No.: F095-21966-00144
Facility: Salt Furnace
Parameter: Make-up Process Salt of ten percent (10%) MgCl₂
Limit: 3,260 tons per twelve (12) consecutive month period

YEAR: _____

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

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

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

Attach a signed certification to complete this report.

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

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

Source Name: Advanced Magnesium Alloys Corporation
 Source Address: 1820 East 32nd Street, Anderson, Indiana 46013
 Mailing Address: 1820 East 32nd Street, Anderson, Indiana 46013
 FESOP No.: F095-21966-00114

Months: _____ to _____ Year: _____

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

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

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

Attachment A

Title 40: Protection of Environment

Subpart TTTTTT—National Emission Standards for Hazardous Air Pollutants for Secondary Nonferrous Metals Processing Area Sources

Source: 72 FR 73207, Dec. 26, 2007, unless otherwise noted.

Applicability and Compliance Dates

§ 63.11462 Am I subject to this subpart?

(a) You are subject to this subpart if you own or operate a secondary nonferrous metals processing facility (as defined in §63.11472) that is an area source of hazardous air pollutant (HAP) emissions.

(b) If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart applicable to area sources.

§ 63.11463 What parts of my plant does this subpart cover?

(a) This subpart applies to any existing or new affected source located at a secondary nonferrous metals processing facility.

(b) The affected source includes all crushing and screening operations at a secondary zinc processing facility and all furnace melting operations located at any secondary nonferrous metals processing facilities.

(c) An affected source is existing if you commenced construction or reconstruction of the affected source on or before September 20, 2007.

(d) An affected source is new if you commenced construction or reconstruction of the affected source after September 20, 2007.

§ 63.11464 What are my compliance dates?

(a) If you have an existing affected source, you must comply with the standards no later than December 26, 2007.

(b) If you have a new affected source, you must comply with this subpart according to paragraphs (b)(1) and (b)(2) of this section.

(1) If you start up your affected source on or before December 26, 2007, you must comply with this subpart no later than December 26, 2007.

(2) If you start up your affected source after December 26, 2007, you must comply with this subpart upon initial startup of your affected source.

Standards, Compliance, and Monitoring Requirements

§ 63.11465 What are the standards for new and existing sources?

(a) You must route the emissions from each existing affected source through a fabric filter or baghouse that achieves a particulate matter (PM) control efficiency of at least 99.0 percent or an outlet PM concentration limit of 0.034 grams per dry standard cubic meter (g/dscm)(0.015 grains per dry standard cubic feet (gr/dscf)).

(b) You must route the emissions from each new affected source through a fabric filter or baghouse that achieves a PM control efficiency of at least 99.5 percent or an outlet PM concentration limit of 0.023 g/dscm (0.010 gr/dscf).

§ 63.11466 What are the performance test requirements for new and existing sources?

(a) Except as specified in paragraph (b) of this section, if you own or operate an existing or new affected source, you must conduct a performance test for each affected source within 180 days of your compliance date and report the results in your notification of compliance status.

(b) If you own or operate an existing affected source, you are not required to conduct a performance test if a prior performance test was conducted within the past 5 years of the compliance date using the same methods specified in paragraph (c) of this section and you meet either of the following two conditions:

(1) No process changes have been made since the test; or

(2) You demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process changes.

(c) You must conduct each performance test according to the requirements in §63.7 and paragraphs (c)(1) and (2) of this section.

(1) Determine the concentration of PM according to the following test methods in 40 CFR part 60, appendices:

(i) Method 1 or 1A (Appendix A–1) to select sampling port locations and the number of traverse points in each stack or duct. Sampling sites must be located at the outlet of the control device and prior to any releases to the atmosphere.

(ii) Method 2, 2A, 2C, 2F, or 2G (Appendices A–1 and A–2) to determine the volumetric flow rate of the stack gas.

(iii) Method 3, 3A, or 3B (Appendix A–2) to determine the dry molecular weight of the stack gas. You may use ANSI/ASME PTC 19.10–1981, "Flue and Exhaust Gas Analyses" (incorporated by reference-see §63.14) as an alternative to EPA Method 3B.

(iv) Method 4 (Appendix A–3) to determine the moisture content of the stack gas.

(v) Method 5 or 17 (Appendix A–3) to determine the concentration of particulate matter (front half filterable catch only). Three valid test runs are needed to comprise a performance test.

(2) During the test, you must operate each emissions source within ± 10 percent of its normal process rate. You must monitor and record the process rate during the test.

§ 63.11467 What are the initial compliance demonstration requirements for new and existing sources?

(a) You must demonstrate initial compliance with the applicable standards in §63.11465 by submitting a Notification of Compliance Status in accordance with §63.11469(b).

(b) You must conduct the inspection specified in paragraph (c) of this section and include the results of the inspection in the Notification of Compliance Status.

(c) For each existing and new affected source, you must conduct an initial inspection of each baghouse. You must visually inspect the system ductwork and baghouse unit for leaks. Except as specified in paragraph (e) of this section, you must also inspect the inside of each baghouse for structural integrity and fabric filter condition. You must record the results of the inspection and any maintenance action as required in §63.11470.

(d) For each installed baghouse that is in operation during the 60 days after the applicable compliance date, you must conduct the inspection specified in paragraph (c) of this section no later than 60 days after your applicable compliance date. For an installed baghouse that is not in operation during the 60 days after the applicable compliance date, you must conduct an initial inspection prior to startup of the baghouse.

(e) An initial inspection of the internal components of a baghouse is not required if an inspection has been performed within the past 12 months.

(f) If you own or operate an existing affected source and are not required to conduct a performance test under §63.11466, you must submit the Notification of Compliance Status within 120 days after the applicable compliance date specified in §63.11464.

(g) If you own or operate an existing affected source and are required to conduct a performance test under §63.11466, you must submit the Notification of Compliance Status within 60 days after completing the performance test.

§ 63.11468 What are the monitoring requirements for new and existing sources?

(a) For an existing affected source, you must demonstrate compliance by conducting the monitoring activities in paragraph (a)(1) or (a)(2) of this section:

(1) You must perform periodic inspections and maintenance of each baghouse according to the requirements in paragraphs (a)(1)(i) and (ii) of this section.

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

(ii) You must conduct inspections of the interior of the baghouse for structural integrity and to determine the condition of the fabric filter every 12 months.

(2) As an alternative to the monitoring requirements in paragraph (a)(1) of this section, you may demonstrate compliance by conducting a daily 30-minute visible emissions (VE) test (i.e., no visible emissions) using EPA Method 22 (40 CFR part 60, appendix A-7).

(b) If the results of the visual inspection or VE test conducted under paragraph (a) of this section indicate a problem with the operation of the baghouse, including but not limited to air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions, you must take immediate corrective action to return the baghouse to normal operation according to the equipment manufacturer's specifications or instructions and record the corrective action taken.

(c) For each new affected source, you must install, operate, and maintain a bag leak detection system according to paragraphs (c)(1) through (3) of this section.

(1) Each bag leak detection system must meet the specifications and requirements in paragraphs (c)(1)(i) through (viii) of this section.

(i) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 1 milligram per dry standard cubic meter (0.00044 grains per actual cubic foot) or less.

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

(iii) The bag leak detection system must be equipped with an alarm system that will sound when the system detects an increase in relative particulate loading over the alarm set point established according to paragraph (c)(1)(iv) of this section, and the alarm must be located such that it can be heard by the appropriate plant personnel.

(iv) In the initial adjustment of the bag leak detection system, you must establish, at a minimum, the baseline output by adjusting the sensitivity (range) and the averaging period of the device, the alarm set points, and the alarm delay time.

(v) Following initial adjustment, you shall not adjust the averaging period, alarm set point, or alarm delay time without approval from the Administrator or delegated authority except as provided in paragraph (c)(1)(vi) of this section.

(vi) Once per quarter, you may adjust the sensitivity of the bag leak detection system to account for seasonal effects, including temperature and humidity, according to the procedures identified in the site-specific monitoring plan required by paragraph (c)(2) of this section.

(vii) You must install the bag leak detection sensor downstream of the fabric filter.

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

(2) You must develop and submit to the Administrator or delegated authority for approval a site-specific monitoring plan for each bag leak detection system. You must operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. Each monitoring plan must describe the items in paragraphs (c)(2)(i) through (vi) of this section.

(i) Installation of the bag leak detection system;

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

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

(iv) How the bag leak detection system will be maintained, including a routine maintenance schedule and spare parts inventory list;

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

(vi) Corrective action procedures as specified in paragraph (c)(3) of this section. In approving the site-specific monitoring plan, the Administrator or delegated authority may allow owners and operators more than 3 hours to alleviate a specific condition that causes an alarm if the owner or operator identifies in the monitoring plan this specific condition as one that could lead to an alarm, adequately explains why it is not feasible to alleviate this condition within 3 hours of the time the alarm occurs, and demonstrates that the requested time will ensure alleviation of this condition as expeditiously as practicable.

(3) For each bag leak detection system, you must initiate procedures to determine the cause of every alarm within 1 hour of the alarm. Except as provided in paragraph (c)(2)(vi) of this section, you must alleviate the cause of the alarm within 3 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to the following:

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

(ii) Sealing off defective bags or filter media;

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

(iv) Sealing off a defective fabric filter compartment;

- (v) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; or
- (vi) Shutting down the process producing the PM emissions.

§ 63.11469 What are the notification requirements?

(a) You must submit the Initial Notification required by §63.9(b)(2) no later than 120 days after the applicable compliance date specified in §63.11464. The Initial Notification must include the information specified in §63.9(b)(2)(i) through (iv) and may be combined with the Notification of Compliance Status required in §63.11467 and paragraph (b) of this section if you choose to submit both notifications within 120 days.

(b) You must submit a Notification of Compliance Status in accordance with §63.9(h) and the requirements in paragraphs (c) and (d) of this section. In addition to the information required in §63.9(h)(2), §63.11466, and §63.11467, your notification must include the following certification(s) of compliance, as applicable, and signature of a responsible official:

(1) This certification of compliance by the owner or operator of an existing affected source who is relying on a previous performance test: "This facility complies with the control efficiency requirement [or the outlet concentration limit] in §63.11465 based on a previous performance test in accordance with §63.11466."

(2) This certification of compliance by the owner or operator of any new or existing affected source: "This facility has conducted an initial inspection of each control device according to the requirements in §63.11467, will conduct periodic inspections and maintenance of control devices in accordance with §63.11468, and will maintain records of each inspection and maintenance action required by §63.11470."

(3) This certification of compliance by the owner or operator of a new affected source: "This facility has an approved bag leak detection system monitoring plan in accordance with §63.11468(c)(2)."

(c) If you own or operate an affected source and are required to conduct a performance test under §63.11466, you must submit a Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test.

(d) If you own or operate an affected source and are not required to conduct a performance test under §63.11466, you must submit a Notification of Compliance Status, including the results of the previous performance test, no later than 120 days after the applicable compliance date specified in §63.11464.

§ 63.11470 What are the recordkeeping requirements?

(a) You must keep the records specified in paragraphs (a)(1) and (2) of this section.

(1) As required in §63.10(b)(2)(xiv), you must keep a copy of each notification that you submitted to comply with this subpart and all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted.

(2) You must keep the records of all inspection and monitoring data required by §§63.11467 and 63.11468, and the information identified in paragraphs (a)(2)(i) through (a)(2)(v) for each required inspection or monitoring.

(i) The date, place, and time;

(ii) Person conducting the activity;

(iii) Technique or method used;

(iv) Operating conditions during the activity; and

(v) Results.

(b) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1).

(c) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each recorded action.

(d) You must keep each record onsite for at least 2 years after the date of each recorded action according to §63.10(b)(1). You may keep the records offsite for the remaining three years.

Other Requirements and Information

§ 63.11471 What General Provisions apply to this subpart?

Table 1 to this subpart shows which parts of the General Provisions in §§63.1 through 63.16 apply to you.

§ 63.11472 What definitions apply to this subpart?

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

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

Furnace melting operation means the collection of processes used to charge post-consumer nonferrous scrap material to a furnace, melt the material, and transfer the molten material to a forming medium.

Secondary nonferrous metals processing facility means a brass and bronze ingot making, secondary magnesium processing, or secondary zinc processing plant that uses furnace melting operations to melt post-consumer nonferrous metal scrap to make products including bars, ingots, blocks, or metal powders.

§ 63.11473 Who implements and enforces this subpart?

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

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

(c) The authorities that will not be delegated to State, local, or tribal agencies are listed in paragraphs (c)(1) through (4) of this section.

(1) Approval of alternatives to the applicability requirements in §63.11462 and 63.11463, the compliance date requirements in §63.11464, and the applicable standards in §63.11465.

(2) Approval of a major change to a test method under §63.7(e)(2)(ii) and (f). A "major change to test method" is defined in §63.90.

(3) Approval of a major change to monitoring under §63.8(f). A "major change to monitoring" is defined in §63.90.

(4) Approval of a major change to recordkeeping/reporting under §63.10(f). A "major change to recordkeeping/reporting" is defined in §63.90.

§ 63.11474 [Reserved]

Table 1 to Subpart TTTTTT of Part 63—Applicability of General Provisions to Subpart TTTTTT

As stated in §63.11471, you must comply with the requirements of the NESHAP General Provisions (40 CFR part 63, subpart A) shown in the following table:

Citation	Subject
63.1(a)(1)–(a)(4), (a)(6), (a)(10)–(a)(12), (b)(1), (b)(3), (c)(1), ¹ (c)(2), (c)(5), (e)	Applicability.
63.2	Definitions.
63.3	Units and Abbreviations.
63.4	Prohibited Activities and Circumvention.
63.6(a), (b)(1)–(b)(5), (b)(7), (c)(1), (c)(2), (c)(5), (e)(1), (f), (g), (i), (j)	Compliance With Standards and Maintenance Requirements.
63.7	Performance Testing Requirements
63.8(a)(1), (a)(2), (b), (c)(1)(i)–(c)(1)(ii), (c)(2), (c)(3), (f)	Monitoring Requirements.
63.9(a), (b)(1), (b)(2), (b)(5), (c), (d), (h)(1)–(h)(3), (h)(5), (h)(6), (i), (j)	Notification Requirements.
63.10(a), (b)(1), (b)(2)(vii), (b)(2)(xiv), (b)(3), (c), (f)	Recordkeeping and Reporting Requirements.
63.12	State Authority and Delegations.
63.13	Addresses.
63.14	Incorporations by Reference.
63.15	Availability of Information and Confidentiality.
63.16	Performance Track Provisions.

¹Section 63.11462(b) of this subpart exempts area sources from the obligation to obtain title V operating permits.

Indiana Department of Environmental Management Office of Air Quality

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

Source Description and Location

Source Name:	Advanced Magnesium Alloys Corporation
Source Location:	1820 East 32nd Street, Anderson, Indiana 46013
County:	Madison
SIC Code:	3341
Operation Permit No.:	F 095-21966-00114
Operation Permit Issuance Date:	July 23, 2007
Minor Permit Revision No.:	095-29016-00114
Permit Reviewer:	Brian Williams

On February 23, 2010, the Office of Air Quality (OAQ) received an application from Advanced Magnesium Alloys Corporation related to a modification to an existing stationary scrap magnesium recycling facility.

Existing Approvals

The source was issued FESOP Renewal No. 095-21966-00114 on July 23, 2007. The source has since received the following approvals:

- (a) First Administrative Amendment No. 095-25684-00114, issued on January 22, 2008; and
- (b) Second Administrative Amendment No. 095-28364-00114, issued on September 24, 2009.

County Attainment Status

The source is located in Madison County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Attainment effective October 19, 2007, for the 8-hour ozone standard. ¹
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.
¹ Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005. Unclassifiable or attainment effective April 5, 2005, for PM _{2.5} .	

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

- (b) **PM2.5**
 Madison County has been classified as attainment for PM2.5. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM2.5 emissions, and the effective date of these rules was July 15, 2008. Indiana has three years from the publication of these rules to revise its PSD rules, 326 IAC 2-2, to include those requirements. The May 8, 2008 rule revisions require IDEM to regulate PM10 emissions as a surrogate for PM2.5 emissions until 326 IAC 2-2 is revised.
- (c) **Other Criteria Pollutants**
 Madison County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

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

Status of the Existing Source

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

Process/ Emission Unit	Potential To Emit of the Entire Source Prior to Revision (tons/year)								
	PM	PM10	PM2.5	SO ₂	NO _x	VOC	CO	Total HAPs	Worst Single HAP
Two (2) Furnace Lines including fugitive PM emissions (each consisting of an electric melting furnace, continuous refining furnace, and continuous ingot pouring operation)	25.20	32.98	32.98	-	-	-	-	<8.04	<8.04 HCl
Salt Furnace	1.48	1.48	1.48	-	-	-	-	<1.96	<1.96 HCl
Natural Gas Combustion Sources	0.08	0.31	0.31	0.02	4.12	0.23	3.46	-	-
Thirteen (13) conveyors	8.42	4.37	4.37	-	-	-	-	-	-
Total PTE of Entire Source	35.18	39.14	39.14	0.02	4.12	0.23	3.46	<10	<10
Title V Major Source Thresholds	NA	100	100	100	100	100	100	25	10
PSD Major Source Thresholds	100	100	100	100	100	100	100	NA	NA
Emission Offset/ Nonattainment NSR Major Source Thresholds	NA	NA	NA	NA	NA	NA	NA	NA	NA
negl. = negligible These emissions are based upon TSD to FESOP Renewal No.:095-21966-00114, issued on July 23, 2007.									

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

Description of Proposed Revision

The Office of Air Quality (OAQ) has reviewed an application, submitted by Advanced Magnesium Alloys Corporation on February 23, 2010, relating to the construction of a new natural gas-fired scrap magnesium melting furnace. The furnace represents a new technology for the source, which will allow the source the ability to recycle lower grades of magnesium scrap. As a result, the source will conduct a set of emission measurements in order to understand the emission characteristics of the new furnace. Finally, the source requested that IDEM add an emission unit description to the permit for an existing hydrochloric acid tank.

The following is a list of the new emission units:

- (a) One (1) natural gas-fired melting furnace, identified as FCE 2310, approved for construction in 2010, with a maximum capacity of 940 pounds of scrap magnesium per hour, with a maximum heat input capacity of 4.0 MMBtu/hr, and venting through stack #3.

This unit is considered an affected source under 40 CFR 63, Subpart TTTTTT.
- (b) Activities or emission units not regulated by a NESHAP, with potential uncontrolled emissions that are equal to or less than one (1) pound per day on an emission unit basis for any single HAP or combination of HAPs, consisting of the following:
 - (1) One (1) hydrochloric acid tank, with a maximum capacity of 60 gallons, and venting indoors.

Enforcement Issues

There are no pending enforcement actions related to this revision.

Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

Permit Level Determination – FESOP Revision

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

Process/ Emission Unit	PTE of Proposed Revision (tons/year)								
	PM	PM10 *	PM2.5	SO ₂	NO _x	VOC	CO	Total HAPs	Worst Single HAP
Melting Furnace**	1.11	1.11	1.11	0	0	0.41	0	3.99	3.99 HCl
Natural Gas Combustion - Melting Furnace	0.03	0.13	0.13	0.01	1.75	0.10	1.47	0.033	0.032 Hexane
HCl Tank	0	0	0	0	0	0	0	4.39E-04	4.39E-04 HCl
Total PTE of Proposed Revision	1.14	1.24	1.24	0.01	1.75	0.51	1.47	4.02	3.99 HCl

negl. = negligible
 * Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
 ** Emissions from the processing of scrap magnesium. Note: The combustion emissions from the melting furnace have been separated from the process emissions.

This FESOP is being revised through a FESOP Minor Permit revision pursuant to 326 IAC 2-8-11.1(d)(6) because this revision involves a modification that is not described under 326 IAC 2-8-10(a)(15) or (16) and is subject to a National Emission Standard for Hazardous Air Pollutants (NESHAP) and the NESHAP is the most stringent applicable requirement.

PTE of the Entire Source After Issuance of the FESOP Revision

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

Process/ Emission Unit	Potential To Emit of the Entire Source to accommodate the Proposed Revision (tons/year)								
	PM	PM10*	PM2.5	SO ₂	NO _x	VOC	CO	Total HAPs	Worst Single HAP
Two (2) Furnace Lines including fugitive PM emissions (each consisting of an electric melting furnace, continuous refining furnace, and continuous ingot pouring operation)	25.20	32.98	32.98	-	-	-	-	<8.04	<8.04 HCl
Melting Furnace**	1.11	1.11	1.11	-	-	0.41	-		
Salt Furnace	1.48	1.48	1.48	-	-	-	-	<1.96	<1.96 HCl
Natural Gas Combustion - Melting Furnace**	0.03	0.13	0.13	0.01	1.75	0.10	1.47	0.033	0.032 Hexane
Natural Gas Combustion Sources	0.08	0.31	0.31	0.02	4.12	0.23	3.46	-	-
Thirteen (13) conveyors	8.42	4.37	4.37	-	-	-	-	-	-
HCl Tank	-	-	-	-	-	-	-	4.39E-04	4.39E-04 HCl
Total PTE of Entire Source	35.18 36.33	39.14 39.38	39.14 39.38	0.024	4.12 5.87	0.23 0.73	3.46 4.93	<10 10.11	<10
Title V Major Source Thresholds	NA	100	100	100	100	100	100	25	10
PSD Major Source Thresholds	100	100	100	100	100	100	100	NA	NA
Emission Offset/ Nonattainment NSR Major Source Thresholds	NA	NA	NA	NA	NA	NA	NA	NA	NA
negl. = negligible * Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". ** Emissions from the processing of scrap magnesium. Note: The combustion emissions from the melting furnace have been separated from the process emissions.									

The table below summarizes the potential to emit of the entire source after issuance of this revision, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this FESOP permit revision, and only to the extent that the effect of the control equipment is made practically enforceable in the permit. (Note: the table below was generated from the above table, with bold text un-bolded and strikethrough text deleted)

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Revision (tons/year)								
	PM	PM10*	PM2.5	SO ₂	NO _x	VOC	CO	Total HAPs	Worst Single HAP
Two (2) Furnace Lines including fugitive PM emissions (each consisting of an electric melting furnace, continuous refining furnace, and continuous ingot pouring operation)	25.20	32.98	32.98	-	-	-	-	<8.04	<8.04 HCl
Melting Furnace**	1.11	1.11	1.11	-	-	0.41	-		
Salt Furnace	1.48	1.48	1.48	-	-	-	-	<1.96	<1.96 HCl
Natural Gas Combustion - Melting Furnace**	0.03	0.13	0.13	0.01	1.75	0.10	1.47	0.033	0.032 Hexane
Natural Gas Combustion Sources	0.08	0.31	0.31	0.02	4.12	0.23	3.46	-	-
Thirteen (13) conveyors	8.42	4.37	4.37	-	-	-	-	-	-
HCl Tank	-	-	-	-	-	-	-	4.39E-04	4.39E-04 HCl
Total PTE of Entire Source	36.33	39.38	39.38	0.04	5.87	0.73	4.93	10.11	<10
Title V Major Source Thresholds	NA	100	100	100	100	100	100	25	10
PSD Major Source Thresholds	250	250	250	250	250	250	250	NA	NA
Emission Offset/ Nonattainment NSR Major Source Thresholds	NA	NA	NA	NA	NA	NA	NA	NA	NA
negl. = negligible * Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". ** Emissions from the processing of scrap magnesium. Note: The combustion emissions from the melting furnace have been separated from the process emissions.									

(a) FESOP Status

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

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

- (1) The total amount of make-up process salt of ten percent (10%) Mg Cl₂ to the two (2) furnace lines and the melting furnace (FCE 2310) shall be limited to less than 3,322 tons of process salt per twelve (12) consecutive month period with compliance determined at the end of each month. The HCl emissions shall not exceed 4.84 pounds per ton of

process salt used in the two (2) furnace lines and one (1) melting furnace (FCE 2310).

$$\frac{4.84 \text{ lbs/ton} \times 3,322 \text{ tons/yr}}{2000 \text{ (lbs/ton)}} = 8.04 \text{ tons of HCl per year}$$

- (2) The total amount of make-up process salt of ten percent (10%) Mg Cl₂ to the salt furnace with a maximum capacity of 3,260 tons of process salt per twelve (12) consecutive month period with compliance determined at the end of each month. The HCl emissions shall not exceed 1.20 pounds per ton of process salt.

$$\frac{1.20 \text{ lbs/ton} \times 3,260 \text{ tons/yr}}{2000 \text{ (lbs/ton)}} = 1.96 \text{ tons of HCl per year}$$

The addition of the new melting furnace did not require an adjustment to the existing make-up process salt usage limit and HCl emission limit for the existing furnace lines. Upon further review, IDEM has revised the existing HCl emission limit for the salt furnace from 6.13 pounds per ton of process salt to 1.20 pounds per ton of process salt. Based on the TSD to FESOP Renewal No.: 095-21966-00114 the intent was to limit HCl emissions from the salt furnace to less than 1.96 tons per year. As a result, the HCl emission limit should have been 1.20 pounds per ton of process salt.

Compliance with these limits, combined with the potential to emit HAPs from all other emission units at this source, shall limit the source-wide total potential to emit of any single HAP to less than ten (10) tons per 12 consecutive month period and total HAPs to less than twenty-five (25) tons per 12 consecutive month period and shall render 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP) not applicable.

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

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

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

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (a) This source is subject to the National Emission Standards for Hazardous Air Pollutants for Secondary Nonferrous Metals Processing Area Sources (40 CFR 63, Subpart TTTTTT), because this source is a secondary magnesium processing plant that uses furnace melting operations to melt post-consumer nonferrous metal scrap to make products including bars, ingots, blocks, or metal powders.

The facilities subject to this rule include the following:

Two (2) furnace lines, constructed in 2001, each line consisting of one (1) electric melting furnace, one (1) electric continuous refining furnace and one (1) continuous ingot pouring operation, with a total maximum throughput of 21,120 pounds of scrap magnesium per hour, and venting through stack #3.

One (1) natural gas-fired melting furnace, identified as FCE 2310, approved for construction in 2010, with a maximum capacity of 940 pounds of scrap magnesium per hour, with a maximum heat input capacity of 4.0 MMBtu/hr, and venting through stack #3.

Applicable portions of the NESHAP are the following:

- (1) 40 CFR 63.11462
- (2) 40 CFR 63.11463
- (3) 40 CFR 63.11464
- (4) 40 CFR 63.11465
- (5) 40 CFR 63.11466
- (6) 40 CFR 63.11467
- (7) 40 CFR 63.11468
- (8) 40 CFR 63.11469
- (9) 40 CFR 63.11470
- (10) 40 CFR 63.11471
- (11) 40 CFR 63.11472
- (12) 40 CFR 63.11473
- (13) Table 1

The requirements of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the two furnace lines and melting furnace except as otherwise specified in 40 CFR 63, Subpart TTTTTT

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

Compliance Assurance Monitoring (CAM)

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

State Rule Applicability Determination

The following state rules are applicable to the proposed revision:

- (a) 326 IAC 2-8-4 (FESOP)
This revision to an existing Title V minor stationary source will not change the minor status, because the potential to emit criteria pollutants from the entire source will still be limited to less than the Title V major source threshold levels. Therefore, the source will still be subject to the provisions of 326 IAC 2-8 (FESOP). See PTE of the Entire Source After Issuance of the FESOP Revision Section above.
- (b) 326 IAC 2-2 (Prevention of Significant Deterioration(PSD))
This modification to an existing PSD minor stationary source will not change the PSD minor status, because the potential to emit of all attainment regulated pollutants from the entire source will continue to be less than the PSD major source threshold levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply. See PTE of the Entire Source After Issuance of the FESOP Revision Section above.
- (c) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The unlimited potential to emit of HAPs from the entire source is greater than ten (10) tons per year for any single HAP and/or greater than twenty-five (25) tons per year of a combination of

HAPs. However, the source shall limit the potential to emit of HAPs from the entire source to less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, the proposed revision is not subject to the requirements of 326 IAC 2-4.1. See PTE of the Entire Source After Issuance of the FESOP Revision Section above.

- (d) 326 IAC 2-6 (Emission Reporting)
Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.
- (e) 326 IAC 5-1 (Opacity Limitations)
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
 - (1) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
- (f) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)
Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4.

Melting Furnace

- (a) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(b)(14), the melting furnace is exempt from the requirements of 326 IAC 6-3-2 because the furnace has potential emissions less than five hundred fifty-one thousandths (0.551) pound per hour.
- (b) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
The proposed revision is not subject to the requirements of 326 IAC 8-1-6, since the unlimited VOC potential emissions from the melting furnace is less than twenty-five (25) tons per year.
- (c) 326 IAC 12 (New Source Performance Standards)
See Federal Rule Applicability Section of this TSD.
- (d) 326 IAC 20 (Hazardous Air Pollutants)
See Federal Rule Applicability Section of this TSD.

Hydrochloric Acid Tank

- (a) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
The hydrochloric acid tank is not subject to the requirements of 326 IAC 8-1-6, since the tank does not have the potential to emit VOC's.
- (b) 326 IAC 8-3-1 (Organic Solvent Degreasing Operations)
The hydrochloric acid tank is not subject to the requirements of 326 IAC 8-3-1, because this tank does not use a solvent that contains VOC's.

Compliance Determination, Monitoring and Testing Requirements

Based on the maximum capacity of the new melting furnace, PM, PM10, and HCl testing is not required for the new furnace because the existing furnaces have a higher maximum capacity and existing testing requirements. Therefore, the existing compliance determination, monitoring, and testing requirements will not change because of this revision. The source shall continue to comply with the applicable requirements and permit conditions as contained in FESOP Renewal No: 095-21966-00114, issued on July 23, 2007.

Proposed Changes

- (a) The following changes listed below are due to the proposed revision. Deleted language appears as ~~strike through~~ text and new language appears as **bold** text:
- (1) Sections A.2, A.3, and D.1 have been updated to included emission unit descriptions for the melting furnace and hydrochloric acid tank. In addition, the emission unit description for the two (2) existing furnace lines has been updated.
 - (2) Conditions D.1.2(a) and D.1.6 has been revised to include reference to the new melting furnace. This revision did not require adjustment to the existing make-up process salt usage limit and HCl emission limit.
 - (3) The new melting furnace and existing furnace lines are subject to the National Emission Standards for Hazardous Air Pollutants for Secondary Nonferrous Metals Processing Area Sources (40 CFR 63, Subpart TTTTTT). Therefore, a new section has been added to the permit, which contains the requirements of Subpart TTTTTT.
 - (4) The FESOP Quarterly Report for the two (2) furnace lines has been updated to include the new melting furnace.

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

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

- (a) Two (2) furnace lines, constructed in 2001, each line consisting of one (1) electric melting furnace, one (1) electric continuous refining furnace and one (1) continuous ingot pouring operation, with a total maximum throughput of 21,120 pounds of scrap magnesium per hour, and venting through stack #3.

These units are considered an affected source under 40 CFR 63, Subpart TTTTTT.

- (b) **One (1) natural gas-fired melting furnace, identified as FCE 2310, approved for construction in 2010, with a maximum capacity of 940 pounds of scrap magnesium per hour, with a maximum heat input capacity of 4.0 MMBtu/hr, and venting through stack #3.**

This unit is considered an affected source under 40 CFR 63, Subpart TTTTTT.

- (bc) One (1) salt furnace, constructed in 2001 with a maximum capacity of 3,260 tons of salt per year, and venting through stack # 3.

- (ed) One (1) melting electric resistance crucible furnace, identified as FCE 4310, with a maximum throughput rate of 1,500 pounds of scrap per hour, and exhausting to stack # 3. This unit has not been constructed as of this renewal.

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

...

(n) **Activities or emission units not regulated by a NESHAP, with potential uncontrolled emissions that are equal to or less than one (1) pound per day on an emission unit basis for any single HAP or combination of HAPs, consisting of the following:**

(1) **One (1) hydrochloric acid tank, with a maximum capacity of 60 gallons, and venting indoors.**

SECTION D.1 FACILITY OPERATION CONDITIONS

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

(a) Two (2) furnace lines, constructed in 2001, each line consisting of one (1) electric melting furnace, one (1) electric continuous refining furnace and one (1) continuous ingot pouring operation, with a total maximum throughput of 21,120 pounds of scrap magnesium per hour, and venting through stack #3.

These units are considered an affected source under 40 CFR 63, Subpart TTTTTT.

(b) **One (1) natural gas-fired melting furnace, identified as FCE 2310, approved for construction in 2010, with a maximum capacity of 940 pounds of scrap magnesium per hour, with a maximum heat input capacity of 4.0 MMBtu/hr, and venting through stack #3.**

This unit is considered an affected source under 40 CFR 63, Subpart TTTTTT.

(bc) One (1) salt furnace, constructed in 2001 with a maximum capacity of 3,260 tons of salt per year, and venting through stack # 3.

(ed) One (1) melting electric resistance crucible furnace (identified as FCE 4310), with a maximum throughput rate of 1,500 pounds of scrap per hour, and exhausting to stack # 3. This unit has not been constructed as of this renewal.

...

D.1.2 Hazardous Air Pollutants (HAPs) [326 IAC 2-8-4] [326 IAC 2-4.1]

(a) The total amount of make-up process salt of ten percent (10%) Mg Cl₂ to the two (2) furnace lines **and one (1) melting furnace (FCE 2310)** shall be limited to less than 3,322 tons of process salt per twelve (12) consecutive month period with compliance determined at the end of each month. The HCl emissions shall not exceed 4.84 pounds per ton of process salt used in the two (2) furnace lines **and one (1) melting furnace (FCE 2310)**.

...

D.1.6 Record Keeping Requirements

(a) To document compliance with Condition D.1.2, the Permittee shall maintain records of the amount of salt fed to the two (2) furnace lines, **one (1) melting furnace (FCE 2310)**, and the salt furnace.

...

SECTION E.1 EMISSIONS UNIT OPERATION CONDITIONS

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

(a) **Two (2) furnace lines, constructed in 2001, each line consisting of one (1) electric melting furnace, one (1) electric continuous refining furnace and one (1) continuous ingot pouring operation, with a total maximum throughput of 21,120 pounds of scrap magnesium per hour, and venting through stack #3.**

These units are considered an affected source under 40 CFR 63, Subpart TTTTTT.

(b) One (1) natural gas-fired melting furnace, identified as FCE 2310, approved for construction in 2010, with a maximum capacity of 940 pounds of scrap magnesium per hour, with a maximum heat input capacity of 4.0 MMBtu/hr, and venting through stack #3.

This unit is considered an affected source under 40 CFR 63, Subpart TTTTTT.

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

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-8-4(1)]

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

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

E.1.2 National Emission Standards for Hazardous Air Pollutants for Secondary Nonferrous Metals Processing Area Sources (40 CFR 63, Subpart TTTTTT)

The Permittee, which engages in secondary nonferrous metal processing at an area source of HAP emissions shall comply with the following provisions of 40 CFR Part 63, Subpart TTTTTT (included as Attachment A of this permit):

- (1) 40 CFR 63.11462
- (2) 40 CFR 63.11463
- (3) 40 CFR 63.11464
- (4) 40 CFR 63.11465
- (5) 40 CFR 63.11466
- (6) 40 CFR 63.11467
- (7) 40 CFR 63.11468
- (8) 40 CFR 63.11469
- (9) 40 CFR 63.11470
- (10) 40 CFR 63.11471
- (11) 40 CFR 63.11472
- (12) 40 CFR 63.11473
- (13) Table 1

...
FESOP Quarterly Report

...
Facility: Two (2) Furnace lines **and one (1) melting furnace (FCE 2310)**
Parameter: Make-up Process Salt of ten percent (10%) MgCl₂
Limit: 3,322 tons per twelve (12) consecutive month period

...

- (b) Upon further review, IDEM, OAQ has decided to make the following changes to the permit. Deleted language appears as ~~strikethrough~~ text and new language appears as **bold** text:
- (1) Section A.1 has been revised to indicate that this source is one of the twenty-eight (28) listed source categories because this source is a secondary metal production plant that melts scrap secondary magnesium into magnesium alloy ingots.
 - (2) Upon further review, IDEM has revised the existing HCl emission limit for the salt furnace in Condition D.1.2 from 6.13 pounds per ton of process salt to 1.20 pounds per ton of process salt. Based on the TSD to FESOP Renewal No.: 095-21966-00114 the intent was to limit HCl emissions from the salt furnace to less than 1.96 tons per year.
 - (3) The existing testing requirements found in Condition D.1.4 have been revised to clarify why the source is required to perform PM, PM10, and HCl testing.

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

... Source Status: Federally Enforceable State Operating Permit (FESOP)
Minor Source, under PSD Rules
Minor Source, Section 112 of the Clean Air Act
1 of 28 Source Categories

...
D.1.2 Hazardous Air Pollutants (HAPs) [326 IAC 2-8-4] [326 IAC 2-4.1]

- ... (b) The total amount of make-up process salt of ten percent (10%) Mg Cl₂ to the salt furnace with a maximum capacity of 3,260 tons of process salt per twelve (12) consecutive month period with compliance determined at the end of each month. The HCl emissions shall not exceed ~~6.13~~ **1.20** pounds per ton of process salt.

...
D.1.4 Testing Requirements [326 IAC 2-8-5(a)(1), (4)][326 IAC 2-1.1-11]

- (a) **Pursuant to Air-014-NPD and in order to verify compliance with 326 IAC 2-2 and 326 IAC 2-8-4 when operating at maximum capacity** ~~Prior to March 13, 2014,~~ the Permittee shall perform PM and PM₁₀ testing on one (1) of the two (2) furnace lines, **prior to March 13, 2014**, utilizing methods as approved by the Commissioner. This test shall be repeated once every five (5) years from the date of the most recent valid compliance test.
- (b) **Pursuant to Air-014-NPD and in order to verify compliance with 326 IAC 2-2 and 326 IAC 2-8-4 when operating at maximum capacity** ~~Prior to March 12, 2014,~~ the Permittee shall perform PM and PM₁₀ testing on the salt furnace, **prior to March 12, 2014**, utilizing methods as approved by the Commissioner. This test shall be repeated once every five (5) years from the date of the most recent valid compliance test.
- (c) **In order to demonstrate compliance with Condition D.1.2(a)** ~~Prior to March 13, 2009,~~ the Permittee shall perform hydrogen chloride (HCl) testing on one (1) of the two (2) furnace lines, **prior to March 13, 2009**, utilizing methods as approved by the Commissioner. The test shall be repeated once every five (5) years from this date.
- (d) **In order to demonstrate compliance with Condition D.1.2(b)** ~~Prior to March 12, 2009,~~ the Permittee shall perform hydrogen chloride (HCl) testing on the salt furnace, **prior to March 12, 2009**, utilizing methods as approved by the Commissioner. This test shall be repeated once every five (5) years from this date.
- ...

Conclusion and Recommendation

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on February 23, 2010.

The construction and operation of this proposed revision shall be subject to the conditions of the attached proposed FESOP Minor Revision No. 095-29016-00114. The staff recommends to the Commissioner that this FESOP Minor Revision be approved.

IDEM Contact

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

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

**Company Name: Advanced Magnesium Alloys Corporation
Address City IN Zip: 1820 East 32nd Street, Anderson, Indiana 46013
Permit Number: 095-29016-00114
Reviewer: Brian Williams**

Unlimited Potential to Emit of Entire Source (tons/yr)									
Process	PM	PM10	PM2.5	SO2	NOx	VOC	CO	Total HAPs	Single HAP
Melting Furnace (new)	1.11	1.11	1.11	0	0	0.41	0	3.99	3.99 HCl
Two (2) Furnace Lines	25.21	32.97	32.97	0	0	0	0	12.51	12.51 HCl
Salt Furnace	1.48	1.48	1.48					1.96	1.96 HCl
Natural Gas Combustion - Melting Furnace (new)	0.03	0.13	0.13	0.01	1.75	0.10	1.47	0.033	0.032 Hexane
Conveyors	8.42	3.37	3.37	0	0	0	0	0	0
Natural Gas Combustion Heaters	0.08	0.31	0.31	0.02	4.12	0.23	3.46	0.078	0.074 Hexane
HCl Tank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.39E-04	4.39E-04 HCl
Total	36.33	39.38	39.38	0.04	5.87	0.73	4.93	18.57	18.46 HCl

Limited Potential to Emit After Issuance (tons/yr)									
Process	PM	PM10	PM2.5	SO2	NOx	VOC	CO	Total HAPs	Single HAP
Melting Furnace (new)	1.11	1.11	1.11	0	0	0.41	0	8.04	8.04 HCl
Two (2) Furnace Lines	25.21	32.97	32.97	0	0	0	0		
Salt Furnace	1.48	1.48	1.48	0	0	0	0	1.96	1.96 HCl
Natural Gas Combustion - Melting Furnace (new)	0.03	0.13	0.13	0.01	1.75	0.10	1.47	0.033	0.032 Hexane
Conveyors	8.42	3.37	3.37	0	0	0	0	0	0
Natural Gas Combustion Heaters	0.08	0.31	0.31	0.02	4.12	0.23	3.46	0.078	0.074 Hexane
HCl Tank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.39E-04	4.39E-04 HCl
Total	36.33	39.38	39.38	0.04	5.87	0.73	4.93	10.11	<10 HCl

**Appendix A: Emission Calculations
Natural Gas Combustion - Melting Furnace
MMBtu/hr <100**

Company Name: Advanced Magnesium Alloys Corporation
Address City IN Zip: 1820 East 32nd Street, Anderson, Indiana 46013
Permit Number: 095-29016-00114
Reviewer: Brian Williams

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

4.00

35.0

Pollutant

	PM*	PM10*	SO2	NO _x	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	3.33E-02	0.13	1.05E-02	1.75	9.64E-02	1.47

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

**Emission Factors for NO_x: Uncontrolled = 100, Low NO_x Burner = 50, Low NO_x Burners/Flue gas recirculation = 32

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	3.679E-05	2.102E-05	1.314E-03	3.154E-02	5.957E-05

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	8.760E-06	1.927E-05	2.453E-05	6.658E-06	3.679E-05

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 from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (AP-42 Supplement D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

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: Emission Calculations
Melting Furnace**

**Company Name: Advanced Magnesium Alloys Corporation
Address City IN Zip: 1820 East 32nd Street, Anderson, Indiana 46013
Permit Number: 095-29016-00114
Reviewer: Brian Williams**

Process	Maximum Capacity (tons/hr)	PM Emission Factor (lb/ton)	PM10 Emission Factor (lb/ton)	VOC Emission Factor (lb/ton)	Potential PM Emissions (lb/hr)	Potential PM10 Emissions (lb/hr)*	Potential VOC Emissions (lb/hr)	Potential PM Emissions (tons/yr)	Potential PM10 Emissions (tons/yr)*	Potential VOC Emissions (tons/yr)
Melting Furnace	0.47	0.54	0.54	0.20	0.25	0.25	0.09	1.11	1.11	0.41

Process	Maximum Capacity (tons/yr)	Maximum Salt Usage (tons/yr)	HCl Emission Factor (lb/ton of salt)	Potential HCl Emissions (tons/yr)
Melting Furnace	4117.2	1646.88	4.84	3.99

Methodology

*PM2.5 = PM10

PM, PM10, and HCl emission factors based on IDEM approved stack testing of the existing furnaces, which was performed on November 16, 2004.

VOC emissions factor from EPA Fire database 6.25

Potential PM/PM10/VOC Emissions (lb/hr) = Maximum Capacity (tons/hr) * EF (lb/ton)

Potential PM/PM10/VOC Emissions (tons/yr) = Potential Emissions (lb/hr) * 8760 (hrs/yr) * 1/2000 (ton/lbs)

Potential HCl Emissions (tons/yr) = Maximum Salt Usage (tons/yr) * EF (lb/ton) * 1/2000 (ton/lbs)

**Appendix A: Emission Calculations
Existing Furnaces**

**Company Name: Advanced Magnesium Alloys Corporation
Address City IN Zip: 1820 East 32nd Street, Anderson, Indiana 46013
Permit Number: 095-29016-00114
Reviewer: Brian Williams**

Process	Average Measured PM Emission Factor (lb/hr)	Average Measured PM10 Emission Factor (lb/hr)*	Average Measured HCl Emission Factor (lb/hr)	Average Operating Rate (lbs/hr)	Maximum Capacity (lbs/hr)	Adjusted PM Emission Factor (lb/hr)	Adjusted PM10 Emission Factor (lb/hr)	Adjusted HCl Emission Factor (lb/hr)	Potential PM Emissions (tons/yr)	Potential PM10 Emissions (tons/yr)*	Potential HCl Emissions (tons/yr)
Furnace Line 1	2.11	2.76	1.05	7743	10560	2.88	3.76	1.43	12.60	16.49	6.26
Furnace Line 2	2.11	2.76	1.05	7743	10560	2.88	3.76	1.43	12.60	16.49	6.26
Total									25.21	32.97	12.51
Salt Furnace	0.25	0.25	0.33	550	744.29	0.34	0.34	0.45	1.48	1.48	1.96

Methodology

*PM2.5 = PM10

PM, PM10, and HCl emission factors based on IDEM approved stack testing of the existing furnaces, which was performed on November 16, 2004.

Adjusted Emission Factor (lb/hr) = Average Measured EF (lb/hr) / Average Operating Rate (lbs/hr) * Maximum Capacity (lbs/hr)

Potential Emissions (tons/yr) = Adjusted EF (lb/hr) * 8760 (hrs/yr) * 1/2000 (ton/lbs)

**Appendix A: Emission Calculations
Limited HCl Emissions**

Company Name: Advanced Magnesium Alloys Corporation
Address City IN Zip: 1820 East 32nd Street, Anderson, Indiana 46013
Permit Number: 095-29016-00114
Reviewer: Brian Williams

Process	Limited Salt Usage (tons/yr)	HCl Emission Factor (lb/ton of salt)	Limited HCl Emissions (tons/yr)
Furnace Lines (1-2) and Scrap Melting Furnace	3321.9	4.84	8.04
Salt Furnace	3260	1.20	1.96
			9.99

Methodology

Limited HCl Emissions (tons/yr) = Limited Salt Usage (tons/yr) * HCl Emission Factor (lb/ton) * 1/2000 (ton/lbs)

**Appendix A: Emission Calculations
Conveyor Particulate Emissions**

**Company Name: Advanced Magnesium Alloys Corporation
Address City IN Zip: 1820 East 32nd Street, Anderson, Indiana 46013
Permit Number: 095-29016-00114
Reviewer: Brian Williams**

Process	Maximum Capacity (lbs/hr)	PM Emission Factor (lb/ton)	PM10 Emission Factor (lb/ton)	Potential PM Emissions (lb/hr)	Potential PM10 Emissions (lb/hr)*	Potential PM Emissions (tons/yr)	Potential PM10 Emissions (tons/yr)*
Two (2) Casting Conveyors	21120	0.01	0.004	0.11	0.04	0.46	0.19
Two (2) Cooling Conveyors	21120	0.01	0.004	0.11	0.04	0.46	0.19
Heater Feed Conveyor	10560	0.01	0.004	0.05	0.02	0.23	0.09
Heater Feed Conveyor	10560	0.01	0.004	0.05	0.02	0.23	0.09
Heater Feed Conveyor	10560	0.01	0.004	0.05	0.02	0.23	0.09
Heater Feed Conveyor	10560	0.01	0.004	0.05	0.02	0.23	0.09
One (1) Shredder Feed Conveyor	60000	0.01	0.004	0.30	0.12	1.31	0.53
One (1) Shredder Conveyor	60000	0.01	0.004	0.30	0.12	1.31	0.53
One (1) Shredder Discharge Conveyor	60000	0.01	0.004	0.30	0.12	1.31	0.53
One (1) Tramp Iron Removal Discharge Conveyor	60000	0.01	0.004	0.30	0.12	1.31	0.53
One (1) Shuttle Conveyor	60000	0.01	0.004	0.30	0.12	1.31	0.53
Total						8.42	3.37

Methodology

*PM2.5 = PM10

Emission factors from AP-42 Table 11.24-2.

Potential Emissions (lb/hr) = Maximum Capacity (lbs/hr) * EF (lb/ton) * 1/2000 (ton/lbs)

Potential Emissions (tons/yr) = Maximum Capacity (lbs/hr) * EF (lb/ton) * 1/2000 (ton/lbs) * 8760 (hrs/yr) * 1/2000 (ton/lbs)

Appendix A: Emission Calculations
Natural Gas Combustion - Space, Tool, and Mold Heaters
MMBtu/hr <100

Company Name: Advanced Magnesium Alloys Corporation
Address City IN Zip: 1820 East 32nd Street, Anderson, Indiana 46013
Permit Number: 095-29016-00114
Reviewer: Brian Williams

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

9.40

82.3

Pollutant

	PM*	PM10*	SO2	NO _x	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	7.82E-02	0.31	2.47E-02	4.12	2.26E-01	3.46

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

**Emission Factors for NO_x: Uncontrolled = 100, Low NO_x Burner = 50, Low NO_x Burners/Flue gas recirculation = 32

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	8.646E-05	4.941E-05	3.088E-03	7.411E-02	1.400E-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	2.059E-05	4.529E-05	5.764E-05	1.565E-05	8.646E-05

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 from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (AP-42 Supplement D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

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: Emission Calculations
HCl Emissions from the Acid Tanks**

**Company Name: Advanced Magnesium Alloys Corporation
Address: 1820 East 32nd Street, Anderson, Indiana 46013
Permit Revision No: 095-29016-00114
Reviewer: Brian Williams**

	Surface Area (ft ²)	HCl Solution (%)	HCl Pickling Factor (lb/(hr-ft ² tank- %HCl))	Emission Rate (lb/hr)	Potential HCl Emissions (tons/yr)
HCl Tank	63	5.3%	0.00003	1.00E-04	4.39E-04
Total					4.39E-04

Acid Tank Specifications

	W (ft)	L (ft)	D (ft)	Surface Area (ft ²)
HCl Tank	3	6	1.50	63

METHODOLOGY

The HCl emission factor, was derived from a report of the tests conducted by the South Coast Air Quality Management District (SCAQMD) and Metal Finishing Association of Southern California (MFASC) with collaboration by the California Air Resource Board (CARB).

Surface Area (ft²) = 2[(Length x Width) + (Width x Depth) + (Length x Depth)]

Potential HCl Emissions (tons/yr) = Emission Factor (lb/(hr-ft² tank-%HCl)) x Surface Area (ft²) * HCl Solution (%) x 8760 hr/yr x 1 ton/2000 lbs



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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Toll Free (800) 451-6027
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SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Arie Shaked
Advanced Magnesium Alloys
1820 E 32nd St
Anderson, IN 46013

DATE: April 15, 2010

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

SUBJECT: Final Decision
FESOP - Minor Permit Revision
095 - 29016 - 00114

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:
Jan A Guy, CEO
Mr. Mack Overton Astbury Environmental Engineering
Mr. Michael Dicen Air Analysis, Inc.
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Final Applicant Cover letter.dot 11/30/07

Mail Code 61-53

IDEM Staff	LPOGOST 4/15/2010 Advanced Magnesium Alloys Corporation (AMACOR) 095 - 29016 - 00114 final)		AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING	
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: CERTIFICATE OF MAILING ONLY	

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1		Arie Shaked Advanced Magnesium Alloys Corporation (AMACOR) 1820 E 32nd St Anderson IN 46013 (Source CAATS) Via confirmed delivery										
2		Jan A Guy CEO Advanced Magnesium Alloys Corporation (AMACOR) 1820 E 32nd St Anderson IN 46013 (RO CAATS)										
3		Madison County Commissioners 16 E. 9th Suite 104 Anderson IN 46016 (Local Official)										
4		Anderson Town Council & Mayors Office P.O. Box 2100 Anderson IN 46018 (Local Official)										
5		Mr. Charles L. Berger Berger & Berger, Attorneys at Law 313 Main Street Evansville IN 47700 (Affected Party)										
6		Madison County Health Department 206 E 9th St Anderson IN 46016-1512 (Health Department)										
7		Mr. Mack Overton Astbury Environmental Engineering 5757 W 74th St Indianapolis IN 46278 (Consultant)										
8		Mr. Michael Dicen Air Analysis, Inc. 3904 Clarks Creek Road Plainfield IN 46168 (Consultant)										
9		Mr. Gary McKinney Anderson Brownfields Coordinator 120 E. 8th St. Anderson IN 46016 (Local Official)										
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