



Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

June 23, 2004

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

TO: Interested Parties / Applicant

RE: Amcast Automotive-Gas City / SPR 053-17939-00046

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

Notice of Decision: Approval - Effective Immediately

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

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

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

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

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

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

Enclosures
FNPER.dot 9/16/03



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

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

June 23, 2004

Mr. Duane LaShomb
Amcast Automotive - Gas City Plant
6231 East 500 South
Marion, IN 46953

Re: 053-17939
Significant Permit Revision to
FESOP No. F053-12972-00046

Dear Mr. LaShomb:

Amcast Automotive - Gas City was issued a permit on September 3, 2002 for operation of an aluminum die casting source producing alloy wheels. A letter was sent on July 2, 2003 by IDEM to the Permittee requesting information on the flux usage at the plant's existing aluminum production facilities. In addition to providing the requested information, the Permittee submitted a letter to IDEM on July 29, 2003 requesting they be allowed to test their fluxing operations to establish related hydrogen chloride (HCl) and hydrogen fluoride (HF) emission rates. IDEM agreed to allow such, and the source conducted IDEM witnessed emissions testing on October 16, 2003. Based on the results of that test, and pursuant to the provisions of 326 IAC 2-8-11.1, a significant permit revision to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of revising the source HAP limits based on the October 16, 2003 test results; including emissions from facilities previously permitted, but whose potential emissions were omitted from prior approvals; revising the source requirements relating to 40 CFR Part 63, Subpart RRR in response to a determination of non-applicability received from U.S EPA Region V on January 22, 2004; revising the listing of insignificant activities to include two (2) new natural gas fired boilers, each rated at 2 MMBtu per hour; and eliminating one (1) existing 10.5 MMBtu per hour natural gas fired boiler removed from the source. This revision does not change the FESOP status of this source.

There is no new construction associated with this proposed project. The new insignificant activities (i.e., two (2) new natural gas fired boilers, each rated at 2 MMBtu per hour) do not require advanced OAQ approval and have already been installed.

The data and information supplied by the applicant to support this approval shall be considered part of this significant permit revision approval. Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the significant permit revision into the permit, as documented in the attached Technical Support Document. All other conditions of the permit shall remain unchanged and in effect. A copy of the entire revised FESOP, including all prior revisions and amendments, is attached.

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 Michael Hirtler, c/o OAQ, 100 North Senate
Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call 973-575-2555 (ext. 3216) or 1-800-451-
6027 press 0 and ask for extension 3-6878.

Sincerely,

Original signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments

MH/EVP

c: File - Grant County
U.S. EPA, Region V
Grant County Health Department
Air Compliance Section Inspector - Marc Goldman
Compliance Data Section
Administrative and Development
Technical Support and Modeling - Michele Boner



Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

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

**FEDERALLY ENFORCEABLE STATE
OPERATING PERMIT (FESOP)
OFFICE OF AIR QUALITY**

**Amcast Automotive - Gas City Plant
6231 East 500 South
Marion, Indiana 46953**

(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.

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.: F053-12972-00046	
Issued by: Original Signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: September 3, 2002 Expiration Date: September 3, 2007
Significant Permit Revision: 053-17939-00046	Conditions Affected: Section A2, A3, Sections D.1 through D.4, Quarterly Report Form
Issued by: Original signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: June 23, 2004 Expiration Date: September 3, 2007

Previous Permit Revisions to F053-12972-00046:

First Administrative Amendment: 153-16100-00046, issued on September 20, 2002
Second Administrative Amendment: 053-16687-00046, issued on December 5, 2002
First Significant Permit Revision: 053-16921-00046, issued on July 23, 2003

SECTION A	SOURCE SUMMARY	6
A.1	General Information [326 IAC 2-8-3(b)]	
A.2	Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]	
A.3	Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]	
A.4	FESOP Applicability [326 IAC 2-8-2]	
A.5	Prior Permits Superseded [326 IAC 2-1.1-9.5]	
SECTION B	GENERAL CONDITIONS	9
B.1	Permit No Defense [IC 13]	
B.2	Definitions [326 IAC 2-8-1]	
B.3	Permit Term [326 IAC 2-8-4(2)]	
B.4	Enforceability [326 IAC 2-8-6]	
B.5	Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]	
B.6	Severability [326 IAC 2-8-4(4)]	
B.7	Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]	
B.8	Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)] [326 IAC 2-8-5(a)(4)]	
B.9	Compliance Order Issuance [326 IAC 2-8-5(b)]	
B.10	Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]	
B.11	Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]	
B.12	Annual Compliance Certification [326 IAC 2-8-5(a)(1)]	
B.13	Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)][326 IAC 2-8-5(a)(1)]	
B.14	Emergency Provisions [326 IAC 2-8-12]	
B.15	Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]	
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]	
B.17	Permit Renewal [326 IAC 2-8-3(h)]	
B.18	Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]	
B.19	Operational Flexibility [326 IAC 2-8-15]	
B.20	Permit Revision Requirement [326 IAC 2-8-11.1]	
B.21	Inspection and Entry [326 IAC 2-8-5(a)(2)][IC13-14-2-2]	
B.22	Transfer of Ownership or Operational Control [326 IAC 2-8-10]	
B.23	Annual Fee Payment [326 IAC 2-7-19][326 IAC 2-8-4(6)] [326 IAC 2-8-16]	
SECTION C	SOURCE OPERATION CONDITIONS.....	19
	Emission Limitations and Standards [326 IAC 2-8-4(1)]	
C.1	Overall Source Limit [326 IAC 2-8]	
C.2	Opacity [326 IAC 5-1]	
C.3	Open Burning [326 IAC 4-1][IC 13-17-9]	
C.4	Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]	
C.5	Fugitive Dust Emissions [326 IAC 6-4]	
C.6	Operation of Equipment [326 IAC 2-8-5(a)(4)]	
C.7	Stack Height [326 IAC 1-7]	
C.8	Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61 Subpart M]	
	Testing Requirements [326 IAC 2-8-4(3)]	
C.9	Performance Testing [326 IAC 3-6]	
	Compliance Requirements [326 IAC 2-1.1-11]	
C.10	Compliance Requirements [326 IAC 2-1.1-11]	
	Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]	
C.11	Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]	
C.12	Maintenance of Emission Monitoring Equipment [326 IAC 2-8-4(3)(A)(iii)]	
C.13	Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]	

- C.14 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11]
[326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]

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

- C.15 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]
- C.16 Compliance Response Plan -Preparation, Implementation, Records, and Reports
[326 IAC 2-8-4][326 IAC 2-8-5]
- C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4]
[326 IAC 2-8-5]

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

- C.18 General Record Keeping Requirements [326 IAC 2-8-4(3)][326 IAC 2-8-5]
- C.19 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

Stratospheric Ozone Protection

- C.20 Compliance with 40 CFR 82 and 326 IAC 22-1

SECTION D.1 FACILITY OPERATION CONDITIONS

Liquid paint booth (LP-1)..... 27

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

- D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]
- D.1.2 FESOP Limit [326 IAC 2-8]
- D.1.3 Particulate Matter (PM) [40 CFR 52 Subpart P]
- D.1.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

Compliance Determination Requirements

- D.1.5 Volatile Organic Compounds (VOC) [326 IAC 8-1-2]
- D.1.6 Hazardous Air Pollutants (HAPs)
- D.1.7 HAP Emissions
- D.1.8 Particulate [326 IAC 6-3-2(d)]

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

- D.1.9 Monitoring

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

- D.1.10 Record Keeping Requirements
- D.1.11 Reporting Requirements

SECTION D.2 FACILITY OPERATION CONDITIONS

Aluminum melt furnaces (REV-1, REV-2 and Jet Melt)..... 30

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

- D.2.1 Particulate [326 IAC 6-3-2]
- D.2.2 Particulate Matter Less Than Ten Microns (PM10) [326 IAC 2-8]

Compliance Determination Requirements

- D.2.3 Testing Requirements [326 IAC 2-8-5(a)(1),(4)] [326 IAC 2-1.1-11]

SECTION D.3 FACILITY OPERATION CONDITIONS

Shot blasting unit..... 32

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

- D.3.1 Particulate [326 IAC 6-3-2]
- D.3.2 Particulate Matter Less Than Ten Microns (PM10) [326 IAC 2-8]

Compliance Determination Requirements

D.3.3 Particulate Matter (PM)

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

D.3.4 Parametric Monitoring

D.3.5 Baghouse Inspections

D.3.6 Broken or Failed Bag Detection

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

D.3.7 Record Keeping Requirements

SECTION D.4 FACILITY OPERATION CONDITIONS

Insignificant Activities - Two (2) boilers..... 34

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

D.4.1 Particulate [326 IAC 6-2-4]

Certification Form 35

Emergency Occurrence Report Form 36

Quarterly Report Form 38

Quarterly Deviation and Compliance Monitoring Report Form 39

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 aluminum die casting source.

Authorized Individual:	Duane LaShomb, Plant Manager
Source Address:	6231 East 500 South, Marion, IN 46953
Mailing Address:	6231 East 500 South, Marion, IN 46953
SIC Code:	3363
Source Location Status:	Grant
County Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD Minor Source, Section 112 of the Clean Air Act

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

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

- (a) One (1) liquid paint booth, identified as LP-1, installed in 1995, using twenty four (24) LPHV air atomization guns, coating a maximum of 320 aluminum wheels per hour, using dry filters for particulate matter overspray control;
- (b) One (1) natural gas-fired reverberatory furnace, installed in 1992 and identified as REV-1, with a maximum heat input rate of 10 MMBtu per hour, with a maximum capacity of melting 4,000 pounds of aluminum per hour and using up to 70 pounds solid flux per week, exhausting to one (1) stack identified as REVS-1. Reverberatory furnace REV-1 and Jet Melt Furnace JM-1 share one (1) natural gas fired filter furnace, with a maximum heat input rate of 2 MMBtu/hr, using up to 35 pounds solid flux per week, exhausting to one (1) stack identified as FF#1;
- (c) One (1) natural gas-fired reverberatory furnace with wet well, installed in 1992 and identified as REV-2, with a maximum heat input rate of 10 MMBtu per hour, with a maximum capacity of melting 4,000 pounds of aluminum per hour and using up to 273 pounds solid flux per week in the furnace and wet well, exhausting to one (1) stack identified as REVS-2. Furnace REV-2 is equipped with an attached natural gas fired filter furnace, with a maximum heat input rate of 2 MMBtu/hr, using up to 35 pounds solid flux per week, and exhausting to one (1) stack identified as FF#2. Furnace REV-2 uses a natural gas-fired fume incinerator for control of its wet well, with a maximum heat input rate of 1.5 MMBtu/hr, exhausting to one (1) stack identified as FIS-1;
- (d) One (1) natural gas-fired Jet Melt (Stack Melt) furnace, installed in 1995 and identified as JM-1, with a maximum heat input rate of 3.2 MMBtu per hour, with a maximum capacity of melting 3,000 pounds of aluminum per hour and using up to 140 pounds solid flux per week, exhausting to one (1) stack identified as JMS-1. Reverberatory furnace REV-1 and Jet Melt Furnace JM-1 share one (1) natural gas fired filter furnace, with a maximum heat input rate of 2 MMBtu/hr, using up to 35 pounds solid flux per week, exhausting to one (1) stack identified as FF#1; and

- (e) One (1) shot blasting unit with a maximum process weight rate of 1000 pounds per hour (identified as wheelabrator), utilizing a baghouse for particulate matter (PM) control.

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

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

- (a) Two (2) natural gas-fired wash line boilers, each with a maximum heat input rate of 2 million (MM) British thermal units (Btu) per hour;
- (b) One (1) natural gas-fired dry-off oven (clear), identified as PPDO-1, with a maximum heat input rate of 1.6 MMBtu per hour, exhausting through one (1) stack identified as PPDO-1;
- (c) One (1) natural gas-fired dry-off oven (color), identified as PPDO-2, with a maximum heat input rate of 1.6 MMBtu per hour, exhausting through one (1) stack identified as PPDO-2;
- (d) One (1) natural gas-fired bake oven (clear), identified as PPCO-1, with a maximum heat input rate of 3.6 MMBtu per hour, exhausting through one (1) stack identified as PPCO-1;
- (e) One (1) natural gas-fired bake oven (color), identified as PPCO-2, with a maximum heat input rate of 3.6 MMBtu per hour, exhausting through one (1) stack identified as PPCO-2;
- (f) One (1) natural gas-fired Pyrolysis furnace with a maximum heat input rate of 0.3 MMBtu per hour;
- (g) Five (5) natural gas-fired air make-up units, identified as AMU-1 - AMU-3, AMU-5 and AMU-6, each with a maximum heat input rate of 4.125 MMBtu per hour;
- (h) One (1) natural gas-fired air make-up unit, identified as AMU-4, with a maximum heat input rate of 9.9 MMBtu per hour;
- (i) Two (2) natural gas-fired air make-up units, identified as AMU-7 and AMU-8, each with a maximum heat input rate of 4.9 MMBtu per hour ;
- (j) One (1) natural gas-fired air make-up unit, identified as AMU-11, with a maximum heat input rate of 2.1 MMBtu per hour;
- (k) Thirty two (32) electric casting machines with a total casting capacity of 5.6 tons of aluminum per hour;
- (l) One (1) natural gas-fired material preheat oven, identified as PO-1, with a maximum heat input rate of 1.2 MMBtu per hour;
- (m) One (1) natural gas-fired heat treat in line oven, identified as HT-1, with a maximum heat input rate of 4.6 MMBtu per hour, exhausting to one (1) stack identified as HT-1;
- (n) Two (2) natural gas-fired age oven in line, identified as AO-1 and AO-2, each with a maximum heat input rate of 1.0 MMBtu per hour, exhausting to one (1) stack identified as AO-1;
- (o) One (1) natural gas-fired caustic tank heater, identified as CT-1, with a maximum heat input rate of 0.4 MMBtu per hour, and exhausting to one (1) stack identified as CT-1;
- (p) Three (3) natural gas-fired drop bottom heat treat oven, identified as #2 - #4, each with a maximum heat input rate of 7.5 MMBtu per hour;

- (q) Ten (10) natural gas-fired HVAC units, identified as #1 - #10, with a combined maximum heat input rate of 0.125 MMBtu per hour;
- (r) One (1) die prep oven, with a maximum heat input rate of 0.8 MMBtu per hour;
- (s) One (1) natural gas fired aluminum chip centrifuge and drying system, identified as the Pre Melt Thermo Fuge system, processing a maximum of 3,000 pounds of aluminum chips per hour, with a maximum heat input rate of 0.5 MMBtu per hour, exhausting to one (1) stack identified as HC-1;
- (t) Four heat treat quench tank heaters, identified as QTH1-4, each with a maximum heat input rate of 1.2 MMBtu per hour.
- (u) One (1) natural gas-fired preheating oven, identified as PH-1, with a maximum heat input rate of 1.59 MMBtu per hour;
- (v) One (1) natural gas-fired two zone cure oven, identified as CO-1, with maximum heat input rates of 4.0 and 1.5 MMBtu per hour for a maximum total capacity of 5.5 MMBtu/hr; and
- (w) Two (2) electric IR units, identified as IR-1 & 2.

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

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

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

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

SECTION B

GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

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

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

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

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

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

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

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

B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

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

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

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

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

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

B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)] [326 IAC 2-8-5(a)(4)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

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

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

- (b) 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 or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality.[326 IAC 2-8-4(5)(E)]
- (c) The Permittee may include a claim of confidentiality in accordance with 326 IAC 17. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

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

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

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:

- (1) Enforcement action;
- (2) Permit termination, revocation and reissuance, or modification; and
- (3) Denial of a permit renewal application.

- (b) 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.

- (c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in condition B, Emergency Provisions.

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.

- (c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

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

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

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

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

B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

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

- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept 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.14 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 Section) or,
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967

Failure to notify IDEM, OAQ, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]
- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

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

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

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

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

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

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

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

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

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

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

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

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.
- (c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

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

- (b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]

- (1) A timely renewal application is one that is:

- (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
- (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

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

- (c) Right to Operate After Application for Renewal [326 IAC 2-8-9]
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as needed to process the application.

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

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

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

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

Any such application should 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]

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

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

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

and

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

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

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

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

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:

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

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

- (c) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (d) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

B.20 Permit Revision Requirement [326 IAC 2-8-11.1]

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

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

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

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

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

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

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

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

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-11(b)(3)]

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

- (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 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

C.2 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.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

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

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2(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.5 Fugitive Dust Emissions [326 IAC 6-4]

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

C.6 Operation of Equipment [326 IAC 2-8-5(a)(4)]

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

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (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 14-10-4 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) **Indiana Accredited Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

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

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

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

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

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

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

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source 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. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

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

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

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

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

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

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

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

C.12 Maintenance of Emission Monitoring Equipment [326 IAC 2-8-4(3)(A)(iii)]

- (a) In the event that a breakdown of the emission monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no often less than once an hour until such time as the continuous monitor is back in operation.
- (b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

C.13 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing performed 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.14 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]

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

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

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

C.15 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68; or
- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP).

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**C.16 Compliance Response Plan - Preparation, Implementation, Records, and Reports
[326 IAC 2-8-4] [326 IAC 2-8-5]**

- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:
- (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.
- (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
- (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or
- (2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.

- (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.
- (4) Failure to take reasonable response steps shall constitute a violation of the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
 - (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.
 - (3) An automatic measurement was taken when the process was not operating.
 - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.
- (e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4]
[326 IAC 2-8-5]

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

The 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.18 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

- (a) Records of all required data, reports and support information 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 kept 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.19 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

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

Stratospheric Ozone Protection

C.20 Compliance with 40 CFR 82 and 326 IAC 22-1

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

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

SECTION D.1 FACILITY OPERATION CONDITIONS

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

- (a) One (1) liquid paint booth, identified as LP-1, using twenty-four (24) LPHV air atomization guns, coating a maximum of 320 aluminum wheels per hour, using dry filters for particulate matter overspray control.

(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 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coatings applied to metal parts or products in the liquid paint booth (LP-1) shall be limited to 3.5 pounds of VOC per gallon of coating less water delivered to the applicator, for air dried, forced warm air dried, or extreme performance coatings.

Solvent sprayed from the application equipment during clean up or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

D.1.2 FESOP Limit [326 IAC 2-8]

- (a) Any change or modification which may increase potential VOC usage at LP-1 such that the source-wide potential to emit VOC is one-hundred (100) tons per year or more, shall require prior approval from the Office of Air Quality (OAQ) before such change can occur.
- (b) Pursuant to 326 IAC 2-8, the single HAP and total HAPs input to the liquid paint booth (LP-1) shall not exceed 10 tons and 22.74 tons per twelve (12) consecutive month period, rolled on a monthly basis, respectively. Compliance with this condition will limit source wide potential to emit a single HAP and total HAPs, including insignificant activities, to less than 10 and 25 tons per year, respectively. Therefore the requirements of 326 IAC 2-7 do not apply.

D.1.3 Particulate Matter (PM) [40 CFR 52 Subpart P]

Pursuant to 40 CFR 52 Subpart P, the PM from the liquid paint booth (LP-1) shall not exceed the pound per hour emission rate established as E in the following formula:

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

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

D.1.4 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 and its control device.

Compliance Determination Requirements

D.1.5 Volatile Organic Compounds (VOC) [326 IAC 8-1-2]

Compliance with the VOC content limit in Condition D.1.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.1.6 Hazardous Air Pollutants (HAPs)

Compliance with the HAP content and usage limitations contained in Condition D.1.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3)(A) using formulation data supplied by the coating manufacturer. However, IDEM, OAM reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.1.7 HAP Emissions

Compliance with Condition D.1.2 shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound usage for the most recent twelve (12) month period.

D.1.8 Particulate [326 IAC 6-3-2(d)]

Pursuant to 326 IAC 6-3-2(d) and in order to comply with D.1.3, the dry filters for particulate control shall be in operation in accordance with manufacturer's specifications and control emissions from the liquid paint booth (LP-1) at all times when the liquid paint booth (LP-1) is in operation.

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

D.1.9 Monitoring

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the liquid paint booth stack while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

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

D.1.10 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.1 and D.1.2, the Permittee shall maintain records in accordance with (1) through (7) below. Records maintained for (1) through (7) shall be taken daily except monthly where indicated, and shall be complete and sufficient to establish compliance with the HAP usage limits in Condition D.1.2 and the VOC emission limits established in Condition D.1.1.
- (1) The VOC content of each coating material and solvent used less water;
 - (2) The HAP content of each coating material and solvent used;
 - (3) The amount coating material and solvent used on a daily basis.
 - (A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
 - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
 - (4) The VOC content of the coatings used for each day;
 - (5) The cleanup solvent usage for each day;
 - (6) The total single and combined HAP usage, and the total VOC usage, for each month; and
 - (7) The weight of single and combined HAPs, and the total VOC, emitted for each compliance period.
- (b) To document compliance with Condition D.1.9, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.11 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.2 shall be submitted to the address 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)]:

- (b) One (1) natural gas-fired reverberatory furnace, installed in 1992 and identified as REV-1, with a maximum heat input rate of 10 MMBtu per hour, with a maximum capacity of melting 4,000 pounds of aluminum per hour and using up to 70 pounds solid flux per week, exhausting to one (1) stack identified as REVS-1. Reverberatory furnace REV-1 and Jet Melt Furnace JM-1 share one (1) natural gas fired filter furnace, with a maximum heat input rate of 2 MMBtu/hr, using up to 35 pounds solid flux per week, exhausting to one (1) stack identified as FF#1;
- (c) One (1) natural gas-fired reverberatory furnace with wet well, installed in 1992 and identified as REV-2, with a maximum heat input rate of 10 MMBtu per hour, with a maximum capacity of melting 4,000 pounds of aluminum per hour and using up to 273 pounds solid flux per week in the furnace and wet well, exhausting to one (1) stack identified as REVS-2. Furnace REV-2 is equipped with an attached natural gas fired filter furnace, with a maximum heat input rate of 2 MMBtu/hr, using up to 35 pounds solid flux per week, and exhausting to one (1) stack identified as FF#2. Furnace REV-2 uses a natural gas-fired fume incinerator for control of its wet well, with a maximum heat input rate of 1.5 MMBtu/hr, exhausting to one (1) stack identified as FIS-1;
- (d) One (1) natural gas-fired Jet Melt (Stack Melt) furnace, installed in 1995 and identified as JM-1, with a maximum heat input rate of 3.2 MMBtu per hour, with a maximum capacity of melting 3,000 pounds of aluminum per hour and using up to 140 pounds solid flux per week, exhausting to one (1) stack identified as JMS-1. Reverberatory furnace REV-1 and Jet Melt Furnace JM-1 share one (1) natural gas fired filter furnace, with a maximum heat input rate of 2 MMBtu/hr, using up to 35 pounds solid flux per week, exhausting to one (1) stack identified as FF#1;

The following insignificant activity, as defined in 326 IAC 2-7-1(21):

- (s) One (1) natural gas fired aluminum chip centrifuge and drying system, identified as the Pre Melt Thermo Fuge system, processing a maximum of 3,000 pounds of aluminum chips per hour, with a maximum heat input rate of 0.5 MMBtu per hour.

(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 [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) particulate emitted from the facilities listed below shall be limited as stated, based on the following:

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

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

Emission Unit/Activity	Process Weight Rate (tons/hr)	Allowable Particulate Emission Rate (326 IAC 6-3-2) (lb/hr)
Reverberatory Furnace REV-1	2.0	6.52
Reverberatory Furnace REV-2	2.0	6.52
Jet Melt Furnace JM-1	1.25	4.76
Pre Melt Thermo Fuge aluminum chip centrifuge and drying system	1.5	5.38

D.2.2 Particulate Matter Less Than Ten Microns (PM10) [326 IAC 2-8]

Pursuant to 326 IAC 2-8 (FESOP) the PM-10 emissions from the natural gas fired aluminum melt furnaces identified as REV-1, REV-2, and JM-1 shall be limited to 6.52, 6.52, and 4.76 pounds per hour, respectively, which is equivalent to 28.55, 28.55 and 20.85 tons per year based on 8,760 hours per year of operation. Compliance with this condition will limit source potential to emit of PM10, including insignificant activities, to less than 100 tons per year. Therefore, the requirements of 326 IAC 2-7 (Part 70) do not apply.

Compliance Determination Requirements

D.2.3 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

In order to demonstrate compliance with Conditions D.2.1 and D.2.2, the Permittee shall perform PM and PM-10 testing on two (2) reverberatory furnaces (REV-1 and REV-2) and Jet Melt furnace JM-1 utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from March 2003, the date of the prior valid compliance demonstration, with REV-1 and REV-2 tested on an alternating basis (i.e., the reverberatory furnace not tested at the time of the prior test shall be tested (either REV-1 or REV-2)). Testing of each furnace shall include the metal fluxing cycle. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

SECTION D.3 FACILITY OPERATION CONDITIONS

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

- (e) One (1) shot blasting unit with a maximum process weight rate of 1000 pounds per hour (identified as wheelabrator), utilizing a baghouse for particulate matter control.

(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.3.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the shot blasting unit shall be limited to 2.57 pounds per hour. This limit is based on the following equation:

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

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

D.3.2 Particulate Matter Less Than Ten Microns (PM10) [326 IAC 2-8]

Pursuant to 326 IAC 2-8 (FESOP) the PM-10 emissions from the shot blast unit shall not exceed 2.57 pounds per hour, which is equivalent to 11.25 tons per year.

Compliance Determination Requirements

D.3.3 Particulate Matter (PM)

The baghouse for PM control shall be in operation at all times when the shot blasting unit is in operation.

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

D.3.4 Parametric Monitoring

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

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

D.3.5 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the shot blast unit when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

D.3.6 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

D.3.7 Record Keeping Requirements

- (a) To document compliance with Condition D.3.4, the Permittee shall maintain the once per shift records of the inlet and outlet differential static pressure during normal operation.
- (b) To document compliance with Condition D.3.5, the Permittee shall maintain records of the results of the inspections required under Condition D.3.5 and the dates the vents are redirected.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.4 FACILITY OPERATION CONDITIONS

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

The following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Two (2) natural gas fired wash line boilers, each with a maximum heat input rate of 2 million (MM) British thermal units (Btu) per hour

(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.4.1 Particulate [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating), PM emissions from the two (2) wash line boilers, each as a facility installed after September 21, 1983, shall each be limited to 0.6 pounds per MMBtu heat input.

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

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

Source Name: Amcast Automotive - Gas City Plant
Source Address: 6231 East 500 South, Marion, Indiana 46953
Mailing Address: 6231 East 500 South, Marion, Indiana 46953
FESOP No.: F053-12972-00046

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

Please check what document is being certified:

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

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

Signature:

Printed Name:

Title/Position:

Phone:

Date:

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

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

Source Name: Amcast Automotive - Gas City Plant
Source Address: 6231 East 500 South, Marion, Indiana 46953
Mailing Address: 6231 East 500 South, Marion, Indiana 46953
FESOP No.: F053-12972-00046

This form consists of 2 pages

Page 1 of 2

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

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

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

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

Page 2 of 2

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

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

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE BRANCH

FESOP Quarterly Report

Source Name: Amcast Automotive - Gas City Plant
 Source Address: 6231 East 500 South, Marion, Indiana 46953
 Mailing Address: 6231 East 500 South, Marion, Indiana 46953
 FESOP No.: F053-12972-00046
 Facility: Liquid paint booth (LP-1)
 Parameter: single HAP and total HAPs
 Limit: the single HAP and total HAPs input to the liquid paint booth (LP-1) shall not exceed 10 tons and 22.74 tons per twelve (12) consecutive month period, rolled on a monthly basis, respectively.

YEAR: _____

Month	Column 1		Column 2		Column 1 + Column 2	
	Single HAP Usage This Month	Total HAP Usage This Month	Single HAP Usage Previous 11 Months	Total HAP Usage Previous 11 Months	Single HAP Usage 12 Month Total	Total HAP Usage 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 BRANCH**

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

Source Name: Amcast Automotive - Gas City Plant
Source Address: 6231 East 500 South, Marion, Indiana 46953
Mailing Address: 6231 East 500 South, Marion, Indiana 46953
FESOP No.: F053-12972-00046

Months: _____ to _____ Year: _____

Page 1 of 2

This report is an affirmation that the source has met all the requirements stated in this permit. This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

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

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

Source Background and Description

Source Name:	Amcast Automotive - Gas City
Source Location:	6231 East 500 South, Marion, IN 46953
County:	Grant
Operation Permit No.:	F053-12972-00046
Operation Permit Issuance Date:	September 3, 2002
Significant Permit Revision No.:	053-17939-00046
SIC Code:	3363
Permit Reviewer:	MH/EVP

The Office of Air Quality (OAQ) has reviewed an application from Amcast Automotive - Gas City relating to the operation of an aluminum die casting source producing alloy wheels.

History

On July 2, 2003, IDEM sent a letter to Amcast Automotive requesting information relating to the solid reactive flux usage at the Gas City plant's existing aluminum production operations. The letter indicated that IDEM required such information in order to determine the potential to emit (PTE) of hydrogen chloride (HCl) and hydrogen fluoride (HF), each a hazardous air pollutant (HAP) as defined under Section 112(b) of the Clean Air Act. Prior approvals issued by IDEM for this source did not include potential HAP emissions due to metal fluxing operations, and such was determined by IDEM to be necessary in order to confirm the FESOP status of this existing source.

The requested information, including potential flux usage, was supplied by Amcast Automotive on July 16, 2003, with additional information supplied on July 29, 2003 and August 1, 2003. Based on a conservative assumption that 100% of the respective chlorides and fluorides in the flux are chemically converted to HCl and HF, the source PTE was determined by the source to be approximately 13.6 and 1.3 tons per year for HCl and HF, respectively. Since the PTE of HCl exceeds both the FESOP and major HAP source thresholds of 10 tons per year, Amcast Automotive requested they be allowed to test to demonstrate that actual emissions are significantly less than those based on 100% chemical conversion. This request was made on July 29, 2003, and IDEM agreed to withhold further processing and possible changes to this source's existing FESOP pending the results of such testing.

IDEM approved the testing protocol for this source and witnessed the HCl and HF testing which was performed on October 16, 2003. The test was done on Reverberatory Furnace #4 at the Amcast Automotive - Fremont plant. Amcast operates two (2) separate plants (i.e., Fremont and Gas City), both of which manufacture the same product using the same or highly similar procedures, equipment and raw materials. After reviewing both plants, IDEM, OAQ, Compliance Data Section, agreed that operations at the Fremont plant were representative of those at Gas City. The final test report was submitted to IDEM during early December 2003. The test results show that the potential to emit of HCl due to source fluxing operations is well below 10 tons per year.

The following section describes the revisions made to the existing FESOP due to the test results, and due to other issues and requests made by the Permittee during this review. Amcast Automotive - Gas City was issued FESOP No. F053-12972-00046 on September 3, 2002.

Explanation of Permit Revisions

This significant permit revision consists of the following changes:

- (a) The PTE of HAPs attributable to the source fluxing operations is reflected in this approval, based on the results of the IDEM witnessed emissions test conducted on October 16, 2003. There is no change to the FESOP status of this source due to the results of this test, and the source remains a minor source of HAP emissions, pursuant to 40 CFR 63.2.
- (b) Significant Permit Revision No. 053-16921-00046 was issued to this source on July 23, 2003. The TSD Addendum to that approval concluded that the source, which only processes clean charge and is a minor source of HAPs, was subject to the National Emission Standards for Hazardous Air Pollutants, for Secondary Aluminum Production, 40 CFR 63.1500 (Subpart RRR), and 326 IAC 20-1-1, due to the operation of its Pre Melt Thermo-Fuge system (listed as a hot cyclone chip dryer). SPR 16921 concluded that this natural gas fired aluminum chip centrifuge and drying system was a thermal chip dryer, pursuant to the definition of such as found at 40 CFR 63, Subpart RRR.

This permit revision clarifies the operation of the Pre-Melt emission unit, and eliminates Subpart RRR rule applicability based on such clarification in response to the related non-applicability determination issued by U.S. EPA Region V on January 22, 2004. Additional detail is provided in the **Federal Rule Applicability** section of this document.

- (c) FESOP No. F053-12972-00046, issued on September 3, 2002, includes at Section A.3(j) one natural gas-fired jet melt furnace (JM-1) with a maximum heat input rate of 3.2 MMBtu per hour. While listed in the FESOP, the particulate emissions due to metal processing were omitted from the potential to emit calculations for the source. Only facility emissions from natural gas combustion were reflected in the FESOP. This approval corrects this computational omission. This revision does not change the FESOP status of this source. The equipment listing in the permit is also revised to move unit JM-1 from Section A.3 to A.2.
- (d) FESOP No. F053-12972-00046, issued on September 3, 2002, includes at Section A.2(c) one natural gas-fired reverberatory furnace (REV-1) having a maximum heat input rate of 5.5 MMBtu per hour, and a maximum melt capacity of 3,500 pounds of aluminum per hour. During this review, the Permittee requested that this description be made consistent with that of reverberatory furnace REV-2 (i.e., 10 MMBtu per and 4,000 pounds). The Permittee indicated that the furnaces are identical in burner size and melt capacity, except that REV-2 has a wet well. The Permittee indicated that the melt capacity was increased at REV-1 during December 1999, but this was mistakenly not reflected in the FESOP application nor in the subsequently issued FESOP. The modification to REV-1 was made without obtaining OAQ approval.

The above notwithstanding, the Permittee conducted stack testing on March 2, 2003. The verified test results show this facility to be an insignificant activity, pursuant to 326 IAC 2-7-1(21)(A) (i.e., PM and PM10 less than 5 tons per year), and no approval is required for a modification with such emission rates. Therefore, the description of REV-1 is revised herein as requested.

- (e) FESOP No. F053-12972-00046, issued on September 3, 2002, includes at Section A.2(a) one natural gas-fired wash line boiler (B-1) with a maximum heat input rate of 10.5 MMBtu per hour. During December 2003, emission unit B-1 was removed from the source and it was replaced with two (2) new natural gas fired boilers, each rated at 2 MMBtu per hour. Pursuant to 326 IAC 2-7-1(21), these two new natural gas fired boilers are considered as insignificant activities that do not require advanced OAQ approval. Therefore, the permit is revised to reflect these combustion unit changes. This includes the removal of Section D.1 from the permit, which contains requirements specifically applicable to the removed unit, B-1; re-numbering of the other existing Sections D; and incorporation of a new Section D.4 for the two (2) new 2 MMBtu per hour boilers as insignificant activities.

Insignificant Activities

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

Two (2) natural gas-fired wash line boilers constructed in December 2003, each with a maximum heat input rate of 2 MMBtu per hour.

Permitted Emission Units and Pollution Control Equipment Removed from the Source

The source consists of the following permitted emission units and pollution control devices removed during this review:

One (1) natural gas-fired wash line boiler, identified as B-1, constructed in 1992, with a maximum heat input rate of 10.5 million (MM) British thermal units (Btu) per hour.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

Existing Approvals

The source was issued FESOP No. F053-12972-00046 on September 3, 2002. The source has since received the following:

- (a) First Administrative Amendment No. 053-16100-00046, issued on September 20, 2002.
- (b) Second Administrative Amendment No. 053-16687-00046, issued on December 5, 2002.
- (c) First Significant Permit Revision No. 053-16921-00046, issued on July 23, 2003.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

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

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

An application for the purposes of this review was received on July 18, 2003. Additional information has been received at multiple times throughout this review. This has included emissions information collected from an IDEM witnessed stack test conducted on October 16, 2003; a rule applicability determination made by U.S. EPA Region V on January 22, 2004; and information supplied by the Permittee on July 16, 2003, July 29, 2003, August 1, 2003, November 14, 2003, March 10, 2004, March 29, 2004 and March 31, 2004.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (Appendix A, pages 1 through 5). The emission calculations for natural gas combustion reflect not only the two new boilers, but also the source in order to account for the boiler changes discussed herein, and to include natural gas combustion at REV-1, REV-2, and the REV-2 afterburner, each of which was omitted from the original FESOP (pages 2 and 3). The October 16, 2003 stack test results for HCl and HF from source fluxing operations are also reflected in the calculations (page 4). Additionally, the aluminum melting emission calculations are revised to reflect inclusion of the jet melt furnace (JM-1) process emissions that were omitted from the original FESOP (page 5). Finally, the emissions summary page from SPR No. 053-16921-00046, issued on July 23, 2003, is revised such that the stated emissions changes are reflected in the source-wide potential to emit (page 1).

Potential To Emit of the Revision

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

This table reflects the PTE before controls for the new equipment added to the source during this revision (i.e., two (2) new 2 MMBtu per hour natural gas fired boilers, as insignificant activities). Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	0.03
PM-10	0.13
SO ₂	0.01
VOC	0.10
CO	1.47
NO _x	1.75

Justification for Revision

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

County Attainment Status

The source is located in Grant County.

Pollutant	Status
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Grant County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) Grant County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (c) Fugitive Emissions
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

This source is not considered as a *secondary metal production plant*, which is one of the twenty-eight (28) specifically listed source categories pursuant to 326 IAC 2-2(y)(1)(A) (i.e., Prevention of Significant Deterioration, PSD). On December 4, 1998, U.S. EPA issued a memorandum clarifying that die casting operations are not considered as secondary aluminum production plants for purposes of PSD, provided two (2) criteria are met. These criteria include plant use of feedstock that is of a specified alloy and purity (e.g., ingots), or scrap of a specified quality for which little fluxing or alloying is required; and the plant cannot produce intermediate forms of feedstock for sale or use by other sources. This plant melts only clean charge and internal scrap; uses flux in amounts of less than one (1) percent (weight) of the aluminum processed, and does not produce an intermediate feedstock for sale/use by other sources. This plant is therefore considered as a die casting operation, and is not a *secondary metal production plant*.

Source Status

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

Pollutant	Emissions (ton/yr)
PM	57.33
PM-10	59.00
SO ₂	0.40
VOC	51.53
CO	38.29
NO _x	45.65
Single HAP (glycol ethers)	< 10
Total HAP	< 25

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of two-hundred and fifty (250) tons per year or more, and it is not one of the 28 listed source categories.
- (b) These emissions are based upon the TSD for Significant Permit Revision No. 053-16921-00046, issued on July 23, 2003.

Potential to Emit of Source After Issuance

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

Process/facility	Limited Potential to Emit (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Reverberatory Furnace (REV-1)	26.15 28.57 ⁽²⁾	26.15 28.57 ⁽²⁾	0.00	4.53 1.75	0.00	0.00	0.00 0.05 (single) 0.05 (total)
Reverberatory Furnace (REV-2)	28.57 ⁽²⁾	28.57 ⁽²⁾	0.00	1.75	0.00	0.00	0.00 0.14 (single) 0.15 (total)
Jet Melt Furnace (JM-1) ⁽¹⁾	20.85 ⁽²⁾	20.85 ⁽²⁾	0.00	1.10	0.00	0.00	0.06 (single) 0.07 (total)
Pouring/Casting ⁽¹⁾⁽⁵⁾	negl. 3.62	negl. 1.92	0.13 0.49	0.02 3.43	0.00	0.07 0.25	0.00 0.80 (single) 0.95 (total)
Surface Coating ⁽³⁾	1.73	0.81	0.00	44.08	0.00	0.00	<10 (single) <25 22.74 (total)
Shot Blasting ⁽³⁾	0.04 11.25	negl. 11.25	0.00	0.00	0.00	0.00	0.00
Natural Gas Combustion ⁽⁴⁾⁽⁵⁾	0.87 1.05	3.46 4.20	0.27 0.33	2.51 3.04	38.29 46.42	45.58 55.26	0.00 0.99 (single) 1.04 (total)
Total Emissions	57.33 95.64	59.00 96.17	0.40 0.82	51.53 55.15	38.29 46.42	45.65 55.51	<10 (single) <25 (total)

(1) The existing emission unit was permitted in FESOP 053-12972-00046, issued on September 3, 2002, and has not been modified in this approval; however, the related emissions were either omitted or incorrectly computed and are corrected herein as shown.

(2) Reflects the allowable particulate emission rate, pursuant to 326 IAC 6-3-2, and assumes PM-10 equal to PM. March 2, 2003 IDEM verified test data indicates actual emissions from the reverberatory furnaces to be more than one order of magnitude lower than these allowable emission rates.

(3) The existing operation has not been modified as part of this approval, and the related emission rates are taken from SPR No. 053-16921-00046, issued on July 23, 2003. However, the PM/PM10 for shot-blasting is revised to reflect existing Condition D.4.2 (revised to D.3.2 in this approval), and the limited potential to emit total HAPs from the surface coating facility has been reduced to allow for HAP emissions from the other activities shown above.

(4) Revised herein to account for removal of one 10.5 MMBtu/hr boiler; installation of two (2) 2 MMBtu/hr boilers; and natural gas combustion at REV-1 and REV-2 which was omitted in the original FESOP. The natural gas combustion emissions include the Pre Melt Thermo Fuge system, which has been determined by EPA to be a preheater.

(5) Insignificant activity.

Federal Rule Applicability

- (a) The two (2) new natural gas-fired wash line boilers, each with a maximum heat input rate of 2 MMBtu per hour, are not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40, Subpart Dc), because the boilers are rated at less than the rule applicability threshold of 10 MMBtu/hr.

There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this revision.

- (b) The natural gas fired aluminum chip centrifuge and drying system, i.e., Pre Melt Thermo Fuge system, is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP), Subpart RRR (40 CFR 63.1500 through 63.1519). This is based on the rule applicability determination issued by U.S. EPA Region V on January 22, 2004.

Pursuant to 40 CFR 63.1500(a), the requirements of Subpart RRR apply to the owner or operator of each *secondary aluminum production facility*, as defined at §63.1503. Pursuant to §63.1503, aluminum die casting facilities, aluminum foundries, and aluminum extrusion facilities are not considered as a *secondary aluminum production facility* "...if the only materials they melt are *clean charge*, customer returns, or internal scrap, and if they do not operate sweat furnaces, thermal chip dryers, or scrap dryers/delacquering kilns/decoating kilns." Since this plant only melts clean charge (ingots) and internal scrap, Amcast decided to submit a determination request to U.S. EPA, Region V to ascertain whether the Pre Melt Thermo Fuge chip drying system would be considered as a *thermal chip dryer*, as defined in Subpart RRR. The Pre Melt system consists of both a centrifuge, which is used to first remove residual machining coolant from aluminum chips, and a dryer used to remove moisture from the chips. The Pre Melt system is designed to operate at a relatively low temperature (i.e., less than 300°F). A *thermal chip dryer*, as defined in Subpart RRR, does not include pre-heaters or other heaters operating at implied low temperatures. The determination request was submitted to EPA by Amcast on December 16, 2003, and it also included a request for applicability with respect to this source being considered as a *secondary aluminum production facility*, as defined in Subpart RRR.

On January 22, 2004, U.S. EPA, Region V issued an applicability determination to Amcast. Pursuant to this determination, EPA has concluded that the Thermo Fuge chip dryer operates below 300°F, and will not result in paint removal at the chip dryer. As such, EPA has concluded that the Pre Melt Thermo Fuge chip dryer is not considered a *thermal chip dryer* or *scrap delacquering kiln* under 40 CFR Part 63, Subpart RRR. Further, EPA has determined the source is not subject to the Secondary Aluminum Production NESHAP regulations, 40 CFR Part 63, Subpart RRR. This is based on the fact that the plant only processes clean charge and internal scrap and does not operate a *sweat furnace*, *thermal chip dryer*, or *scrap dryer/delacquering kiln/decoating kiln* as defined by 40 CFR §63.1503. The rule at 40 CFR § 63.1503 excludes aluminum die casting facilities from the definition of a *secondary aluminum production facility* if the only materials melted are clean charge, customer returns, or internal scrap, and if the source does not operate a sweat furnace, thermal chip dryer, or scrap dryer/delacquering kiln/decoating kiln.

- (c) The requirements of Section 112(j) of the Clean Air Act (40 CFR Part 63.50 through 63.56) are not applicable to this modification, or to this source because (1) the source is not a major source of hazardous air pollutant (HAP) emissions (i.e., the source does not have the potential to emit 10 tons per year or greater of a single HAP or 25 tons per year or greater of a combination of HAPs), and (2) the source does not include one or more units that belong to one or more source categories affected by the Section 112(j) MACT Hammer date of May 15, 2002.
- (d) The requirements of 40 CFR Part 64, Compliance Assurance Monitoring, are not applicable to this modification or to this source. Such requirements apply to a pollutant-specific emissions unit (PSEU), as defined in 40 CFR 64.1, at a major source that is required to obtain a Part 70 or 71 permit if the PSEU meets the following criteria:
- (1) the unit is subject to an emission limitation or standard for an applicable regulated air pollutant,

- (2) the unit uses a control device as defined in 40 CFR 64.1 to comply with that emission limitation or standard, and
- (3) the unit has a potential to emit (PTE) before controls equal to or greater than 100 percent of the amount (tons per year) of the pollutant required for a source to be classified as a Part 70 major source.

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

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

This modification to an existing minor stationary source, which was initially constructed in 1992 after the August 7, 1977 rule applicability date, is not major because the source, which is not one of the 28 listed source categories, does not have the potential to emit of 250 tons per year or more of any criteria pollutant after enforceable controls and limitations. The source will continue to be both a FESOP and minor stationary source after this modification and no attainment regulated pollutant shall be emitted at a rate of 100 tons per year, which is less than the 250 ton per year PSD major source threshold. Therefore, the PSD requirements of 326 IAC 2-2 (Prevention of Significant Deterioration, PSD) continue to not apply.

326 IAC 2-6 (Emission Reporting)

This source is located in Grant County and the potential to emit of each criteria pollutant is less than one hundred (100) tons per year. Although revisions were made to this rule effective on March 27, 2004, with the revised rule published in the April 1, 2004 Indiana Register, such revisions do not affect the prior non-applicability determination made for this source. Therefore, 326 IAC 2-6 continues to not apply to this source.

326 IAC 2-8-4 (FESOP)

Pursuant to this rule, and after approval of this significant permit revision, the amount of PM10 shall continue to be limited to less than one hundred (100) tons per year, and single and combined HAPs shall continue to be limited to less than 10 and 25 tons per year, respectively. The source shall comply with the respective HAP and PM10 requirements of Conditions D.2.2 and D.3.2, revised as shown in *Proposed Changes to the Federally Enforceable State Operating Permit* located at the end of this document.

326 IAC 5-1 (Opacity Limitations)

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

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

State Rule Applicability - Individual Facilities

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

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

326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating)

Pursuant to 326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating), PM emissions from the two (2) natural gas-fired wash line boilers, each as a facility installed after September 21, 1983, shall be limited to 0.6 pounds per MMBtu heat input determined as the **lesser** of the value *Pt* computed with the following formula,

$$Pt = \frac{1.09}{Q^{0.26}}$$

where: *Pt* = pounds of PM emitted per MMBtu heat input (lb/MMBtu)
Q = total source operating capacity rating (MMBtu/hr)

or six-tenths (0.6) pounds per MMBtu, for values of *Q* less than ten (10) MMBtu per hour.

Pt for each indirect heating facility is computed as follows:

$Pt = 1.09 / (4)^{0.26}$, where *Q* reflects the total of indirect heating units at this source, as the sum of the two 2 MMBtu/hr boilers (note that the 10.5 MMBtu/hour boiler removed from the source during this review is not included in this total) = 0.76 lb/MMBtu for each boiler; however, pursuant to 326 IAC 6-2-4(a), *Pt* shall not exceed 0.6 lb/MMBtu for *Q* less than 10 MMBtu.

Potential PM emissions for each boiler:

= 0.017 tons per year, based on page 2 of 5, Appendix A
= (0.017 tons PM/yr) * (2,000 lbs/ton) * (1 yr / 8,760 hrs) * (1 hr / 2 MMBtu)
= 0.0019 lbs PM / MMBtu

Based on these calculations, the boilers comply with the rule.

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

There are no new manufacturing processes installed at this source during this review. However, as discussed earlier in this document, this approval revises the capacity of furnace REV-1 and the corresponding allowable particulate emission rate is revised accordingly. Further, the existing permitted metal production facilities as the Jet Melt Furnace JM-1 and Pre Melt Thermo Fuge system, which are not new or modified, are referenced herein because prior approvals did not reflect these facilities as manufacturing processes. Therefore, pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emitted from the facilities listed below shall be limited as stated, based on the following:

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

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

Emission Unit/Activity	Process Weight Rate (tons/hr)	Uncontrolled Particulate Emissions (lb/hr)	Allowable Particulate Emissions (326 IAC 6-3-2) (lb/hr)
Reverberatory Furnace REV-1	2.0	1.05	6.52
Jet Melt Furnace JM-1	1.25	24.14	4.76
Pre Melt Thermo Fuge aluminum chip centrifuge and drying system	1.5	0.001*	5.38

*The EPA has determined this process unit to be a preheater used to remove moisture from the chips during drying. The potential emission rate is that for natural gas combustion, based on the relevant AP42 emission factor.

Testing Requirements

On July 2, 2003, a letter was sent to the Permittee requesting information on flux usage at the source's metal production process, such that hydrogen chloride (HCl) and hydrogen fluoride (HF) emission rates for the source could be determined. The Permittee supplied the requested information on July 16, 2003, July 29, 2003, and August 1, 2003. The information supplied by the Permittee included emission rate computations that assumed full (100%) conversion of flux chlorides and fluorides to HCl and HF, respectively. Under this scenario, single HAP emissions (HCl) were estimated to be greater than 10 tons per year. The Permittee requested that they be allowed to conduct an emissions stack test to refine these emission estimates. IDEM agreed and, after submitting their requisite test protocol, the Permittee conducted the IDEM witnessed test on October 16, 2003. The results of this test have been approved by IDEM for use herein, and such is reflected on page 5 of Appendix A. The results have demonstrated that the potential HCl and HF emission rates are each well below 10 tons per year, and the source remains an area source, pursuant to the definition of such at 40 CFR 63.2.

Jet Melt furnace JM-1 is an existing melt furnace at this source. Prior approvals issued by IDEM to this source inadvertently excluded JM-1 from the requirements applicable to the two (2) existing reverberatory furnaces, REV-1 and REV-2. This includes the existing PM/PM10 stack test requirement for REV-1 and REV-2. This approval, therefore, revises the existing test condition to include JM-1. The Permittee has conducted the requisite PM/PM10 testing of REV-2, which occurred on March 2, 2003, and has demonstrated compliance with the relevant emission limits.

Compliance Requirements

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

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

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

Proposed Changes to the Federally Enforceable State Operating Permit

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

1. The equipment listings at Sections A.2 and A.3 are revised as discussed herein. In addition, existing Section A.3(y) is deleted, as the Permittee has stated this insignificant activity does not exist, nor has it ever existed, at this source. This insignificant activity was added by IDEM to FESOP No. F053-12972-00046 (through the TSD Addendum) without cause or explanation, and it is therefore removed. Remaining equipment in Section A.3 is renumbered in the permit, without replication below.

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

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

- ~~(a)~~ ~~One (1) natural gas-fired wash line boiler, identified as B-1, constructed in 1992, with a maximum heat input rate of 10.5 million (MM) British thermal units (Btu) per hour;~~
- ~~(b)~~ One (1) liquid paint booth, identified as LP-1, **installed in 1995**, using twenty four (24) LPHV air atomization guns, coating a maximum of 320 aluminum wheels per hour, using dry filters for particulate matter overspray control;
- ~~(c)~~**(b)** One (1) natural gas-fired reverberatory furnace, **installed in 1992 and** identified as REV-1, with a maximum heat input rate of ~~5.5~~ **10** MMBtu per hour, with a maximum capacity of melting ~~3,500~~ **4,000** pounds of aluminum per hour **and using up to 70 pounds solid flux per week**, exhausting to one (1) stack identified as REVS-1. **Reverberatory furnace REV-1 and Jet Melt Furnace JM-1 share one (1) natural gas fired filter furnace, with a maximum heat input rate of 2 MMBtu/hr, using up to 35 pounds solid flux per week, exhausting to one (1) stack identified as FF#1;**
- ~~(d)~~**(c)** One (1) natural gas-fired reverberatory furnace **with wet well, installed in 1992 and** identified as REV-2, with a maximum heat input rate of 10 MMBtu per hour, with a maximum capacity of melting 4,000 pounds of aluminum per hour **and using up to 273 pounds solid flux per week in the furnace and wet well, exhausting to one (1) stack identified as REVS-2. Furnace REV-2 is equipped with an attached natural gas fired filter furnace, with a maximum heat input rate of 2 MMBtu/hr, using up to 35 pounds solid flux per week, and exhausting to one (1) stack identified as FF#2. Furnace REV-2 uses a natural gas-fired fume incinerator for control of its wet well, with a maximum heat input rate of 1.5 MMBtu/hr, exhausting to two (2) one (1) stacks identified as REVS-2 and FIS-1;**
- ~~(e)~~**(d)** **One (1) natural gas-fired Jet Melt (Stack Melt) furnace, installed in 1995 and identified as JM-1, with a maximum heat input rate of 3.2 MMBtu per hour, with a maximum capacity of melting 3,000 pounds of aluminum per hour and using up to 140 pounds solid flux per week, exhausting to one (1) stack identified as JMS-1. Reverberatory furnace REV-1 and Jet Melt Furnace JM-1 share one (1) natural gas fired filter furnace, with a maximum heat input rate of 2 MMBtu/hr, using up to 35 pounds solid flux per week, exhausting to one (1) stack identified as FF#1; and**
- (e) One (1) shot blasting unit with a maximum process weight rate of 1000 pounds per hour (identified as wheelabrator), utilizing a baghouse for particulate matter (PM) control.

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

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

- (a) **Two (2) natural gas-fired wash line boilers, each with a maximum heat input rate of 2 million (MM) British thermal units (Btu) per hour;**

- ~~(j)~~ One (1) natural gas-fired jet melt furnace identified as JM-1, with a maximum heat input rate of 3.2 MMBtu per hour;
 - ~~(k)~~ Two (2) natural gas-fired filter furnaces identified as FF-1 and FF-2, each with a maximum heat input rate of 2.0 MMBtu per hour;
 - ~~(t)~~**(s)** One (1) hot cyclone chip dryer **natural gas fired aluminum chip centrifuge and drying system**, identified as ~~HC-1~~ **the Pre Melt Thermo Fuge system, processing a maximum of 3,000 pounds of aluminum chips per hour**, with a maximum heat input rate of 0.5 MMBtu per hour, exhausting to one (1) stack identified as HC-1; ~~and~~
 - ~~(y)~~ One (1) casting cleaning/chipper operation with a maximum capacity of 1.5 tons of aluminum per hour.
2. Section D.1 of the existing FESOP is removed in its entirety without replication herein. Section D.1 is obsolete as it pertains to the natural gas-fired wash line boiler, B-1, which is removed in this approval. All subsequent sections are renumbered accordingly, without replication herein.
3. Condition D.2.2 (FESOP Limit) (now renumbered as D.1.2) for surface coating facility LP-1 is revised. The existing total HAP emission limit of 25 tons per year is reduced by 2.26 tons per year to account for HAP emissions attributable to other facilities and activities at this source, as shown in the Limited Potential to Emit table on page 6 herein. The total HAP limit on the related quarterly reporting form is likewise revised, and is replicated at the end of this document.

D.2-21.2 FESOP Limit [326 IAC 2-8]

- (a) Any change or modification which may increase potential VOC usage at LP-1 such that the source-wide potential to emit VOC is one-hundred (100) tons per year or more, shall require prior approval from the Office of Air Quality (OAQ) before such change can occur.
 - (b) Pursuant to 326 IAC 2-8, the single HAP and total HAPs input to the liquid paint booth (LP-1) shall not exceed 10 tons and ~~25~~ **22.74** tons per twelve (12) consecutive month period, rolled on a monthly basis, respectively. **Compliance with this condition** will limit source wide **potential to emit a** single HAP and total HAP ~~emissions~~, **including insignificant activities**, to less than 10 and 25 tons per year, respectively. Therefore the requirements of 326 IAC 2-7 do not apply.
4. Relevant conditions in Section D.3 (now renumbered as D.2) for the source metal processing operations are revised to include existing Jet Melt furnace JM-1, which was previously listed in the permit as an insignificant activity. The existing Pre Melt Thermo Fuge system is moved from existing Section D.5 to Section D.3 (now D.2) and Section D.5 is deleted, such that the requirements pertaining to metal production operations are contained in one section.

SECTION D.3-2 FACILITY OPERATION CONDITIONS

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

- (b) One (1) natural gas-fired reverberatory furnace, **installed in 1992 and identified as REV-1**, with a maximum heat input rate of ~~5.5~~ **10 MMBtu per hour**, with a maximum capacity of melting ~~3,500~~ **4,000** pounds of aluminum per hour **and using up to 70 pounds solid flux per week**, exhausting to one (1) stack identified as REVS-1. **Reverberatory furnace REV-1 and Jet Melt Furnace JM-1 share one (1) natural gas fired filter furnace, with a maximum heat input rate of 2 MMBtu/hr, using up to 35 pounds solid flux per week, exhausting to one (1) stack identified as FF#1;**
- (c) One (1) natural gas-fired reverberatory furnace **with wet well, installed in 1992 and identified as REV-2**, with a maximum heat input rate of 10 MMBtu per hour, with a maximum capacity of melting 4,000 pounds of aluminum per hour **and using up to 273 pounds solid flux per week in the furnace and wet well, exhausting to one (1) stack identified as REVS-2. Furnace REV-2 is equipped with an attached natural gas fired filter furnace, with a maximum heat input rate of 2 MMBtu/hr, using up to 35 pounds solid flux per week, and exhausting to one (1) stack identified as FF#2. Furnace REV-2 uses a natural gas-fired fume incinerator for control of its wet well, with a maximum heat input rate of 1.5 MMBtu/hr, exhausting to two (2) one (1) stacks identified as REVS-2 and FIS-1;**
- (d) One (1) natural gas-fired Jet Melt (Stack Melt) furnace, installed in 1995 and identified as JM-1, with a maximum heat input rate of 3.2 MMBtu per hour, with a maximum capacity of melting 3,000 pounds of aluminum per hour and using up to 140 pounds solid flux per week, exhausting to one (1) stack identified as JMS-1. Reverberatory furnace REV-1 and Jet Melt Furnace JM-1 share one (1) natural gas fired filter furnace, with a maximum heat input rate of 2 MMBtu/hr, using up to 35 pounds solid flux per week, exhausting to one (1) stack identified as FF#1;

The following insignificant activity, as defined in 326 IAC 2-7-1(21):

- (s) One (1) natural gas fired aluminum chip centrifuge and drying system, identified as the Pre Melt Thermo Fuge system, processing a maximum of 3,000 pounds of aluminum chips per hour, with a maximum heat input rate of 0.5 MMBtu per hour.

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

D.2.1 Secondary Aluminum Production Facility NESHAP [40 CFR Part 63, Subpart RRR]

- (a) This source is not subject to the requirements of 40 CFR 63, Subpart RRR, *National Emission Standards for Hazardous Air Pollutants, for Secondary Aluminum Production*. On January 22, 2004, U.S. EPA, Region V issued an applicability determination to Amcast Automotive. Pursuant to this determination, EPA has concluded that the Pre Melt Thermo Fuge chip dryer is not considered a *thermal chip dryer or scrap delacquering kiln* under 40 CFR Part 63, Subpart RRR. Further, EPA has determined the source is not subject to the Secondary Aluminum Production NESHAP regulations, 40 CFR Part 63, Subpart RRR. This is based on the fact that the plant only processes clean charge and internal scrap and does not operate a *sweat furnace, thermal chip dryer, or scrap dryer/delacquering kiln/decoating kiln* as defined by 40 CFR §63.1503. The regulation at 40 CFR §63.1503 excludes aluminum die casting facilities from the definition of a *secondary aluminum production facility* if the only materials they melt are clean charge, customer returns, or internal scrap, and if they do not operate sweat furnaces, thermal chip dryers, or scrap dryers/delacquering kilns/decoating kilns.
- (b) Any change or modification to this source which may alter this determination, including the melting of materials other than clean charge, customer returns, or internal scrap as defined at 40 CFR Part 63, Subpart RRR, shall require prior approval from the Office of Air Quality (OAQ) before such change can occur.

D.3.1 2.2 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) the allowable particulate emission rate from natural gas fired reverberatory furnaces, (identified as REV-1, and REV-2), shall be limited to 5.97 and 6.52 pounds per hour, respectively. **particulate emitted from the facilities listed below shall be limited as stated, based on the following:**

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

These limits are based on the following equation:

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

Emission Unit/Activity	Process Weight Rate (tons/hr)	Allowable Particulate Emission Rate (326 IAC 6-3-2) (lb/hr)
Reverberatory Furnace REV-1	2.0	6.52
Reverberatory Furnace REV-2	2.0	6.52
Jet Melt Furnace JM-1	1.25	4.76
Pre Melt Thermo Fuge aluminum chip centrifuge and drying system	1.5	5.38

D.3.2 2.3 Particulate Matter Less Than Ten Microns (PM10) [326 IAC 2-8]

Pursuant to 326 IAC 2-8 (FESOP) the PM-10 emissions from the two reverberatory natural gas fired aluminum melt furnaces, identified as REV-1, and REV-2, and JM-1 shall not exceed be limited to 5.97 and 6.52, 6.52, and 4.76 pounds per hour, respectively, (which is equivalent to 26.15 tons per year from REV-1 and 28.55, 28.55 and 20.85 tons per year based on 8,760 hours per year of operation from REV-2). **Compliance with this condition will limit source potential to emit of PM10, including insignificant activities, to less than 100 tons per year.** Therefore, the requirements of 326 IAC 2-7 (Part 70) do not apply.

D.3.3 2.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

In order to demonstrate compliance with Conditions D.3.1 and D.3.2 **D.2.2 and D.2.3**, the Permittee shall perform PM and PM-10 testing on two (2) reverberatory furnaces (REV-1 and REV-2) and **Jet Melt furnace JM-1** utilizing methods as approved by the Commissioner. ~~These~~ tests shall be repeated at least once every five (5) years from March 4, 2003, the date of the prior valid compliance demonstration, **with REV-1 and REV-2 tested on an alternating basis (i.e., on the other reverberatory furnace not tested at the time of the prior test shall be tested (either REV-1 or REV-2)). Testing of each furnace shall include the metal fluxing cycle.** PM-10 includes filterable and condensable PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

SECTION D.5 FACILITY OPERATION CONDITIONS

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

One (1) hot cyclone chip dryer, identified as HC-1, with a maximum heat input rate of 0.5 MMBtu per hour, exhausting to one (1) stack identified as HC-1.

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

~~The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-1, apply to the one (1) hot cyclone chip dryer, identified as HC-1, except when otherwise specified in 40 CFR Part 63, Subpart RRR.~~

~~D.5.2 Secondary Aluminum Smelting Limits [40 CFR Part 63, Subpart RRR]~~

~~Pursuant to 40 CFR Part 63.1505, the following conditions shall apply to the one (1) hot cyclone chip dryer, identified as HC-1:~~

~~The total polychlorinated dibenzofurans (D/F) emissions from the one (1) hot cyclone chip dryer, identified as HC-1, shall not exceed 2.50 ug/Mg of feed.~~

~~D.5.3 Secondary Aluminum Smelting Compliance Determination [40 CFR Part 63, Subpart RRR]~~

- ~~(a) The owner or operator of an affected source or emission unit subject to an emission limit in kg/Mg (lb/ton) or g/Mg (gr/ton) of feed/charge must install, calibrate, operate, and maintain a device to measure and record the total weight of feed/charge to, or the aluminum production from, the affected source or emission unit over the same operating cycle or time period used in the performance test. Feed/charge or aluminum production within SAPUs must be measured and recorded on an emission unit by emission unit basis. As an alternative to a measurement device, the owner or operator may use a procedure acceptable to the applicable permitting authority to determine the total weight of feed/charge or aluminum production to the affected source or emission unit. The accuracy of the weight measurement device or procedure must be ± 1 percent of the weight being measured.~~
- ~~(b) The owner or operator must prepare and implement for the one (1) hot cyclone chip dryer, identified as HC-1, a written operation, maintenance, and monitoring (OM&M) plan. The owner or operator must submit the plan to the applicable permitting authority for review and approval as part of the application for a part 70 or part 71 permit. Any subsequent changes to the plan must be submitted to the applicable permitting authority for review and approval. Pending approval by the applicable permitting authority of an initial or amended plan, the owner or operator must comply with the provisions of the submitted plan. Each plan must contain the following information:~~
- ~~(1) Process parameters to be monitored to determine compliance, along with established operating levels or ranges, as applicable, for each process.~~
 - ~~(2) A monitoring schedule for each affected source and emission unit.~~
 - ~~(3) Procedures for the proper operation and maintenance of the one (1) hot cyclone chip dryer, identified as HC-1 used to meet the applicable emission limits or standards in §63.1505.~~
 - ~~(4) Procedures for monitoring process parameters, including the procedure to be used for determining charge/feed (or throughput) weight if a measurement device is not used.~~
 - ~~(5) Corrective actions to be taken when process or operating parameters deviate from the value or range established, including:~~
 - ~~(A) Procedures to determine and record the cause of an deviation or excursion, and the time the deviation or excursion began and ended; and~~
 - ~~(B) Procedures for recording the corrective action taken, the time corrective action was initiated, and the time/date corrective action was completed.~~

- ~~(6) A maintenance schedule for the one (1) hot cyclone chip dryer, identified as HC-1, that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance.~~

~~D.5.4 Secondary Aluminum NESHAP [40 CFR Part 63, Subpart RRR]~~

~~Pursuant to 63.1500(e), the source must apply for a Title V permit by December 9, 2005.~~

5. A new Section D.4 is inserted into the permit for the two (2) new natural gas fired boilers installed in December 2003 as insignificant activities.

SECTION D.4 FACILITY OPERATION CONDITIONS

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

The following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Two (2) natural gas fired wash line boilers, each with a maximum heat input rate of 2 million (MM) British thermal units (Btu) per hour

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

D.4.1 Particulate [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating), PM emissions from the two (2) wash line boilers, each as a facility installed after September 21, 1983, shall each be limited to 0.6 pounds per MMBtu heat input.

Conclusion

The operation of this revision to this existing aluminum die casting source producing alloy wheels shall be subject to the conditions of the attached proposed Significant Permit Revision No. 053-17939-00046.

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

FESOP Quarterly Report

Source Name: Amcast Automotive - Gas City Plant
 Source Address: 6231 East 500 South, Marion, Indiana 46953
 Mailing Address: 6231 East 500 South, Marion, Indiana 46953
 FESOP No.: F053-12972-00046
 Facility: Liquid paint booth (LP-1)
 Parameter: single HAP and total HAPs
 Limit: the total combined usage of the worst case single HAP and total HAPs delivered to the applicators, including clean up solvents, shall be limited to less than 10 and ~~25~~ **22.74** tons per 12 consecutive month period, respectively.

YEAR: _____

Month	Column 1		Column 2		Column 1 + Column 2	
	Single HAP Usage This Month	Total HAP Usage This Month	Single HAP Usage Previous 11 Months	Total HAP Usage Previous 11 Months	Single HAP Usage 12 Month Total	Total HAP Usage 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

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

Source Background and Description

Source Name:	Amcast Automotive - Gas City
Source Location:	6231 East 500 South, Marion, IN 46953
County:	Grant
Operation Permit No.:	F053-12972-00046
Operation Permit Issuance Date:	September 3, 2002
Significant Permit Revision No.:	053-17939-00046
SIC Code:	3363
Permit Reviewer:	MH/EVP

On May 14, 2004, the Office of Air Quality (OAQ) had a notice published in the Marion Chronicle Tribune, Marion, Indiana, stating that Amcast Automotive - Gas City had applied for a Significant Permit Revision to their Federally Enforceable State Operating Permit (FESOP) to revise a number of existing conditions of the permit, including revising the source requirements relating to 40 CFR Part 63, Subpart RRR in response to a determination of non-applicability received from U.S EPA Region V on January 22, 2004. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

No comments were received on the proposed Significant Permit Revision. However, upon further consideration, IDEM, OAQ has decided to make changes to the permit as indicated below. Changes made to the permit are shown in bold and deleted permit language is shown with a line through it. Any permit changes affecting the permit's Table of Contents are also revised without replication herein.

1. Condition D.1.10 is revised to state this is a record keeping condition. Also, paragraph (a) is revised to correct the references other related conditions in Section D.1. Further, the requirement to maintain records in relation to existing Condition D.1.9 (i.e., monitoring of surface coating operations) was omitted from the original FESOP, but is added herein to D.1.10.

D.1.10 Reporting ~~Record Keeping~~ Requirements

- (a) To document compliance with Conditions ~~D.1.2 and D.1.3~~ **D.1.1 and D.1.2**, the Permittee shall maintain records in accordance with (1) through (7) below. Records maintained for (1) through (7) shall be taken daily except monthly where indicated, and shall be complete and sufficient to establish compliance with the HAP usage limits in Condition D.1.2 and the VOC emission limits established in Condition D.1.1.
 - (1) The VOC content of each coating material and solvent used less water;
 - (2) The HAP content of each coating material and solvent used;
 - (3) The amount coating material and solvent used on a daily basis.
 - (A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
 - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;

- (4) The VOC content of the coatings used for each day;
 - (5) The cleanup solvent usage for each day;
 - (6) The total single and combined HAP usage, and the total VOC usage, for each month; and
 - (7) The weight of single and combined HAPs, and the total VOC, emitted for each compliance period.
- (b) **To document compliance with Condition D.1.9, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.**
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.
2. Draft Condition D.2.1 is deleted from the permit. This draft condition specifies that the requirements of 40 CFR Part 63, Subpart RRR do not apply to this source. While informative in nature, this is simply a statement rather than a permit limit. Since a discussion of rule non-applicability was already fully explained in the Technical Support Document to the draft permit, IDEM has decided such should not be stated as a condition of the permit. Therefore, this draft condition is removed from the permit and references made in Condition D.2.3 (now D.2.2) are revised accordingly. Other conditions in Section D.2 are renumbered without replication herein.

~~D.2.1 Secondary Aluminum Production Facility NESHAP [40 CFR Part 63, Subpart RRR]~~

- (a) ~~This source is not subject to the requirements of 40 CFR 63, Subpart RRR, *National Emission Standards for Hazardous Air Pollutants, for Secondary Aluminum Production*. On January 22, 2004, U.S. EPA, Region V issued an applicability determination to Amcast Automotive. Pursuant to this determination, EPA has concluded that the Pre Melt Thermo Fuge chip dryer is not considered a *thermal chip dryer* or *scrap delacquering kiln* under 40 CFR Part 63, Subpart RRR. Further, EPA has determined the source is not subject to the Secondary Aluminum Production NESHAP regulations, 40 CFR Part 63, Subpart RRR. This is based on the fact that the plant only processes clean charge and internal scrap and does not operate a *sweat furnace, thermal chip dryer, or scrap dryer/delacquering kiln/decoating kiln* as defined by 40 CFR §63.1503. The regulation at 40 CFR §63.1503 excludes aluminum die casting facilities from the definition of a *secondary aluminum production facility* if the only materials they melt are clean charge, customer returns, or internal scrap, and if they do not operate sweat furnaces, thermal chip dryers, or scrap dryers/delacquering kilns/decoating kilns.~~
- (b) ~~Any change or modification to this source which may alter this determination, including the melting of materials other than clean charge, customer returns, or internal scrap as defined at 40 CFR Part 63, Subpart RRR, shall require prior approval from the Office of Air Quality (OAQ) before such change can occur.~~

~~D.2.32 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]~~

In order to demonstrate compliance with Conditions ~~D.2.2 and D.2.3~~ **D.2.1 and D.2.2**, the Permittee shall perform PM and PM-10 testing on two (2) reverberatory furnaces (REV-1 and REV-2) and Jet Melt furnace JM-1 utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from March 2003, the date of the prior valid compliance demonstration, with REV-1 and REV-2 tested on an alternating basis (i.e., the reverberatory furnace not tested at the time of the prior test shall be tested (either REV-1 or REV-2)). Testing of each furnace shall include the metal fluxing cycle. PM-10 includes filterable and condensable PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

3. For purposes of greater clarity and ease of understanding, IDEM has decided to issue Significant Permit Revision No. 053-17939 as a complete permit. This shall include all conditions from original FESOP F053-12972-00046, issued on September 3, 2002, that are unaffected and unaltered by this permit revision, as well as all permit changes approved by OAQ after issuance of FESOP F053-12972-00046 (i.e., Administrative Amendment 153-16100-00046, issued on September 20, 2002; Administrative Amendment 053-16687-00046, issued on December 5, 2002; and Significant Permit Revision 053-16921-00046, issued on July 23, 2003).
4. On April 15, 2004, the United States Environmental Protection Agency (U.S. EPA) named twenty-three (23) Indiana counties and one partial county nonattainment for the new 8-hour ozone standard. The designations became effective on June 15, 2004. Grant County has been designated as attainment for the 8- hour ozone standard. Therefore, no changes to this permit are necessary.

Although the TSD itself will not be revised as it is a historical document and the TSD was correct at the time of public notice, the following is being provided to show how the Grant County attainment status has been affected as a result of the 8-hour ozone standard designations. The county attainment status regarding other pollutants remains unchanged; therefore such pollutants will not be shown below other than in the following table.

County Attainment Status

The source is located in Grant County.

Pollutant	Status
PM-10	Attainment
SO ₂	Attainment
NO ₂	Attainment
1-hour Ozone	Attainment
8-hour Ozone	Attainment
CO	Attainment
Lead	Attainment

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

Appendix A: Emission Calculations

Company Name: Amcast Automotive - Gas City
Address City IN Zip: 6231 East 500 South, Marion, Indiana 46953
FESOP No.: 053-12972-00046
Significant Permit Revision No.: 053-17939-00046
Reviewer: MH/EVP
Date: April 2004

Uncontrolled Potential to Emit (tons/year)							
Emissions Generating Activity							
Pollutant	Surface Coating	Reverberatory Furnaces*	Pre Melt Thermo Fuge Chip Dryer**	Pouring Casting	Blasting Operation	Natural Gas Combustion	TOTAL
PM	17.30	27.11	0.004	3.62	5.74	1.05	54.82
PM10	17.30	20.72	0.02	1.92	4.02	4.18	48.16
SO2	0.00	0.00	0.00	0.49	0.00	0.33	0.82
NOx	0.00	0.00	0.22	0.25	0.00	55.04	55.51
VOC	44.08	5.48	0.01	3.43	0.00	3.03	56.03
CO	0.00	0.00	0.18	0.00	0.00	46.24	46.42
total HAPs	37.40	0.27	negligible	0.95	0.00	1.04	39.67
worst case single HAP	37.40	0.25	negligible	0.80	0.00	0.99	37.40

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

* This includes metal melting and flux addition at REV-1, REV-2 and Jet Melt Furnaces, and reflects IDEM verified stack test data from March 2, 2003.

**The EPA has determined this unit to be a preheater used to remove moisture from the chips during drying. The emission rates are those for natural gas combustion, based on AP42 emission factors.

Controlled Potential to Emit (tons/year)							
Emissions Generating Activity							
Pollutant	Surface Coating	Reverberatory Furnaces*	Pre Melt Thermo Fuge Chip Dryer**	Pouring Casting	Blasting Operation	Natural Gas Combustion	TOTAL
PM	1.73	27.11	0.004	3.62	0.01	1.05	33.52
PM10	1.73	20.72	0.02	1.92	0.00	4.18	28.57
SO2	0.00	0.00	0.00	0.49	0.00	0.33	0.82
NOx	0.00	0.00	0.22	0.25	0.00	55.04	55.51
VOC	44.08	5.48	0.01	3.43	0.00	3.03	56.03
CO	0.00	0.00	0.18	0.00	0.00	46.24	46.42
total HAPs	<22.74	0.27	negligible	0.95	0.00	1.04	<25
worst case single HAP	<10	0.25	negligible	0.80	0.00	0.99	<10

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

* This includes metal melting and flux addition at REV-1, REV-2 and Jet Melt Furnaces, and reflects IDEM verified stack test data from March 2, 2003.

**The EPA has determined this unit to be a preheater used to remove moisture from the chips during drying. The emission rates are those for natural gas combustion, based on AP42 emission factors.

Appendix A: Emissions Calculations

**Natural Gas Combustion
MM BTU/HR <100**

Company Name: Amcast Automotive - Gas City
Address City IN Zip: 6231 East 500 South, Marion, Indiana 46953
FESOP No.: 053-12972-00046
Significant Permit Revision No.: 053-17939-00046
Reviewer: MH/EVP
Date: April 2004

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
126.165	1105.2

Facilities	MMBtu/hr
reverberatory furnace #1	10
reverberatory furnace #2	10
Jet Melt Furnace (JM-1)	3.2
2 Wash Line Boilers (2 MMBtu/hr, ea.)	4
Dry-Off Oven - clear (PPDO-1)	1.6
Dry-Off Oven - color (PPDO-2)	1.6
Bake Oven - clear (PPCO-01)	3.6
Bake Oven - color (PPCO-02)	3.6
Pyrolysis Furnace	0.3
Air Make-up Units (#1-3, 5-6)	20.625
Air Make-up Unit (#4)	9.9
Air Make-up Units (#7-8)	9.8
Filter Furnaces (FF-1 and FF-2)	4
Material Preheat Oven (PO-1)	1.2
Heat Treat In Line Oven (HT-1)	4.6
Age Oven In Line (AO-1)	1
Caustic Tank Heater (CT-1)	0.4
Drop Bottom Heat Treat Ovens (#2-4)	22.5
HVAC (#1-10)	1.25
HVAC Paint Line (#11)	2.1
Heat Treat Age Oven (A-02)	1
Die Prep Oven	0.8
Hot Cyclone Chip Dryer (HC-1)	0.5
Preheating oven (PH-1)	1.59
Two zone cure oven (CO-1)	5.5
Afterburner for #2	1.5

Total 126.165

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr for two new wash line boilers	0.033	0.133	0.011	1.752	0.096	1.472
Potential Emission in tons/yr for all other combustion	1.017	4.067	0.321	53.508	2.943	44.947
Potential Emission in tons/yr (total)	1.050	4.200	0.332	55.260	3.039	46.419

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

Methodology

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

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

Appendix A: Emissions Calculations

Natural Gas Combustion Only

MM BTU/HR <100

HAPs Emissions

Company Name: Amcast Automotive - Gas City

Address City IN Zip: 6231 East 500 South, Marion, Indiana 46953

FESOP No.: 053-12972-00046

Significant Permit Revision No.: 053-17939-00046

Reviewer: MH/EVP

Date: April 2004

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 for all combustion	1.160E-03	6.631E-04	4.145E-02	9.947E-01	1.879E-03

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 for all combustion	2.763E-04	6.079E-04	7.736E-04	2.100E-04	1.160E-03

Methodology is the same as page 2 of 5, TSD Appendix A.

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
Source Fluxing Operations**

Company Name: Amcast Automotive - Gas City
Address City IN Zip: 6231 East 500 South, Marion, Indiana 46953
FESOP No.: 053-12972-00046
Significant Permit Revision No.: 053-17939-00046
Reviewer: MH/EVP
Date: April 2004

Facility	Potential Flux Usage (lb/year)	Emission Factor*				Potential to Emit (tons/year)			
		PM	PM10	HCl	HF	PM	PM10	HCl	HF
		lb/ton chlorine used	lb/ton chlorine used	lb HCl / lb flux	lb HF / lb flux				
Injection Fluxing (Wedron HMC-3 type flux)									
Reverb Furnace1 (Rev1)	3,640	1000	532	0.0016	0.0170	0.30	0.16	0.003	0.031
Reverb Furnace2 (Rev2)	10,920	1000	532	0.0016	0.0170	0.90	0.48	0.009	0.093
Jet Melt Furnace JM-1 (Stack Melt)	7,280	1000	532	0.0016	0.0170	0.60	0.32	0.006	0.062
Reverb Furnace 2 Chip Melting Well	3,276	1000	532	0.0016	0.0170	0.27	0.14	0.003	0.028
Reverb Furnace Rev1/JM-1 & Rew2 Filter Boxes (2 Boxes)	3,640	1000	532	0.0016	0.0170	0.30	0.16	0.003	0.031
Injection Fluxing (Wedron HMC-37 type flux)									
Casting Machine Electric Holding Furnaces	4,680	1000	532	0.3214	0.0305	0.37	0.19	0.752	0.071
Cover Fluxing (Foseco Coveral 173 type flux)									
Transfer Ladles (to casting)	36,036	1000	532	0.0026	0.0047	3.25	1.73	0.047	0.084
Total Potential to Emit (tons/year):						6.00	3.19	0.822	0.400
<small>*PM & PM10 emission factors taken from AP-42, 5th Ed., Suppl. B Table 12.8-3., as lb/ton chlorine used. Flux chlorine contents are 36.1% (wt) & 33.1% (wt) for Foseco & Wedron HMC-3, respectively. *Except for the casting machine holding furnaces, HCl & HF based on October 16, 2003 IDEM witnessed stack test, determined as follows: For injection type flux, HCl Emission Factor: 0.032 lbs / 20 lbs flux & HF Emission Factor: 0.34 lbs / 20 lbs flux For cover type flux, HCl Emission Factor: 0.039 lbs / 15 lbs flux & HF Emission Factor: 0.07 lbs / 15 lbs flux * The 10/16/2003 test was conducted at the Amcast Automotive - Fremont Plant. IDEM has evaluated the metal melting facilities and operations at both the Fremont and Gas City plants and has determined that the results of the 10/16/2003 test at the Fremont plant to be representative of the metal melting & fluxing operations at the Gas City plant. However, this testing was only conducted using Wedron HMC-3 and Foseco Coveral 173 fluxes, not Wedron HMC-37 flux. Therefore, for HMC-37 type flux, the HCl & HF emission factors reflect 100% chemical conversion of flux chlorides (max. of 31.25% wt.) to HCl, and flux flourides (max of 2.90% wt.) to HF. Potential flux usage is the maximum quantity of flux added to each facility, times the fluxing frequency per week, extrapolated to 52 weeks per year.</small>									

Company Name: Amcast Automotive - Gas City
 Address City IN Zip: 6231 East 500 South, Marion, Indiana 46953
 FESOP No.: 053-12972-00046
 Significant Permit Revision No.: 053-17939-00046
 Reviewer: MH/EVP
 Date: April 2004

SCC# 3-04-001-03 Reverberatory Furnace REV-1						
TYPE OF MATERIAL	Throughput LBS/HR	1 TON/2000 lbs	TON/HR			
Aluminum	4000	2000	2			
	PM * lbs/ton Produced	PM10 * lbs/ton Produced	SOx lbs/ton Produced	NOx lbs/ton Produced	VOC** lbs/ton Produced	CO lbs/tons Produced
	0.069	0.298	--	--	0.2	--
Potential Emissions lbs/hr	0.14	0.60	--	--	0.40	--
Potential Emissions lbs/day	3.31	14.33	--	--	9.60	--
Potential Emissions tons/year	0.60	2.61	--	--	1.75	--
SCC# 3-04-001-03 Reverberatory Furnace REV-2						
TYPE OF MATERIAL	Throughput LBS/HR	1 TON/2000 lbs	TON/HR			
Aluminum	4000	2000	2			
	PM * lbs/ton Produced	PM10 * lbs/ton Produced	SOx lbs/ton Produced	NOx lbs/ton Produced	VOC** lbs/ton Produced	CO lbs/tons Produced
	0.069	0.298	--	--	0.2	--
Potential Emissions lbs/hr	0.14	0.60	--	--	0.40	--
Potential Emissions lbs/day	3.31	14.33	--	--	9.60	--
Potential Emissions tons/year	0.60	2.61	--	--	1.75	--
SCC# 3-04-001-03 Jet Melt Furnace						
TYPE OF MATERIAL	Throughput LBS/HR	1 TON/2000 lbs	TON/HR			
Aluminum	2500	2000	1.25			
	PM * lbs/ton Produced	PM10 * lbs/ton Produced	SOx lbs/ton Produced	NOx lbs/ton Produced	VOC** lbs/ton Produced	CO lbs/tons Produced
	4.3	2.6	--	--	0.2	--
Potential Emissions lbs/hr	5.38	3.25	--	--	0.25	--
Potential Emissions lbs/day	129.00	78.00	--	--	6.00	--
Potential Emissions tons/year	23.54	14.24	--	--	1.10	--
SCC# 3-04-001-14 Pouring/Casting						
TYPE OF MATERIAL	Throughput LBS/HR	1 TON/2000 lbs	TON/HR			
Aluminum	11200	2000	5.6			
	PM*** lbs/ton Produced	PM10*** lbs/ton Produced	SOx** lbs/ton Produced	NOx** lbs/ton Produced	VOC** lbs/ton Produced	CO lbs/tons Produced
	--	--	0.02	0.01	0.14	--
Potential Emissions lbs/hr	--	--	0.11	0.06	0.78	--
Potential Emissions lbs/day	--	--	2.69	1.34	18.82	--
Potential Emissions tons/year	--	--	0.49	0.25	3.43	--

* Emission factors from source testing conducted at REV-2 on March 2, 2003. IDEM, OAQ, Compliance Data Section, evaluated REV-1 and REV-2 and determined both furnaces to be identical, with the only exception being that REV-2 has a chip wet well which has a dedicated stack. As such, Compliance determined REV-2 to be representative of REV-1 and agreed that testing of REV-2 would be sufficient to represent REV-1. Compliance decided REV-1 would be tested 5-years later at the time of repeat testing. The IDEM verified emission factors for REV-2 are therefore applied to REV-1 herein, and these factors have been increased by an arbitrary 15% to estimate potential to emit. The test results do not include the addition of flux during the melt, but PM/PM10 emissions during metal fluxing are determined on page 4 of Appendix A of this approval. The Jet Melt furnace, which melts aluminum in the stack and not in the molten aluminum pool like REV-1 & REV-2, has not yet tested and relevant emission factors are reflective of FIRE version 6.24.

** Emission factor is from Fire version 6.24

*** See page 4 of Appendix A of this approval for PM/PM10 emissions from flux usage at pouring/casting.