INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

TO: Interested Parties / Applicant

DATE: February 4, 2014

RE: Exide Technologies / 035-33188-00028

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

Notice of Decision: Approval – Effective Immediately

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

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

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

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

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

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

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

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

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

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Mr. Steve Bennett
Exide Technologies
P.O. Box 2098
Muncie, IN 47302

February 4, 2014

Re: 035-33188-00028
Significant Permit Modification to
Part 70 Renewal No.: T035-31230-00028

Dear Mr. Bennett:

Exide Technologies was issued a Part 70 Operating Permit Renewal No. 035-31230-00028 on August 1, 2012 for a stationary secondary lead smelting operation located at 2601 West Mt. Pleasant Blvd., Muncie, Indiana. An application requesting changes to this permit was received on May 10, 2013. Pursuant to the provisions of 326 IAC 2-7-12, a significant permit modification to this permit is hereby approved as described in the attached Technical Support Document.

For your convenience, the entire Part 70 Operating Permit Renewal as modified is attached.

A copy of the permit is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

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

Sincerely,

Iryn Calilung, Section Chief
Permits Branch
Office of Air Quality

Attachment(s): Updated Permit, Technical Support Document and Appendix A

IC/BMW

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

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Part 70 Operating Permit Renewal
OFFICE OF AIR QUALITY

Exide Technologies
2601 West Mt. Pleasant Blvd.
Muncie, Indiana 47302

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

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

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

Operation Permit No.: 035-31230-00028	
Issued by: Tripurari P. Sinha, Ph. D., Section Chief Permits Branch Office of Air Quality	Issuance Date: August 1, 2012 Expiration Date: August 1, 2017

Significant Permit Modification No.: 035-33188-00028	
Issued by: Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: February 4, 2014 Expiration Date: August 1, 2017

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Quarterly Reports
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SECTION A SOURCE SUMMARY

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

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

The Permittee owns and operates a stationary secondary lead smelting operation.

Source Address:	2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302
General Source Phone Number:	765-747-9980
SIC Code:	3341 (Secondary Smelting and Refining of Nonferrous Metals)
County Location:	Delaware
Source Location Status:	Nonattainment for Lead standard Attainment for all other criteria pollutants
Source Status:	Part 70 Operating Permit Program Minor Source, under PSD and Emission Offset Rules Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

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

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

(a) One (1) natural gas-fired rotary dryer, identified as Unit 3, constructed in 1989 and modified in 2005, with a maximum capacity of 126,000 tons of lead scrap per year and a maximum heat input capacity of 12.5 million British thermal units per hour (MMBtu/hr), controlled by the rotary dryer baghouse.

(b) One (1) lead reverberatory furnace and, identified as Unit 4, constructed in 1989, with a maximum capacity of 24.3 million British thermal units per hour (MMBtu/hr), rated at 100,000 tons of lead per year, controlled by the process baghouse followed by identical, individual, and parallel, North and South sodium carbonate packed tower scrubbers.

(c) One (1) blast furnace (cupola), identified as Unit 5, constructed in 1973 and modified in 1989, rated at 30,000 tons of metal per year, controlled by the process baghouse followed by identical, individual, and parallel, North and South sodium carbonate packed tower scrubbers.

(d) Emission from the reverberatory charge point hoods and blast furnace (cupola) charge point hoods are controlled by the ventilation baghouse.

(e) Two (2) lead pig casting machines, constructed in 1989 and approved for modification in 2013, identified collectively as Unit 7, each rated at 120,000 tons of lead per year controlled by refinery baghouse No. 1 and refinery baghouse No. 2, with each baghouse exhausting to a separate stack.

Note: The 2013 modification only consists of the addition of refinery baghouse No. 2.

(f) Eleven (11) natural gas-fired pot furnaces, approved for modification in 2013, identified as Units 6K1, 6K2 and Units 6K4 through 6K12, all controlled by refinery baghouse~~,~~ No. 1 and refinery baghouse No. 2, with each baghouse exhausting to a separate stack, and including:

(1) Two (2) rated at 120 tons holding capacity and 3.4 million British thermal units per hour (MMBtu/hr), constructed in 1989, identified as Units 6K1 and 6K2,

(2) Three (3) rated at 100 tons holding capacity and 3.0 MMBtu/hr, constructed in 1989, identified as Units 6K9, 6K10, and 6K12,

(3) One (1) rated at 120 tons holding capacity and 3.0 MMBtu/hr, constructed in 1989, identified as Unit 6K11,

(4) One (1) rated at 100 tons holding capacity and 3.0 MMBtu/hr, constructed in 1973, identified as Unit 6K6,

(5) Two (2) rated at 100 tons holding capacity and 3.4 MMBtu/hr, constructed in 1973, identified as Units 6K7 and 6K8,

(6) One (1) rated at 115 tons holding capacity and 3.0 MMBtu/hr, constructed in 1973, identified as Unit 6K5,

(7) One (1) rated at 100 tons holding capacity and 3.0 MMBtu/hr, constructed in 1973 and modified in October 2009, identified as Unit 6K4.

Note: The 2013 modification only consists of the addition of refinery baghouse No. 2.

(g) One (1) lead-battery crusher/breaker, identified as Unit 1, constructed in 1989, which is rated at 126,000 tons of scrap metal per year, with particulate matter (PM) emissions controlled by a venturi scrubber followed by a voluntarily installed dust collector.

(h) One (1) soda-ash/caustic soda neutralizing wash to neutralize sulfuric acid in the scrap metal before it is smelted, constructed in 1989, with two (2) soda ash silos, identified as Units 2a and 2b, both constructed in 1989, each with a capacity of 210,000 lbs, and one (1) soda ash silo, constructed in 1992, with a capacity of 50,000 lbs. Particulate matter (PM) emissions on all three (3) soda ash silos are controlled by fabric filters.

(i) Material handling, identified as Unit 9, approved for modification in 2013, controlled by bin room baghouse No. 1 and bin room baghouse No. 2, with each baghouse exhausting to a separate stack.

(1) One (1) slag crusher, constructed in 1994, with emissions controlled by a baghouse, identified as slag crusher baghouse venting to bin room baghouses No.1 and No. 2.

(2) One (1) strip casting machine, constructed in 1997.

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

(A) One (1) natural gas-fired seven (7) ton melting pot, identified as MP-1, constructed in 1997, with a capacity of 2.2 million British thermal units per hour; and

(B) One (1) natural gas-fired thirty-five (35) ton melting pot, identified as MP-2, constructed in 1997, with a capacity of 1.2 million British thermal units per hour.

Note: The 2013 modification only consists of the addition of bin room baghouse No. 2.

(j) Roadway surface fugitive emissions.

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

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

(a) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons.

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

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

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

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

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

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

(a) This permit, 035-31230-00028, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

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

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

(a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or

(b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability [326 IAC 2-7-7] [IC 13-17-12]

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

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

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

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

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

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

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

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

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

(a) A certification required by this permit meets the requirements of 326 IAC 2-7-6(1) if:

(1) it contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(35), and

(2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

(c) A "responsible official" is defined at 326 IAC 2-7-1(35).

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

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

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

and

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

(b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(c) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

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

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

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

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

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

The Permittee shall implement the PMPs.

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

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

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

The Permittee shall implement the PMPs.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

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

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

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

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, no later than four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865

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

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

no later than two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

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

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(8) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

(g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

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

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

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

(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

(c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to

be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.

(d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:

(1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;

(2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;

(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and

(4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.

(e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).

(f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]

(g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

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

(a) All terms and conditions of permits established prior to 035-31230-00028 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised under 326 IAC 2-7-10.5, or

(3) deleted under 326 IAC 2-7-10.5.

(b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit.

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

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

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

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit.
[326 IAC 2-7-5(6)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

(c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

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

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

Request for renewal shall be submitted to:

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

(b) A timely renewal application is one that is:

(1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

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

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the reasonable deadline specified, pursuant to 326 IAC 2-7-4(a)(2)(D), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

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

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

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

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

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

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

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

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

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

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

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b) or (c) without a prior permit revision, if each of the following conditions is met:

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

(2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

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

(4) The Permittee notifies the:

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

Indianapolis, Indiana 46204-2251

and

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

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

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b)(1) and (c)(1). The Permittee shall make such records available, upon reasonable request, for public review.

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

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

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

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

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

(d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

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

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

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

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

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

(a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

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

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

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

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

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

(a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

(b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

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

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

C.2 Opacity [326 IAC 5-1]

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

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

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

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

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

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

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

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

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

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

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

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

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

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

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Demolition and Renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).

(g) Indiana Licensed Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

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

C.8 Performance Testing [326 IAC 3-6]

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

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

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

(a) For new units:

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units shall be implemented on and after the date of initial start-up.

(b) Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance to begin such monitoring. If due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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

MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

(c) For monitoring required by CAM, at all times, the Permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

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

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

(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale. The analog instrument shall be capable of measuring values outside of the normal range.

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

Corrective Actions and Response Steps [326 IAC 2-7-5][326 IAC 2-7-6]

C.12 Risk Management Plan [326 IAC 2-7-5(11)] [40 CFR 68]

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

C.13 Response to Excursions or Exceedances [40 CFR 64][326 IAC 3-8][326 IAC 2-7-5] [326 IAC 2-7-6]

(l) Upon detecting an excursion where a response step is required by the D Section, or an exceedance of a limitation, not subject to CAM, in this permit:

(a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in

accordance with good air pollution control practices for minimizing excess emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:
(1) initial inspection and evaluation;

(2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to normal or usual manner of operation.

(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

(1) monitoring results;

(2) review of operation and maintenance procedures and records; and/or

(3) inspection of the control device, associated capture system, and the process.

(d) Failure to take reasonable response steps shall be considered a deviation from the permit.

(e) The Permittee shall record the reasonable response steps taken.

(II)

(a) CAM *Response to excursions or exceedances.*

(1) Upon detecting an excursion or exceedance, subject to CAM, the Permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(2) Determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

(b) If the Permittee identifies a failure to achieve compliance with an emission limitation, subject to CAM, or standard, subject to CAM, for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the Permittee shall promptly notify the IDEM, OAQ and, if necessary, submit a proposed significant permit modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

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

(d) Elements of a QIP:
The Permittee shall maintain a written QIP, if required, and have it available for inspection. The plan shall conform to 40 CFR 64.8 b (2).

(e) If a QIP is required, the Permittee shall develop and implement a QIP as expeditiously as practicable and shall notify the IDEM, OAQ if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.

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

(1) Failed to address the cause of the control device performance problems; or

(2) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

(g) Implementation of a QIP shall not excuse the Permittee from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.

(h) *CAM recordkeeping requirements.*

(1) The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to paragraph (II)(a)(2) of this condition and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this condition (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

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

C.14 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.

(b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

C.15 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

Pursuant to 326 IAC 2-6-3(b)(2), starting in 2005 and every three (3) years thereafter, the Permittee shall submit no later than July 1 an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

(a) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);

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

The statement must be submitted to:

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

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

C.16 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. Support information includes the following, where applicable:

(AA) All calibration and maintenance records.

(BB) All original strip chart recordings for continuous monitoring instrumentation.

(CC) Copies of all reports required by the.

Records of required monitoring information include the following, where applicable:

(AA) The date, place, as defined in this permit, and time of sampling or measurements.

(BB) The dates analyses were performed.

(CC) The company or entity that performed the analyses.

(DD) The analytical techniques or methods used.

(EE) The results of such analyses.

(FF) The operating conditions as existing at the time of sampling or measurement.

These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

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

C.17 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [40 CFR 64][326 IAC 3-8]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

On and after the date by which the Permittee must use monitoring that meets the requirements of 40 CFR Part 64 and 326 IAC 3-8, the Permittee shall submit CAM reports to the IDEM, OAQ.

A report for monitoring under 40 CFR Part 64 and 326 IAC 3-8 shall include, at a minimum, the information required under paragraph (a) of this condition and the following information, as applicable:

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

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

(3) A description of the actions taken to implement a QIP during the reporting period as specified in Section C-Response to Excursions or Exceedances. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

The Permittee may combine the Quarterly Deviation and Compliance Monitoring Report and a report pursuant to 40 CFR 64 and 326 IAC 3-8.

(b) The address for report submittal is:

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

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

Stratospheric Ozone Protection

C.18 Compliance with 40 CFR 82 and 326 IAC 22-1

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

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(14)]:

(a) One (1) natural gas-fired rotary dryer, identified as Unit 3, constructed in 1989 and modified in 2005, with a maximum capacity of 15,500 tons of lead scrap per year and a maximum heat input capacity of 12.5 million British thermal units per hour (MMBtu/hr), controlled by the rotary dryer baghouse.

(b) One (1) lead reverberatory furnace, identified as Unit 4, constructed in 1989, with a maximum capacity of 24.3 million British thermal units per hour (MMBtu/hr), rated at 100,000 tons of lead per year, controlled by the process baghouse followed by identical, individual, and parallel, North and South sodium carbonate packed tower scrubbers.

(c) One (1) blast furnace (cupola), identified as Unit 5, constructed in 1973 and modified in 1989, rated at 30,000 tons of metal per year, controlled by the process baghouse followed by identical, individual, and parallel, North and South sodium carbonate packed tower scrubbers.

(d) Emission from the reverberatory charge point hoods and blast furnace (cupola) charge point hoods are controlled by the ventilation baghouse.

(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 2-7-5(1)]

D.1.1 PSD and Emission Offset Minor Limits [326 IAC 2-2][326 IAC 2-3]

In order to render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) not applicable, the Permittee shall comply with the following:

(a) Only a mixture of 70% to 100% by weight slag and 0% to 30% by weight lead bearing materials may be charged in the blast furnace (cupola) (Unit 5).

(b) The PM, PM10, PM2.5 and lead emissions shall not exceed the emission limits listed in the table below:

Emission Units	Control Equipment	PM Limit (lb/hr)	PM10 Limit (lb/hr)	PM2.5 Limit (lb/hr)	Lead Limit (lb/hr)
Rotary dryer (Unit 3)	Rotary dryer baghouse	4.50	4.50	4.50	0.029
Reverberatory furnace (Unit 4) and Blast furnace (cupola) (Unit 5)	process baghouse followed by North and South sodium carbonate packed tower scrubbers	4.60	5.00	5.00	0.34
Reverberatory and blast furnace charge points hoods emissions	Ventilation baghouse	2.75	3.00	3.00	0.17

(c) The combined SO_2 emissions from the reverberatory furnace and blast furnace (cupola) shall be limited to less than 99 tons per twelve (12) consecutive month period with compliance determined at end of each month.

Compliance with these limits in combination with Conditions D.2.1 and D.3.1 and the potential to emit PM, PM10, PM2.5, and SO2 from all other emission units at this source, shall limit the source-wide total potential to emit PM, PM10, PM2.5 and SO2 to less than one hundred (100) tons per year, each, and shall render the requirements of 326 IAC 2-2 (PSD) not applicable.

Compliance with these limits in combination with Conditions D.2.1 and D.3.1 and the potential to emit lead from all other emission units at this source, shall limit the source-wide total potential to emit of lead to less than 5 tons per 12 consecutive month period, and shall render the requirements of 326 IAC 2-3 (Emission Offset) not applicable.

D.1.2 Sulfur Dioxide (SO_2) [326 IAC 7-1.1]

Pursuant to 326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations), the SO_2 emissions from the blast furnace (cupola) (ID #5) firing of coke fuel shall not exceed six (6) pounds per million British thermal units heat input.

D.1.3 Particulate Emissions [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitation for Manufacturing Processes), the Particulate emissions from the following units shall be limited as follows when operating at the listed process weight rate:

Unit	**Process Weight Rate** (tons/hr)	**Emission Limit** (lb/hr)
Rotary Dryer	14.44	24.5

These limitations were calculated using 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

D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan, in accordance with Section B – Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Compliance Determination Requirements

D.1.5 Particulate Matter (PM), Sulfur Dioxide (SO_2) and Lead (Pb) [326 IAC 2-7-6(6)]

(a) In order to ensure compliance with Conditions D.1.1 and D.1.3, the rotary dryer baghouse shall be in operation at all times that the rotary dryer is in operation.

(b) In order to ensure compliance with Conditions D.1.1, the process baghouse shall be in operation at all times that the reverberatory furnace and blast furnace (cupola) are in operation.

(c) In order to ensure compliance with Conditions D.1.1 and D.1.3, either the North or South sodium carbonate packed tower scrubbers shall be in operation at all times that the reverberatory furnace and blast furnace (cupola) are in operation. In the event that both scrubbers cease operation for any reason, both furnaces shall immediately be shut down until at least one scrubber is operational again.

(d) The Permittee shall have a certified SO2 Continuous Emissions Monitoring System (CEMS) for emissions at both the North and South sodium carbonate packed tower scrubbers, calibrated, operated and maintained in compliance with 326 IAC 3-5-2 through 326 IAC 3-5-5.

(e) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.1.6 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11] [326 IAC 20-13.1-11]

(a) Pursuant to 326 IAC 20-13.1-11 and in order to demonstrate the compliance status with lead limits in Condition D.1.1, the Permittee shall conduct lead testing from rotary dryer and reverberatory furnace and blast furnace (cupola), utilizing methods as approved by the commissioner in accordance with the following schedule:

(1) every twelve (12) calendar months; or

(2) If an annual compliance test demonstrates that a process vent emitted lead compounds at one-tenth (0.1) milligram of lead per dry standard cubic meter or less during the time of the annual compliance test, the owner or operator of a secondary lead smelter may submit a written request to the U.S. EPA applying for an extension of up to twenty-four (24) calendar months from the previous compliance test to conduct the next compliance test for lead compounds.

(b) In order to demonstrate the compliance status with Condition D.1.1 and Condition D.1.3, the Permittee shall perform PM, PM10, PM2.5 testing utilizing methods as approved by the commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM10 and PM2.5 includes filterable and condensable PM10 and PM2.5.

(c) Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligations with regard to the testing required by this condition.

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

D.1.7 Visible Emissions Notations [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)] [40 CFR 64]

(a) Visible emission notations of the North and South sodium carbonate packed tower scrubber stack exhausts shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

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

D.1.8 Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)] [40 CFR 64]

The Permittee shall record the total pressure drop across each of the North and South sodium carbonate packed tower scrubbers used in conjunction with the reverberatory furnace and blast furnace (cupola) at least once daily. When for any one reading, the pressure drop is outside the following normal ranges of 5 inches to 25 inches or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - 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.1.9 Scrubber Failure Detection [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

The north or south sodium carbonate packed scrubber, controlling emissions from the reverberatory furnace and blast furnace (cupola), shall be operated continuously. In the event that both scrubbers cease operation for any reason, both furnaces shall immediately be shut down until at least the North or South scrubber is operational again. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

D.1.10 SO_2 Monitor Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(1)]

(a) Whenever the SO_2 continuous emission monitoring system (CEMS) is malfunctioning or down for repairs or adjustments for twenty-four (24) hours or more, the Permittee shall monitor and record the slurry feed rate to demonstrate that the operation of the scrubber continues in a manner typical for the sulfur content of the coal fired. Scrubber parametric monitoring readings shall be recorded at least twice per day until the primary CEMS or a backup CEMS is brought online.

(b) Whenever the THC continuous emission monitoring system (CEMS) is malfunctioning or is down for repairs or adjustments for twenty-four (24) hours or more, the Permittee shall monitor and record the firing rate on the reverberatory furnace and charge rate on the blast furnace to demonstrate that effective combustion of hydrocarbons is occurring. Readings shall be recorded at least hourly until the primary CEMS or a backup CEMS is brought online.

D.1.11 Bag Leak Detection System Monitoring [326 IAC 20-13.1-9] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)] [40 CFR 64]

Pursuant to 326 IAC 20-13.1-9 and 40 CFR 64, the Permittee shall install and continuously operate a bag leak detection system for all baghouses controlling process vents and process fugitive emissions sources unless a system meeting the requirements of section 10(g) of this rule for a CEMS is installed for monitoring the concentration of lead. See Condition F.1.1(a)(8) of this permit or 326 IAC 20-13.1-9 of Attachment C for detailed requirements.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-19][326 IAC 20-13.1-9]

D.1.12 Record Keeping Requirements

(a) In order to document the compliance status with Condition D.1.1 (a), the Permittee shall maintain monthly records of slag and lead bearing materials charged in the blast furnace cupola (Unit 5).

(b) In order to document the compliance status with Condition D.1.7, the Permittee shall maintain a daily record of visible emission notations of the North and South sodium carbonate packed tower scrubber stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (e.g. the process did not operate that day).

(c) In order to document the compliance status with Condition D.1.8, the Permittee shall maintain a daily record of the pressure drop across the North and South sodium carbonate packed tower scrubber controlling the reverberatory furnace and blast furnace cupola. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g. the process did not operate that day).

(d) In order to document the compliance status with Condition D.1.10, the Permittee shall maintain records of SO_2 parametric emission monitoring during malfunction or downtime of continuous emissions monitoring system (CEMS).

(e) Pursuant to Condition F.1.1(a)(8) and in order to document the compliance status with Condition D.1.11, the owner or operator of a secondary lead smelter shall comply with the following:

(1) Records for bag leak detection systems shall be maintained on site for a period of three (3) years and be available for an additional two (2) years and shall include the following information:

(A) Records of bag leak detection system output.

(B) Identification of the date and time of all bag leak detection system alarms.

(C) The time that procedures to determine the cause of the alarm were initiated.

(D) The cause of the alarm.

(E) An explanation of the corrective actions taken.

(F) The date and time the cause of the alarm was corrected.

(G) Records of total operating time of an affected source during smelting operations for each six (6) month period.

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

D.1.13 Reporting Requirements

(a) A quarterly summary of the information to document the compliance status with Conditions D.1.1(a) and (c), using the reporting forms located at the end of this permit, or their equivalent, shall be submitted no later than thirty (30) calendar days following the end of each calendar quarter and in accordance with Section C - General Reporting Requirements of this permit. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(35).

(b) Submit a report to document the compliance status with Condition D.1.11 within thirty (30) days after the end of each preceding six (6) month period ending June 30 and December 31 of each year that includes the following:

(1) A description of the actions taken following each bag leak detection system alarm pursuant to Condition D.1.11(a).

(2) Calculations of the percentage of total operating time, or the total operating time in hours and minutes the alarm on the bag leak detection system was activated during the reporting period.

This report shall be submitted in accordance with Section C - General Reporting Requirements of this permit. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(35).

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(14)]:

(e) Two (2) lead pig casting machines, constructed in 1989 and approved for modification in 2013, identified collectively as Unit 7, each rated at 120,000 tons of lead per year controlled by refinery baghouse No. 1 and refinery baghouse No. 2, with each baghouse exhausting to a separate stack.

Note: The 2013 modification only consists of the addition of refinery baghouse No. 2.

(f) Eleven (11) natural gas-fired pot furnaces, approved for modification in 2013, identified as Units 6K1, 6K2 and Units 6K4 through 6K12, all controlled by refinery baghouse~~,~~ No. 1 and refinery baghouse No. 2, with each baghouse exhausting to a separate stack, and including:

(1) Two (2) rated at 120 tons holding capacity and 3.4 million British thermal units per hour (MMBtu/hr), constructed in 1989, identified as Units 6K1 and 6K2,

(2) Three (3) rated at 100 tons holding capacity and 3.0 MMBtu/hr, constructed in 1989, identified as Units 6K9, 6K10, and 6K12,

(3) One (1) rated at 120 tons holding capacity and 3.0 MMBtu/hr, constructed in 1989, identified as Unit 6K11,

(4) One (1) rated at 100 tons holding capacity and 3.0 MMBtu/hr, constructed in 1973, identified as Unit 6K6,

(5) Two (2) rated at 100 tons holding capacity and 3.4 MMBtu/hr, constructed in 1973, identified as Units 6K7 and 6K8,

(6) One (1) rated at 115 tons holding capacity and 3.0 MMBtu/hr, constructed in 1973, identified as Unit 6K5,

(7) One (1) rated at 100 tons holding capacity and 3.0 MMBtu/hr, constructed in 1973 and modified in October 2009, identified as Unit 6K4.

Note: The 2013 modification only consists of the addition of refinery baghouse No. 2.

(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 2-7-5(1)]

D.2.1 PSD and Emission Offset Minor Limits [326 IAC 2-2] [326 IAC 2-3]

In order to render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) not applicable, the Permittee shall comply with the following:

(a) The PM, PM10, PM2.5 and lead emissions are limited as shown in the table as follows:

Emission Units	**Control Equipment**	**PM Limit** (lb/hr)	**PM10 Limit** (lb/hr)	**PM2.5 Limit** (lb/hr)	**Lead Limit** (lb/hr)
Pig casting and Pot furnaces (6K1-2) (6K4-12)	Refinery Baghouses No.1 and No. 2	4.75	5.25	5.25	0.3

Compliance with these limits in combination with Conditions D.1.1 and D.3.1 and the potential to emit PM, PM10, and PM2.5 from all other emission units at this source, shall limit the source wide total potential to emit PM, PM10, and PM2.5 to less than one hundred (100) tons per year, each, and will render the requirements of 326 IAC 2-2 (PSD) not applicable.

Compliance with these limits in combination with Conditions D.1.1 and D.3.1 and the potential to emit lead from all other emission units at this source, shall limit the source-wide total potential to emit of lead to less than 5 tons per 12 consecutive month period, and shall render the requirements of 326 IAC 2-3 (Emission Offset) not applicable.

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitation for Manufacturing Processes), the Particulate emissions from the following units shall be limited as follows when operating at the listed process weight rate:

Unit	**Process Weight Rate** (tons/hr)	**Emission Limit** (lb/hr)
Pig casting	27.4	37.7
Pot Furnaces	13.7	23.7

These limitations were calculated using 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

D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan, in accordance with Section B – Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Compliance Determination Requirements

D.2.4 Particulate Matter (PM) and Lead (Pb) [326 IAC 2-7-6(6)]

(a) In order to ensure compliance with Conditions D.2.1 and D.2.2, the refinery baghouses (No. 1 and No. 2) shall be in operation at all times that the two (2) lead pig casting machines and the eleven (11) pot furnaces are in operation.

(b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.2.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [326 IAC 20-13.1-11]

(a) Pursuant to 326 IAC 20-13.1-11 and in order to demonstrate the compliance status with lead limits in Condition D.2.1, the Permittee shall conduct lead testing from the refinery baghouses No. 1 and No. 2, utilizing methods as approved by the commissioner in accordance with the following schedule:

(1) every twelve (12) calendar months; or

(2) If an annual compliance test demonstrates that a process vent emitted lead compounds at one-tenth (0.1) milligram of lead per dry standard cubic meter or less during the time of the annual compliance test, the owner or operator of a secondary lead smelter may submit a written request to the U.S. EPA applying for an extension of up to twenty-four (24) calendar months from the previous compliance test to conduct the next compliance test for lead compounds.

(b) In order to demonstrate the compliance status with Condition D.2.1, the Permittee shall perform lead testing on the refinery baghouses No.1 and No. 2 not later than 180 days after issuance of Significant Permit Modification No. 035-33188-00028 utilizing methods as approved by the commissioner. This test shall be repeated as specified in Condition D.2.5(a).

(c) In order to demonstrate the compliance status with Condition D.2.1 and Condition D.2.2, the Permittee shall perform PM, PM10, and PM2.5 testing on the refinery baghouses No. 1 and No. 2 not later than 180 days after issuance of Significant Permit Modification No. 035-33188-00028 utilizing methods as approved by the commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM10 and PM2.5 includes filterable and condensable PM10 and PM2.5.

(d) Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligations with regard to the testing required by this condition.

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

D.2.6 Baghouse Failure Detection [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

For a single compartment fabric filter controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

D.2.7 Bag Leak Detection System Monitoring [326 IAC 20-13.1-9] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)] [40 CFR 64]

Pursuant to 326 IAC 20-13.1-9 and 40 CFR 64, the Permittee shall install and continuously operate a bag leak detection system for all baghouses controlling process vents and process fugitive emissions sources unless a system meeting the requirements of section 10(g) of this rule for a CEMS is installed for monitoring the concentration of lead. See Condition F.1.1(a)(8) of this permit or 326 IAC 20-13.1-9 of Attachment C for detailed requirements.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-19][326 IAC 20-13.1-9]

D.2.8 Record Keeping Requirements

(a) Pursuant to Condition F.1.1(a)(8) and in order to document the compliance status with Condition D.2.7, the owner or operator of a secondary lead smelter shall comply with the following:

(1) Records for bag leak detection systems shall be maintained on site for a period of three (3) years and be available for an additional two (2) years and shall include the following information:

(A) Records of bag leak detection system output.

(B) Identification of the date and time of all bag leak detection system alarms.

(C) The time that procedures to determine the cause of the alarm were initiated.

(D) The cause of the alarm.

(E) An explanation of the corrective actions taken.

(F) The date and time the cause of the alarm was corrected.

(G) Records of total operating time of an affected source during smelting operations for each six (6) month period.

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

D.2.9 Reporting Requirements

(a) Submit a report to document the compliance status with Condition D.2.7 within thirty (30) days after the end of each preceding six (6) month period ending June 30 and December 31 of each year that includes the following:

(1) A description of the actions taken following each bag leak detection system alarm pursuant to Condition D.1.11(a).

(2) Calculations of the percentage of total operating time, or the total operating time in hours and minutes the alarm on the bag leak detection system was activated during the reporting period.

This report shall be submitted in accordance with Section C - General Reporting Requirements of this permit. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(35).

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(14)]:

(g) One (1) lead-battery crusher/breaker, identified as Unit 1, constructed in 1989, which is rated at 126,000 tons of scrap metal per year, with particulate matter (PM) emissions controlled by a venturi scrubber .

(h) One (1) soda ash/caustic soda neutralizing wash to neutralize sulfuric acid in the scrap metal before it is smelted, constructed in 1989,

(1) with two (2) soda ash silos, identified as Units 2a and 2b, both constructed in 1989, each with a capacity of 210,000 lbs, and

(2) one (1) soda ash silo, identified as Silo 3, constructed in 1992 and modified in October 2009, with a capacity of 100,000 lbs.

Particulate matter (PM) emissions on all three (3) soda ash silos are controlled by fabric filters.

(i) Material handling, identified as Unit 9, approved for modification in 2013, controlled by bin room baghouse No. 1 and bin room baghouse No. 2, with each baghouse exhausting to a separate stack.

(1) One (1) slag crusher, constructed in 1994, with emissions controlled by a baghouse, identified as slag crusher baghouse venting to bin room baghouses No. 1 and No. 2.

(2) One (1) strip casting machine, constructed in 1997.

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

(A) One (1) natural gas-fired seven (7) ton melting pot, identified as MP-1, constructed in 1997, with a capacity of 2.2 million British thermal units per hour; and

(B) One (1) natural gas-fired thirty-five (35) ton melting pot, identified as MP-2, constructed in 1997, with a capacity of 1.2 million British thermal units per hour.

Note: The 2013 modification only consists of the addition of bin room baghouse No. 2.

(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 2-7-5(1)]

D.3.1 PSD and Emission Offset Minor Limits [326 IAC 2-2] [326 IAC 2-3]

In order to render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) not applicable and pursuant to Administrative Amendment No. 035-21590-00028, issued on October 20, 2005, and revised by Significant Permit Modification No. 035-33188-00028, the PM, PM10, PM2.5 and Lead emissions from the venturi scrubber, fabric filters and bin room baghouses shall be limited as shown in the table below:

Emission Units	Control Equipment	PM Limit (lb/hr)	PM10 Limit (lb/hr)	PM2.5 Limit (lb/hr)	Lead Limit (lb/hr)
Battery crusher/breaker (Unit 1)	Venturi Scrubber	2.25	2.25	2.25	0.065
Soda ash wash and 2 silos (Unit 2)	Fabric filters	0.23	0.23	0.23	-
Material Handling/Slag Crusher/insignificant melting pots	Bin Room Baghouses No. 1 and No. 2	2.25	2.25	2.25	0.17

Compliance with these limits in combination with Conditions D.1.1 and D.2.1 and the potential to emit PM, PM10, and PM2.5 from all other emission units at this source, shall limit the source wide total potential to emit PM, PM10, and PM2.5 to less than one hundred (100) tons per year, each, and will render the requirements of 326 IAC 2-2 (PSD) not applicable.

Compliance with these limits in combination with Conditions D.1.1 and D.2.1 and the potential to emit lead from all other emission units at this source, shall limit the source-wide total potential to emit of lead to less than 5 tons per 12 consecutive month period, and shall render the requirements of 326 IAC 2-3 (Emission Offset) not applicable.

D.3.2 Particulate Emissions [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitation for Manufacturing Processes), the Particulate emissions from the following units shall be limited as follows when operating at the listed process weight rate:

Unit	Process Weight Rate (tons/hr)	Emission Limit (lb/hr)
Battery crusher/breaker	14.4	24.5
Silo 2a	0.575	2.83
Silo 2b	0.575	2.83
Silo 3	1.04	4.21
Material Handling	14.4	24.5

These limitations were calculated using 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

D.3.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan, in accordance with Section B-Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Compliance Determination Requirements

D.3.4 Particulate Matter (PM) and Lead (Pb) [326 IAC 2-7-6(6)]

(a) In order to ensure compliance with Conditions D.3.1 and D.3.2, the venturi scrubber shall be in operation at all times that the lead-battery crusher/breaker is in operation.

(b) In order to ensure compliance with Conditions D.3.1 and D.3.2, the bin room baghouses (No. 1 and No. 2) shall be in operation at all times that slag crushing is in operation.

(c) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.3.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [326 IAC 20-13.1-11]

(a) Pursuant to 326 IAC 20-13.1-11 and in order to demonstrate the compliance status with lead limits in Condition D.3.1, the Permittee shall conduct lead testing from the venturi scrubbers and bin room baghouses No. 1 and No. 2, utilizing methods as approved by the commissioner within in accordance with the following schedule:

(1) every twelve (12) calendar months; or

(2) If an annual compliance test demonstrates that a process vent emitted lead compounds at one-tenth (0.1) milligram of lead per dry standard cubic meter or less during the time of the annual compliance test, the owner or operator of a secondary lead smelter may submit a written request to the U.S. EPA applying for an extension of up to twenty-four (24) calendar months from the previous compliance test to conduct the next compliance test for lead compounds.

(b) In order to demonstrate the compliance status with Condition D.3.1 and Condition D.3.2, the Permittee shall perform PM, PM10, and PM2.5 testing on the venturi scrubber utilizing methods as approved by the commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM10 and PM2.5 includes filterable and condensable PM10 and PM2.5.

(c) In order to demonstrate the compliance status with Condition D.3.1, the Permittee shall perform lead testing on the bin room baghouses No. 1 and No. 2 not later than 180 days after issuance of Significant Permit Modification No. 035-33188-00028 utilizing methods as approved by the commissioner. This test shall be repeated as specified in Condition D.3.5(a).

(d) In order to demonstrate the compliance status with Condition D.3.1 and Condition D.3.2, the Permittee shall perform PM, PM10, and PM2.5 testing on the bin room baghouses No. 1 and No. 2 not later than 180 days after issuance of Significant Permit Modification No. 035-33188-00028 utilizing methods as approved by the commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM10 and PM2.5 includes filterable and condensable PM10 and PM2.5.

(e) Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligations with regard to the testing required by this condition.

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

D.3.6 Visible Emissions Notations [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)] [40 CFR 64]

(a) Visible emission notations of the venturi scrubber stack exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

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

D.3.7 Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)] [40 CFR 64]

The Permittee shall record the total static pressure drop across the venturi scrubber used in conjunction with the lead-battery crusher/breaker at least once daily when the processes are in operation. When for any one reading, the pressure drop is outside the following normal range of 10 inches to 25 inches or a range established during the latest stack test, the Permittee shall take reasonable response in accordance with Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - 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.3.8 Scrubber Failure Detection [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

For the venturi scrubber, controlling emissions from the battery crusher/breaker, operated continuously, in the event that a scrubber system failure is observed, the failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

D.3.9 Bag Leak Detection System Monitoring [326 IAC 20-13.1-9] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)] [40 CFR 64]

Pursuant to 326 IAC 20-13.1-9 and 40 CFR 64, the Permittee shall install and continuously operate a bag leak detection system for all baghouses controlling process vents and process fugitive emissions sources unless a system meeting the requirements of section 10(g) of this rule for a CEMS is installed for monitoring the concentration of lead. See Condition F.1.1(a)(8) of this permit or 326 IAC 20-13.1-9 of Attachment C for detailed requirements.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-19][326 IAC 20-13.1-9]

D.3.10 Record Keeping Requirements

(a) In order to document the compliance status with Condition D.3.7, the Permittee shall maintain a daily record of visible emission notations of the venturi scrubber stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (e.g. the process did not operate that day).

(b) In order to document the compliance status with Condition D.3.8, the Permittee shall maintain a daily record of the pressure drop across the venturi scrubber controlling the battery crusher/breaker. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g. the process did not operate that day).

(c) Pursuant to Condition F.1.1(a)(8) and in order to document the compliance status with Condition D.3.9, the owner or operator of a secondary lead smelter shall comply with the following:

(1) Records for bag leak detection systems shall be maintained on site for a period of three (3) years and be available for an additional two (2) years and shall include the following information:

(A) Records of bag leak detection system output.

(B) Identification of the date and time of all bag leak detection system alarms.

(C) The time that procedures to determine the cause of the alarm were initiated.

(D) The cause of the alarm.

(E) An explanation of the corrective actions taken.

(F) The date and time the cause of the alarm was corrected.

(G) Records of total operating time of an affected source during smelting operations for each six (6) month period.

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

D.3.11 Reporting Requirements

(a) Submit a report to document the compliance status with Condition D.3.9 within thirty (30) days after the end of each preceding six (6) month period ending June 30 and December 31 of each year that includes the following:

(1) A description of the actions taken following each bag leak detection system alarm pursuant to Condition D.1.11(a).

(2) Calculations of the percentage of total operating time, or the total operating time in hours and minutes the alarm on the bag leak detection system was activated during the reporting period.

This report shall be submitted in accordance with Section C - General Reporting Requirements of this permit. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(35).

SECTION E.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(14)]:

The affected sources are the existing reverberatory furnace, blast furnace (cupola), and twelve (12) pot furnaces.

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

E.1.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]

The reverberatory furnace, blast furnace (cupola) and natural gas-fired pot furnaces shall comply with the provisions of 40 CFR 60, Subpart A (NSPS General Provisions) and 40 CFR 60, Subpart L (Standards of Performance for Secondary Lead Smelters) which are incorporated by reference in 326 IAC 12-1.

New Source Performance Standards [326 IAC 12-1] [40 CFR 60]

E.1.2 General Provision Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60 Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1 for the refining kettles, identified as kettle #7, #8 and #9, except as otherwise specified in 40 CFR Part 60, Subpart L.

(b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:

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

E.1.3 Standard of Performance for Secondary Lead Smelters [326 IAC 12-1] [40 CFR 60, Subpart L]

Pursuant to 40 CFR 60 Subpart L, the Permittee shall comply with the applicable provisions of Standard of Performance for Secondary Lead Smelters which are incorporated by reference as 326 IAC 12 as specified as follows (included as Attachment A of this permit):

(1) 40 CFR 60.120
(2) 40 CFR 60.121
(3) 40 CFR 60.122
(4) 40 CFR 60.123

SECTION E.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(14)]:

The affected sources are the existing reverberatory furnace, blast furnace (cupola), rotary dryer, twelve (12) pot furnaces, lead pig casting, lead battery crusher/breaker, material handling, roadway surface fugitive emissions and all processes contributing to fugitive emissions and fugitive dust emissions associated with secondary lead smelting.

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

National Emission Standards Hazardous Air Pollutants [326 IAC 20-1][40 CFR 63]

E.2.1 General Provisions Relating to National Emissions Standard for Hazardous Air Pollutants for from Secondary Lead Smelting [326 IAC 20-1] [40 CFR Part 63, Subpart A]

Pursuant to 40 CFR 63.541, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1 for the affected source, as specified in Appendix A of 40 CFR Part 63, Subpart X, in accordance with the schedule in 40 CFR 63 Subpart X.

E.2.2 National Emissions Standard for Hazardous Air Pollutants from Secondary Lead Smelting [40 CFR Part 63, Subpart X]

Pursuant to CFR Part 63, Subpart X, the Permittee shall comply with the provisions of 40 CFR Part 63.541, for the affected source, as specified as follows (included as Attachment B of this permit):

(1) 40 CFR 63.541
(2) 40 CFR 63.542
(3) 40 CFR 63.543 (a), (c)
(4) 40 CFR 63.543(h)
(5) 40 CFR 63.543(i)
(6) 40 CFR 63.543(j)
(7) 40 CFR 63.544
(8) 40 CFR 63.545
(9) 40 CFR 63.546
(10) 40 CFR 63.547
(11) 40 CFR 63.548
(12) 40 CFR 63.549
(13) 40 CFR 63.550
(14) 40 CFR 63.551

SECTION F.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(14)]:

(a) One (1) natural gas-fired rotary dryer, identified as Unit 3, constructed in 1989 and modified in 2005, with a maximum capacity of 126,000 tons of lead scrap per year and a maximum heat input capacity of 12.5 million British thermal units per hour (MMBtu/hr), controlled by the rotary dryer baghouse.

(b) One (1) lead reverberatory furnace and, identified as Unit 4, constructed in 1989, with a maximum capacity of 24.3 million British thermal units per hour (MMBtu/hr), rated at 100,000 tons of lead per year, controlled by the process baghouse followed by identical, individual, and parallel, North and South sodium carbonate packed tower scrubbers.

(c) One (1) blast furnace (cupola), identified as Unit 5, constructed in 1973 and modified in 1989, rated at 30,000 tons of metal per year, controlled by the process baghouse followed by identical, individual, and parallel, North and South sodium carbonate packed tower scrubbers.

(d) Emission from the reverberatory charge point hoods and blast furnace (cupola) charge point hoods are controlled by the ventilation baghouse.

(e) Two (2) lead pig casting machines, constructed in 1989 and approved for modification in 2013, identified collectively as Unit 7, each rated at 120,000 tons of lead per year controlled by refinery baghouse No. 1 and refinery baghouse No. 2, with each baghouse exhausting to a separate stack.

Note: The 2013 modification only consists of the addition of refinery baghouse No. 2.

(f) Eleven (11) natural gas-fired pot furnaces, approved for modification in 2013, identified as Units 6K1, 6K2 and Units 6K4 through 6K12, all controlled by refinery baghouse No. 1 and refinery baghouse No. 2, with each baghouse exhausting to a separate stack, and including:

(1) Two (2) rated at 120 tons holding capacity and 3.4 million British thermal units per hour (MMBtu/hr), constructed in 1989, identified as Units 6K1 and 6K2,

(2) Three (3) rated at 100 tons holding capacity and 3.0 MMBtu/hr, constructed in 1989, identified as Units 6K9, 6K10, and 6K12,

(3) One (1) rated at 120 tons holding capacity and 3.0 MMBtu/hr, constructed in 1989, identified as Unit 6K11,

(4) One (1) rated at 100 tons holding capacity and 3.0 MMBtu/hr, constructed in 1973, identified as Unit 6K6,

(5) Two (2) rated at 100 tons holding capacity and 3.4 MMBtu/hr, constructed in 1973, identified as Units 6K7 and 6K8,

(6) One (1) rated at 115 tons holding capacity and 3.0 MMBtu/hr, constructed in 1973, identified as Unit 6K5,

(7) One (1) rated at 100 tons holding capacity and 3.0 MMBtu/hr, constructed in 1973 and modified in October 2009, identified as Unit 6K4.

Note: The 2013 modification only consists of the addition of refinery baghouse No. 2.

(g) One (1) lead-battery crusher/breaker, identified as Unit 1, constructed in 1989, which is rated at 126,000 tons of scrap metal per year, with particulate matter (PM) emissions controlled by a venturi scrubber followed by a voluntarily installed dust collector.

(i) Material handling, identified as Unit 9, approved for modification in 2013, controlled by bin room baghouse No. 1 and bin room baghouse No. 2, with each baghouse exhausting to a separate stack.

(1) One (1) slag crusher, constructed in 1994, with emissions controlled by a baghouse, identified as slag crusher baghouse venting to bin room baghouses No.1 and No. 2.

(2) One (1) strip casting machine, constructed in 1997.

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

(A) One (1) natural gas-fired seven (7) ton melting pot, identified as MP-1, constructed in 1997, with a capacity of 2.2 million British thermal units per hour; and

(B) One (1) natural gas-fired thirty-five (35) ton melting pot, identified as MP-2, constructed in 1997, with a capacity of 1.2 million British thermal units per hour.

Note: The 2013 modification only consists of the addition of bin room baghouse No. 2.

(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 2-7-5(1)]

F.1.1 Hazardous Air Pollutants: Secondary Lead Smelters [326 IAC 20-13.1]

(a) Pursuant to 326 IAC 20-13.1-1(c)(2) and 326 IAC 20-13.1-3(c), the Permittee shall comply with the following requirements by October 1, 2013 (included as Attachment C of this permit):

(1) 326 IAC 20-13.1-1 (Applicability)
(2) 326 IAC 20-13.1-2 (Definitions)
(3) 326 IAC 20-13.1-3(a) (Emission Limitations; lead standards for Exide Technologies, Incorporated)
(4) 326 IAC 20-13.1-5(b) and 5(h) (Emission limitations and operating provisions)
(5) 326 IAC 20-13.1-6 (Total enclosure requirements)
(6) 326 IAC 20-13.1-7 (Total enclosure monitoring requirements)
(7) 326 IAC 20-13.1-8 (Fugitive dust source requirements)
(8) 326 IAC 20-13.1-9 (Bag leak detection system requirements)
(9) 326 IAC 20-13.1-10(a) through 10(d) (Other requirements)
(10) 326 IAC 20-13.1-11(a) through 11(c) and 11(f) (Compliance testing)
(11) 326 IAC 20-13.1-12(a) (Compliance testing methods)
(12) 326 IAC 20-13.1-14(a), 14(b), 14(c)(1) through 14(c)(8), 14(c)(10) through 14(c)(13), 14(c)(15) through 14(c)(17), 14(d), 14(e)(1), 14(e)(4) through 14(e)(7), and 14(e)(9) through 14(e)(12) (Record keeping and reporting requirements)

(b) In addition to the requirements specified in Condition F.1.1(a) and pursuant to 326 IAC 20-13.1-1(c)(3), the Permittee shall comply with the following requirements beginning on January 6, 2014 (included as Attachment C of this permit):

(1) 326 IAC 20-13.1-5(d), 5(g), (5)(i), and (5)(j) (Emission limitations and operating provisions)
(2) 326 IAC 20-13.1-10(e) (Other requirements)
(3) 326 IAC 20-13.1-11(e) (Compliance testing)
(4) 326 IAC 20-13.1-12(b), 12(c), 12(d), 12(e) (Compliance testing methods)
(5) 326 IAC 20-13.1-13(a), 13}(b), and (d) (Notification requirements)
(6) 326 IAC 20-13.1-14(c)(9),14(e)(2),14(e)(8) through 14(e)(7), 14(e)(13), and 14(e)(14) (Record keeping and reporting requirements)
(7) 326 IAC 20-13.1-15 (Affirmative defense to civil penalties for exceedance of emissions limit during malfunction)

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

Source Name: Exide Technologies
Source Address: 2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302
Part 70 Permit No.: 035-31230-00028

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

Please check what document is being certified:

□ Annual Compliance Certification Letter

□ Test Result (specify)

□ Report (specify)

□ Notification (specify)

□ Affidavit (specify)

□ Other (specify)

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

Signature:

Printed Name:

Title/Position:

Phone:

Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: Exide Technologies
Source Address: 2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302
Part 70 Permit No.: 035-31230-00028

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), no later than four (**4**) daytime business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile no later than two (**2**) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

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

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

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

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

Part 70 Usage Report

(Submit Report Quarterly)

Source Name: Exide Technologies
Source Address: 2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302
Part 70 Permit No.: 035-31230-00028
Facility: Blast furnace (cupola)
Parameter: Charging materials
Limit: Slag content - Between 70% and 100%
Lead content - Between 0% and 30%

Month: _ Year: _____

Day		Day	
1		17	
2		18	
3		19	
4		20	
5		21	
6		22	
7		23	
8		24	
9		25	
10		26	
11		27	
12		28	
13		29	
14		30	
15		31	
16			

☐ No deviation occurred in this month.
☐ Deviation/s occurred in this month.
Deviation has been reported on:

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

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

Part 70 Quarterly Report

Source Name: Exide Technologies
Source Address: 2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302
Part 70 Permit No.: 035-31230-00028
Facility: Reverberatory Furnace (Unit ID#4) and Blast Furnace (Cupola) (Unit ID#5)
Parameter: Sulfur Dioxide (SO_2)
Limit: 99 tons per twelve (12) consecutive month period

QUARTER : YEAR:

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

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Exide Technologies
Source Address: 2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302
Part 70 Permit No.: 035-31230-00028

Months: _____ to _ Year: _____

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C-General Reporting. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

□ 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:

Page 2 of 2

Permit Requirement (specify permit condition #)

Date of Deviation:	**Duration of Deviation:**

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

Indiana Department of Environmental Management
Office of Air Quality

Attachment A

Title 40: Protection of the Environment

Part 60 - Standards of Performance for New Stationary Sources

Subpart L - Standards of Performance for Secondary Lead Smelters

§ 60.120 Applicability and designation of affected facility.

(a) The provisions of this subpart are applicable to the following affected facilities in secondary lead smelters: Pot furnaces of more than 250 kg (550 lb) charging capacity, blast (cupola) furnaces, and reverberatory furnaces.

(b) Any facility under paragraph (a) of this section that commences construction or modification after June 11, 1973, is subject to the requirements of this subpart.

[42 FR 37937, July 25, 1977]

§ 60.121 Definitions.

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

(a) *Reverberatory furnace* includes the following types of reverberatory furnaces: stationary, rotating, rocking, and tilting.

(b) *Secondary lead smelter* means any facility producing lead from a leadbearing scrap material by smelting to the metallic form.

(c) *Lead* means elemental lead or alloys in which the predominant component is lead.

(d) *Blast furnace* means any furnace used to recover metal from slag.

[39 FR 9317, Mar. 8, 1974; 39 FR 13776, Apr. 17, 1974, as amended at 65 FR 61756, Oct. 17, 2000]

§ 60.122 Standard for particulate matter.

(a) On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall discharge or cause the discharge into the atmosphere from a blast (cupola) or reverberatory furnace any gases which:

(1) Contain particulate matter in excess of 50 mg/dscm (0.022 gr/dscf).

(2) Exhibit 20 percent opacity or greater.

(b) On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall discharge or cause the discharge into the atmosphere from any pot furnace any gases which exhibit 10 percent opacity or greater.

[39 FR 9317, Mar. 8, 1974, as amended at 40 FR 46259, Oct. 6, 1975]

§ 60.123 Test methods and procedures.

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

(b) The owner or operator shall determine compliance with the particulate matter standards in §60.122 as follows:

(1) Method 5 shall be used to determine the particulate matter concentration during representative periods of furnace operation, including charging and tapping. The sampling time and sample volume for each run shall be at least 60 minutes and 0.90 dscm (31.8 dscf).

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

[54 FR 6667, Feb. 14, 1989]

Indiana Department of Environmental Management
Office of Air Quality

Attachment B

Title 40: Protection of the Environment

PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES

Subpart X—National Emission Standards for Hazardous Air Pollutants From Secondary Lead Smelting

SOURCE: 77 FR 580, Jan. 5, 2012, unless otherwise noted.

§ 63.541 Applicability.

(a) The provisions of this subpart apply to the following affected sources at all secondary lead smelters: blast, reverberatory, rotary, and electric smelting furnaces; refining kettles; agglomerating furnaces; dryers; process fugitive sources; and fugitive dust sources. The provisions of this subpart do not apply to primary lead smelters, lead refiners, or lead remelters.

(b) Table 1 of this subpart specifies the provisions of subpart A that apply and those that do not apply to owners and operators of secondary lead smelters subject to this subpart.

Table 1—General Provisions Applicability to Subpart X

Reference	Applies to subpart X	Comment
63.1	Yes	
63.2	Yes	
63.3	Yes	
63.4	Yes	
63.5	Yes	
63.6 (a), (b), (c), (e), (f), (g), (i) and (j)	Yes	
63.6 (d) and (h)	No	No opacity limits in rule.
63.7	Yes	
63.8	Yes	
63.9 (a), (b), (c), (d), (e), (g), (h)(1–3), (h)(5–6), and (j)	Yes	
63.9 (f) and (h)(4)	No	No opacity or visible emission limits in subpart X.
63.10	Yes	
63.11	No	Flares will not be used to comply with the

		emission limits.
63.12 to 63.15	Yes	

(c) If you are the owner or operator of a source subject to the provisions of this subpart, you are also subject to title V permitting requirements under 40 CFR parts 70 or 71, as applicable. Your title V permitting authority may defer your source from these permitting requirements until December 9, 2004, if your source is not a major source and is not located at a major source as defined under 40 CFR 63.2, 70.2, or 71.2, and is not otherwise required to obtain a title V permit. If you receive a deferral under this section, you must submit a title V permit application by December 9, 2005. You must continue to comply with the provisions of this subpart applicable to area sources, even if you receive a deferral from title V permitting requirements.

[62 FR 32216, June 13, 1997, as amended at 64 FR 4572, Jan. 29, 1999; 64 FR 69643, Dec. 14, 1999]

§ 63.542 Definitions.

Terms used in this subpart are defined in the Act, in subpart A of this part, or in this section as follows:

Agglomerating furnace means a furnace used to melt into a solid mass flue dust that is collected from a baghouse.

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

Battery breaking area means the plant location at which lead-acid batteries are broken, crushed, or disassembled and separated into components.

Blast furnace means a smelting furnace consisting of a vertical cylinder atop a crucible, into which lead-bearing charge materials are introduced at the top of the furnace and combustion air is introduced through tuyeres at the bottom of the cylinder, and that uses coke as a fuel source and that is operated at such a temperature in the combustion zone (greater than 980 °C) that lead compounds are chemically reduced to elemental lead metal.

Blast furnace charging location means the physical opening through which raw materials are introduced into a blast furnace.

Collocated blast furnace and reverberatory furnace means operation at the same location of a blast furnace and a reverberatory furnace with the volumetric flow rate discharged from the blast furnace being at equal to or less than that discharged from the reverberatory furnace.

Dryer means a chamber that is heated and that is used to remove moisture from lead-bearing materials before they are charged to a smelting furnace.

Dryer transition piece means the junction between a dryer and the charge hopper or conveyor, or the junction between the dryer and the smelting furnace feed chute or hopper located at the ends of the dryer.

Electric furnace means a smelting furnace consisting of a vessel into which reverberatory furnace slag is introduced and that uses electrical energy to heat the reverberatory furnace slag to such a temperature (greater than 980 °C) that lead compounds are reduced to elemental lead metal.

Enclosure hood means a hood that covers a process fugitive emission source on the top and on all sides, with openings only for access to introduce or remove materials to or from the source and through which an induced flow of air is ventilated.

Fugitive dust source means a stationary source of hazardous air pollutant emissions at a secondary lead smelter that is not associated with a specific process or process fugitive vent or stack. Fugitive dust sources include, but are not limited to, roadways, storage piles, materials handling transfer points, materials transport areas, storage areas, process areas, and buildings.

Furnace and refining/casting area means any area of a secondary lead smelter in which:

(1) Smelting furnaces are located; or

(2) Refining operations occur; or

(3) Casting operations occur.

High efficiency particulate air (HEPA) filter means a filter that has been certified by the manufacturer to remove 99.97 percent of all particles 0.3 micrometers and larger.

Lead alloy means an alloy in which the predominant component is lead.

Materials storage and handling area means any area of a secondary lead smelter in which lead-bearing materials (including, but not limited to, broken battery components, reverberatory furnace slag, flue dust, and dross) are stored or handled between process steps including, but not limited to, areas in which materials are stored in piles, bins, or tubs, and areas in which material is prepared for charging to a smelting furnace. Materials storage and handling area does not include areas used exclusively for storage of blast furnace slag.

Partial enclosure means a structure comprised of walls or partitions on at least three sides or three-quarters of the perimeter surrounding stored materials or process equipment to prevent the entrainment of particulate matter into the air.

Pavement cleaning means the use of vacuum equipment, water sprays, or a combination thereof to remove dust or other accumulated material from the paved areas of a secondary lead smelter.

Plant roadway means any area of a secondary lead smelter that is subject to vehicle traffic, including traffic by fork lifts, front-end loaders, or vehicles carrying whole batteries or cast lead ingots. Excluded from this definition are employee and visitor parking areas, provided they are not subject to traffic by vehicles carrying lead-bearing materials.

Pressurized dryer breaching seal means a seal system connecting the dryer transition pieces which is maintained at a higher pressure than the inside of the dryer.

Process fugitive emission source means a source of hazardous air pollutant emissions at a secondary lead smelter that is associated with lead smelting or refining, but is not the primary exhaust stream from a smelting furnace, and is not a fugitive dust source. Process fugitive sources include, but are not limited to, smelting furnace charging points, smelting furnace lead and slag taps, refining kettles, agglomerating furnaces, and drying kiln transition pieces.

Refining kettle means an open-top vessel that is constructed of cast iron or steel and is indirectly heated from below and contains molten lead for the purpose of refining and alloying the lead. Included are pot furnaces, receiving kettles, and holding kettles.

Reverberatory furnace means a refractory-lined furnace that uses one or more flames to heat the walls and roof of the furnace and lead-bearing scrap to such a temperature (greater than 980 °C) that lead compounds are chemically reduced to elemental lead metal.

Rotary furnace (also known as a rotary reverberatory furnace) means a furnace consisting of a refractory-lined chamber that rotates about a horizontal axis and that uses one or more flames to heat the walls of the furnace and lead-bearing scrap to such a temperature (greater than 980 °C) that lead compounds are chemically reduced to elemental lead metal.

Secondary lead smelter means any facility at which lead-bearing scrap material, primarily, but not limited to, lead-acid batteries, is recycled into elemental lead or lead alloys by smelting.

Smelting means the chemical reduction of lead compounds to elemental lead or lead alloys through processing in high-temperature (greater than 980 °C) furnaces including, but not limited to, blast furnaces, reverberatory furnaces, rotary furnaces, and electric furnaces.

Total enclosure means a roofed and walled structure with limited openings to allow access and egress for people and vehicles that meets the requirements of 40 CFR 265.1101(a)(1), (a)(2)(i), and (c)(1)(i).

Vehicle wash means a device for removing dust and other accumulated material from the wheels, body, and underside of a vehicle to prevent the inadvertent transfer of lead contaminated material to another area of a secondary lead smelter or to public roadways.

Wet suppression means the use of water, water combined with a chemical surfactant, or a chemical binding agent to prevent the entrainment of dust into the air from fugitive dust sources.

[62 FR 32216, June 13, 1997, as amended at 63 FR 45011, Aug. 24, 1998]

§ 63.543 Standards for process sources.

(a) No owner or operator of a secondary lead smelter shall discharge or cause to be discharged into the atmosphere from any existing, new, or reconstructed blast, reverberatory, rotary, or electric smelting furnace any gases that contain lead compounds in excess of 2.0 milligrams of lead per dry standard cubic meter (0.00087 grains of lead per dry standard cubic foot).

(b) [Reserved]

(c) No owner or operator of a secondary lead smelter with a collocated blast furnace and reverberatory furnace shall discharge or cause to be discharged into the atmosphere from any existing, new, or reconstructed blast furnace or reverberatory furnace any gases that contain total hydrocarbons in excess of 20 parts per million by volume, expressed as propane corrected to 4 percent carbon dioxide, except as allowed under Paragraphs (c)(1) and (c)(2) of this section.

(1) No owner or operator of a secondary lead smelter with a collocated blast furnace and reverberatory furnace shall discharge or cause to be discharged into the atmosphere from any existing blast furnace any gases that contain total hydrocarbons in excess of 360 parts per million by volume, expressed as propane corrected to 4 percent carbon dioxide, during periods when the reverberatory furnace is not operating.

(2) No owner or operator of a secondary lead smelter with a collocated blast furnace and reverberatory furnace shall discharge or cause to be discharged into the atmosphere from any blast furnace that commences construction or reconstruction after June 9, 1994, any gases that contain total hydrocarbons in excess of 70 parts per million by volume, expressed as propane corrected to 4 percent carbon dioxide, during periods when the reverberatory furnace is not operating.

(d) No owner or operator of a secondary lead smelter with only blast furnaces shall discharge or cause to be discharged into the atmosphere from any existing blast furnace any gases that contain total hydrocarbons in excess of 360 parts per million by volume, expressed as propane corrected to 4 percent carbon dioxide.

(e) No owner or operator of a secondary lead smelter with only blast furnaces shall discharge or cause to be discharged into the atmosphere from any blast furnace that commences construction or reconstruction after June 9, 1994, any gases that contain total hydrocarbons in excess of 70 parts per million by volume, expressed as propane corrected to 4 percent carbon dioxide.

(f) If the owner or operator of a blast furnace or collocated blast furnace and reverberatory furnace combines the blast furnace charging process fugitive emissions with the blast furnace process emissions and discharges them to the atmosphere through a common emission point, then compliance with the applicable total hydrocarbon concentration limit under paragraph (c) of this section shall be determined downstream from the point at which the two emission streams are combined.

(g) If the owner or operator of a blast furnace or a collocated blast furnace and reverberatory furnace does not combine the blast furnace charging process fugitive emissions with the blast furnace process emissions and discharges such emissions to the atmosphere through separate emission points, then exhaust shall not contain total hydrocarbons in excess of 20 parts per million by volume, expressed as propane.

(h) Except as provided in paragraph (i) of this section, following the initial test to demonstrate compliance with paragraph (a) of this section, the owner or operator of a secondary lead smelter shall conduct a compliance test for lead compounds on an annual basis (no later than 12 calendar months following the previous compliance test).

(i) If a compliance test demonstrates a source emitted lead compounds at 1.0 milligram of lead per dry standard cubic meter (0.00044 grains of lead per dry standard cubic foot) or less during the time of the compliance test, the owner or operator of a secondary lead smelter shall be allowed up to 24 calendar months from the previous compliance test to conduct the next annual compliance test for lead compounds.

(j) The standards for process sources are summarized in table 2.

Table 2—Summary of Standards for Process Sources

Furnace configuration	Lead compounds (milligrams per dry standard cubic meter)	Total hydrocarbons	Citation
Collocated blast furnace and reverberatory furnace:			
When both furnaces operating	2.0	20 parts per million by volume[1]	§63.543(a),(c).

When reverberatory furnace not operating	2.0	360 parts per million by volume[1](existing)	§63.543(a),(c)(1).
		70 parts per million by volume[1](new)[2]	§63.543(a),(c)(2).
Blast	2.0	360 parts per million by volume[1](existing)	§63.543(a),(d).
		70 parts per million by volume[1](new)[2]	§63.543(e).
		0.20 kilograms per hour[3]	§63.543(g).
Reverberatory, rotary, and electric	2.0	Not applicable	§63.543(a).

[1]Total hydrocarbons emission limits are as propane at 4 percent carbon dioxide to correct for dilution, based on a 3-hour average.

[2]New sources include those furnaces that commence construction or reconstruction after June 9, 1994.

[3]Applicable to blast furnace charging process fugitive emissions that are not combined with the blast furnace process emissions prior to the point at which compliance with the total hydrocarbons concentration standard is determined.

[62 FR 32216, June 13, 1997, as amended at 63 FR 45011, Aug. 24, 1998]

§ 63.544 Standards for process fugitive sources.

(a) Each owner or operator of a secondary lead smelter shall control the process fugitive emission sources listed in paragraphs (a)(1) through (a)(6) of this section in accordance with the equipment and operational standards presented in paragraphs (b) and (c) of this section.

(1) Smelting furnace and dryer charging hoppers, chutes, and skip hoists;

(2) Smelting furnace lead taps, and molds during tapping;

(3) Smelting furnace slag taps, and molds during tapping;

(4) Refining kettles;

(5) Dryer transition pieces; and

(6) Agglomerating furnace product taps.

(b) Process fugitive emission sources shall be equipped with an enclosure hood meeting the requirements of paragraphs (b)(1), (b)(2), or (b)(3) of this section, or be located in a total enclosure subject to general ventilation that maintains the building at a lower than ambient pressure to ensure in-draft through any doorway opening.

(1) All process fugitive enclosure hoods except those specified for refining kettles and dryer transition pieces shall be ventilated to maintain a face velocity of at least 90 meters per minute (300 feet per minute) at all hood openings.

(2) Process fugitive enclosure hoods required for refining kettles in paragraph (a) of this section shall be ventilated to maintain a face velocity of at least 75 meters per minute (250 feet per minute).

(3) Process fugitive enclosure hoods required over dryer transition pieces in paragraph (a) of this section shall be ventilated to maintain a face velocity of at least 110 meters per minute (350 feet per minute).

(c) Ventilation air from all enclosures hoods and total enclosures shall be conveyed to a control device. Gases discharged to the atmosphere from these control devices shall not contain lead compounds in excess of 2.0 milligrams of lead per dry standard cubic meter (0.00087 grains per dry standard cubic foot).

(d) All dryer emission vents and agglomerating furnace emission vents shall be ventilated to a control device that shall not discharge to the atmosphere any gases that contain lead compounds in excess of 2.0 milligrams of lead per dry standard cubic meter (0.00087 grains per dry standard cubic foot).

(e) Except as provided in paragraph (f) of this section, following the date of the initial test to demonstrate compliance with paragraphs (c) and (d) of this section, the owner or operator of a secondary lead smelter shall conduct a compliance test for lead compounds on an annual basis (no later than 12 calendar months following the previous compliance test).

(f) If a compliance test demonstrates a source emitted lead compounds at 1.0 milligram of lead per dry standard cubic meter (0.00044 grains of lead per dry standard cubic foot) or less during the time of the compliance test, the owner or operator of a secondary lead smelter shall be allowed up to 24 calendar months from the previous compliance test to conduct the next annual compliance test for lead compounds.

(g) As an alternative to paragraph (a)(5) of this section, an owner or operator may elect to control the process fugitive emissions from dryer transition pieces by installing and operating pressurized dryer breaching seals at each transition piece.

(h) The standards for process fugitive sources are summarized in table 3.

Table 3—Summary of Standards for Process Fugitive Sources

Fugitive emission source	Control device lead compound emission limit (milligrams per dry standard cubic meter)	Enclosed hood or doorway face velocity (meters/minute)	Citation
Control Option I			
Smelting furnace and dryer charging hoppers, chutes, and skip hoists	2.0	[1]90	§63.544 (b), (c).
Smelting furnace lead taps and molds during tapping	2.0	[1]90	§63.544 (b), (c).
Smelting furnace slag taps and molds during tapping	2.0	[1]90	§63.544 (b), (c).

Refining kettles	2.0	[1]75	§63.544 (b), (c).
Dryer transition pieces	2.0	[1]110	§63.544 (b), (c).
Agglomerating furnace process vents and product taps	2.0	[1]90	§63.544 (b), (c).
Control Option II			
Enclosed building ventilated to a control device	2.0		§63.544 (b), (c).
Applicable to Both Control Options			
Dryer and agglomerating furnace emission vents	2.0		§63.544(d).

[1]Enclosure hood face velocity applicable to those process fugitive sources not located in an enclosed building ventilated to a control device.

[62 FR 32216, June 13, 1997, as amended at 63 FR 45011, Aug. 24, 1998]

§ 63.545 Standards for fugitive dust sources.

(a) Each owner or operator of a secondary lead smelter shall prepare and at all times operate according to a standard operating procedures manual that describes in detail the measures that will be put in place to control fugitive dust emission sources within the areas of the secondary lead smelter listed in paragraphs (a)(1) through (a)(5) of this section.

(1) Plant roadways;

(2) Battery breaking area;

(3) Furnace area;

(4) Refining and casting area; and

(5) Materials storage and handling area.

(b) The standard operating procedures manual shall be submitted to the Administrator or delegated authority for review and approval.

(c) The controls specified in the standard operating procedures manual shall at a minimum include the requirements of paragraphs (c)(1) through (c)(5) of this section, unless the owner or operator satisfies the requirements in paragraph (f) of this section.

(1) Plant roadways—paving of all areas subject to vehicle traffic and pavement cleaning twice per day of those areas, except on days when natural precipitation makes cleaning unnecessary or when sand or a similar material has been spread on plant roadways to provide traction on ice or snow.

(2) Battery breaking area—partial enclosure of storage piles, wet suppression applied to storage piles with sufficient frequency and quantity to prevent the formation of dust, and pavement cleaning twice per day; or total enclosure of the battery breaking area.

(3) Furnace area—partial enclosure and pavement cleaning twice per day; or total enclosure and ventilation of the enclosure to a control device.

(4) Refining and casting area—partial enclosure and pavement cleaning twice per day; or total enclosure and ventilation of the enclosure to a control device.

(5) Materials storage and handling area—partial enclosure of storage piles, wet suppression applied to storage piles with sufficient frequency and quantity to prevent the formation of dust, vehicle wash at each exit from the area, and paving of the area; or total enclosure of the area and ventilation of the enclosure to a control device, and a vehicle wash at each exit.

(d) The standard operating procedures manual shall require that daily records be maintained of all wet suppression, pavement cleaning, and vehicle washing activities performed to control fugitive dust emissions.

(e) No owner or operator of a secondary lead smelter shall discharge or cause to be discharged into the atmosphere from any building or enclosure ventilation system any gases that contain lead compounds in excess of 2.0 milligrams of lead per dry standard cubic meter (0.00087 grains of lead per dry standard cubic foot).

(f) Demonstrate to the Administrator (or delegated State, local, or Tribal authority) that an alternative measure(s) is equivalent or better than a practice(s) described in paragraphs (c)(1) through (c)(5) of this section.

[62 FR 32216, June 13, 1997, as amended at 68 FR 37350, June 23, 2003]

§ 63.546 Compliance dates.

(a) Each owner or operator of an existing secondary lead smelter shall achieve compliance with the requirements of this subpart no later than December 23, 1997. Existing sources wishing to apply for an extension of compliance pursuant to section §63.6(i) of this part must do so no later than June 23, 1997.

(b) Each owner or operator of a secondary lead smelter that commences construction or reconstruction after June 9, 1994, shall achieve compliance with the requirements of this subpart by June 13, 1997 or upon startup of operations, whichever is later.

[62 FR 32216, June 13, 1997, as amended at 64 FR 4572, Jan. 29, 1999]

§ 63.547 Test methods.

(a) The following test methods in appendix A of part 60 listed in paragraphs (a)(1) through (a)(5) of this section shall be used to determine compliance with the emission standards for lead compounds under §§63.543(a), 63.544 (c), and (d), and 63.545(e):

(1) Method 1 shall be used to select the sampling port location and the number of traverse points.

(2) Method 2 shall be used to measure volumetric flow rate.

(3) Method 3 shall be used for gas analysis to determine the dry molecular weight of the stack gas.

(4) Method 4 shall be used to determine moisture content of the stack gas.

(5) Method 12 shall be used to determine compliance with the lead compound emission standards. The minimum sample volume shall be 0.85 dry standard cubic meters (30 dry standard cubic feet) and the minimum sampling time shall be 60 minutes for each run. Three runs shall be performed and the average of the three runs shall be used to determine compliance.

(b) The following tests methods in appendix A of part 60 listed in paragraphs (b)(1) through (b)(4) of this section shall be used, as specified, to determine compliance with the emission standards for total hydrocarbons §63.543(c), (d), (e), and (g).

(1) Method 1 shall be used to select the sampling port location to determine compliance under §63.543(c), (d), (e), and (g).

(2) The Single Point Integrated Sampling and Analytical Procedure of Method 3B shall be used to measure the carbon dioxide content of the stack gases to determine compliance under §63.543(c), (d), and (e).

(3) Method 4 shall be used to measure moisture content of the stack gases to determine compliance under §63.543(c), (d), (e), and (g).

(4) Method 25A shall be used to measure total hydrocarbon emissions to determine compliance under §63.543(c), (d), (e), and (g). The minimum sampling time shall be 1 hour for each run. A minimum of three runs shall be performed. A 1-hour average total hydrocarbon concentration shall be determined for each run and the average of the three 1-hour averages shall be used to determine compliance. The total hydrocarbon emissions concentrations for determining compliance under §63.543(c), (d), and (e) shall be expressed as propane and shall be corrected to 4 percent carbon dioxide, as described in paragraph (c) of this section.

(c) For the purposes of determining compliance with the emission limits under §63.543 (c), (d), and (e), the measured total hydrocarbon concentrations shall be corrected to 4 percent carbon dioxide as listed in paragraphs (c)(1) through (c)(2) of this section in the following manner:

(1) If the measured percent carbon dioxide is greater than 0.4 percent in each compliance test, the correction factor shall be determined by using equation (1).

$$F = \frac{4.0}{CO_2} \qquad (1)$$

where:

F = correction factor (no units)

CO_2= percent carbon dioxide measured using Method 3B, where the measured carbon dioxide is greater than 0.4 percent.

(2) If the measured percent carbon dioxide is equal to or less than 0.4 percent, then a correction factor (F) of 10 shall be used.

(3) The corrected total hydrocarbon concentration shall be determined by multiplying the measured total hydrocarbon concentration by the correction factor (F) determined for each compliance test.

(d) Compliance with the face velocity requirements under §63.544(b) for process fugitive enclosure hoods shall be determined by the following test methods in paragraphs (d)(1) or (d)(2) of this section.

(1) Owners and operators shall calculate face velocity using the procedures in paragraphs (d)(1)(i) through (d)(1)(iv) of this section.

(i) Method 1 shall be used to select the sampling port location in the duct leading from the process fugitive enclosure hood to the control device.

(ii) Method 2 shall be used to measure the volumetric flow rate in the duct from the process fugitive enclosure hood to the control device.

(iii) The face area of the hood shall be determined from measurement of the hood. If the hood has access doors, then face area shall be determined with the access doors in the position they are in during normal operating conditions.

(iv) Face velocity shall be determined by dividing the volumetric flow rate determined in paragraph (d)(1)(ii) of this section by the total face area for the hood determined in paragraph (d)(1)(iii) of this section.

(2) The face velocity shall be measured directly using the procedures in paragraphs (d)(2)(i) through (d)(2)(v) of this section.

(i) A propeller anemometer or equivalent device shall be used to measure hood face velocity.

(ii) The propeller of the anemometer shall be made of a material of uniform density and shall be properly balanced to optimize performance.

(iii) The measurement range of the anemometer shall extend to at least 300 meters per minute (1,000 feet per minute).

(iv) A known relationship shall exist between the anemometer signal output and air velocity, and the anemometer must be equipped with a suitable readout system.

(v) Hood face velocity shall be determined for each hood open during normal operation by placing the anemometer in the plane of the hood opening. Access doors shall be positioned consistent with normal operation.

(e) Owners and operators shall determine compliance with the doorway in-draft requirement for enclosed buildings in §63.544(b) using the procedures in paragraphs (e)(1) or (e)(2) of this section.

(1)(i) Owners and operators shall use a propeller anemometer or equivalent device meeting the requirements of paragraphs (d)(2)(ii) through (d)(2)(iv) of this section.

(ii) Doorway in-draft shall be determined by placing the anemometer in the plane of the doorway opening near its center.

(iii) Doorway in-draft shall be demonstrated for each doorway that is open during normal operation with all remaining doorways in the position they are in during normal operation.

(2)(i) Owners and operators shall install a differential pressure gage on the leeward wall of the building to measure the pressure difference between the inside and outside of the building.

(ii) The pressure gage shall be certified by the manufacturer to be capable of measuring pressure differential in the range of 0.02 to 0.2 mm Hg.

(iii) Both the inside and outside taps shall be shielded to reduce the effects of wind.

(iv) Owners and operators shall demonstrate the inside of the building is maintained at a negative pressure as compared to the outside of the building of no less than 0.02 mm Hg when all doors are in the position they are in during normal operation.

[62 FR 32216, June 13, 1997, as amended at 63 FR 45011, Aug. 24, 1998]

§ 63.548 Monitoring requirements.

(a) Owners and operators of secondary lead smelters shall prepare, and at all times operate according to, a standard operating procedures manual that describes in detail procedures for inspection, maintenance, and bag leak detection and corrective action plans for all baghouses (fabric filters) that are used to control process, process fugitive, or fugitive dust emissions from any source subject to the lead emission standards in §§63.543, 63.544, and 63.545, including those used to control emissions from building ventilation. This provision shall not apply to process fugitive sources that are controlled by wet scrubbers.

(b) The standard operating procedures manual for baghouses required by paragraph (a) of this section shall be submitted to the Administrator or delegated authority for review and approval.

(c) The procedures specified in the standard operating procedures manual for inspections and routine maintenance shall, at a minimum, include the requirements of paragraphs (c)(1) through (c)(9) of this section.

(1) Daily monitoring of pressure drop across each baghouse cell.

(2) Weekly confirmation that dust is being removed from hoppers through visual inspection, or equivalent means of ensuring the proper functioning of removal mechanisms.

(3) Daily check of compressed air supply for pulse-jet baghouses.

(4) An appropriate methodology for monitoring cleaning cycles to ensure proper operation.

(5) Monthly check of bag cleaning mechanisms for proper functioning through visual inspection or equivalent means.

(6) Monthly check of bag tension on reverse air and shaker-type baghouses. Such checks are not required for shaker-type baghouses using self-tensioning (spring loaded) devices.

(7) Quarterly confirmation of the physical integrity of the baghouse through visual inspection of the baghouse interior for air leaks.

(8) Quarterly inspection of fans for wear, material buildup, and corrosion through visual inspection, vibration detectors, or equivalent means.

(9) Except as provided in paragraphs (g) and (h) of this section, continuous operation of a bag leak detection system.

(d) The procedures specified in the standard operating procedures manual for maintenance shall, at a minimum, include a preventative maintenance schedule that is consistent with the baghouse manufacturer's instructions for routine and long-term maintenance.

(e) The bag leak detection system required by paragraph (c)(9) of this section, shall meet the specification and requirements of paragraphs (e)(1) through (e)(8) of this section.

(1) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligram per actual cubic meter (0.0044 grains per actual cubic foot) or less.

(2) The bag leak detection system sensor must provide output of relative particulate matter loadings.

(3) The bag leak detection system must be equipped with an alarm system that will alarm when an increase in relative particulate loadings is detected over a preset level.

(4) The bag leak detection system shall be installed and operated in a manner consistent with available written guidance from the U.S. Environmental Protection Agency or, in the absence of such written guidance, the manufacturer's written specifications and recommendations for installation, operation, and adjustment of the system.

(5) The initial adjustment of the system shall, at a minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points and the alarm delay time.

(6) Following initial adjustment, the owner or operator shall not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time, except as detailed in the approved SOP required under paragraph (a) of this section. In no event shall the sensitivity be increased by more than 100 percent or decreased more than 50 percent over a 365 day period unless such adjustment follows a complete baghouse inspection which demonstrates the baghouse is in good operating condition.

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

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

(f) The standard operating procedures manual required by paragraph (a) of this section shall include a corrective action plan that specifies the procedures to be followed in the case of a bag leak detection system alarm. The corrective action plan shall include, at a minimum, the procedures used to determine and record the time and cause of the alarm as well as the corrective actions taken to correct the control device malfunction or minimize emissions as specified in paragraphs (f)(1) and (f)(2) of this section.

(1) The procedures used to determine the cause of the alarm must be initiated within 30 minutes of the alarm.

(2) The cause of the alarm must be alleviated by taking the necessary corrective action(s) which may include, but not be limited to, paragraphs (f)(2)(i) through (f)(2)(vi) of this section.

(i) Inspecting the baghouse for air leaks, torn or broken filter elements, or any other malfunction that may cause an increase in emissions.

(ii) Sealing off defective bags or filter media.

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

(iv) Sealing off a defective baghouse compartment.

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

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

(g) Baghouses equipped with HEPA filters as a secondary filter used to control process, process fugitive, or fugitive dust emissions from any source subject to the lead emission standards in §63.543, 63.544, or 63.545 are exempt from the requirement in §63.548(c)(9) of this section to be equipped with a bag leak detector. The owner or operator of an affected source that uses a HEPA filter shall monitor and record the pressure drop across the HEPA filter system daily. If the pressure drop is outside the limit(s) specified by the filter manufacturer, the owner or operator must take appropriate corrective measures, which may include but not be limited to those given in paragraphs (g)(1) through (g)(4) of this section.

(1) Inspecting the filter and filter housing for air leaks and torn or broken filters.

(2) Replacing defective filter media, or otherwise repairing the control device.

(3) Sealing off a defective control device by routing air to other control devices.

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

(h) Baghouses that are used exclusively for the control of fugitive dust emissions from any source subject to the lead emissions standard in §63.545 are exempt from the requirement in §63.548(c)(9) of this section to be equipped with a bag leak detector.

(i) The owner or operator of a secondary lead smelter that uses a wet scrubber to control particulate matter and metal hazardous air pollutant emissions from a process fugitive source shall monitor and record the pressure drop and water flow rate of the wet scrubber during the initial test to demonstrate compliance with the lead emission limit under §63.544(c) and (d). Thereafter, the owner or operator shall monitor and record the pressure drop and water flow rate at least once every hour and shall maintain the pressure drop and water flow rate no lower than 30 percent below the pressure drop and water flow rate measured during the initial compliance test.

(j) The owner or operator of a blast furnace or collocated blast furnace and reverberatory furnace subject to the total hydrocarbon standards in §63.543 (c), (d), or (e), must comply with the requirements of either paragraph (j)(1) or (j)(2) of this section, to demonstrate continuous compliance with the total hydrocarbon emission standards.

(1) *Continuous temperature monitoring.* (i) The owner or operator of a blast furnace or a collocated blast furnace and reverberatory furnace subject to the total hydrocarbon emission standards in §63.543 (c), (d), or (e) shall install, calibrate, maintain, and continuously operate a device to monitor and record the temperature of the afterburner or the combined blast furnace and reverberatory furnace exhaust streams consistent with the requirements for continuous monitoring systems in subpart A, General Provisions.

(ii) Prior to or in conjunction with the initial compliance test to determine compliance with §63.543 (c), (d), or (e), the owner or operator shall conduct a performance evaluation for the temperature monitoring device according to §63.8(e) of the General Provisions. The definitions, installation specifications, test procedures, and data reduction procedures for determining calibration drift, relative accuracy, and reporting described in Performance Specification 2, 40 CFR part 60, appendix B, sections 2, 3, 5, 7, 8, 9, and 10 shall be used to conduct the evaluation. The temperature monitoring device shall meet the following performance and equipment specifications:

(A) The recorder response range must include zero and 1.5 times the average temperature identified in paragraph (j)(1)(iii) of this section.

(B) The monitoring system calibration drift shall not exceed 2 percent of 1.5 times the average temperature identified in paragraph (j)(1)(iii) of this section.

(C) The monitoring system relative accuracy shall not exceed 20 percent.

(D) The reference method shall be an National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or an alternate reference, subject to the approval of the Administrator.

(iii) The owner or operator of a blast furnace or a collocated blast furnace and reverberatory furnace subject to the total hydrocarbon emission standards shall monitor and record the temperature of the afterburner or the combined blast furnace and reverberatory furnace exhaust streams every 15 minutes during the total hydrocarbon compliance test and determine an arithmetic average for the recorded temperature measurements.

(iv) To remain in compliance with the standards for total hydrocarbons, the owner or operator must maintain an afterburner or combined exhaust temperature such that the average temperature in any 3-hour period does not fall more than 28 °C (50 °F) below the average established in paragraph (j)(1)(iii) of this section. An average temperature in any 3-hour period that falls more than 28 °C (50 °F) below the average established in paragraph (j)(1)(iii) of this section, shall constitute a violation of the applicable emission standard for total hydrocarbons under §63.543 (c), (d), or (e).

(2) *Continuous monitoring of total hydrocarbon emissions.* (i) The owner or operator of a secondary lead smelter shall install, operate, and maintain a total hydrocarbon continuous monitoring system and comply with all of the requirements for continuous monitoring systems found in subpart A, General Provisions.

(ii) Prior to or in conjunction with the initial compliance test to determine compliance with §63.543 (c), (d), or (e), the owner or operator shall conduct a performance evaluation for the total hydrocarbon continuous monitoring system according to §63.8(e) of the General Provisions. The monitor shall meet the performance specifications of Performance Specification 8, 40 CFR part 60, appendix B.

(iii) Allowing the 3-hour average total hydrocarbon concentration to exceed the applicable total hydrocarbon emission limit under §63.543 shall constitute a violation of the applicable emission standard for total hydrocarbons under §63.543 (c), (d), or (e).

(k) The owner or operator of a secondary lead smelter who uses pressurized dryer breaching seals in order to comply with the requirements of §63.544(g) shall equip each seal with an alarm that will “sound” or “go off” if the pressurized dryer breaching seal malfunctions.

[62 FR 32216, June 13, 1997, as amended at 63 FR 45011, Aug. 24, 1998]

§ 63.549 Notification requirements.

(a) The owner or operator of a secondary lead smelter shall comply with all of the notification requirements of §63.9 of subpart A, General Provisions.

(b) The owner or operator of a secondary lead smelter shall submit the fugitive dust control standard operating procedures manual required under §63.545(a) and the standard operating procedures manual for baghouses required under §63.548(a) to the Administrator or delegated authority along with a notification that the smelter is seeking review and approval of these plans and procedures. Owners or operators of existing secondary lead smelters shall submit this notification no later than July 23, 1997. The owner or operator of a secondary lead smelter that commences construction or reconstruction after June 9, 1994, shall submit this notification no later than 180 days before startup of the constructed or reconstructed secondary lead smelter, but no sooner than June 13, 1997. An affected source that has received a construction permit from the Administrator or delegated authority on or before June 23, 1995, shall submit this notification no later than July 23, 1997.

§ 63.550 Recordkeeping and reporting requirements.

(a) The owner or operator of a secondary lead smelter shall comply with all of the recordkeeping requirements under §63.10 of the General Provisions. In addition, each owner or operator of a secondary lead smelter shall maintain for a period of 5 years, records of the information listed in paragraphs (a)(1) through (a)(6) of this section.

(1) An identification of the date and time of all bag leak detection system alarms, their cause, and an explanation of the corrective actions taken.

(2) If an owner or operator chooses to demonstrate continuous compliance with the total hydrocarbon emission standards under §63.543 (c), (d), or (e) by employing the method allowed in §63.548(j)(1), the records shall include the output from the continuous temperature monitor, an identification of periods when the 3-hour average temperature fell below the minimum established under §63.548(j)(1), and an explanation of the corrective actions taken.

(3) If an owner or operator chooses to demonstrate continuous compliance with the total hydrocarbon emission standard under §63.543 (c), (d), or (e) by employing the method allowed in §63.548(j)(2), the records shall include the output from the total hydrocarbon continuous monitoring system, an identification of the periods when the 3-hour average total hydrocarbon concentration exceeded the applicable standard and an explanation of the corrective actions taken.

(4) Any recordkeeping required as part of the practices described in the standard operating procedures manual required under §63.545(a) for the control of fugitive dust emissions.

(5) Any recordkeeping required as part of the practices described in the standard operating procedures manual for baghouses required under §63.548(a).

(6) Records of the pressure drop and water flow rate for wet scrubbers used to control metal hazardous air pollutant emissions from process fugitive sources.

(b) The owner or operator of a secondary lead smelter shall comply with all of the reporting requirements under §63.10 of the General Provisions. The submittal of reports shall be no less frequent than specified under §63.10(e)(3) of the General Provisions. Once a source reports a violation of the standard or excess emissions, the source shall follow the reporting format required under §63.10(e)(3) until a request to reduce reporting frequency is approved.

(c) In addition to the information required under §63.10 of the General Provisions, reports required under paragraph (b) of this section shall include the information specified in paragraphs (c)(1) through (c)(6) of this section.

(1) The reports shall include records of all alarms from the bag leak detection system specified in §63.548(e).

(2) The reports shall include a description of the procedures taken following each bag leak detection system alarm pursuant to §63.548(f) (1) and (2).

(3) The reports shall include the information specified in either paragraph (c)(3)(i) or (c)(3)(ii) of this section, consistent with the monitoring option selected under §63.548(h).

(i) A record of the temperature monitor output, in 3-hour block averages, for those periods when the temperature monitored pursuant to §63.548(j)(1) fell below the level established in §63.548(j)(1).

(ii) A record of the total hydrocarbon concentration, in 3-hour block averages, for those periods when the total hydrocarbon concentration being monitored pursuant to §63.548(j)(2) exceeds the relevant limits established in §63.543 (c), (d), and (e).

(4) The reports shall contain a summary of the records maintained as part of the practices described in the standard operating procedures manual for baghouses required under §63.548(a), including an explanation of the periods when the procedures were not followed and the corrective actions taken.

(5) The reports shall contain an identification of the periods when the pressure drop and water flow rate of wet scrubbers used to control process fugitive sources dropped below the levels established in §63.548(i), and an explanation of the corrective actions taken.

(6) The reports shall contain a summary of the fugitive dust control measures performed during the required reporting period, including an explanation of the periods when the procedures outlined in the standard operating procedures manual pursuant to §63.545(a) were not followed and the corrective actions taken. The reports shall not contain copies of the daily records required to demonstrate compliance with the requirements of the standard operating procedures manuals required under §§63.545(a) and 63.548(a).

§ 63.551 Implementation and enforcement.

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

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

(c) The authorities that cannot be delegated to State, local, or Tribal agencies are as specified in paragraphs (c)(1) through (4) of this section.

(1) Approval of alternatives to the requirements in §§63.541, 63.543 through 63.544, 63.545(a) and (c) through (e), and 63.546.

(2) Approval of major alternatives to test methods for under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart.

(3) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart.

(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

§63.552 Affirmative defense to civil penalties for exceedance of emissions limit during malfunction.

In response to an action to enforce the standards set forth in this subpart, you may assert an affirmative defense to a claim for civil penalties for exceedances of such standards that are caused by malfunction, as defined at §63.2. Appropriate penalties may be assessed, however, if you fail to meet your burden of proving all of the requirements in the affirmative defense. The affirmative defense shall not be available for claims for injunctive relief.

(a) *Affirmative defense.* To establish the affirmative defense in any action to enforce such a limit, you must timely meet the notification requirements in paragraph (b) of this section, and must prove by a preponderance of evidence that:

(1) The excess emissions:

(i) Were caused by a sudden, infrequent, and unavoidable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner.

(ii) Could not have been prevented through careful planning, proper design or better operation and maintenance practices.

(iii) Did not stem from any activity or event that could have been foreseen and avoided, or planned for.

(iv) Were not part of a recurring pattern indicative of inadequate design, operation, or maintenance.

(2) Repairs were made as expeditiously as possible when the applicable emissions limitations were being exceeded. Off-shift and overtime labor were used, to the extent practicable to make these repairs.

(3) The frequency, amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions.

(4) If the excess emissions resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage.

(5) All possible steps were taken to minimize the impact of the excess emissions on ambient air quality, the environment and human health.

(6) All emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices.

(7) All of the actions in response to the excess emissions were documented by properly signed, contemporaneous operating logs.

(8) At all times, the affected source was operated in a manner consistent with good practices for minimizing emissions.

(9) A written root cause analysis has been prepared, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the excess emissions resulting from the malfunction event at issue. The analysis shall also specify, using best monitoring methods and engineering judgment, the amount of excess emissions that were the result of the malfunction.

(b) *Notification.* The owner or operator of the affected source experiencing an exceedance of its emissions limit(s) during a malfunction, shall notify the Administrator by telephone or facsimile transmission as soon as possible, but no later than two business days after the initial occurrence of the malfunction, it wishes to avail itself of an affirmative defense to civil penalties for that malfunction. The owner or operator seeking to assert an affirmative defense, shall also submit a written report to the Administrator within 45 days of the initial occurrence of the exceedance of the standard in this subpart to demonstrate, with all necessary supporting documentation, that it has met the requirements set forth in paragraph (a) of this section. The owner or operator may seek an extension of this deadline for up to 30 additional days by submitting a written request to the Administrator before the expiration of the 45-day period. Until a request for an extension has been approved by the Administrator, the owner or operator is subject to the requirement to submit such report within 45 days of the initial occurrence of the exceedance.

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

Reference	Applies to subpart X	Comment
63.1	Yes.	
63.2	Yes.	
63.3	Yes.	
63.4	Yes.	
63.5	Yes.	
63.6(a), (b), (c)	Yes.	
63.6(d)	No.	Section reserved.
63.6(e)(1)(i)	No.	See 63.543(k) for general duty requirement.
63.6(e)(1)(ii)	No.	
63.6(e)(1)(iii)	Yes.	
63.6(e)(2)	No.	Section reserved.
63.6(e)(3)	No.	
63.6(f)(1)	No.	
63.6(g)	Yes.	
63.6(h)	No.	No opacity limits in rule.
63.6(i)	Yes.	
63.6(j)	Yes.	
63.7(a)-(d)	Yes.	

63.7(e)(1)	No.	See 63.543(j).
63.7(e)(2)-(e)(4)	Yes.	
63.7(f), (g), (h)	Yes.	
63.8(a)-(b)	Yes.	
63.8(c)(1)(i)	No.	See 63.543(k) for general duty requirement.
63.8(c)(1)(ii)	Yes.	
63.8(c)(1)(iii)	No.	
63.8(c)(2)-(d)(2)	Yes.	
63.8(d)(3)	Yes, except for last sentence.	
63.8(e)-(g)	Yes.	
63.9(a), (b), (c), (e), (g), (h)(1)through (3), (h)(5) and (6), (i) and (j)	Yes.	
63.9(f)	No.	
63.9(h)(4)	No.	Reserved.
63.10 (a)	Yes.	
63.10 (b)(1)	Yes.	
63.10(b)(2)(i)	No.	
63.10(b)(2)(ii)	No.	See 63.550 for recordkeeping of occurrence and duration of malfunctions and recordkeeping of actions taken during malfunction.
63.10(b)(2)(iii)	Yes.	
63.10(b)(2)(iv)-(b)(2)(v)	No.	
63.10(b)(2)(vi)-(b)(2)(xiv)	Yes.	
63.(10)(b)(3)	Yes.	
63.10(c)(1)-(9)	Yes.	
63.10(c)(10)-(11)	No.	See 63.550 for recordkeeping of malfunctions.
63.10(c)(12)-(c)(14)	Yes.	
63.10(c)(15)	No.	
63.10(d)(1)-(4)	Yes.	
63.10(d)(5)	No.	See 63.550(e)(11) for reporting of malfunctions.
63.10(e)-(f)	Yes.	
63.11	No.	Flares will not be used to comply with the emission limits.
63.12 to 63.15	Yes.	

Table 2 to Subpart X of Part 63—Emissions Limits for Secondary Lead Smelting Furnaces

For vents from these processes . . .	You must meet the following emissions limits . . .[a]	
	Total hydrocarbon ppm by volume expressed as propane corrected to 4 percent carbon dioxide	Dioxin and furan (dioxins and furans) nanograms/dscm expressed as TEQ corrected to 7 percent O_2
Collocated blast and reverberatory furnaces (new and existing)	20 ppmv	0.50 ng/dscm.
Collocated blast and reverberatory furnaces when the reverberatory furnace is not operating for units that comments construction or reconstruction before June 9, 1994	360 ppmv	170 ng/dscm.
Collocated blast and reverberatory furnaces when the reverberatory furnace is not operating for units that commence construction or reconstruction after June 9, 1994	70 ppmv	170 ng/dscm.
Blast furnaces that commence construction or reconstruction before June 9, 1994	360 ppmv	170 ng/dscm.
Blast furnaces that commence construction or reconstruction after June 9, 1994	70 ppmv	170 ng/dscm.
Blast furnaces that commence construction or reconstruction after May 19, 2011	70 ppmv	10 ng/dscm.
Reverberatory and electric furnaces that commence construction or reconstruction before May 19, 2011	12 ppmv	0.20 ng/dscm.
Reverberatory and electric furnaces that commence construction or reconstruction after May 19, 2011	12 ppmv	0.10 ng/dscm.

[a]There are no standards for dioxins and furans during periods of startup and shutdown.

Table 3 to Subpart X of Part 63—Toxic Equivalency Factors

Dioxin/furan congener	Toxic equivalency factor
2,3,7,8-tetrachlorinated dibenzo-p-dioxin	1
1,2,3,7,8-pentachlorinated dibenzo-p-dioxin	0.5
1,2,3,4,7,8-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,7,8,9-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,6,7,8-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,4,6,7,8-heptachlorinated dibenzo-p-dioxin	0.01

octachlorinated dibenzo-p-dioxin	0.001
2,3,7,8-tetrachlorinated dibenzofuran	0.1
2,3,4,7,8-pentachlorinated dibenzofuran	0.05
1,2,3,7,8-pentachlorinated dibenzofuran	0.5
1,2,3,4,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,6,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,7,8,9-hexachlorinated dibenzofuran	

Indiana Department of Environmental Management
Office of Air Quality

Attachment C

Title 326: Air Pollution Control Division

Article 20: Hazardous Air Pollutants

Rule 13.1. Secondary Lead Smelters

326 IAC 20-13.1-1 Applicability

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11
Affected: IC 13-15; IC 13-17

Sec. 1. (a) In accordance with the compliance schedule in subsection (c), this rule applies to the following affected emission units at all secondary lead smelters:

(1) Blast, reverberatory, rotary, and electric furnaces.
(2) Refining kettles.
(3) Agglomerating furnaces.
(4) Dryers.
(5) Process fugitive emissions sources.
(6) Buildings containing lead bearing materials.
(7) Fugitive dust sources.

(b) This rule does not apply to primary lead smelters, lead refiners, or lead remelters.

(c) The owner or operator of a secondary lead smelter shall comply with this rule beginning on the applicable dates specified in the following schedule:

(1) Except for Exide Technologies, Inc., Muncie, affected emission units constructed or reconstructed on or before May 19, 2011:	January 6, 2014
(2) Compliance with section 3(c) of this rule for affected emission units constructed or reconstructed on or before May 19, 2011, at Exide Technologies, Inc., Muncie:	October 1, 2013
(3) Except for the requirements of section 3(c) of this rule, compliance with this rule for affected emission units constructed or reconstructed on or before May 19, 2011, at Exide Technologies, Inc., Muncie:	January 6, 2014
(4) All new emission units as defined in section 2 of this rule:	Effective date of this rule

(d) The following general provisions of 40 CFR 63, Subpart A* as published in the 2012 edition* of the CFR apply to the owner or operator of a secondary lead smelter subject to this rule:

(1) 40 CFR 63.1 through 40 CFR 63.5*.
(2) 40 CFR 63.6(a) through 40 CFR 63.6(c)*.
(3) 40 CFR 63.6(e)(1)(iii)*.
(4) 40 CFR 63.6(g)*.
(5) 40 CFR 63.6(i)* and 40 CFR 63.6(j)*.
(6) 40 CFR 63.7(a) through 40 CFR 63.7(d)*.
(7) 40 CFR 63.7(e)(2) through 40 CFR 63.7(e)(4)*.
(8) 40 CFR 63.7(f) through 40 CFR 63.7(h)*.
(9) 40 CFR 63.8(a)* and 40 CFR 63.8(b)*.
(10) 40 CFR 63.8(c)(1)(ii)*.
(11) 40 CFR 63.8(c)(2) through 40 CFR 63.8(c)(8)*.
(12) 40 CFR 63.8(d)(1) and 40 CFR 63.8(d)(2)*.
(13) 40 CFR 63.8(d)(3)*, except for a provision concerning the incorporation of the written procedures of a quality control program into startup, shutdown, or malfunction plans.
(14) 40 CFR 63.8(e) through 40 CFR 63.8(g)*.
(15) 40 CFR 63.9(a) through 40 CFR 63.9(c)*.
(16) 40 CFR 63.9(e)*.

(17) 40 CFR 63.9(g)*.
(18) 40 CFR 63.9(h)(1) through 40 CFR 63.9(h)(3)*.
(19) 40 CFR 63.9(h)(5)* and 40 CFR 63.9(h)(6)*.
(20) 40 CFR 63.9(i)* and 40 CFR 63.9(j)*.
(21) 40 CFR 63.10(a)*.
(22) 40 CFR 63.10(b)(1)*.
(23) 40 CFR 63.10(b)(2)(iii)*.
(24) 40 CFR 63.10(b)(2)(vi) through 40 CFR 63.10(b)(2)(xiv)*.
(25) 40 CFR 63.10(b)(3)*.
(26) 40 CFR 63.10(c)(1) through 40 CFR 63.10(c)(9)*.
(27) 40 CFR 63.10(c)(12) through 40 CFR 63.10(c)(14)*.
(28) 40 CFR 63.10(d)(1) through 40 CFR 63.10(d)(4)*.
(29) 40 CFR 63.10(e)* and 40 CFR 63.10(f)*.
(30) 40 CFR 63.12 through 40 CFR 63.15*.

(e) The owner or operator of a secondary lead smelter subject to this rule is also subject to Title V permitting requirements under 326 IAC 2-7.

(f) Emission standards in this rule apply at all times.

*These documents are incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. *(Air Pollution Control Division; 326 IAC 20-13.1-1; filed Jan 30, 2013, 12:34 p.m.: 20130227-IR-326110774FRA)*

326 IAC 20-13.1-2 Definitions

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11
Affected: IC 13-11; IC 13-15; IC 13-17

Sec. 2. In addition to the definitions in IC 13-11, 326 IAC 1-2, and 326 IAC 20-1-3, the following definitions apply throughout this rule:

(1) "Affected emission unit" means any of the following emission units at a secondary lead smelter:
    (A) Blast, reverberatory, rotary, and electric furnaces.
    (B) Refining kettles.
    (C) Agglomerating furnaces.
    (D) Dryers.
    (E) Process fugitive emissions sources.
    (F) Buildings containing lead-bearing materials.
    (G) Fugitive dust sources.

(2) "Affirmative defense" means, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding.

(3) "Agglomerating furnace" means a furnace used to melt flue dust that is collected from a baghouse into a solid mass.

(4) "Bag leak detection system" means an instrument that is capable of monitoring particulate matter loadings in the exhaust of a baghouse in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument to monitor relative particulate matter loadings that operates on:
    (A) triboelectric;
    (B) light scattering; or
    (C) transmittance.

(5) "Battery breaking area" means the plant location at which lead-acid batteries are broken, crushed, or disassembled and separated into components.

(6) "Blast furnace" means a smelting furnace consisting of a vertical cylinder atop a crucible, into which lead-bearing charge materials are introduced at the top of the furnace and combustion air

is introduced through openings in the refractory lining and shell of the furnace at the bottom of the cylinder and that:

(A) uses coke as a fuel source; and

(B) is operated at a temperature in the combustion zone of greater than nine hundred eighty (980) degrees Celsius so that that lead compounds are chemically reduced to elemental lead metal.

(7) "Blast furnace charging location" means the physical opening through which raw materials are introduced into a blast furnace.

(8) "Collocated blast furnace and reverberatory furnace" means operation at the same location of a blast furnace and a reverberatory furnace where the vent streams of the furnaces are mixed before cooling, with the volumetric flow rate discharged from the blast furnace being equal to or less than that discharged from the reverberatory furnace.

(9) "Dryer" means a chamber that is heated and that is used to remove moisture from lead bearing materials before they are charged to a smelting furnace.

(10) "Dryer transition equipment" means the junction between a dryer and the charge hopper or conveyor, or the junction between the dryer and the smelting furnace feed chute or hopper located at the ends of the dryer.

(11) "Electric furnace" means a smelting furnace consisting of a vessel into which reverberatory furnace slag is introduced and that uses electrical energy to heat the reverberatory furnace slag to a temperature of greater than nine hundred eighty (980) degrees Celsius so that lead compounds are reduced to elemental lead metal.

(12) "Fugitive dust source" means a stationary source of hazardous air pollutant emissions at a secondary lead smelter that is not associated with a specific process or process fugitive vent or stack. Fugitive dust sources include, but are not limited to, the following:

(A) Roadways.

(B) Storage piles.

(C) Lead-bearing material handling transfer points.

(D) Lead-bearing material transport areas.

(E) Lead-bearing material storage areas.

(F) Other lead-bearing material process areas.

(G) Other lead-bearing material process buildings.

(13) "Furnace and refining/casting area" means any area of a secondary lead smelter where:

(A) smelting furnaces are located;

(B) refining operations occur; or

(C) casting operations occur.

(14) "Lead alloy" means an alloy in which the predominant component is lead.

(15) "Lead-bearing material" means material with a lead content equal to or greater than five (5) milligrams per liter (mg/l) as measured by United States Environmental Protection Agency (U.S. EPA) Method 1311 "Test Methods for Evaluating Solid Waste, Physical/Chemical Method", U.S. EPA Publication SW-846*. Under Method 1311, only materials with at least one hundred (100) parts per million (ppm) lead will be considered to be lead-bearing.

(16) "Leeward wall" means the furthest exterior wall of a total enclosure that is opposite the windward wall.

(17) "Maintenance activity" means any of the following routine maintenance and repair activities that could generate fugitive lead dust:

(A) Replacement or repair of refractory, or any internal or external part of equipment used to process, handle, or control lead-containing materials.

(B) Replacement of any duct section used to convey lead-containing exhaust.

(C) Metal cutting or welding that penetrates the metal structure of any equipment, and its associated components, used to process lead-containing material so that lead dust within the internal structure or its components can become fugitive lead dust.

(D) Resurfacing, repair, or removal of ground, pavement, concrete, or asphalt.

(18) "Materials storage and handling area" means any area of a secondary lead smelter where lead-bearing materials are stored or handled between process steps including, but not limited to areas in which materials are stored in open piles, bins, or tubs, and areas in which material is prepared for charging to a smelting furnace. Lead-bearing materials in these areas include, but

are not limited to, the following:

(A) Broken battery components.
(B) Reverberatory furnace slag.
(C) Flue dust.
(D) Dross.

(19) "Natural draft opening" means any permanent opening in an enclosure that:

(A) remains open during operation of a secondary lead smelter; and
(B) is not connected to a duct in which a fan is installed.

(20) "New emissions unit" means any affected emissions unit at a secondary lead smelter that was constructed or reconstructed after May 19, 2011. The term does not include a building that is constructed for the purpose of controlling fugitive emissions from an existing emissions unit.

(21) "Partial enclosure" means a structure comprised of walls or partitions on at least three (3) sides or three-quarters (3/4) of the perimeter surrounding stored materials or process equipment to prevent the entrainment of particulate matter into the air.

(22) "Pavement cleaning" means the use of vacuum equipment, water sprays, or a combination thereof to remove dust or other accumulated material from the paved areas of a secondary lead smelter.

(23) "Plant roadway" means any area of a secondary lead smelter outside of a total enclosure that is subject to vehicle traffic, including traffic by forklifts, front-end loaders, or vehicles carrying whole batteries or cast lead ingots. The term does not include employee and visitor parking areas, provided they are not subject to traffic by vehicles carrying lead-bearing materials.

(24) "Pressurized dryer breaching seal" means a seal system connecting the dryer transition pieces that is maintained at a higher pressure than the inside of the dryer.

(25) "Process fugitive emissions source" means a source of hazardous air pollutant emissions at a secondary lead smelter that is associated with lead smelting or refining, but is not the primary exhaust stream from a smelting furnace, and is not a fugitive dust source. Process fugitive emissions sources include, but are not limited to, the following:

(A) Smelting furnace charging points.
(B) Smelting furnace lead and slag taps.
(C) Refining kettles.
(D) Agglomerating furnaces.
(E) Drying kiln transition pieces.

(26) "Process vent" means the following:

(A) Furnace vents.
(B) Dryer vents.
(C) Agglomeration furnace vents.
(D) Vents from battery breakers.
(E) Vents from buildings containing lead-bearing material.
(F) Any ventilation system controlling lead emissions.

(27) "Refining kettle" means an open-top vessel that is constructed of cast iron or steel and is indirectly heated from below and contains molten lead for the purpose of refining and alloying the lead, including the following:

(A) Pot furnaces.
(B) Receiving kettles.
(C) Holding kettles.

(28) "Reverberatory furnace" means a refractory-lined furnace that uses one (1) or more flames to heat the walls and roof of the furnace and lead-bearing scrap to a temperature of greater than nine hundred eighty (980) degrees Celsius so that lead compounds are chemically reduced to elemental lead metal.

(29) "Rotary furnace," or "rotary reverberatory furnace" means a furnace consisting of a refractory-lined chamber that rotates about a horizontal axis and that uses one (1) or more flames to heat the walls of the furnace and lead-bearing scrap to a temperature of greater than nine hundred eighty (980) degrees Celsius so that lead compounds are chemically reduced to elemental lead metal.

(30) "Secondary lead smelter" means any source where lead-bearing scrap material is recycled into elemental lead or lead alloys by smelting, including, but not limited to, lead-acid batteries.

(31) "Shutdown" means the period when no lead-bearing materials are being fed to the furnace and smelting operations have ceased during which the furnace is cooled from steady-state operating temperature to ambient temperature.

(32) "Smelting" means the chemical reduction of lead compounds to elemental lead or lead alloys through processing in high-temperature furnaces at a temperature of greater than nine hundred eighty (980) degrees Celsius, including, but not limited to, the following:

(A) Blast furnaces.

(B) Reverberatory furnaces.

(C) Rotary furnaces.

(D) Electric furnaces.

(33) "Startup" means the period when no lead-bearing materials have been fed to the furnace and smelting operations have not yet commenced during which the furnace is heated from ambient temperature to steady-state operating temperature.

(34) "Total enclosure" means a containment building that is completely enclosed with a floor, walls, and a roof to prevent exposure to the elements and to assure containment of lead-bearing material with limited openings to allow access and egress for people and vehicles. The total enclosure must provide an effective barrier against fugitive dust emissions so that the:

(A) direction of air flow through any openings is inward; and

(B) enclosure is maintained under constant negative pressure.

(35) "Vehicle wash" means a device for removing dust and other accumulated material from the wheels, body, and underside of a vehicle to prevent the inadvertent transfer of lead-contaminated material to another area of a secondary lead smelter or to public roadways.

(36) "Wet suppression" means the use of water, water combined with a chemical surfactant, or a chemical binding agent to prevent the entrainment of dust into the air from fugitive dust sources.

(37) "Windward wall" means the exterior wall of a total enclosure that is most impacted by the wind in its most prevailing direction determined by a wind rose using available data from the closest representative meteorological station.

*This document is incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. *(Air Pollution Control Division; 326 IAC 20-13.1-2; filed Jan 30, 2013, 12:34 p.m.: 20130227-IR-326110774FRA)*

326 IAC 20-13.1-3 Emission limitations; lead standards for Exide Technologies, Incorporated

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11
Affected: IC 13-15; IC 13-17

Sec. 3. (a) In addition to the applicable requirements of this rule, Exide Technologies, Inc., Muncie, shall comply with the following lead emission limitations and operating provisions:

Emission Unit	Emission Limitation mg/dscm
Ventilation baghouse	0.5
Refinery baghouse	0.5
Bin room baghouse	0.5
North scrubber	1.0
South scrubber	1.0
Battery breaker scrubber	0.5

(b) For new emission units, Exide Technologies, Inc. shall comply with the emission limitations under section 5(c) of this rule.

(c) Exide Technologies, Inc., shall comply with the following requirements by October 1, 2013:

(1) Section 1 of this rule.

(2) Section 2 of this rule.

(3) Subsection (a) of this section *[subsection (a)]*.

(4) Section 5(b) and 5(h) of this rule.

(5) Sections 6 through 9 of this rule.

(6) Section 10(a) through 10(d) of this rule.
(7) Section 11(a) through 11(c) and 11(f) of this rule.
(8) Section 12(a) of this rule.
(9) Section 14(a), 14(b), 14(c)(1) through 14(c)(8), 14(c)(10) through 14(c)(13), 14(c)(15) through 14(c)(17), 14(d), 14(e)(1), 14(e)(4) through 14(e)(7), and 14(e)(9) through 14(e)(12) of this rule.
(Air Pollution Control Division; 326 IAC 20-13.1-3; filed Jan 30, 2013, 12:34 p.m.: 20130227-IR-326110774FRA)

326 IAC 20-13.1-4 Emission limitations; lead standards for Quemetco, Incorporated

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11
Affected: IC 13-15; IC 13-17

Sec. 4. (a) In addition to the applicable requirements of this rule, Quemetco, Inc., Indianapolis, shall comply with the following lead emission limitations and operating provisions:

Emission Unit	Emission Limitation mg/dscm
Stack 100	1.0
Stack 101	0.5
Stack 102	0.5
Stack 103	0.5
Stack 104	0.5
Stack 105	0.5
Stack 106	0.5
Stack 107	0.5
Stack 108	0.5
Stack 109	0.5
Stack 111	1.0

Process fugitive and fugitive dust emissions from stacks 101 through 109 shall be vented to the atmosphere through HEPA filters that have been certified by the manufacturer to remove ninety-nine and ninety-seven hundredths percent (99.97%) of all particles three-tenths (0.3) micrometers and larger.

(b) For new emission units, Quemetco, Inc. shall comply with the emission limitations under section 5(c) of this rule. *(Air Pollution Control Division; 326 IAC 20-13.1-4; filed Jan 30, 2013, 12:34 p.m.: 20130227-IR-326110774FRA)*

326 IAC 20-13.1-5 Emission limitations and operating provisions

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11
Affected: IC 13-15; IC 13-17

Sec. 5. (a) The owner or operator of a secondary lead smelter not described in section 3 or 4 of this rule shall maintain the following concentrations of lead compounds for affected emission units constructed or reconstructed on or before May 19, 2011:

(1) From any process vent, at or below one (1.0) milligram of lead per dry standard cubic meter (forty-three hundred-thousandths (0.00043) grains of lead per dry standard cubic foot).
(2) From any process fugitive emissions source, at or below five-tenths (0.5) milligram of lead per dry standard cubic meter (twenty-two hundred-thousandths (0.00022) grains of lead per dry standard cubic foot).
(3) From vents venting fugitive dust sources, at or below five-tenths (0.5) milligram of lead per dry standard cubic meter (twenty-two hundred-thousandths (0.00022) grains of lead per dry standard cubic foot).

(b) The owner or operator of a secondary lead smelter shall comply with the following lead emission limitations and operating provisions for affected emission units constructed or reconstructed on or before May 19, 2011:

(1) The owner or operator of a secondary lead smelter shall maintain the flow-weighted average concentration of lead compounds in vent gases from a secondary lead smelter at or below two-tenths (0.2) milligrams per dry standard cubic meter (eighty-seven millionths (0.000087) grains of

lead per dry standard cubic foot).

(2) The owner or operator of a secondary lead smelter shall demonstrate compliance with the flow-weighted average emissions limit on a twelve (12) month rolling average basis, calculated monthly using the most recent test data available.

(3) Until twelve (12) monthly weighted average emission rates have been accumulated, the owner or operator of a secondary lead smelter shall calculate only the monthly average weighted emissions rate.

(4) The owner or operator of a secondary lead smelter shall use the following equation to calculate the flow-weighted average concentration of lead compounds from process vents:

$$C_{FWA} = \frac{\sum_{i=1}^{n} F_i \times C_i}{\sum_{i}^{n} F_i}$$

Where:

	C_{FWA}	=	Flow-weighted average concentration of all process vents.
	n	=	Number of process vents.
	F_i	=	Flow rate from process vent i in dry standard cubic feet per minute, as measured during the most recent compliance test.
	C_i	=	Concentration of lead in process vent i, as measured during the most recent compliance test.

(5) Each month, the owner or operator of a secondary lead smelter shall use the concentration of lead and flow rate obtained during the most recent compliance test performed prior to or during that month to perform the calculation using the equation in subdivision (4).

(6) If a continuous emissions monitoring system (CEMS) is used to measure the concentration of lead in a vent, the monthly average lead concentration and monthly average flow rate must be used rather than the most recent compliance test data.

(c) For new emission units, the owner or operator of a secondary lead smelter shall maintain the concentration of lead compounds in any process vent gas at or below twenty-hundredths (0.20) milligrams of lead per dry standard cubic meter (eighty-seven millionths (0.000087) grains of lead per dry standard cubic foot).

(d) The owner or operator of a secondary lead smelter shall meet the applicable emission limits for total hydrocarbons and dioxins and furans from furnaces specified in the following table. There are no standards for dioxins and furans during periods of startup and shutdown.

Emission Unit	Total Hydrocarbon (Parts per million by volume expressed as propane corrected to four percent (4%) carbon dioxide)	Dioxin and furan (nanograms per dry standard cubic meter expressed as toxic equivalency quotient (TEQ) corrected to seven percent (7%) oxygen)
Collocated blast furnace and reverberatory furnace (new and existing)	20	0.50
Collocated blast furnace and reverberatory furnace when the reverberatory furnace is not operating for units that commence construction or reconstruction on or before June 9, 1994	360	170

Emission Unit	Total Hydrocarbon (Parts per million by volume expressed as propane corrected to four percent (4%) carbon dioxide)	Dioxin and furan (nanograms per dry standard cubic meter expressed as toxic equivalency quotient (TEQ) corrected to seven percent (7%) oxygen)
Collocated blast furnace and reverberatory furnace when the reverberatory furnace is not operating for units that commence construction or reconstruction after June 9, 1994	70	170
Blast furnaces that commence construction or reconstruction on or before June 9, 1994	360	170
Blast furnaces that commence construction or reconstruction after June 9, 1994	70	170
Blast furnaces that commence construction or reconstruction after May 19, 2011	70	10
Reverberatory and electric furnaces that commence construction or reconstruction on or before May 19, 2011	12	0.20
Reverberatory and electric furnaces that commence construction or reconstruction after May 19, 2011	12	0.10

(e) If the owner or operator of a secondary lead smelter combines furnace emissions from multiple types of furnaces and these furnaces do not meet the definition of collocated blast furnace and reverberatory furnace, the owner or operator of a secondary lead smelter shall calculate the emissions limit for the combined furnace stream using the following equation:

$$C_{EL} = \frac{\sum_{i=1}^{n} F_i \times C_{ELi}}{\sum_{i}^{n} F_i}$$

Where:
- C_{EL} = Flow-weighted average emissions limit (concentration) of combined furnace vents.
- n = Number of furnace vents.
- F_i = Flow rate from furnace vent i in dry standard cubic feet per minute.
- C_{ELi} = Emissions limit (concentration) of pollutant in furnace vent i, as specified in subsection (d).

(f) If the owner or operator of a secondary lead smelter combines furnace emissions with the furnace charging process fugitive emissions and discharges them to the atmosphere through a common emissions point, the owner or operator of a secondary lead smelter shall demonstrate compliance with the applicable total hydrocarbons concentration limit specified in subsection (d) at a location downstream from the point at which the two (2) emission streams are combined.

(g) If the owner or operator of a secondary lead smelter does not combine the furnace charging process fugitive emissions with the furnace process emissions, and discharges the emissions to the atmosphere through separate emission points, the owner or operator of a secondary lead smelter shall maintain the total hydrocarbons concentration in the exhaust gas at or below twenty (20) parts per million by volume, expressed as propane and corrected to four percent (4%) carbon dioxide.

(h) At all times, the owner or operator of a secondary lead smelter shall operate and maintain any affected emission unit, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.

Determination of whether appropriate operation and maintenance procedures are being used will be based on information available to the department that may include, but is not limited to, the following:

(1) Monitoring results.

(2) Review of operation and maintenance procedures.

(3) Review of operation and maintenance records.

(4) Inspection of the source.

(i) If the owner or operator of a secondary lead smelter owns or operates a unit subject to emission limits in subsection (d), the owner or operator of a secondary lead smelter shall minimize the unit's startup and shutdown periods following the manufacturer's recommended procedures, if available. The owner or operator of a secondary lead smelter shall develop and follow standard operating procedures designed to minimize emissions of total hydrocarbons for each startup or shutdown scenario anticipated. The owner or operator of a secondary lead smelter shall submit a signed statement in the Notification of Compliance Status report that indicates that the owner or operator of a secondary lead smelter conducted startups and shutdowns according to the manufacturer's recommended procedures, if available, and the standard operating procedures designed to minimize emissions of total hydrocarbons.

(j) In addition to complying with the applicable emission limits for dioxins and furans listed in subsection (d), the owner or operator of a secondary lead smelter shall operate a process to separate plastic battery casing materials from all automotive batteries prior to introducing feed into a furnace. *(Air Pollution Control Division; 326 IAC 20-13.1-5; filed Jan 30, 2013, 12:34 p.m.: 20130227-IR-326110774FRA)*

326 IAC 20-13.1-6 Total enclosure requirements

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11

Affected: IC 13-15; IC 13-17

Sec. 6. (a) The owner or operator of a secondary lead smelter shall operate the following process fugitive emissions sources and fugitive dust sources in a total enclosure that meets the requirements in subsection (c) of this section *[subsection (c)]* that is maintained at negative pressure at all times and vented to a control device designed to capture lead particulate:

(1) Smelting furnaces.

(2) Smelting furnace charging areas.

(3) Lead taps, slag taps, and molds during tapping.

(4) Battery breakers.

(5) Refining kettles, casting areas.

(6) Dryers.

(7) Agglomerating furnaces and agglomerating furnace product taps.

(8) Material handling areas for any lead-bearing materials except those listed in subsection (b).

(9) Areas where dust from fabric filters, sweepings, or used fabric filters are processed.

(b) The owner or operator of a secondary lead smelter is not required to maintain a total enclosure in the following areas unless the area is in a total enclosure described in subsection (a):

(1) Lead ingot product handling areas.

(2) Stormwater and wastewater treatment areas.

(3) Intact battery storage areas.

(4) Areas where lead-bearing material is stored in closed containers or enclosed mechanical conveyors.

(5) Areas where clean battery casing material is handled.

(c) The owner or operator of a secondary lead smelter shall do the following:

(1) Construct and operate a total enclosure for the process fugitive emissions sources and fugitive dust sources listed in subsection (a) that is free of cracks, gaps, corrosion, or other deterioration that could allow lead-bearing material to be released from the primary barrier.

(2) Put measures in place to prevent the tracking of lead-bearing material out of the plant by personnel or by equipment used in handling the material.

(3) Designate an area to decontaminate equipment and collect and properly manage any rinsate.

(4) Ventilate the total enclosure for the process fugitive emissions sources and fugitive dust sources listed in subsection (a) continuously to ensure negative pressure values of at least thirteen-thousandths (0.013) millimeters of mercury (seven-thousandths (0.007) inches of water).

(5) Maintain an inward flow of air through all natural draft openings of the total enclosure.

(6) Inspect total enclosures and structures that contain any lead-bearing material at least once per month.

(7) Repair any gaps, breaks, separations, leak points, or other possible routes for emissions of lead to the atmosphere within one (1) week of identification unless the owner or operator of a secondary lead smelter receives approval for an extension from the department and U.S. EPA before the repair period is exceeded.

(Air Pollution Control Division; 326 IAC 20-13.1-6; filed Jan 30, 2013, 12:34 p.m.: 20130227-IR-326110774FRA)

326 IAC 20-13.1-7 Total enclosure monitoring requirements

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11
Affected: IC 13-15; IC 13-17

Sec. 7. (a) In addition to the requirements in section 1(d) of this rule, and the requirements in section 6 of this rule, the owner or operator of a secondary lead smelter using a total enclosure shall do the following:

(1) Submit a monitoring system plan describing the installation and operation of a continuous monitoring system that meets the requirements of subdivisions (2) and (3). The plan shall be postmarked or hand delivered to the department one hundred twenty (120) days prior to installation of the continuous monitoring system.

(2) The owner or operator of a secondary lead smelter shall install, operate, and maintain a minimum of one (1) building digital differential pressure monitoring system to continuously monitor each total enclosure at each of the following three (3) walls in each total enclosure that has a total ground surface area of ten thousand (10,000) square feet or more:

(A) The leeward wall.

(B) The windward wall.

(C) An exterior wall that connects the leeward and windward wall at a location defined by the intersection of a perpendicular line between a point on the connecting wall and a point on its furthest opposite exterior wall, and intersecting within plus or minus ten (10) meters of the midpoint of a straight line between the two (2) other monitors specified. The midpoint monitor must not be located on the same wall as either of the other two (2) monitors.

(3) The owner or operator of a secondary lead smelter shall install and maintain a minimum of one (1) building digital differential pressure monitoring system at the leeward wall of each total enclosure that has a total ground surface area of less than ten thousand (10,000) square feet.

(b) Within one hundred eighty (180) days after written approval of the continuous monitoring system plan by the department, the owner or operator of a secondary lead smelter shall install and operate a continuous monitoring system that consists of the following:

(1) A digital differential pressure sensor capable of measuring pressure within a range of one-hundredth (0.01) to two-tenths (0.2) millimeters mercury (five-thousandths (0.005) to eleven-hundredths (0.11) inches of water) with a minimum accuracy of plus or minus one-thousandth (0.001) millimeters of mercury (five ten-thousandths (0.0005) inches of water).

(2) A processor.

(3) An alarm.

(4) A continuous recording device.

(c) The owner or operator of a secondary lead smelter shall calibrate each digital differential pressure monitoring system in accordance with the manufacturer's specifications at least once every twelve (12) calendar months or more frequently if recommended by the manufacturer.

(d) The owner or operator of a secondary lead smelter shall obtain prior written approval from the department for any changes to the location or operation of the continuous monitoring system.

(e) The owner or operator of a secondary lead smelter shall initiate corrective actions within thirty (30) minutes of a monitoring system alarm.

(f) The owner or operator of a secondary lead smelter shall notify the department within seven (7) days of any physical changes to the total enclosure including, but not limited to, ventilation capacity and building size.

(g) The owner or operator of a secondary lead smelter shall maintain the following on site for a period of three (3) years and have available the following records for an additional two (2) years:

(1) Records of the pressure differential.

(2) Logs of monitoring system alarms, including date and time.

(3) Logs of corrective actions, including date and time.

(Air Pollution Control Division; 326 IAC 20-13.1-7; filed Jan 30, 2013, 12:34 p.m.: 20130227-IR-326110774FRA)

326 IAC 20-13.1-8 Fugitive dust source requirements

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11

Affected: IC 13-15; IC 13-17

Sec. 8. (a) The owner or operator of a secondary lead smelter shall prepare and at all times operate in accordance with a standard operating procedures manual that describes in detail the measures that will be put in place and implemented to control the fugitive dust emissions from the following:

(1) Plant roadways.

(2) Plant buildings.

(3) Accidental releases.

(4) Battery storage areas.

(5) Equipment maintenance activities.

(6) Material storage areas.

(7) Material handling areas.

(b) The owner or operator of a secondary lead smelter shall submit the standard operating procedures manual to the department for review and approval in accordance with section 13(b) of this rule and at any time changes are made.

(c) The controls specified in the standard operating procedures manual must, at a minimum, include the following requirements:

(1) Where a cleaning practice is specified, the owner or operator of a secondary lead smelter shall clean by wet wash or a vacuum equipped with a filter rated by the manufacturer to achieve ninety-nine and ninety-seven hundredths percent (99.97%) capture efficiency for three-tenths (0.3) micron particles in a manner that does not generate fugitive lead dust.

(2) The owner or operator of a secondary lead smelter shall pave all areas subject to vehicle traffic and shall clean the pavement twice per day, except on days when natural precipitation makes cleaning unnecessary or when sand or a similar material has been spread on plant roadways to provide traction on ice or snow. Limited access and limited use roadways such as unpaved roads to remote locations on the property may be exempt from this requirement if they are used no more than one (1) round trip per day.

(3) The owner or operator of a secondary lead smelter shall initiate cleaning of all affected areas within one (1) hour after detection of any accidental release of lead dust that exceeds ten (10) pounds in accordance with the reportable quantity requirements for lead at 40 CFR 302.4*.

(4) The owner or operator of a secondary lead smelter shall inspect any batteries that are not stored in a total enclosure once each week and move any broken batteries to an enclosure within seventy-two (72) hours of identification. The owner or operator of a secondary lead smelter shall clean residue from broken batteries within seventy-two (72) hours of identification.

(5) The owner or operator of a secondary lead smelter shall wash each vehicle at each exit of the material storage and handling areas. The vehicle wash shall include washing of tires, undercarriage, and exterior surface of the vehicle followed by vehicle inspection.

(6) The owner or operator of a secondary lead smelter shall perform all maintenance activities that could generate lead dust in a manner that minimizes emissions of fugitive dust. This shall include one (1) or more of the following:

(A) Performing maintenance inside a total enclosure maintained at negative pressure.

(B) Performing maintenance inside a temporary enclosure and use of a vacuum system either equipped with a filter rated by the manufacturer to achieve a capture efficiency of ninety-nine and ninety-seven hundredths percent (99.97%) for three-tenths (0.3) micron particles or routed to an existing control device permitted for this activity.

(C) Performing maintenance inside a partial enclosure and use of wet suppression sufficient to prevent dust formation.

(D) Decontamination of equipment prior to removal from an enclosure.

(E) Immediate repair of ductwork or structure leaks without an enclosure if the time to construct a temporary enclosure would exceed the time to make a temporary or permanent repair, or if construction of an enclosure would cause a higher level of emissions than if an enclosure were not constructed.

(F) Activities required for inspection of fabric filters and maintenance of filters that are in need of removal and replacement are not required to be conducted inside of total enclosures. Used fabric filters shall be placed in sealed plastic bags or containers prior to removal from a baghouse.

(7) The owner or operator of a secondary lead smelter shall collect and transport all lead-bearing dust within closed conveyor systems or in sealed, leak-proof containers unless the collection and transport activities are contained within a total enclosure. All other lead-bearing material must be contained and covered for transport outside of a total enclosure in a manner that prevents spillage or dust formation. Intact batteries and lead ingot product are exempt from the requirement to be covered for transport.

(d) The standard operating procedures manual must specify that records be maintained of all pavement cleaning, vehicle washing, and battery storage inspection activities performed to control fugitive dust emissions.

(e) The owner or operator of a secondary lead smelter shall pave all grounds or plant ground cover sufficient to prevent wind-blown dust. The owner or operator of a secondary lead smelter may use dust suppressants on unpaved areas that will not support a ground cover, such as roadway shoulders, steep slopes, and limited access and limited use roadways.

(f) As provided in the July 1, 2012, edition of 40 CFR 63.6(g)*, as an alternative to the requirements specified in this section, the owner or operator of a secondary lead smelter can demonstrate to the department that an alternative measure is equivalent or more protective of the environment than a practice described in this section.

*These documents are incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. *(Air Pollution Control Division; 326 IAC 20-13.1-8; filed Jan 30, 2013, 12:34 p.m.: 20130227-IR-326110774FRA)*

326 IAC 20-13.1-9 Bag leak detection system requirements

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11
Affected: IC 13-15; IC 13-17

Sec. 9. (a) The owner or operator of a secondary lead smelter shall install and continuously operate a bag leak detection system for all baghouses controlling process vents and process fugitive emissions sources unless a system meeting the requirements of section 10(g) of this rule for a CEMS is installed for monitoring the concentration of lead. Baghouses equipped with HEPA filters or baghouses followed by wet electrostatic precipitators used as secondary control devices are exempt from this requirement. The owner or operator of a secondary lead smelter shall maintain and operate each baghouse controlling process vents and process fugitive emissions sources to meet the following conditions:

(1) The alarm on the system does not activate for more than five percent (5%) of the total operating time in a six (6) month reporting period.

(2) The owner or operator of a secondary lead smelter shall include a corrective action plan in its standard operating procedures manual required in subsection (c) that specifies the procedures that will be used to determine and record the time and cause of the alarm in addition to necessary corrective actions taken to minimize emissions as follows:

(A) The procedures used to determine the cause of the alarm shall be initiated within thirty (30) minutes of the alarm.

(B) Procedures to determine and correct the cause of the alarm may include, but are not

limited to, the following standard operating procedures:

(i) Inspecting the baghouse for air leaks, torn or broken filter elements, or any other malfunction that may cause an increase in emissions.

(ii) Sealing off defective bags or filter media.

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

(iv) Sealing off a defective baghouse compartment.

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

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

(b) The owner or operator of a secondary lead smelter shall demonstrate compliance with the bag leak detection system requirements by submitting reports showing that the alarm on the system does not activate for more than five percent (5%) of the total operating time in a six (6) month period or two hundred nineteen (219) hours, if operated for four thousand three hundred eighty (4,380) hours in the six (6) month period, whichever is less.

(c) The owner or operator of a secondary lead smelter shall calculate the percentage of total operating time the alarm on the bag leak detection system activates as the ratio of the sum of alarm times to the total operating time multiplied by one hundred (100).

(d) The owner or operator of a secondary lead smelter shall prepare and at all times operate in accordance with a standard operating procedures manual that describes in detail procedures for inspection, maintenance, and bag leak detection, and corrective action plans for all baghouses (fabric filters or cartridge filters) that are used to control process vents, process fugitive, or fugitive dust emissions from any source subject to the lead emission standards in sections 3, 4, 5, 6, and 8 of this rule, including those used to control emissions from building ventilation.

(e) The owner or operator of a secondary lead smelter shall submit the standard operating procedures manual for baghouses required by subsection (d) to the department for review and approval in accordance with section 13(b) of this rule.

(f) The procedures that the owner or operator of a secondary lead smelter specifies in the standard operating procedures manual for inspections and routine maintenance must, at a minimum, include the following requirements:

(1) Daily monitoring of pressure drop across each baghouse cell.

(2) Weekly confirmation that dust is being removed from hoppers through visual inspection, or equivalent means of ensuring the proper functioning of removal mechanisms.

(3) Daily check of compressed air supply for pulse-jet baghouses.

(4) An appropriate methodology for monitoring cleaning cycles to ensure proper operation.

(5) Monthly check of bag cleaning mechanisms for proper functioning through visual inspection or equivalent means.

(6) Monthly check of bag tension on reverse air and shaker-type baghouses. The checks are not required for shaker-type baghouses using self-tensioning or spring loaded devices.

(7) Quarterly confirmation of the physical integrity of the baghouse through visual inspection of the baghouse interior for air leaks.

(8) Quarterly inspection of fans for wear, material buildup, and corrosion through visual inspection, vibration detectors, or equivalent means.

(9) Except as provided in subsection (a), continuous operation of a bag leak detection system, unless a system meeting the requirements of section 10(g) of this rule for a CEMS is installed for monitoring the concentration of lead.

(g) The procedures specified in the standard operating procedures manual for baghouse maintenance shall include, at a minimum, a preventative maintenance schedule that is consistent with the baghouse manufacturer's instructions for routine and long-term maintenance.

(h) The owner or operator of a secondary lead smelter shall operate a bag leak detection system that meets the following requirements:

(1) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of one (1) milligram per actual cubic meter (forty-four hundred-thousandths (0.00044) grains per actual cubic foot) or less.

(2) The bag leak detection system sensor must provide output of relative particulate matter loadings, and the owner or operator of a secondary lead smelter shall continuously record the

output from the bag leak detection system.

(3) The bag leak detection system must be equipped with an alarm system that will alert appropriate plant personnel when an increase in relative particulate loadings is detected over a preset level. The alarm must be located where it can be heard by the appropriate plant personnel.

(4) Each bag leak detection system must be installed, calibrated, operated, and maintained consistent with the U.S. EPA guidance document "Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015, September 1997)* and with the manufacturer's written specifications and recommendations.

(5) The initial adjustment of the system must, at a minimum, consist of establishing the following:

(A) The baseline output by adjusting the sensitivity (range).

(B) The averaging period of the device.

(C) The alarm set points.

(D) The alarm delay time.

(6) Following initial adjustment and except as detailed in the standard operating procedures and maintenance plan required under subsection (f), the owner or operator of a secondary lead smelter shall not adjust the system's:

(A) sensitivity or range;

(B) averaging period;

(C) alarm set points; or

(D) alarm delay time.

The owner or operator of a secondary lead smelter shall not increase the sensitivity of the system by more than one hundred percent (100%) or decrease the sensitivity by more than fifty percent (50%) over a three hundred sixty-five (365) day period unless the adjustment follows a complete baghouse inspection that demonstrates that the baghouse is in good operating condition.

(7) For negative pressure, induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the owner or operator of a secondary lead smelter shall install the bag leak detector downstream of the baghouse and upstream of any wet acid gas scrubber.

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

(i) In addition to the record keeping and reporting requirements under section 14 of this rule, the owner or operator of a secondary lead smelter shall comply with the following:

(1) Submit a report within thirty (30) days after the end of each preceding six (6) month period ending June 30 and December 31 of each year that includes the following:

(A) A description of the actions taken following each bag leak detection system alarm pursuant to subsection (a).

(B) Calculations of the percentage of total operating time, or the total operating time in hours and minutes the alarm on the bag leak detection system was activated during the reporting period.

(2) Records for bag leak detection systems shall be maintained on site for a period of three (3) years and be available for an additional two (2) years and shall include the following information:

(A) Records of bag leak detection system output.

(B) Identification of the date and time of all bag leak detection system alarms.

(C) The time that procedures to determine the cause of the alarm were initiated.

(D) The cause of the alarm.

(E) An explanation of the corrective actions taken.

(F) The date and time the cause of the alarm was corrected.

(G) Records of total operating time of an affected source during smelting operations for each six (6) month period.

*This document is incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. *(Air Pollution Control Division; 326 IAC 20-13.1-9; filed Jan 30, 2013, 12:34 p.m.: 20130227-IR-326110774FRA)*

326 IAC 20-13.1-10 Other requirements

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11
Affected: IC 13-15; IC 13-17

Sec. 10. (a) The owner or operator of a secondary lead smelter shall comply with the following opacity limitations:

(1) Stacks exhausting process vents, process fugitive emissions, or fugitive dust emissions shall not exceed five percent (5%) opacity from particulate matter emissions for any one (1) six (6) minute averaging period as measured by 40 CFR 60, Appendix A, Method 9*.

(2) Exterior dust handling systems of dry collectors of lead emitting processes, such as augers, hoppers, and transfer points, shall not discharge visible emissions to the atmosphere in excess of five percent (5%) of an observation period consisting of three (3) twenty (20) minute periods, as determined by 40 CFR 60, Appendix A, Method 22*. The provisions under this subdivision for dust handling systems shall not apply during maintenance and repair of the dust handling systems. During maintenance and repair of the dust handling system, the owner or operator shall take reasonable measures to prevent or minimize fugitive dust emissions.

(3) The opacity limitations in this subsection shall only apply to particulate matter emissions.

(b) Ventilation air from the following shall be conveyed or ventilated to a control device:

(1) All enclosure hoods and total enclosures.

(2) All dryer emission vents.

(3) Agglomerating furnace emission vents.

(c) If the owner or operator of a secondary lead smelter uses baghouses equipped with HEPA filters as a secondary filter used to control emissions from any source subject to the lead emission standards in sections 3 through 5 of this rule, the owner or operator of secondary lead smelter must monitor and record the pressure drop across each HEPA filter system daily as follows:

(1) If the pressure drop is outside the limit specified by the filter manufacturer, the owner or operator of a secondary lead smelter shall take the appropriate corrective measures, including, but not limited to, the following:

(A) Inspecting the filter and filter housing for air leaks and torn or broken filters.

(B) Replacing defective filter media, or otherwise repairing the control device.

(C) Sealing off a defective control device by routing air to other control devices.

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

(2) The owner or operator of a secondary lead smelter shall maintain purchasing records and manufacturer's specifications of any HEPA filters installed on process fugitive emissions and fugitive dust stacks demonstrating the filters have been certified by the manufacturer to remove ninety-nine and ninety-seven hundredths percent (99.97%) of all particles three-tenths (0.3) micrometers and larger. The records and manufacturer's specifications shall be:

(A) maintained on site for three (3) years; and

(B) available for an additional two (2) years.

(d) If the owner or operator of a secondary lead smelter uses a wet scrubber to control particulate matter and metal hazardous air pollutant emissions from a process vent to demonstrate continuous compliance with the emission standards, the owner or operator of a secondary lead smelter must monitor and record the pressure drop and water flow rate of the wet scrubber during the initial performance or compliance test conducted to demonstrate compliance with the applicable lead emission limits under sections 3 through 5 of this rule. Thereafter, the owner or operator of a secondary lead smelter shall:

(1) monitor and record the pressure drop and water flow rate values at least once every hour; and

(2) maintain the pressure drop and water flow rate at levels no lower than thirty percent (30%) below the pressure drop and water flow rate measured during the initial performance or compliance test.

(e) The owner or operator of a secondary lead smelter shall demonstrate continuous compliance with the total hydrocarbon and dioxin and furan emission standards. During periods of startup and shutdown, the requirements of subdivision (4) do not apply. Instead, the owner or operator of a secondary lead smelter shall demonstrate compliance with the standard for total hydrocarbon by meeting the requirements of section 5(i) of this rule. The requirements to demonstrate continuous compliance are as follows:

(1) The owner or operator of a secondary lead smelter shall install, calibrate, maintain, and

continuously operate a device to monitor and record the temperature of the afterburner or furnace exhaust streams consistent with the requirements for continuous monitoring systems in the July 1, 2012, edition of 40 CFR 63.8*.

(2) Prior to or in conjunction with the initial performance or compliance test to determine compliance with section 5(d) of this rule, the owner or operator of a secondary lead smelter shall conduct a performance evaluation for the temperature monitoring device according to the July 1, 2012, edition of 40 CFR 63.8(e)*. The definitions, installation specifications, test procedures, and data reduction procedures for determining calibration drift, relative accuracy, and reporting described in Performance Specification 2, 40 CFR 60, Appendix B, sections 2*, 3*, 5*, 7*, 8*, 9*, and 10* must be used to conduct the evaluation. The temperature monitoring device must meet the following performance and equipment specifications:

(A) The recorder response range must include zero (0) and one and one-half (1.5) times the average temperature identified in subdivision (3).

(B) The monitoring system calibration drift must not exceed two percent (2%) of one and one-half (1.5) times the average temperature identified in subdivision (3).

(C) The monitoring system relative accuracy must not exceed twenty percent (20%).

(D) The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or an alternate reference method, subject to the approval of U.S. EPA.

(3) The owner or operator of a secondary lead smelter shall monitor and record the temperature of the afterburner or the furnace exhaust streams every fifteen (15) minutes during the initial performance or compliance test for total hydrocarbons and dioxins and furans and determine an arithmetic average for the recorded temperature measurements.

(4) To demonstrate continuous compliance with the standards for total hydrocarbons and dioxins and furans, the owner or operator of a secondary lead smelter shall maintain an afterburner or exhaust temperature so that the average temperature in any three (3) hour period does not fall more than twenty-eight (28) degrees Celsius below the average established in subdivision (3).

(f) The owner or operator of a new emission unit subject to the requirements under sections 3 through 5 of this rule shall install, calibrate, maintain, and operate a CEMS for measuring lead emissions. In addition to the requirements for CEMS in the July 1, 2012, edition of 40 CFR 63.8(c) that are referenced in section 1(d) of this rule, the owner or operator of a secondary lead smelter shall comply with the requirements for CEMS specified in subsection (h) and the following requirements:

(1) The owner or operator of a new emission unit subject to the emission limits for lead compounds under sections 3 through 5 of this rule shall install a CEMS for measuring lead emissions within one hundred eighty (180) days of promulgation by U.S. EPA of performance specifications for lead CEMS.

(2) Prior to one hundred eighty (180) days after U.S. EPA promulgates performance specifications for CEMS used to measure lead concentrations, the owner or operator of a secondary lead smelter shall use the procedure described in section 11(a)(1) of this rule to determine compliance.

(3) Vents from control devices that serve only to control emissions from buildings containing lead-bearing materials are exempt from the requirement to install a CEMS for measuring lead emissions.

(g) If a CEMS is used to measure lead emissions, the owner or operator of a secondary lead smelter shall install a CEMS with a sensor in a location that provides representative measurement of the exhaust gas flow rate at the sampling location of the CEMS used to measure lead emissions, taking into account the manufacturer's recommendations. The flow rate sensor is that portion of the system that senses the volumetric flow rate and generates an output proportional to that flow rate. The owner or operator of a secondary lead smelter shall comply with the following requirements:

(1) The CEMS shall be designed to measure the exhaust gas flow rate over a range that extends from a value of at least twenty percent (20%) less than the lowest expected exhaust flow rate to a value of at least twenty percent (20%) greater than the highest expected exhaust gas flow rate.

(2) The CEMS shall be equipped with a data acquisition and recording system that is capable of recording values over the entire range specified in subdivision (1).

(3) The owner or operator of a secondary lead smelter shall perform an initial relative accuracy test of the CEMS in accordance with the applicable performance specification in 40 CFR 60,

Appendix B*.

(4) The owner or operator of a secondary lead smelter shall operate the CEMS and record data during all periods of operation of the affected emission unit including periods of startup, shutdown, and malfunction, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks and required zero and span adjustments.

(5) If the owner or operator of a secondary lead smelter uses a CEMS to measure lead emissions, the owner or operator of a secondary lead smelter shall calculate the average lead concentration and flow rate monthly to determine compliance with sections 3 through 5 of this rule.

(6) When the CEMS is unable to provide quality assured data, the following requirements apply:

(A) When data are not available for periods of up to forty-eight (48) hours, the highest recorded hourly emissions rate from the previous twenty-four (24) hours shall be used.

(B) When data are not available for forty-eight (48) or more hours, the maximum daily emissions rate based on the previous thirty (30) days shall be used.

*These documents are incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. *(Air Pollution Control Division; 326 IAC 20-13.1-10; filed Jan 30, 2013, 12:34 p.m.: 20130227-IR-326110774FRA)*

326 IAC 20-13.1-11 Compliance testing

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11
Affected: IC 13-15; IC 13-17

Sec. 11. (a) Following the initial performance or compliance test to demonstrate compliance with the lead emission limits specified in sections 3 through 5 of this rule, the owner or operator of a secondary lead smelter shall conduct performance tests for lead compounds in accordance with the following schedule:

(1) Conduct an annual performance test for lead compounds from each process vent, no later than twelve (12) calendar months following the previous compliance test, unless the owner or operator of a secondary lead smelter installs and operates a CEMS meeting the requirements of the July 1, 2012, edition of 40 CFR 63.8*.

(2) If an annual compliance test demonstrates that a process vent emitted lead compounds at one-tenth (0.1) milligram of lead per dry standard cubic meter or less during the time of the annual compliance test, the owner or operator of a secondary lead smelter may submit a written request to the U.S. EPA applying for an extension of up to twenty-four (24) calendar months from the previous compliance test to conduct the next compliance test for lead compounds.

(b) The owner or operator of a secondary lead smelter that vents fugitive dust shall:

(1) conduct an initial compliance test only; and

(2) not be required to conduct testing on an annual or biennial basis.

Nothing in this subsection shall prohibit the department from requesting a compliance test in accordance with 326 IAC 2-1.1-11.

(c) Test notification and reporting shall be conducted in compliance with 326 IAC 3-6.

(d) Following the initial performance or compliance test to demonstrate compliance with the total hydrocarbon emission limits in section 5(d) of this rule, the owner or operator of a secondary lead smelter shall conduct performance tests for total hydrocarbons emissions in accordance with the following schedule:

(1) Conduct an annual performance test for total hydrocarbon emissions from each process vent that has established limits for total hydrocarbons, no later than twelve (12) calendar months following the previous compliance test, unless the owner or operator of a secondary lead smelter installs and operates a CEMS meeting the requirements of the July 1, 2012, edition of 40 CFR 63.8*.

(2) If an annual compliance test demonstrates that a process vent emitted total hydrocarbons at

less than fifty percent (50%) of the allowable limit during the time of the annual compliance test, the owner or operator of a secondary lead smelter may submit a written request to U.S. EPA applying for an extension of up to twenty-four (24) calendar months from the previous compliance test to conduct the next compliance test for total hydrocarbons.

(e) Following the initial performance or compliance test to demonstrate compliance with the dioxin and furan emission limits specified in section 5(d) of this rule, the owner or operator of a secondary lead smelter shall conduct a performance test for dioxin and furan emissions from each process vent that has established limits for dioxins and furans at least once every six (6) years following the previous compliance test.

(f) The owner or operator of a secondary lead smelter shall conduct the performance tests specified in subsections (a), (d), and (e) under maximum representative operating conditions for the process. During the performance test, the owner or operator of a secondary lead smelter may operate the control device at maximum or minimum representative operating conditions for monitored control device parameters, whichever results in a lower emission reduction. Upon request, the owner or operator of a secondary lead smelter shall make available to the department any records necessary to determine the conditions of performance tests.

*This document is incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. *(Air Pollution Control Division; 326 IAC 20-13.1-11; filed Jan 30, 2013, 12:34 p.m.: 20130227-IR-326110774FRA)*

326 IAC 20-13.1-12 Compliance testing methods

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11
Affected: IC 13-15; IC 13-17

Sec. 12. (a) The owner or operator of a secondary lead smelter shall use the following test methods to determine compliance with the emission standards for lead compounds:

(1) 40 CFR 60, Appendix A-1, Method 1* to select the sampling port location and the number of traverse points.

(2) 40 CFR 60, Appendix A-1, Method 2* or 40 CFR 60, Appendix A-3, Method 5D, Section 8.3* for positive pressure fabric filters, to measure volumetric flow rate.

(3) 40 CFR 60, Appendix A-2, Method 3*, 40 CFR 60, Appendix A-2, Method 3A*, or 40 CFR 60, Appendix A-2, Method 3B* to determine the dry molecular weight of the stack gas.

(4) 40 CFR 60, Appendix A-3, Method 4* to determine moisture content of the stack gas.

(5) 40 CFR 60, Appendix A-8, Method 12* or 40 CFR 60, Appendix A-8, Method 29* to determine compliance with the lead compound emission standards. The minimum sample volume must be two (2.0) dry standard cubic meters (seventy (70) dry standard cubic feet) for each run. The owner or operator of a secondary lead smelter shall perform three (3) test runs and determine compliance using the average of the three (3) runs.

(b) The owner or operator of a secondary lead smelter shall use the following test methods to determine compliance with the emission standards for total hydrocarbons:

(1) 40 CFR 60, Appendix A-1, Method 1* to select the sampling port location and number of traverse points.

(2) The Single Point Integrated Sampling and Analytical Procedure in 40 CFR 60, Appendix A, Method 3B* to measure the carbon dioxide content of the stack gases when using either 40 CFR 60, Appendix A-2, Method 3A* or 40 CFR 60, Appendix A-2, Method 3B*.

(3) 40 CFR 60, Appendix A-3, Method 4* to measure moisture content of the stack gases.

(4) 40 CFR 60, Appendix A-7, Method 25A* to measure total hydrocarbon emissions. The minimum sampling time must be one (1) hour for each run. The owner or operator of a secondary lead smelter shall perform a minimum of three (3) test runs. The owner or operator of a secondary lead smelter shall calculate a one (1) hour average total hydrocarbons concentration for each run and use the average of the three (3) one (1) hour averages to determine compliance.

(c) The owner or operator of a secondary lead smelter shall correct the measured total hydrocarbon concentrations to four percent (4%) carbon dioxide, specified as follows:

(1) If the measured percent carbon dioxide is greater than four-tenths of one percent (0.4%) in each compliance test, the owner or operator of a secondary lead smelter shall determine the correction factor using the following equation:

$$F = \frac{4.0}{CO_2}$$

Where: F = Correction factor (no units).

CO_2 = Percent carbon dioxide measured using 40 CFR 60, Appendix A-2, Method 3A* or 40 CFR 60, Appendix A-2, Method 3B*, where the measured carbon dioxide is greater than four-tenths of one percent (0.4%).

(2) If the measured percent carbon dioxide is equal to or less than four-tenths of one percent (0.4%), the owner or operator of a secondary lead smelter shall use a correction factor (F) of ten (10).

(3) The owner or operator of a secondary lead smelter shall determine the corrected total hydrocarbons concentration by multiplying the measured total hydrocarbons concentration by the correction factor (F) determined for each compliance test.

(d) The owner or operator of a secondary lead smelter shall use the following test methods to determine compliance with the emission standards for dioxins and furans:

(1) 40 CFR 60, Appendix A-1, Method 1* to select the sampling port location and the number of traverse points.

(2) 40 CFR 60, Appendix A-1, Method 2* or 40 CFR 60, Appendix A-3, Method 5D, Section 8.3* for positive pressure fabric filters to measure volumetric flow rate.

(3) 40 CFR 60, Appendix A-2, Method 3A* or 40 CFR 60, Appendix A-2, Method 3B* to determine the oxygen and carbon dioxide concentrations of the stack gas.

(4) 40 CFR 60, Appendix A-3, Method 4* to determine moisture content of the stack gas.

(5) 40 CFR 60, Appendix A-7, Method 23* to determine the dioxins and furans concentration.

(e) The owner or operator of a secondary lead smelter shall determine the dioxins and furans toxic equivalency through the following procedures:

(1) Measure the concentration of each dioxins and furans congener shown in the following table using 40 CFR 60, Appendix A-7, Method 23*:

Dioxin/furan congener	Toxic equivalency factor (TEQ)
2,3,7,8-tetrachlorinated dibenzo-p-dioxin	1
1,2,3,7,8-pentachlorinated dibenzo-p-dioxin	0.5
1,2,3,4,7,8-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,7,8,9- hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,6,7,8- hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,4,6,7,8-heptachlorinated dibenzo-p-dioxin	0.01
Octachlorinated dibenzo-p-dioxin	0.001
2,3,7,8-tetrachlorinated dibenzofuran	0.1
2,3,4,7,8-pentachlorinated dibenzofuran	0.05
1,2,3,7,8-pentachlorinated dibenzofuran	0.5
1,2,3,4,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,6,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,7,8,9-hexachlorinated dibenzofuran	0.1

(2) Correct the concentration of dioxins and furans in terms of toxic equivalency to seven percent (7%) oxygen using the following equation:

$$Cadj = \frac{Cmeas(20.9-7)}{(20.9-\%O2)}$$

Where: C_{adj} = Dioxins and furans concentration adjusted to seven percent (7%) oxygen.

C_{meas} = Dioxins and furans concentration measured in nanograms per dry standard cubic meter.

(20.9-7) = Twenty and nine-tenths percent (20.9%) oxygen minus seven percent (7%) oxygen (defined oxygen correction basis).

20.9 = Percent of oxygen concentration in air.

$\%O_2$ = Percent of oxygen concentration measured on a dry basis.

(3) For each dioxins and furans congener measured as specified in subdivisions (1) and (2), multiply the congener concentration by its corresponding toxic equivalency factor.

(4) Sum the values calculated as specified in subdivision (3) to obtain the total concentration of dioxins and furans emitted in terms of toxic equivalency.

*These documents are incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. *(Air Pollution Control Division; 326 IAC 20-13.1-12; filed Jan 30, 2013, 12:34 p.m.: 20130227-IR-326110774FRA)*

326 IAC 20-13.1-13 Notification requirements

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11
Affected: IC 13-15; IC 13-17

Sec. 13. (a) The owner or operator of a secondary lead smelter shall comply with all of the notification requirements of the July 1, 2012, edition of 40 CFR 63.9*.

(b) The owner or operator of a secondary lead smelter shall submit the fugitive dust control standard operating procedures manual required under section 8 of this rule and the standard operating procedures manual for baghouses required under section 9 of this rule to the department along with a notification that the owner or operator of a secondary lead smelter is seeking review and approval of these plans and procedures. The owner or operator of a secondary lead smelter shall submit this notification no later than the effective date of this rule.

(c) For the owner or operator of a secondary lead smelter that commences construction or reconstruction after January 5, 2012, and starts up on or after the effective date of this rule the owner or operator of a secondary lead smelter shall submit this notification on or before one hundred eighty (180) days before startup of the constructed or reconstructed secondary lead smelter.

(d) For an affected source that has received a construction permit from the department on or before January 5, 2012, the owner or operator of a secondary lead smelter shall submit this notification no later than January 7, 2014.

*This document is incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. *(Air Pollution Control Division; 326 IAC 20-13.1-13; filed Jan 30, 2013, 12:34 p.m.: 20130227-IR-326110774FRA)*

326 IAC 20-13.1-14 Record keeping and reporting requirements

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11
Affected: IC 13-15; IC 13-17

Sec. 14. (a) The owner or operator of a secondary lead smelter shall comply with all of the record keeping and reporting requirements specified in the July 1, 2012, edition of 40 CFR 63.10* that are referenced in section 1(d) of this rule. Records shall be:

(1) maintained in a form suitable and readily available for expeditious review, in accordance with the July 1, 2012, edition of 40 CFR 63.10(b)(1)*; and

(2) kept on site for at least two (2) years after the date of occurrence, measurement, maintenance, corrective action, report, or record, in accordance with the July 1, 2012, edition of 40 CFR 63.10(b)(1)*.

(b) The standard operating procedure manuals required in sections 8 and 9 of this rule must be submitted to the department in electronic format for review and approval of the initial submittal and whenever an update is made to the procedures.

(c) The owner or operator of a secondary lead smelter shall maintain for a period of five (5) years the following records:

(1) Electronic records of the bag leak detection system output.

(2) An identification of the date and time of any bag leak detection system alarms.

(3) The time that procedures were initiated to determine the cause of any bag leak detection system alarm.

(4) The cause of any bag leak detection system alarm.

(5) An explanation of the corrective actions taken in response to any bag leak detection system alarms.

(6) The date and time the cause of any bag leak detection system alarms was corrected.

(7) All records of inspections and maintenance activities required in section 9(f) of this rule as part of the practices described in the standard operating procedures manual for baghouses required under section 9(d) of this rule.

(8) Electronic records of the pressure drop and water flow rate values for wet scrubbers used to control metal hazardous air pollutant emissions from process vents as required in section 10(d) of this rule.

(9) Electronic records of the output from the continuous temperature monitor required in section 10(e) of this rule, an identification of periods when the three (3) hour average temperature fell below the minimum temperature established under section 10(e)(4) of this rule, and an explanation of the corrective action taken.

(10) Electronic records of the continuous pressure monitors for total enclosures required in section 7 of this rule, and an identification of periods when the pressure was not maintained as required in section 6(c)(4) of this rule.

(11) Records of any time periods power was lost to the continuous pressure monitors for total enclosures required in section 7 of this rule and records of loss of power to the air handling system maintaining negative pressure on total enclosures.

(12) Records of the inspections of total enclosures required in section 6(c)(6) of this rule.

(13) Records of all cleaning and inspections required as part of the practices described in the standard operating procedures manual required under section 8 of this rule.

(14) Electronic records of the output of any CEMS installed to monitor lead emissions meeting the requirements in section 10(g) of this rule.

(15) Records of the occurrence and duration of each malfunction of operation or process equipment or the air pollution control equipment and monitoring equipment.

(16) Records of actions taken during periods of malfunction to minimize emissions in accordance with section 5(h) of this rule, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(17) Records of any periods of startup or shutdown of a furnace and actions taken to minimize emissions during that period in accordance with section 5(i) of this rule.

(d) The owner or operator of a secondary lead smelter shall comply with all of the reporting requirements specified in the July 1, 2012, edition of 40 CFR 63.10* in section 1(d) of this rule. The owner or operator of a secondary lead smelter shall also comply with the following requirements:

(1) The owner or operator of a secondary lead smelter shall submit reports no less frequently than specified under the July 1, 2012, edition of 40 CFR 63.10(e)(3)*.

(2) Once a violation of the standard or excess emissions is reported, the owner or operator of a secondary lead smelter must follow the reporting format required under the July 1, 2012, edition of 40 CFR 63.10(e)(3)* until a request to reduce reporting frequency is approved by the department.

(e) In addition to the information required under the applicable sections of the July 1, 2012, edition of 40 CFR 63.10* in section 1(d) of this rule, the owner or operator of a secondary lead smelter shall include the following information in the reports required under subsection (d):

(1) Records of the concentration of lead in each process vent, and records of the rolling twelve (12) month flow-weighted average concentration of lead compounds in vent gases calculated monthly as required in section 5(b) of this rule, except during the first year when the concentration is calculated using the method described in section 5(b)(3) of this rule.

(2) Records of the concentration of total hydrocarbon and dioxins and furans in each process vent that has established limits for total hydrocarbon and dioxins and furans as required in section 5(d) of this rule.

(3) Records of all periods when monitoring using a CEMS for lead or total hydrocarbon was not in compliance with applicable limits.

(4) Records of all alarms from the bag leak detection system specified in section 9 of this rule.

(5) A description of the procedures taken following each bag leak detection system alarm in accordance with section 9(a)(2) and 9(a)(3) *[sic]* of this rule.

(6) A summary of the records maintained as part of the practices described in the standard operating procedures manual for baghouses required under section 9 of this rule, including an explanation of the periods when the procedures were not followed and the corrective actions taken.

(7) An identification of the periods when the pressure drop and water flow rate of wet scrubbers used to control process vents dropped below the levels established in section 8 of this rule, and an explanation of the corrective actions taken.

(8) Records of the temperature monitor output, in three (3) hour block averages, for those periods when the temperature monitored in accordance with section 10(e) of this rule fell below the level established in section 10(e)(4) of this rule.

(9) Certification that the plastic separation process for battery breakers required in section 5(j) of this rule was operated at all times the battery breaker was in service.

(10) Records of periods when the pressure was not maintained as required in section 6(c)(4) of this rule or power was lost to the continuous pressure monitoring system as required in section 7 of this rule.

(11) If a malfunction occurred during the reporting period, the report must include the number, duration, and a brief description for each type of malfunction that occurred during the reporting period and caused or may have caused any applicable emissions limitation to be exceeded. The report must also include a description of actions taken during a malfunction of an affected emission unit to minimize emissions in accordance with section 5(h) of this rule, including actions taken to correct a malfunction.

(12) A summary of the fugitive dust control measures performed during the required reporting period, including an explanation of the periods when the procedures outlined in the standard operating procedures manual in accordance with section 8 of this rule were not followed and the corrective actions taken. The reports must not contain copies of the daily records required to demonstrate compliance with the requirements of the standard operating procedures manuals required under section 8 of this rule.

(13) Records of any periods of startup or shutdown of a furnace including an explanation of the periods when the procedures required in section 5(i) of this rule were not followed and the corrective actions taken.

(14) The owner or operator of a secondary lead smelter shall submit records as follows:

(A) As of the effective date of this rule, and within sixty (60) days after the date of completing each performance test, as defined in the July 1, 2012, edition of 40 CFR 63.2*, the owner or operator of a secondary lead smelter shall submit performance test data, except opacity data, electronically to U.S. EPA's Central Data Exchange by using

the U.S. EPA's Electronic Reporting Tool. Only data collected using test methods compatible with the U.S. EPA's Electronic Reporting Tool are subject to this requirement to be submitted electronically into U.S. EPA's WebFIRE database.

(B) Within sixty (60) days after the date of completing each CEMS performance evaluation test, as defined in 40 CFR 63.2* and required by this rule, the owner or operator a secondary lead smelter shall submit the relative accuracy test audit data electronically in to U.S. EPA's Central Data Exchange by using the U.S. EPA's Electronic Reporting Tool as mentioned in clause (A). Only data collected using test methods compatible with the U.S. EPA's Electronic Reporting Tool are subject to the requirement to be submitted electronically into U.S. EPA's WebFIRE database.

(C) All reports required by this rule not subject to the requirements in clauses (A) and (B) must be sent to U.S. EPA at the appropriate address listed in the July 1, 2012, edition of 40 CFR 63.13*. U.S. EPA or the department may request a report in any form suitable for the specific case. U.S. EPA retains the right to require submittal of reports subject to clauses (A) and (B) in paper format.

*These documents are incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. *(Air Pollution Control Division; 326 IAC 20-13.1-14; filed Jan 30, 2013, 12:34 p.m.: 20130227-IR-326110774FRA)*

326 IAC 20-13.1-15 Affirmative defense to civil penalties for exceedance of emissions limit during malfunction

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11
Affected: IC 13-15; IC 13-17

Sec. 15. (a) In response to an action to enforce the standards set forth in this rule, the owner or operator of a secondary lead smelter may assert an affirmative defense to a claim for civil penalties for exceedances of the standards that are caused by malfunction, as defined in the July 1, 2012, edition of 40 CFR 63.2*. Appropriate penalties may be assessed if the owner or operator of a secondary lead smelter fails to meet its burden of proving all of the requirements in the affirmative defense. The affirmative defense shall not be available for claims for injunctive relief.

(b) To establish the affirmative defense in any action to enforce the standards set forth in this rule, the owner or operator of a secondary lead smelter must timely meet the notification requirements of subsection (c), and shall prove by a preponderance of evidence the following:

(1) The excess emissions:

(A) were caused by a sudden, infrequent, and unavoidable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner;

(B) could not have been prevented through careful planning, proper design or better operation and maintenance practices;

(C) did not stem from any activity or event that could have been foreseen and avoided, or planned for; and

(D) were not part of a recurring pattern indicative of inadequate design, operation, or maintenance.

(2) Repairs were made as expeditiously as possible when the applicable emission limitations were being exceeded. Off-shift and overtime labor were used, to the extent practicable to make these repairs.

(3) The frequency, amount, and duration of the excess emissions, including any bypass, were minimized to the maximum extent practicable during periods of the emissions.

(4) If the excess emissions resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage.

(5) All possible steps were taken to minimize the impact of the excess emissions on ambient air quality, the environment, and human health.

(6) All emissions monitoring and control systems were kept in operation if at all possible,

consistent with safety and good air pollution control practices.

(7) All of the actions in response to the excess emissions were documented by properly signed, contemporaneous operating logs.

(8) At all times, the affected emission unit was operated in a manner consistent with good practices for minimizing emissions.

(9) A written root cause analysis has been prepared, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the excess emissions resulting from the malfunction event at issue. The analysis shall also specify, using best monitoring methods and engineering judgment, the amount of excess emissions that were the result of the malfunction.

(c) The owner or operator of the affected emission unit experiencing an exceedance of its emissions limit during a malfunction shall notify the department by telephone or facsimile transmission as soon as possible, but no later than two (2) business days after the initial occurrence of the malfunction, that it wishes to avail itself of an affirmative defense to civil penalties for that malfunction. The owner or operator of a secondary lead smelter seeking to assert an affirmative defense shall also submit a written report to the department within forty-five (45) days of the initial occurrence of the exceedance of the standard in this rule to demonstrate, with all necessary supporting documentation, that it has met the requirements set forth in subsection (b). The owner or operator of a secondary lead smelter may seek an extension of this deadline for up to thirty (30) additional days by submitting a written request to the department before the expiration of the forty-five (45) day period. Until a request for an extension has been approved by the department, the owner or operator of a secondary lead smelter is subject to the requirement to submit the report within forty-five (45) days of the initial occurrence of the exceedance.

*This document is incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. *(Air Pollution Control Division; 326 IAC 20-13.1-15; filed Jan 30, 2013, 12:34 p.m.: 20130227-IR-326110774FRA)*

Indiana Department of Environmental Management
Office of Air Quality

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

Source Description and Location

Source Name:	Exide Technologies
Source Location:	2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302
County:	Delaware
SIC Code:	3341 (Secondary Smelting and Refining of Nonferrous Metals)
Operation Permit No.:	T 035-31230-00028
Operation Permit Issuance Date:	August, 1, 2012
Significant Permit Modification No.:	035-33188-00028
Permit Reviewer:	Brian Williams

Existing Approvals

The source was issued Part 70 Operating Permit No. 035-31230-00028, on August 1, 2012.

County Attainment Status

The source is located in Delaware County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Attainment effective January 3, 2006, for the Muncie area, including Delaware County, for the 8-hour ozone standard.[1]
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Nonattainment effective December 31, 2010, for a portion of the City of Muncie, Indiana bounded to the north by West Street/Hines Road, to the east by Cowan Road, to the south by West Fuson Road, and to the west by a line running south from the eastern edge of Victory Temple's driveway to South Hoyt Avenue and then along South Hoyt Avenue. Unclassifiable or attainment effective December 31, 2011, for the remainder of the county.
[1]Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005. Unclassifiable or attainment effective April 5, 2005, for PM2.5.	

(a) Ozone Standards

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 and NOx emissions are considered when evaluating the rule applicability relating to ozone. Delaware County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) $PM_{2.5}$

Delaware County has been classified as attainment for $PM_{2.5}$. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for $PM_{2.5}$ emissions. These rules became effective on July 15, 2008. On May 4, 2011 the air pollution control board issued an emergency rule establishing the direct $PM_{2.5}$ significant level at ten (10) tons per year. This rule became effective, June 28, 2011. Therefore, direct $PM_{2.5}$, SO_2, and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration

(PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.

(c) Lead
The portion of Delaware County in the City of Muncie bounded by West 26th Street/Hines Road to the north, Cowan Road to the east, West Fuson Road to the south, and South Hoyt Avenue to the west has been classified as nonattainment for Lead in 75 FR 71033 dated November 22, 2010. Therefore, Lead emissions were evaluated pursuant to the requirements of Emission Offset, 326 IAC 2-3.

(d) Other Criteria Pollutants
Delaware County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

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

Note: Due to this modification IDEM has updated the unlimited and limited potential to emit calculations to include the potential fugitive particulate emissions from paved and unpaved roads (See Appendix A for detailed calculations).

Source Status

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

Pollutant	Emissions (ton/yr)
PM	98.80
PM10	99.86
PM2.5	99.86
SO2	73.5
NOX	45.0
VOC	0.1
CO	1.3
GHGs as CO2e	47,222
HAPs	
Lead	3.5
Other HAPs	0.54
Total	4.04

(a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no regulated pollutant, excluding GHGs, is emitted at a rate of one hundred (100) tons per year or more, emissions of GHGs are less than one hundred thousand (100,000) tons of CO_2 equivalent emissions (CO_2e) per year, and it is one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).

(b) This existing source is not a major stationary source under Emission Offset (326 IAC 2-3) because no nonattainment regulated pollutant (lead) is emitted at a rate of five (5) tons per year or more and it is a secondary lead smelter.

(c) This existing source is not a major source of HAPs, as defined in 40 CFR 63.2, because HAPs emissions are limited to less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

(d) These emissions are based upon TSD to Part 70 Operating Permit No. 035-31230-00028, issued on August 1, 2012.

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by Exide Technologies on May 10, 2013, relating to the installation of two (2) additional baghouses on existing emission units. The baghouses are necessary to ensure the building housing the emission units is maintained under sufficient negative pressure at all times as required by 40 CFR Part 63, Subpart X. One (1) baghouse will be added to the refinery area where the two (2) pig casting machines and eleven (11) pot furnaces are located. The other baghouse will be installed in the bin room area where lead containing material storage and slag crushing are located. Each new baghouse will exhaust to its own stack, which are separate from the existing baghouse stacks. There will be no physical changes to the processes controlled by the proposed baghouse. The source has requested to include the new baghouses in the existing emission limits associated with each process it will control. Therefore, the addition of these baghouses will not increase the unlimited or limited potential to emit.

The following is a list of the modified emission units and pollution control devices:

(a) Two (2) lead pig casting machines, constructed in 1989 and approved for modification in 2013, identified collectively as Unit 7, each rated at 120,000 tons of lead per year controlled by refinery baghouse No. 1 and refinery baghouse No. 2, with each baghouse exhausting to a separate stack.

Note: The 2013 modification only consists of the addition of refinery baghouse No. 2.

(b) Eleven (11) natural gas-fired pot furnaces, approved for modification in 2013, identified as Units 6K1, 6K2 and Units 6K4 through 6K12, all controlled by refinery baghouse No. 1 and refinery baghouse No. 2, with each baghouse exhausting to a separate stack, and including:

(1) Two (2) rated at 120 tons holding capacity and 3.4 million British thermal units per hour (MMBtu/hr), constructed in 1989, identified as Units 6K1 and 6K2,

(2) Three (3) rated at 100 tons holding capacity and 3.0 MMBtu/hr, constructed in 1989, identified as Units 6K9, 6K10, and 6K12,

(3) One (1) rated at 120 tons holding capacity and 3.0 MMBtu/hr, constructed in 1989, identified as Unit 6K11,

(4) One (1) rated at 100 tons holding capacity and 3.0 MMBtu/hr, constructed in 1973, identified as Unit 6K6,

(5) Two (2) rated at 100 tons holding capacity and 3.4 MMBtu/hr, constructed in 1973, identified as Units 6K7 and 6K8,

(6) One (1) rated at 115 tons holding capacity and 3.0 MMBtu/hr, constructed in 1973, identified as Unit 6K5,

(7) One (1) rated at 100 tons holding capacity and 3.0 MMBtu/hr, constructed in 1973 and modified in October 2009, identified as Unit 6K4.

Note: The 2013 modification only consists of the addition of refinery baghouse No. 2.

(c) Material handling, identified as Unit 9, approved for modification in 2013, controlled by bin room baghouse No. 1 and bin room baghouse No. 2, with each baghouse exhausting to a separate stack.

(1) One (1) slag crusher, constructed in 1994, with emissions controlled by a baghouse, identified as slag crusher baghouse venting to bin room baghouses No.1 and No. 2.

(2) One (1) strip casting machine, constructed in 1997.

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

(A) One (1) natural gas-fired seven (7) ton melting pot, identified as MP-1, constructed in 1997, with a capacity of 2.2 million British thermal units per hour; and

(B) One (1) natural gas-fired thirty-five (35) ton melting pot, identified as MP-2, constructed in 1997, with a capacity of 1.2 million British thermal units per hour.

Note: The 2013 modification only consists of the addition of bin room baghouse No. 2.

Enforcement Issues

There are no pending enforcement actions related to this modification.

Stack Summary

Stack ID	Operation	Height (ft)	Diameter (ft)	Flow Rate (acfm)	Temperature (^{0}F)
Refinery Baghouse No. 2	Eleven (11) Pot Furnaces (Stack 9) and Two (2) Pig Machines	70	6	100,000	100
Bin Room Baghouse No. 2	Material Handling/Slag Crusher	70	7.67	160,000	100

Emission Calculations

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

Permit Level Determination – Part 70

(1) Approval to construct:
The new baghouses are exempt from the requirement to obtain prior approval to construct under 326 IAC 2-7-10.5, since the addition of the baghouses does not increase the unlimited or limited potential to emit.

(2) Approval to operate:
The modification will be incorporated into the Part 70 Operating Permit through a significant permit modification issued pursuant to 326 IAC 2-7-12(d) because the modification requires significant changes to the existing permit terms or conditions (such as a case-by-case determination of emission limitations, monitoring, and record keeping requirements).

Permit Level Determination – PSD and Emission Offset

Based on the potential emissions after controls, a National Ambient Air Quality Standard (NAAQS) air quality analysis was triggered for Lead. This area of Delaware County has been classified as non-attainment for lead. The NAAQS modeling for lead using monitored design values from February 2012 showed violations of the standards. At current monitored design values, the proposed project should not contribute to any violation of the NAAQS. An additional impact analysis was conducted and showed no significant impact. See Appendix B of this Technical Support Document for a detailed air quality analysis.

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 permit modification, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

	Potential to Emit (ton/yr)								
Process / Emission Unit	**PM**	**PM_{10}**	**$PM_{2.5}$***	**SO_2**	**NOx**	**VOC**	**CO**	**GHGs**	**Pb**
Eleven (11) Pot Furnaces (Refinery Baghouse No. 1 and 2)	20.81	23.0	23.0	0.10	16.15	0.89	13.56	19,493	1.31
Two (2) Lead Pig Casting Machines (Refinery Baghouse No. 1 and 2)				0	0	0	0	0	
Material Handling/Slag Crusher (Bin Room Baghouse No. 1 and 2)	9.86	9.86	9.86	0	0	0	0	0	0.74
Insignificant Melting Pots (Bin Room Baghouse No. 1 and 2)				0.01	1.46	0.08	1.23	1,763	
Paved Roads	0.77	0.15	0.04	0	0	0	0	0	0
Unpaved Roads	4.95	1.26	0.13	0	0	0	0	0	0
Total for Modification	36.38	34.27	33.01	0.11	17.61	0.97	14.79	21,256	2.06
PSD Major Source Thresholds	100	100	100	100	100	100	100	100,000 CO_2e	NA
Emission Offset/ Nonattainment NSR Major Source Thresholds	NA	NA	NA	NA	NA	NA	NA	NA	5

*$PM_{2.5}$ listed is direct $PM_{2.5}$.

(a) PSD Minor Source

This modification to an existing minor stationary source is not major because the emissions increase is less than the PSD major source thresholds. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply. Due to the addition of the potential to emit fugitive particulate PM from paved and unpaved roads, the source-wide potential to emit PM is now greater than 100 tons per year. Therefore, the source has requested to adjust the existing PM emission limits for the ventilation baghouse, refinery no. 1 baghouse, and north and south sodium carbonate packed tower scrubbers in order to maintain the source wide PM emissions to less than 100 tons per year.

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

(1) The PM emissions from the following processes shall not exceed the emission limits listed in the table below:

Emission Units	**Control Equipment**	**PM Limit** (lb/hr)
Reverberatory furnace (Unit 4) and Blast furnace (cupola) (Unit 5)*	Process baghouse followed by North and South sodium carbonate packed tower scrubbers	4.60

Emission Units	Control Equipment	PM Limit (lb/hr)
Reverberatory and blast furnace charge points hoods emissions*	Ventilation baghouse	2.75
Pig casting and Pot furnaces (6K1-2) (6K4-12)*	Refinery Baghouses No. 1 and No. 2	4.75
Material Handling/Slag Crusher/insignificant melting pots**	Bin Room Baghouses No. 1 and No. 2	2.25
*Due to this modification, the existing PM emission limits for these processes had to be adjusted. This is a combined limit for both refinery baghouses and is a Title 1 change. **This is an existing limit and did not require adjustment due to this modification. The source has requested to include the new bin room baghouse (No. 2) in this existing limit. This is a combined limit for both bin room baghouses and is a Title 1 change.		

The source shall continue to comply with all other applicable PM emission limits as contained in Part 70 Operating Permit No. 035-31230-00028, issued on August 1, 2012.

(2) The PM10 and PM2.5 emissions from the following processes shall not exceed the emission limits listed in the table below:

Emission Units	Control Equipment	PM10 Limit (lb/hr)	PM2.5 Limit (lb/hr)
Pig casting and Pot furnaces (6K1-2) (6K4-12)*	Refinery Baghouses No. 1 and No. 2	5.25	5.25
Material Handling/Slag Crusher/insignificant melting pots**	Bin Room Baghouses No. 1 and No. 2	2.25	2.25
*This is an existing limit and did not require adjustment due to this modification. The source has requested to include the new refinery baghouse (No. 2) with the existing limit for refinery baghouse (No. 1). This is a Title 1 change. **This is an existing limit and did not require adjustment due to this modification. The source has requested to include the new bin room baghouse (No. 2) with the existing limit for bin room baghouse (No. 1). This is a Title 1 change.			

The source shall continue to comply with all other applicable PM10 and PM2.5 emission limits as contained in Part 70 Operating Permit No. 035-31230-00028, issued on August 1, 2012.

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

(b) Emission Offset Minor Source
This modification to an existing minor stationary source is not major because the emissions increase is less than the Emission Offset major source thresholds. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

In order to continue to render the requirements of 326 IAC 2-3 (Emission Offset) not applicable, the source shall comply with the following:

(1) The Lead emissions from the following processes shall not exceed the emission limits listed in the table below:

Emission Units	**Control Equipment**	**Lead Limit** (lb/hr)
Pig casting and Pot furnaces (6K1-2) (6K4-12)*	Refinery Baghouses No. 1 and No. 2	0.3
Material Handling/Slag Crusher/insignificant melting pots*	Bin Room Baghouses No. 1 and No. 2	0.17
*This is an existing limit and did not require adjustment due to this modification. The source has requested to include the new refinery baghouse (No. 2) with the existing limit for refinery baghouse (No. 1). This is a Title 1 change. **This is an existing limit and did not require adjustment due to this modification. The source has requested to include the new bin room baghouse (No. 2) with the existing limit for bin room baghouse (No. 1). This is a Title 1 change.		

The source shall continue to comply with all other applicable lead emission limits as contained in Part 70 Operating Permit No. 035-31230-00028, issued on August 1, 2012.

Compliance with these limits, combined with the potential to emit lead from all other emission units at this source, shall limit the source-wide total potential to emit of lead to less than 5 tons per 12 consecutive month period, and shall render the requirements of 326 IAC 2-3 (Emission Offset) not applicable.

PTE of the Entire Source After Issuance of the Modification

The table below summarizes the potential to emit of the entire source after issuance of this modification, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 permit modification, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Modification (tons/year)									
	PM	PM10[1]	PM2.5[1]	SO_2	NOx	VOC	CO	GHGs as CO_2e	Total HAPs	Pb
Battery Crusher/Breaker	9.86	9.86	9.86	0	0	0	0	0	0.28	0.28 Pb
Soda Ash Pneumatic Conveying thru 3 Silos	1.01	1.01	1.01	0	0	0	0	0	0	0
Rotary Dryer	19.71	19.71	19.71	0.16	5.37	0.30	4.51	6,480	0.23	0.13 Pb
Reverberatory Furnace					25.4	0.57	8.77	12,598		
Blast Furnace (Cupola)	20.15	21.90	21.90	99.00	1.5	0	0	11,129	1.69	1.49 Pb
Reverberatory and Blast Furnaces (Cupola) Charging Points combined	12.05	13.14	13.14	0	0	0	0	0	0.74	0.74 Pb
Pot Furnaces (Stack 9) and Pig Castings Machines combined	20.81	23.00	23.00	0.10	16.15	0.89	13.56	19,493	1.62	1.31 Pb
Material Handling/Slag Crusher				0	0	0	0	0	0.74	0.74 Pb
Insignificant Melting Pots	9.86	9.86	9.86	0.01	1.46	0.08	1.23	1,763	0.03	0
Paved Roads	0.77	0.15	0.04	0	0	0	0	0	0	0
Unpaved Roads	4.95	1.26	0.13	0	0	0	0	0	0	0
Total PTE of Entire Source	**99.14**	**99.88**	**98.63**	**99.26**	**39.47**	**1.84**	**28.06**	**51,463**	**5.33**	**4.70 Pb**
Title V Major Source Thresholds	NA	100	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds	100	100	100	100	100	100	100	100,000	NA	NA
Emission Offset/ Nonattainment NSR Major Source Thresholds	NA	NA	NA	NA	NA	NA	NA	NA	NA	5

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

This existing stationary source is not major for PSD because the emissions of each criteria pollutant are less than one hundred (<100) tons per year, emissions of GHGs are less than one hundred thousand (<100,000) tons of CO_2 equivalent emissions (CO_2e) per year, and it is in one of the twenty-eight (28) listed source categories.

This existing stationary source is also not major for Emission Offset because the emissions of each nonattainment regulated pollutant (lead) are less than five (5) tons per year and it is a secondary lead smelter.

Federal Rule Applicability Determination

The existing federal rule applicability for this source remains unchanged as a result of this permit modification. The source shall continue to comply with the applicable requirements and permit conditions as contained in Part 70 Operating Permit No. 035-31230-00028, issued on August 1, 2012.

State Rule Applicability Determination

The following state rules are applicable to the source due to the modification:

326 IAC 2-2 and 2-3 (PSD and Emission Offset)
PSD and Emission Offset applicability is discussed under the Permit Level Determination – PSD and Emission Offset section.

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
Due to this modification, the source is not subject to the requirements of 326 IAC 6-5, because the paved and unpaved roads have potential fugitive particulate emissions less than 25 tons per year.

326 IAC 20-13 (Hazardous Air Pollutants: Secondary Lead Smelters)
Pursuant to 326 IAC 20-13-1(c)(2), affected emission units constructed or reconstructed on or before May 19, 2011 at Exide Technologies, Inc., Muncie shall comply with this rule through September 30, 2013. Therefore, the requirements of this rule are no longer applicable to this source.

326 IAC 20-13.1 (Hazardous Air Pollutants: Secondary Lead Smelters)
Pursuant to 326 IAC 20-13.1-1(c)(2), affected emission units constructed or reconstructed on or before May 19, 2011 at Exide Technologies, Inc., Muncie shall comply with 326 IAC 20-13.1-3(c) beginning on October 1, 2013. Pursuant to 326 IAC 20-13.1-1(c)(3), except for the requirements of 326 IAC 20-13.1-3(c)(3), affected emission units constructed or reconstructed on or before May 19, 2011 at Exide Technologies, Inc., Muncie shall comply with 326 IAC 20-13.1 beginning on January 6, 2014.

(a) Pursuant to 326 IAC 20-13.1-1(c)(2) and 326 IAC 20-13.1-3(c), Exide Technologies, Inc., shall comply with the following requirements by October 1, 2013:

(1) 326 IAC 20-13.1-1 (Applicability)
(2) 326 IAC 20-13.1-2 (Definitions)
(3) 326 IAC 20-13.1-3(a) (Emission Limitations; lead standards for Exide Technologies, Incorporated)
(4) 326 IAC 20-13.1-5(b) and 5(h) (Emission limitations and operating provisions)
(5) 326 IAC 20-13.1-6 (Total enclosure requirements)
(6) 326 IAC 20-13.1-7 (Total enclosure monitoring requirements)
(7) 326 IAC 20-13.1-8 (Fugitive dust source requirements)
(8) 326 IAC 20-13.1-9 (Bag leak detection system requirements)
(9) 326 IAC 20-13.1-10(a) through 10(d) (Other requirements)
(10) 326 IAC 20-13.1-11(a) through 11(c) and 11(f) (Compliance testing)
(11) 326 IAC 20-13.1-12(a) (Compliance testing methods)
(12) 326 IAC 20-13.1-14(a), 14(b), 14(c)(1) through 14(c)(8), 14(c)(10) through 14(c)(13), 14(c)(15) through 14(c)(17), 14(d), 14(e)(1), 14(e)(4) through 14(e)(7), and 14(e)(9) through 14(e)(12) (Record keeping and reporting requirements)

Note: Pursuant to 326 IAC 20-13.1-3(a), the lead emissions from the new refinery baghouse (No. 2) and bin room baghouse (No. 2), shall not exceed 0.5 milligram per dry standard cubic meter (mg/dscm) (0.00022 grains per dry standard cubic foot (gr/dscf), each.

(b) Pursuant to 326 IAC 20-13.1-1(c)(3), Exide Technologies, Inc., shall comply with the following additional requirements beginning on January 6, 2014:

(1) 326 IAC 20-13.1-5(d), 5(g), (5)(i), and (5)(j) (Emission limitations and operating provisions)
(2) 326 IAC 20-13.1-10(e) (Other requirements)
(3) 326 IAC 20-13.1-11(e) (Compliance testing)
(4) 326 IAC 20-13.1-12(b), 12(c), 12(d), 12(e) (Compliance testing methods)
(5) 326 IAC 20-13.1-13(a), 13}(b), and (d) (Notification requirements)
(6) 326 IAC 20-13.1-14(c)(9),14(e)(2),14(e)(8) through 14(e)(7), 14(e)(13), and 14(e)(14) (Record keeping and reporting requirements)
(7) 326 IAC 20-13.1-15 (Affirmative defense to civil penalties for exceedance of emissions limit during malfunction)

The source shall continue to comply with all other applicable requirements and permit conditions as contained in Part 70 Operating Permit No. 035-31230-00028, issued on August 1, 2012.

Compliance Determination and Monitoring Requirements

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

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

(a) The compliance monitoring requirements applicable to this proposed modification are as follows:

Emission Unit/Control	Operating Parameters	Frequency
Refinery Baghouse No. 2	Bag Leak Detection System (BLDS)	Continuous
Bin Room Baghouse No. 2	Bag Leak Detection System (BLDS)	Continuous

Pursuant to 20-13.1-9, the owner or operator of a secondary lead smelter must install and continuously operate a bag leak detection system for all baghouses controlling process and process fugitive sources. These monitoring conditions are also necessary because the baghouses must operate properly to ensure compliance with 40 CFR 60, Subpart L, 40 CFR 63, Subpart X, 326 IAC 6-3 (Particulate Limitations for Manufacturing Processes), and to render the requirements of 326 IAC 2-2 (PSD) not applicable.

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

Testing Requirements				
Emission Unit	**Control Device**	**Pollutant**	**Timeframe for Testing**	**Frequency of Testing**
Two (2) lead pig casting machines and Eleven (11) natural gas-fired pot furnaces	Refinery Baghouse No.1 and No. 2	PM, PM10, and PM2.5,	Not later than 180 days after issuance of SPM No. 035-33188-00028	Once every five (5) years(1)
		Lead		Once every one (1) year(2)
Material Handling/Slag Crusher/Insignificant Melting Pots	Bin Room Baghouse No.1 and No. 2	PM, PM10, and PM2.5,	Not later than 180 days after issuance of SPM No. 035-33188-00028	Once every five (5) years(1)
		Lead		Once every one (1) year(2)

(1) These testing requirements are necessary to demonstrate compliance with the PM, PM10, and PM2.5 emission limits pursuant to 326 IAC 2-2 (PSD) and 326 6-3-2 (Particulate Emission Limitations for Manufacturing Processes).

(2) These testing requirements are necessary to demonstrate compliance with the lead emission limits pursuant to 326 IAC 2-2 (PSD) and 326 20-13.1-3(a) (Emission Limitations; lead standards for Exide Technologies, Incorporated). The testing frequency for lead is specified in 326 IAC 20-13.1-11(a) (Compliance testing).

(3) There are no new stack testing requirements included in this modification for the ventilation baghouse because the source performed PM stack testing of these control devices in July of 2013. The results of these tests are currently pending. In addition, the source last tested the north and south scrubbers for PM in July of 2012 and the measured emission rate was 0.5 pounds of PM per hour. The source shall continue to perform testing as specified in Part 70 Operating Permit No. 035-31230-00028, issued on August 1, 2012.

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. 035-33188-00028. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

(1) The descriptive information in Sections A.2, D.2, and D.3 have been revised to reflect the addition of the two (2) new baghouses.

(2) The existing PM emission limits in Condition D.1.1 - PSD and Emission Offset Minor Limits have been revised as requested by the source.

(3) Effective September 30, 2013, the requirements of 326 IAC 20-13 are no longer applicable to this source. Therefore, all references to this rule in Sections D.1, D.2, and D.3 have been removed.

(4) This source is required to perform lead testing to show compliance with the emission offset minor limits in Conditions D.1.1, D.2.1, and D.3.1- PSD and Emission Offset Minor Limits. In addition, the source must perform testing to show compliance with 326 IAC 12.13-1. As a result, Section D - Testing Requirements has been revised to reflect the new requirements of 326 IAC 20-13.1-11.

(5) Section D - Bag Leak Detection System Monitoring, Record Keeping, and Reporting Requirements have been updated to reflect the new requirements in 326 IAC 20-13.1-9.

(6) Condition D.2.1 - PSD and Emission Offset Minor Limits has been revised to include the new baghouse and the revised PM emission limit due to this modification.

(7) Condition D.2.4 - Particulate Matter (PM) and Lead (Pb) (formerly Condition D.2.5) has been revised to include the new baghouse.

(8) New testing requirements have been included in Condition D.2.5 - Testing Requirements (formerly Condition D.2.6) due to the addition of the new baghouse.

(9) Condition D.3.1 - PSD and Emission Offset Minor Limits has been revised to include the new baghouse.

(10) Condition D.3.2 - Particulate Emissions (formerly Condition D.3.3) has been revised to include the material handling as indicated in the technical support document for Part 70 Operating Permit No. 035-31230-00028, issued on August 1, 2012.

(11) Condition D.3.4 - Particulate Matter (PM) and Lead (Pb) (formerly Condition D.3.5) has been revised to include the new baghouse.

(12) New testing requirements have been included in Condition D.3.5 - Testing Requirements (formerly Condition D.3.6) due to the addition of the new baghouse.

(13) Effective October 1, 2103, this source is subject to 326 IAC 20-13.1. Therefore, IDEM has added the applicable requirements of this rule in a new Section F. IDEM will include the rule in its entirety as attachment C.

...

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

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

...

(e) Two (2) lead pig casting machines, constructed in 1989 **and approved for modification in 2013**, identified collectively as Unit 7, each rated at 120,000 tons of lead per year controlled by ~~the~~ refinery baghouse **No. 1 and refinery baghouse No. 2, with each baghouse exhausting to a separate stack**.

Note: The 2013 modification only consists of the addition of refinery baghouse No. 2.

(f) Eleven (11) natural gas-fired pot furnaces, **approved for modification in 2013,** identified as Units 6K1, 6K2 and Units 6K4 through 6K12, all controlled by ~~the~~ refinery baghouse~~,~~ **No. 1 and refinery baghouse No. 2, with each baghouse exhausting to a separate stack, and** including:

...

(2) ~~Four~~ **Three** (~~43~~) rated at 100 tons holding capacity and 3.0 MMBtu/hr, constructed in 1989, identified as Units 6K9, 6K10, and 6K12,

...

Note: The 2013 modification only consists of the addition of refinery baghouse No. 2.

...

(i) Material handling, identified as Unit 9, **approved for modification in 2013,** controlled by bin room baghouse **No. 1 and bin room baghouse No. 2, with each baghouse exhausting to a separate stack.**

(1) One (1) slag crusher, constructed in 1994, with emissions controlled by a baghouse, identified as slag crusher baghouse venting to bin room baghouse**s**

No.1 and No. 2.

...

Note: The 2013 modification only consists of the addition of bin room baghouse No. 2.

...

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

D.1.1 PSD **and Emission Offset** Minor Limit**s** [326 IAC 2-2]**[326 IAC 2-3]**

In order to render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) not applicable, the Permittee shall comply with the following:

...

(b) The PM, PM10, PM2.5 and lead emissions ~~are limited as shown in the table as follows~~ **shall not exceed the emission limits listed in the table below**:

Emission Units	Control Equipment	PM Limit (lb/hr)	PM10~~/PM2.5~~ Limit (lb/hr)	**PM2.5 Limit (lb/hr)**	Lead Limit (lb/hr)
Rotary dryer (Unit 3)	Rotary dryer baghouse	4.50	4.50	**4.50**	0.029
Reverberatory furnace (Unit 4) and Blast furnace (cupola) (Unit 5)	process baghouse followed by North and South sodium carbonate packed tower scrubbers	~~5.00~~ **4.60**	5.00	**5.00**	0.34
Reverberatory and blast furnace charge points hoods emissions	Ventilation baghouse	~~3.00~~ **2.75**	3.00	**3.00**	0.17

...

Compliance with these limits in combination with ~~c~~**C**onditions D.2.1 and D.3.1 **and the potential to emit PM, PM10, PM2.5, and SO2 from all other emission units at this source,** shall ~~keep~~ **limit** the source-wide total **potential to emit** PM, PM10, PM2.5 and SO2 ~~below~~ **to less than** one hundred (100) tons per year**, each,** ~~and Lead below five (5) tons per year~~ and ~~will~~ **shall** render the requirements of 326 IAC 2-2 **(PSD)** not applicable.

Compliance with these limits in combination with Conditions D.2.1 and D.3.1 and the potential to emit lead from all other emission units at this source, shall limit the source-wide total potential to emit of lead to less than 5 tons per 12 consecutive month period, and shall render the requirements of 326 IAC 2-3 (Emission Offset) not applicable.

~~D.1.2 Lead Emission Limitations [326 IAC 20-13-3]~~

~~Pursuant to 326 IAC 20-13-3 (Emission Limitations; Lead Standards for Exide Technologies), lead emission shall be limited as follows:~~

~~**Emission Unit**~~	~~**Control Unit / Facility**~~	~~**Emission Limit** (mg/dscm)~~
~~Rotary Dryer~~	~~Rotary Dryer Baghouse~~	~~0.5~~
~~Reverberatory Furnace & Blast Furnace (cupola) charging hood emissions~~	~~Ventilation Baghouse~~	~~0.5~~
~~Reverberatory Furnace & Blast Furnace (cupola)~~	~~Process baghouse followed by North sodium carbonate packed tower scrubber~~	~~1.0~~
	~~Process baghouse followed by South sodium carbonate packed tower scrubber~~	~~1.0~~

D.1.~~3~~**2** Sulfur Dioxide (SO_2) [326 IAC 7-1.1]

...

D.1.~~4~~**3** Particulate Emissions [326 IAC 6-3-2]

...

D.1.~~5~~**4** Preventive Maintenance Plan [326 IAC 2-7-5(1~~3~~**2**)]

...

Compliance Determination Requirements

D.1.~~6~~**5** Particulate Matter (PM), Sulfur Dioxide (SO_2) and Lead (Pb) [326 IAC 2-7-6(6)]

(a) In order to ensure compliance with Conditions D.1.1~~, D.1.2~~ and D.1.~~4~~**3**, the rotary dryer baghouse shall be in operation at all times that the rotary dryer is in operation.

(b) In order to ensure compliance with Condition~~s~~ D.1.1 ~~and D.1.~~2, the process baghouse shall be in operation at all times that the reverberatory furnace and blast furnace (cupola) are in operation.

(c) In order to ensure compliance with Conditions D.1.1~~, D.1.2~~ and D.1.3, either the North or South sodium carbonate packed tower scrubbers shall be in operation at all times that the reverberatory furnace and blast furnace (cupola) are in operation. In the event that both scrubbers cease operation for any reason, both furnaces shall immediately be shut down until at least one scrubber is operational again.

...

Compliance Determination Requirements

D.1.~~7~~**6** Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11] [326 IAC ~~20-13-6~~ **20-13.1-11**]

(a) Pursuant to 326 IAC ~~20-13-6~~ **20-13.1-11** and in order to demonstrate the compliance status with lead limits in Condition D.1.~~2~~**1**, the Permittee shall conduct lead testing from rotary dryer and reverberatory furnace and blast furnace (cupola), utilizing methods as approved by the commissioner in accordance with the following schedule:

(1) every twelve (12) calendar months; or

(2) ~~if the compliance test demonstrates the lead compounds at 0.25 milligrams of lead per dry standard cubic meter (0.00011 grains per dry standard cubic foot), or less during the last compliance test, the Permittee shall be allowed up to twenty four (24) calendar months to the next annual compliance test.~~ **If an annual compliance test demonstrates that a process vent emitted lead compounds at one-tenth (0.1) milligram of lead per dry standard cubic meter or less during the time of the annual compliance test, the owner or operator of a secondary lead smelter may submit a written request to the U.S. EPA applying for an extension of up to twenty-four (24) calendar months from the previous compliance test to conduct the next compliance test for lead compounds.**

(b) In order to demonstrate the compliance status with Condition D.1.1 and Condition D.1.~~4~~**3**, the Permittee shall perform PM, PM10, PM2.5 testing utilizing methods as approved by the commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM10 **and PM2.5** includes filterable and condensable PM10 **and PM2.5**.

(c) ~~Testing shall be conducted in accordance with Section C - Performance Testing.~~ **Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligations with regard to the testing required by this condition.**

~~D.1.8 Compliance Requirements [326 IAC 20-13-7]~~

~~Pursuant to 326 IAC 20-13-7 (Compliance Requirements):~~

~~(a) The Permitted shall maintain purchasing records and manufacturer's specifications of all high efficiency particulate air (HEPA) filters installed on process fugitive and fugitive dust stacks demonstrating the filters have been certified by the manufacturer to meet the definition of HEPA filters in 40 CFR 63.542. The records and manufacturer's specifications shall be maintained on site for three (3) years and shall be available for an additional two (2) years.~~

~~(b) The Permittee shall comply with the following opacity limitations:~~

~~(1) Stacks exhausting process, process fugitive emissions, or fugitive dust emissions shall not exceed five percent (5%) opacity from particulate matter emissions for any one (1) six (6) minute averaging period as measured by 40 CFR 60, Appendix A, Reference Method 9.~~

~~(2) Exterior dust handling systems of dry collectors of lead emitting processes (augers, hoppers, transfer points) shall not discharge to the atmosphere visible emissions in excess of five percent (5%) of an observation period consisting of three (3) twenty (20) minute periods, as determined by 40 CFR 60, Appendix A, Reference Method 22. The provisions under this subdivision for dust handling systems shall not apply during maintenance and repair of the dust handling systems. During maintenance and repair of the dust handling system, the owner or operator shall take reasonable measures to prevent or minimize fugitive dust emissions.~~

~~(3) The opacity limitations shall only apply to particulate matter emissions.~~

~~(c) The Permittee uses total enclosure to control process fugitive and fugitive dust emissions from manufacturing operations. Therefore, in addition to the requirements of 40 CFR 63.8, 40 CFR 63.10, and 40 CFR 63.547(e), as specified in Section E.2 of this permit, the Permittee shall do the following:~~

~~(1) Submit a plan describing the installation and operation of a continuous monitoring system that meets the requirements of 40 CFR 63.547(e)(2), as specified in Section E.2 of this permit. The plan shall be postmarked or hand delivered to IDEM one hundred twenty (120) days prior to installation of the continuous monitoring system.~~

~~(2) Within one hundred eighty (180) days after written approval of the monitoring system plan by IDEM, install and operate a continuous monitoring system to measure and record pressure differential. The continuous monitoring system shall consist of the following:~~

~~(A) A differential pressure sensor capable of measuring pressure within a range of two-hundredths (0.02) to two-tenths (0.2) millimeter of mercury (one-hundredth (0.01) to one-tenth (0.1) inch water).~~

~~(B) A processor.~~

~~(C) An alarm.~~

~~(D) A continuous recording device.~~

~~Any changes to the location or operation of the system shall require prior written approval by the department.~~

~~(3) Initiate corrective actions within thirty (30) minutes of a monitoring system alarm.~~

~~(4) Request, if desired, to cease monitoring pressure differential twelve (12) months from the commencement date of approved monitoring.~~

~~(5) Notify IDEM of any physical changes including, but not limited to, ventilation capacity and building size. If IDEM determines the net effect of any such changes may potentially affect air pressure readings of the building, then the Permittee shall resume monitoring for an additional twelve (12) months. Monitoring may be discontinued in accordance with the procedures under subdivision (4).~~

~~(6) Maintain the following on site for a period of three (3) years and have available for an additional two (2) years:~~

~~(A) Records of the pressure differential.~~

~~(B) Logs of monitoring system alarms, including date and time.~~

~~(C) Logs of corrective actions, including date and time.~~

~~(d) The Permittee shall demonstrate compliance with the bag leak detection system requirements under 326 IAC 20-13-5 (Operational and Work Practice Standards), if applicable, by submitting reports showing that the alarm on the system does not activate for more than five percent (5%) of the total operating time in a six (6) month period or two hundred nineteen (219) hours, if operated for four thousand three hundred eighty (4,380) hours in the six (6) month period, whichever is less. The percentage of total operating time the alarm on the bag leak detection system activates shall be calculated as follows:~~

~~(1) Do not include alarms that occur due solely to a malfunction of the bag leak detection system in the calculation.~~

~~(2) Do not include alarms that occur during startup, shutdown, and malfunction in the calculation if:~~

~~(A) the condition is described in the startup, shutdown, and malfunction plan; and~~

~~(B) the owner or operator follows all the procedures in the plan defined for this condition.~~

~~(3) Count the actual time it takes the Permittee to identify and correct the cause of the alarm, excluding any time that the process is shut down for repair.~~

~~(4) Calculate the percentage of time the alarm on the bag leak detection system activates as the ratio of the sum of alarm times to the total operating time multiplied by one hundred (100).~~

~~(e) Ventilation air from the following shall be conveyed or ventilated to a control device:~~

~~(1) All enclosure hoods and total enclosures.~~

~~(2) All dryer emission vents.~~

~~(3) Agglomerating furnace emission vents.~~

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

D.1.~~9~~**7** Visible Emissions Notations [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)] **[40 CFR 64]**

...

D.1.~~10~~**8** Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)] **[40 CFR 64]**

...

D.1.~~11~~**9** Scrubber Failure Detection [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

...

D.1.~~12~~**10** SO_2 Monitor Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(1)]

...

D.1.1~~3~~**1** Bag Leak Detection System Monitoring ~~[326 IAC 20-13-5] [326 IAC 20-13-8]~~ **[326 IAC 20-13.1-9]** [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)] **[40 CFR 64]**

~~Pursuant to 20-13-8, the owner or operator of a secondary lead smelter must install and continuously operate a bag leak detection system for all baghouses controlling process and process fugitive sources. Baghouses equipped with HEPA filters or used exclusively for the control of fugitive dust emissions are exempt from this requirement. The Permittee must maintain and operate each baghouse controlling process and process fugitive sources such that the following conditions are met:~~

~~(a) The alarm on the system does not activate for more than five percent (5%) of the total operating time in a six (6) month reporting period.~~

~~(b) Procedures to determine the cause of the alarm are initiated within one (1) hour of the alarm according to the standard operating procedures manual for corrective action required under 40 CFR 63.548, as specified in Section E.1 of this permit.~~

~~(c) The bag leak detection system shall also meet the following requirements:~~

~~(1) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of ten (10) milligrams per actual cubic meter (forty-four ten thousandths (0.0044) grains per actual cubic foot) or less.~~

~~(2) The bag leak detection system sensor must provide output of relative particulate matter loadings, and the owner or operator must continuously record the output from the bag leak detection system.~~

~~(3) The bag leak detection system must be equipped with an alarm system that will alert appropriate plant personnel when an increase in relative particulate loadings is detected over a preset level. The alarm must be located where it can be heard by the appropriate plant personnel.~~

~~(4) Each bag leak detection system must be calibrated, and maintained consistent with the manufacturer's written specifications and recommendations.~~

~~(5) The initial adjustment of the system must, at a minimum, consist of establishing:~~

~~(A) the baseline output by adjusting the sensitivity (range);~~

~~(B) the averaging period of the device;~~

~~(C) the alarm set points; and~~

~~(D) the alarm delay time.~~

~~(6) Following initial adjustment, the owner or operator must not adjust the:~~

~~(A) sensitivity or range;~~

~~(B) averaging period;~~

~~(C) alarm set points; or~~

~~(D) alarm delay time;~~

~~except as detailed in the maintenance plan required under 40 CFR 63.548(a), as specified in Section E.1 of this permit. In no event must the sensitivity be increased by more than one hundred percent (100%) or decreased more than fifty percent (50%) over a three hundred sixty-five (365) day period unless a responsible official certifies the baghouse has been inspected and found to be in good operating condition.~~

~~(7) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.~~

~~(8) For negative pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detector must be installed downstream of the baghouse and upstream of any wet acid gas scrubber.~~

~~(d) In the event that a bag leak detection system should malfunction, fail or otherwise need repair, the Permittee shall perform visible emissions of the stack exhausts associated with that bag leak detection system as follows:~~

~~(1) Visible emission notations of the process baghouse stack exhaust shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.~~

~~(2) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.~~

~~(3) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.~~

~~(4) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.~~

~~(5) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.~~

Pursuant to 326 IAC 20-13.1-9 and 40 CFR 64, the Permittee shall install and continuously operate a bag leak detection system for all baghouses controlling process vents and process fugitive emissions sources unless a system meeting the requirements of section 10(g) of this rule for a CEMS is installed for monitoring the concentration of lead. See Condition F.1.1(a)(8) of this permit or 326 IAC 20-13.1-9 of Attachment C for detailed requirements.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] ~~[326 IAC 20-13-8]~~ **[326 IAC 20-13.1-9]**

D.1.~~14~~**12** Record Keeping Requirements

(a) In order to document the compliance status with Condition~~s~~ D.1.1 (a), the Permittee shall maintain monthly records of slag and lead bearing materials charged in the blast furnace cupola (Unit 5).

(b) In order to document the compliance status with Condition D.1.~~9~~**7**, the Permittee shall maintain a daily record of visible emission notations of the North and South sodium carbonate packed tower scrubber stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (e.g. the process did not operate that day).

(c) In order to document the compliance status with Condition D.1.~~10~~**8**, the Permittee shall maintain a daily record of the pressure drop across the North and South sodium carbonate packed tower scrubber controlling the reverberatory furnace and blast furnace cupola. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g. the process did not operate that day).

(d) In order to document the compliance status with Condition D.1.~~12~~**10**, the Permittee shall maintain records of SO_2 parametric emission monitoring during malfunction or downtime of continuous emissions monitoring system (CEMS).

~~(e) Pursuant to 326 IAC 20-13-8 and in order to document the compliance status with D.1.13, records for bag leak detection systems shall be maintained on site for a period of three (3) years and be available for an additional two (2) years and shall include the following information:~~

~~(1) Records of bag leak detection system output.~~

~~(2) Identification of the date and time of all bag leak detection system alarms.~~

~~(3) The time that procedures to determine the cause of the alarm were initiated.~~

~~(4) The cause of the alarm.~~

~~(5) An explanation of the actions taken.~~

~~(6) The date and time the alarm was corrected.~~

~~(7) Records of total operating time of an affected source during smelting operations for each six (6) month period.~~

~~(8) To document compliance with Condition D.1.13 (d), the Permittee shall maintain records of once per day visible emission notations of the stack exhaust.~~

(e) Pursuant to Condition F.1.1(a)(8) and in order to document the compliance status with Condition D.1.11, the owner or operator of a secondary lead smelter shall comply with the following:

(1) Records for bag leak detection systems shall be maintained on site for a period of three (3) years and be available for an additional two (2) years and shall include the following information:

(A) Records of bag leak detection system output.

(B) Identification of the date and time of all bag leak detection system alarms.

(C) The time that procedures to determine the cause of the alarm were initiated.

(D) The cause of the alarm.

(E) An explanation of the corrective actions taken.

(F) The date and time the cause of the alarm was corrected.

(G) Records of total operating time of an affected source during smelting operations for each six (6) month period.

(~~e~~**f**) ~~All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.~~ **Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the record keeping required by this condition.**

D.1.~~15~~**13** Reporting Requirements

(a) A quarterly summary of the information to document the compliance status with Conditions D.1.1(a) and (c), using the reporting forms located at the end of this permit, or their equivalent, shall be submitted ~~within~~ **no later than** thirty (30) calendar days following the end of each calendar quarter and in accordance with Section C - General Reporting Requirements of this permit. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(~~34~~**35**).

(b) ~~A quarterly report to document the compliance status with Condition D.1.13, including a summary of the following information:~~

~~(1) A description of the actions taken following each bag leak detection system alarm with:~~

~~(A) The procedures used to determine the cause of the alarm must be initiated within 30 minutes of the alarm.~~

~~(B) The cause of the alarm must be alleviated by taking the necessary corrective action(s), which may include, but not be limited to, the following:~~

~~(i) Inspecting the baghouse for air leaks, torn or broken filter elements, or any other malfunction that may cause an increase in emissions.~~

~~(ii) Sealing off defective bags or filter media.~~

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

~~(iv) Sealing off a defective baghouse compartment.~~

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

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

~~(2) Calculations of the percentage of time the alarm on the bag leak detection system was activated during the reporting period.~~

Submit a report to document the compliance status with Condition D.1.11 within thirty (30) days after the end of each preceding six (6) month period ending June 30 and December 31 of each year that includes the following:

(1) A description of the actions taken following each bag leak detection system alarm pursuant to Condition D.1.11(a).

(2) Calculations of the percentage of total operating time, or the total operating time in hours and minutes the alarm on the bag leak detection system was activated during the reporting period.

This report shall be submitted ~~within thirty (30) calendar days following the end of each calendar quarter and~~ in accordance with Section C - General Reporting Requirements of this permit. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(~~34~~**35**).

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(14)]:

(e) Two (2) lead pig casting machines, constructed in 1989 **and approved for modification in 2013**, identified collectively as Unit 7, each rated at 120,000 tons of lead per year controlled by ~~the~~ refinery baghouse **No. 1 and refinery baghouse No. 2, with each baghouse exhausting to a separate stack**.

Note: The 2013 modification only consists of the addition of refinery baghouse No. 2.

(f) Eleven (11) natural gas-fired pot furnaces, **approved for modification in 2013,** identified as Units 6K1, 6K2 and Units 6K4 through 6K12, all controlled by ~~the~~ refinery baghouse~~,~~ **No. 1 and refinery baghouse No. 2, with each baghouse exhausting to a separate stack, and** including:

...

(2) ~~Four~~ **Three** (~~43~~) rated at 100 tons holding capacity and 3.0 MMBtu/hr, constructed in 1989, identified as Units 6K9, 6K10, and 6K12,

...

Note: The 2013 modification only consists of the addition of refinery baghouse No. 2.

...

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

D.2.1 PSD **and Emission Offset** Minor Limit**s** [326 IAC 2-2] **[326 IAC 2-3]**

In order to render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) not applicable, the Permittee shall comply with the following:

(a) The PM, PM10, PM2.5 and lead emissions are limited as shown in the table as follows:

Emission Units	Control Equipment	PM Limit (lb/hr)	PM10/~~PM2.5~~ Limit (lb/hr)	**PM2.5 Limit (lb/hr)**	Lead Limit (lb/hr)
~~Pig casting~~	~~Refinery~~	~~5.25~~ **4.75**	5.25	**5.25**	0.3
Pig casting and Pot furnaces (6K1-~~3~~**2**) (6K~~5~~**4**-12)	**Refinery** Baghouse**s No.1 and No. 2**				

Compliance with these limits in combination with **Conditions** D.1.1 and D.3.1 **and the potential to emit PM, PM10, and PM2.5 from all other emission units at this source,** shall ~~keep~~ **limit** the source wide total **potential to emit** PM, PM10, and PM2.5 ~~below~~ **to less than** one hundred (100) tons per year**, each,** and ~~Lead below five (5) tons per year and~~ will render the requirements of 326 IAC 2-2 **(PSD)** not applicable.

Compliance with these limits in combination with Conditions D.1.1 and D.3.1 and the potential to emit lead from all other emission units at this source, shall limit the source-

wide total potential to emit of lead to less than 5 tons per 12 consecutive month period, and shall render the requirements of 326 IAC 2-3 (Emission Offset) not applicable.

~~D.2.2 Lead Emission Limitations [326 IAC 20-13-3]~~

~~Pursuant to 326 IAC 20-13-3 (Emission Limitations; Lead Standards for Exide Technologies), lead emission shall be limited as follows:~~

~~Emission Unit~~	~~Control Unit / Facility~~	~~Emission Limit (mg/dscm)~~
~~Lead Pig Casting Machines & Pot Furnaces~~	~~Refinery Baghouse~~	~~0.5~~

D.2.~~3~~**2** Particulate Emissions [326 IAC 6-3-2]

...

D.2.~~4~~**3** Preventive Maintenance Plan [326 IAC 2-7-5(1~~3~~**2**)]

...

Compliance Determination Requirements

D.2.~~5~~**4** Particulate Matter (PM) and Lead (Pb) [326 IAC 2-7-6(6)]

(a) In order to ensure compliance with Conditions D.2.1~~,~~ **and** D.2.2 ~~and D.2.3~~, the refinery baghouse**s (No. 1 and No. 2)** shall be in operation at all times that the two (2) lead pig casting machines and the eleven (11) pot furnaces are in operation.

...

D.2.~~6~~**5** Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [326 IAC ~~20-13-6~~ **20-13.1-11**]

(a) Pursuant to 326 IAC ~~20-13-6~~ **20-13.1-11** and in order to demonstrate the compliance status with lead limits in Condition D.2.~~2~~**1**, the Permittee shall conduct lead testing from the refinery baghouse**s No. 1 and No. 2**, utilizing methods as approved by the commissioner in accordance with the following schedule:

(1) every twelve (12) calendar months; or

(2) ~~if the compliance test demonstrates the lead compounds at 0.25 milligrams of lead per dry standard cubic meter (0.00011 grains per dry standard cubic foot), or less during the last compliance test, the Permittee shall be allowed up to twenty four (24) calendar months to the next annual compliance test.~~ **If an annual compliance test demonstrates that a process vent emitted lead compounds at one-tenth (0.1) milligram of lead per dry standard cubic meter or less during the time of the annual compliance test, the owner or operator of a secondary lead smelter may submit a written request to the U.S. EPA applying for an extension of up to twenty-four (24) calendar months from the previous compliance test to conduct the next compliance test for lead compounds.**

~~(b) In order to demonstrate the compliance status with Condition D.2.1 and Condition D.2.3, the Permittee shall perform PM, PM10, and PM2.5 testing on the refinery baghouse utilizing methods as approved by the commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM10 includes filterable and condensable PM10.~~

(b) In order to demonstrate the compliance status with Condition D.2.1, the Permittee shall perform lead testing on the refinery baghouses No.1 and No. 2 not later than 180 days after issuance of Significant Permit Modification No. 035-33188-00028 utilizing methods as approved by the commissioner. This test shall be repeated as specified in Condition D.2.5(a).

(c) In order to demonstrate the compliance status with Condition D.2.1 and Condition D.2.2, the Permittee shall perform PM, PM10, and PM2.5 testing on the refinery baghouses No. 1 and No. 2 not later than 180 days after issuance of Significant Permit Modification No. 035-33188-00028 utilizing methods as approved by the commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM10 and PM2.5 includes filterable and condensable PM10 and PM2.5.

(~~c~~**d**) ~~Testing shall be conducted in accordance with Section C - Performance Testing.~~ **Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligations with regard to the testing required by this condition.**

~~D.2.7 Compliance Requirements [326 IAC 20-13-7]~~

~~Pursuant to 326 IAC 20-13-7 (Compliance Requirements):~~

~~(a) The Permitted shall maintain purchasing records and manufacturer's specifications of all high efficiency particulate air (HEPA) filters installed on process fugitive and fugitive dust stacks demonstrating the filters have been certified by the manufacturer to meet the definition of HEPA filters in 40 CFR 63.542. The records and manufacturer's specifications shall be maintained on site for three (3) years and shall be available for an additional two (2) years.~~

~~(b) The Permittee shall comply with the following opacity limitations:~~

~~(1) Stacks exhausting process, process fugitive emissions, or fugitive dust emissions shall not exceed five percent (5%) opacity from particulate matter emissions for any one (1) six (6) minute averaging period as measured by 40 CFR 60, Appendix A, Reference Method 9.~~

~~(2) Exterior dust handling systems of dry collectors of lead emitting processes (augers, hoppers, transfer points) shall not discharge to the atmosphere visible emissions in excess of five percent (5%) of an observation period consisting of three (3) twenty (20) minute periods, as determined by 40 CFR 60, Appendix A, Reference Method 22. The provisions under this subdivision for dust handling systems shall not apply during maintenance and repair of the dust handling systems. During maintenance and repair of the dust handling system, the owner or operator shall take reasonable measures to prevent or minimize fugitive dust emissions.~~

~~(3) The opacity limitations shall only apply to particulate matter emissions.~~

~~(c) The Permittee uses total enclosure to control process fugitive and fugitive dust emissions from manufacturing operations. Therefore, in addition to the requirements of 40 CFR 63.8, 40 CFR 63.10, and 40 CFR 63.547(e), as specified in Section E.1 of this permit, the Permittee shall do the following:~~

~~(1) Submit a plan describing the installation and operation of a continuous monitoring system that meets the requirements of 40 CFR 63.547(e)(2), as specified in Section E.1 of this permit. The plan shall be postmarked or hand delivered to IDEM one hundred twenty (120) days prior to installation of the continuous monitoring system.~~

~~(2) Within one hundred eighty (180) days after written approval of the monitoring system plan by IDEM, install and operate a continuous monitoring system to measure and record pressure differential. The continuous monitoring system shall consist of the following:~~

(A) A differential pressure sensor capable of measuring pressure within a range of two-hundredths (0.02) to two-tenths (0.2) millimeter of mercury (one-hundredth (0.01) to one-tenth (0.1) inch water).

(B) A processor.

(C) An alarm.

(D) A continuous recording device.

Any changes to the location or operation of the system shall require prior written approval by the department.

(3) Initiate corrective actions within thirty (30) minutes of a monitoring system alarm.

(4) Request, if desired, to cease monitoring pressure differential twelve (12) months from the commencement date of approved monitoring.

(5) Notify IDEM of any physical changes including, but not limited to, ventilation capacity and building size. If IDEM determines the net effect of any such changes may potentially affect air pressure readings of the building, then the Permittee shall resume monitoring for an additional twelve (12) months. Monitoring may be discontinued in accordance with the procedures under subdivision (4).

(6) Maintain the following on site for a period of three (3) years and have available for an additional two (2) years:

(A) Records of the pressure differential.

(B) Logs of monitoring system alarms, including date and time.

(C) Logs of corrective actions, including date and time.

(d) The Permittee shall demonstrate compliance with the bag leak detection system requirements under 326 IAC 20-13-5 (Operational and Work Practice Standards), if applicable, by submitting reports showing that the alarm on the system does not activate for more than five percent (5%) of the total operating time in a six (6) month period or two hundred nineteen (219) hours, if operated for four thousand three hundred eighty (4,380) hours in the six (6) month period, whichever is less. The percentage of total operating time the alarm on the bag leak detection system activates shall be calculated as follows:

(1) Do not include alarms that occur due solely to a malfunction of the bag leak detection system in the calculation.

(2) Do not include alarms that occur during startup, shutdown, and malfunction in the calculation if:

(A) the condition is described in the startup, shutdown, and malfunction plan; and

(B) the owner or operator follows all the procedures in the plan defined for this condition.

(3) Count the actual time it takes the Permittee to identify and correct the cause of the alarm, excluding any time that the process is shut down for repair.

(4) Calculate the percentage of time the alarm on the bag leak detection system activates as the ratio of the sum of alarm times to the total operating time multiplied by one hundred (100).

~~(e) Ventilation air from the following shall be conveyed or ventilated to a control device:~~

~~(1) All enclosure hoods and total enclosures.~~

~~(2) All dryer emission vents.~~

~~(3) Agglomerating furnace emission vents.~~

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

D.2.~~8~~**6** Baghouse Failure Detection [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

...

D.2.~~9~~**7** Bag Leak Detection System Monitoring ~~[326 IAC 20-13-5] [326 IAC 20-13-8]~~ **[326 IAC 20-13.1-9]** [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)] **[40 CFR 64]**

~~Pursuant to 20-13-8, the owner or operator of a secondary lead smelter must install and continuously operate a bag leak detection system for all baghouses controlling process and process fugitive sources. Baghouses equipped with HEPA filters or used exclusively for the control of fugitive dust emissions are exempt from this requirement. The Permittee must maintain and operate each baghouse controlling process and process fugitive sources such that the following conditions are met:~~

~~(a) The alarm on the system does not activate for more than five percent (5%) of the total operating time in a six (6) month reporting period.~~

~~(b) Procedures to determine the cause of the alarm are initiated within one (1) hour of the alarm according to the standard operating procedures manual for corrective action required under 40 CFR 63.548, as specified in Section E.1 of this permit.~~

~~(c) The bag leak detection system shall also meet the following requirements:~~

~~(1) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of ten (10) milligrams per actual cubic meter (forty-four ten thousandths (0.0044) grains per actual cubic foot) or less.~~

~~(2) The bag leak detection system sensor must provide output of relative particulate matter loadings, and the owner or operator must continuously record the output from the bag leak detection system.~~

~~(3) The bag leak detection system must be equipped with an alarm system that will alert appropriate plant personnel when an increase in relative particulate loadings is detected over a preset level. The alarm must be located where it can be heard by the appropriate plant personnel.~~

~~(4) Each bag leak detection system must be calibrated, and maintained consistent with the manufacturer's written specifications and recommendations.~~

~~(5) The initial adjustment of the system must, at a minimum, consist of establishing:~~

~~(A) the baseline output by adjusting the sensitivity (range);~~

~~(B) the averaging period of the device;~~

~~(C) the alarm set points; and~~

~~(D) the alarm delay time.~~

~~(6) Following initial adjustment, the owner or operator must not adjust the:~~
~~(A) sensitivity or range;~~

~~(B) averaging period;~~

~~(C) alarm set points; or~~

~~(D) alarm delay time;~~

~~except as detailed in the maintenance plan required under 40 CFR 63.548(a), as specified in Section E.1 of this permit. In no event must the sensitivity be increased by more than one hundred percent (100%) or decreased more than fifty percent (50%) over a three hundred sixty-five (365) day period unless a responsible official certifies the baghouse has been inspected and found to be in good operating condition.~~

~~(7) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.~~

~~(8) For negative pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detector must be installed downstream of the baghouse and upstream of any wet acid gas scrubber.~~

~~(d) In the event that a bag leak detection system should malfunction, fail or otherwise need repair, the Permittee shall perform visible emissions of the stack exhausts associated with that bag leak detection system as follows:~~

~~(1) Visible emission notations of the refinery baghouse stack exhaust shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.~~

~~(2) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.~~

~~(3) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.~~

~~(4) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.~~

~~(5) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.~~

Pursuant to 326 IAC 20-13.1-9 and 40 CFR 64, the Permittee shall install and continuously operate a bag leak detection system for all baghouses controlling process vents and process fugitive emissions sources unless a system meeting the requirements of section 10(g) of this rule for a CEMS is installed for monitoring the concentration of lead. See Condition F.1.1(a)(8) of this permit or 326 IAC 20-13.1-9 of Attachment C for detailed requirements.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] ~~[326 IAC 20-13-8]~~ **[326 IAC 20-13.1-9]**

D.2.~~10~~**8** Record Keeping Requirements

(a) ~~Pursuant to 326 IAC 20-13-8 and in order to document the compliance status with D.2.9, records for bag leak detection systems shall be maintained on site for a period of three (3) years and be available for an additional two (2) years and shall include the following information:~~

~~(1) Records of bag leak detection system output.~~

~~(2) Identification of the date and time of all bag leak detection system alarms.~~

~~(3) The time that procedures to determine the cause of the alarm were initiated.~~

~~(4) The cause of the alarm.~~

~~(5) An explanation of the actions taken.~~

~~(6) The date and time the alarm was corrected.~~

~~(7) Records of total operating time of an affected source during smelting operations for each six (6) month period.~~

~~(8) To document compliance with Condition D.2.9 (d), the Permittee shall maintain records of once per day visible emission notations of the stack exhaust.~~

Pursuant to Condition F.1.1(a)(8) and in order to document the compliance status with Condition D.2.7, the owner or operator of a secondary lead smelter shall comply with the following:

(1) Records for bag leak detection systems shall be maintained on site for a period of three (3) years and be available for an additional two (2) years and shall include the following information:

(A) Records of bag leak detection system output.

(B) Identification of the date and time of all bag leak detection system alarms.

(C) The time that procedures to determine the cause of the alarm were initiated.

(D) The cause of the alarm.

(E) An explanation of the corrective actions taken.

(F) The date and time the cause of the alarm was corrected.

(G) Records of total operating time of an affected source during smelting operations for each six (6) month period.

(b) ~~All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.~~ **Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the record keeping required by this condition.**

D.2.~~11~~**9** Reporting Requirements

~~A quarterly report to document the compliance status with Condition D.2.9, including a summary of the following information:~~

~~(a) A description of the actions taken following each bag leak detection system alarm with:~~

~~(1) The procedures used to determine the cause of the alarm must be initiated within 30 minutes of the alarm.~~

~~(2) The cause of the alarm must be alleviated by taking the necessary corrective action(s), which may include, but not be limited to, the following:~~

~~(A) Inspecting the baghouse for air leaks, torn or broken filter elements, or any other malfunction that may cause an increase in emissions.~~

~~(B) Sealing off defective bags or filter media.~~

~~(C) Replacing defective bags or filter media, or otherwise repairing the control device.~~

~~(D) Sealing off a defective baghouse compartment.~~

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

~~(F) Shutting down the process producing the particulate emissions.~~

~~(b) Calculations of the percentage of time the alarm on the bag leak detection system was activated during the reporting period.~~

(a) Submit a report to document the compliance status with Condition D.2.7 within thirty (30) days after the end of each preceding six (6) month period ending June 30 and December 31 of each year that includes the following:

(1) A description of the actions taken following each bag leak detection system alarm pursuant to Condition D.1.11(a).

(2) Calculations of the percentage of total operating time, or the total operating time in hours and minutes the alarm on the bag leak detection system was activated during the reporting period.

This report shall be submitted ~~within thirty (30) calendar days following the end of each calendar quarter and~~ in accordance with Section C - General Reporting Requirements of this permit. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(~~34~~**35**).

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(14)]:

...

(i) ~~Material Handling/Slag Crusher/insignificant melting pots, identified as Unit 9, controlled by bin room baghouse.~~ **Material handling, identified as Unit 9, approved for modification in 2013, controlled by bin room baghouse No. 1 and bin room baghouse No. 2, with each baghouse exhausting to a separate stack.**

(1) One (1) slag crusher, constructed in 1994, with emissions controlled by a baghouse, identified as slag crusher baghouse venting to bin room baghouses No. 1 and No. 2.

(2) One (1) strip casting machine, constructed in 1997.

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

(A) One (1) natural gas-fired seven (7) ton melting pot, identified as MP-1, constructed in 1997, with a capacity of 2.2 million British thermal units per hour; and

(B) One (1) natural gas-fired thirty-five (35) ton melting pot, identified as MP-2, constructed in 1997, with a capacity of 1.2 million British thermal units per hour.

Note: The 2013 modification only consists of the addition of bin room baghouse No. 2.

...

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

D.3.1 PSD **and Emission Offset** Minor Limit**s** [326 IAC 2-2] **[326 IAC 2-3]**

In order to render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) not applicable and ~~P~~**p**ursuant to Administrative Amendment No. 035-21590-00028, issued on October 20, 2005, **and revised by Significant Permit Modification No. 035-33188-00028,** the PM, PM10, PM2.5 and Lead emissions from the venturi scrubber, fabric filters and bin room baghouse**s** shall be limited as shown in the table below:

Emission Units	Control Equipment	PM Limit (lb/hr)	PM10/~~PM2.5~~ Limit (lb/hr)	**PM2.5 Limit (lb/hr)**	Lead Limit (lb/hr)
Battery crusher/breaker (Unit 1)	Venturi Scrubber	2.25	2.25	**2.25**	0.065
Soda ash wash and 2 silos (Unit 2)	Fabric filters	0.23	0.23	**0.23**	-
Material Handling/Slag Crusher/insignificant melting pots	Bin Room Baghouse**s No. 1 and No. 2**	2.25	2.25	**2.25**	0.17

Compliance with these limits in combination with **Conditions** D.1.1 and D.2.1 **and the potential to emit PM, PM10, and PM2.5 from all other emission units at this source,** shall ~~keep~~ **limit** the source wide total **potential to emit** PM, PM10, and PM2.5 ~~below~~ **to less than** one hundred (100) tons per year**, each,** and ~~Lead below five (5) tons per year and~~ will render the requirements of 326 IAC 2-2 **(PSD)** not applicable.

Compliance with these limits in combination with Conditions D.1.1 and D.2.1 and the potential to emit lead from all other emission units at this source, shall limit the source-wide total potential to emit of lead to less than 5 tons per 12 consecutive month period, and shall render the requirements of 326 IAC 2-3 (Emission Offset) not applicable.

~~D.3.2 Lead Emission Limitations [326 IAC 20-13-3]~~

~~Pursuant to 326 IAC 20-13-3 (Emission Limitations; Lead Standards for Exide Technologies), lead emission shall be limited as follows:~~

~~Emission Unit~~	~~Control Unit / Facility~~	~~Emission Limit (mg/dscm)~~
~~Material Handling~~	~~Bin Room Baghouse~~	~~0.5~~
~~Lead Battery Crusher/Breaker~~	~~Venturi Scrubber~~	~~0.5~~

D.3.~~3~~**2** Particulate Emissions [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitation for Manufacturing Processes), the Particulate emissions from the following units shall be limited as follows when operating at the listed process weight rate:

Unit	Process Weight Rate (tons/hr)	Emission Limit (lb/hr)
...		
Material Handling	**14.4**	**24.5**

...

D.3.~~4~~**3** Preventive Maintenance Plan [326 IAC 2-7-5(1~~3~~**2**)]

...

Compliance Determination Requirements

D.3.~~5~~**4** Particulate Matter (PM) and Lead (Pb) [326 IAC 2-7-6(6)]

(a) In order to ensure compliance with Conditions D.3.1~~, D.3.2~~ and D.3.~~3~~**2**, the venturi scrubber shall be in operation at all times that the lead-battery crusher/breaker is in operation.

(b) In order to ensure compliance with Conditions D.3.1~~, D.3.2~~ and D.3.~~3~~**2**, the bin room baghouse**s (No. 1 and No. 2)** shall be in operation at all times that slag crushing is in operation.

...

D.3.~~6~~**5** Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [326 IAC ~~20-13-6~~ **20-13.1-11**]

(a) Pursuant to 326 IAC ~~20-13-6~~ **20-13.1-11** and in order to demonstrate the compliance status with lead limits in Condition D.3.~~2~~**1**, the Permittee shall conduct lead testing from the venturi scrubbers and bin room baghouse**s No. 1 and No. 2**, utilizing methods as approved by the commissioner within in accordance with the following schedule:

(1) every twelve (12) calendar months; or

(2) ~~if the compliance test demonstrates the lead compounds at 0.25 milligrams of lead per dry standard cubic meter (0.00011 grains per dry standard cubic foot), or less during the last compliance test, the Permittee shall be allowed up to twenty four (24) calendar months to the next annual compliance test.~~ **If an annual compliance test demonstrates that a process vent emitted lead compounds at one-tenth (0.1) milligram of lead per dry standard cubic meter or less during the time of the annual compliance test, the owner or operator of a secondary lead smelter may submit a written request to the U.S. EPA applying for an extension of up to twenty-four (24) calendar months from the previous compliance test to conduct the next compliance test for lead compounds.**

(b) In order to demonstrate the compliance status with Condition D.3.1 and Condition D.3.2, the Permittee shall perform PM, PM10, and PM2.5 testing on the venturi scrubber ~~and bin room baghouse~~ utilizing methods as approved by the commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM10 **and PM2.5** includes filterable and condensable PM10 **and PM2.5**.

(c) In order to demonstrate the compliance status with Condition D.3.1, the Permittee shall perform lead testing on the bin room baghouses No. 1 and No. 2 not later than 180 days after issuance of Significant Permit Modification No. 035-33188-00028 utilizing methods as approved by the commissioner. This test shall be repeated as specified in Condition D.3.5(a).

(d) In order to demonstrate the compliance status with Condition D.3.1 and Condition D.3.2, the Permittee shall perform PM, PM10, and PM2.5 testing on the bin room baghouses No. 1 and No. 2 not later than 180 days after issuance of Significant Permit Modification No. 035-33188-00028 utilizing methods as approved by the commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM10 and PM2.5 includes filterable and condensable PM10 and PM2.5.

(~~c~~**e**) ~~Testing shall be conducted in accordance with Section C - Performance Testing.~~ **Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligations with regard to the testing required by this condition.**

~~D.3.7 Compliance Requirements [326 IAC 20-13-7]~~

~~Pursuant to 326 IAC 20-13-7 (Compliance Requirements):~~

~~(a) The Permitted shall maintain purchasing records and manufacturer's specifications of all high efficiency particulate air (HEPA) filters installed on process fugitive and fugitive dust stacks demonstrating the filters have been certified by the manufacturer to meet the definition of HEPA filters in 40 CFR 63.542. The records and manufacturer's specifications shall be maintained on site for three (3) years and shall be available for an additional two (2) years.~~

~~(b) The Permittee shall comply with the following opacity limitations:~~

~~(1) Stacks exhausting process, process fugitive emissions, or fugitive dust emissions shall not exceed five percent (5%) opacity from particulate matter emissions for any one (1) six (6) minute averaging period as measured by 40 CFR 60, Appendix A, Reference Method 9.~~

~~(2) Exterior dust handling systems of dry collectors of lead emitting processes (augers, hoppers, transfer points) shall not discharge to the atmosphere visible emissions in excess of five percent (5%) of an observation period consisting of three (3) twenty (20) minute periods, as determined by 40 CFR 60, Appendix A, Reference Method 22. The provisions under this subdivision for dust handling systems shall not apply during maintenance and repair of the dust handling systems. During maintenance and repair of the dust handling system, the owner or operator shall take reasonable measures to prevent or minimize fugitive dust emissions.~~

~~(3) The opacity limitations shall only apply to particulate matter emissions.~~

~~(c) The Permittee uses total enclosure to control process fugitive and fugitive dust emissions from manufacturing operations. Therefore, in addition to the requirements of 40 CFR 63.8, 40 CFR 63.10, and 40 CFR 63.547(e), as specified in Section E.1 of this permit, the Permittee shall do the following:~~

~~(1) Submit a plan describing the installation and operation of a continuous monitoring system that meets the requirements of 40 CFR 63.547(e)(2), as specified in Section E.1 of this permit. The plan shall be postmarked or hand delivered to IDEM one hundred twenty (120) days prior to installation of the continuous monitoring system.~~

~~(2) Within one hundred eighty (180) days after written approval of the monitoring system plan by IDEM, install and operate a continuous monitoring system to measure and record pressure differential. The continuous monitoring system shall consist of the following:~~

~~(A) A differential pressure sensor capable of measuring pressure within a range of two hundredths (0.02) to two tenths (0.2) millimeter of mercury (one-hundredth (0.01) to one-tenth (0.1) inch water).~~

~~(B) A processor.~~

~~(C) An alarm.~~

~~(D) A continuous recording device.~~

~~Any changes to the location or operation of the system shall require prior written approval by the department.~~

~~(3) Initiate corrective actions within thirty (30) minutes of a monitoring system alarm.~~

~~(4) Request, if desired, to cease monitoring pressure differential twelve (12) months from the commencement date of approved monitoring.~~

~~(5) Notify IDEM of any physical changes including, but not limited to, ventilation capacity and building size. If IDEM determines the net effect of any such changes may potentially affect air pressure readings of the building, then the Permittee shall resume monitoring for an additional twelve (12) months. Monitoring may be discontinued in accordance with the procedures under subdivision (4).~~

~~(6) Maintain the following on site for a period of three (3) years and have available for an additional two (2) years:~~

~~(A) Records of the pressure differential.~~

~~(B) Logs of monitoring system alarms, including date and time.~~

~~(C) Logs of corrective actions, including date and time.~~

~~(d) The Permittee shall demonstrate compliance with the bag leak detection system requirements under 326 IAC 20-13-5 (Operational and Work Practice Standards), if applicable, by submitting reports showing that the alarm on the system does not activate for more than five percent (5%) of the total operating time in a six (6) month period or two hundred nineteen (219) hours, if operated for four thousand three hundred eighty (4,380) hours in the six (6) month period, whichever is less. The percentage of total operating time the alarm on the bag leak detection system activates shall be calculated as follows:~~

~~(1) Do not include alarms that occur due solely to a malfunction of the bag leak detection system in the calculation.~~

~~(2) Do not include alarms that occur during startup, shutdown, and malfunction in the calculation if:~~

~~(A) the condition is described in the startup, shutdown, and malfunction plan; and~~

~~(B) the owner or operator follows all the procedures in the plan defined for this condition.~~

~~(3) Count the actual time it takes the Permittee to identify and correct the cause of the alarm, excluding any time that the process is shut down for repair.~~

~~(4) Calculate the percentage of time the alarm on the bag leak detection system activates as the ratio of the sum of alarm times to the total operating time multiplied by one hundred (100).~~

~~(e) Ventilation air from the following shall be conveyed or ventilated to a control device:~~

~~(1) All enclosure hoods and total enclosures.~~

~~(2) All dryer emission vents.~~

~~(3) Agglomerating furnace emission vents.~~

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

D.3.~~8~~**6** Visible Emissions Notations [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)] **[40 CFR 64]**

...

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

D.3.~~9~~**7** Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)] **[40 CFR 64]**

The Permittee shall record the total static pressure drop across the venturi scrubber used in conjunction with the lead-battery crusher/breaker at least once daily when the processes are in operation. When for any one reading, the pressure drop is outside the following normal range of 10 inches to 25 inches or a range established during the latest stack test, the Permittee shall take reasonable response ~~steps~~ in accordance with Section C – Response to Excursions or Exceedances. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

...

D.3.~~10~~**8** Scrubber Failure Detection [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

...

D.3.~~11~~**9** Bag Leak Detection System Monitoring ~~[326 IAC 20-13-5] [326 IAC 20-13-8]~~ **[326 IAC 20-13.1-9] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)] [40 CFR 64]**

~~Pursuant to 20-13-8, the owner or operator of a secondary lead smelter must install and continuously operate a bag leak detection system for all baghouses controlling process and process fugitive sources. Baghouses equipped with HEPA filters or used exclusively for the control of fugitive dust emissions are exempt from this requirement. The Permittee must maintain and operate each baghouse controlling process and process fugitive sources such that the following conditions are met:~~

~~(a) The alarm on the system does not activate for more than five percent (5%) of the total operating time in a six (6) month reporting period.~~

~~(b) Procedures to determine the cause of the alarm are initiated within one (1) hour of the alarm according to the standard operating procedures manual for corrective action required under 40 CFR 63.548, as specified in Section E.1 of this permit.~~

~~(c) The bag leak detection system shall also meet the following requirements:~~

~~(1) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of ten (10) milligrams per actual cubic meter (forty-four ten thousandths (0.0044) grains per actual cubic foot) or less.~~

~~(2) The bag leak detection system sensor must provide output of relative particulate matter loadings, and the owner or operator must continuously record the output from the bag leak detection system.~~

~~(3) The bag leak detection system must be equipped with an alarm system that will alert appropriate plant personnel when an increase in relative particulate loadings is detected over a preset level. The alarm must be located where it can be heard by the appropriate plant personnel.~~

~~(4) Each bag leak detection system must be calibrated, and maintained consistent with the manufacturer's written specifications and recommendations.~~

~~(5) The initial adjustment of the system must, at a minimum, consist of establishing:~~

~~(A) the baseline output by adjusting the sensitivity (range);~~

~~(B) the averaging period of the device;~~

~~(C) the alarm set points; and~~

~~(D) the alarm delay time.~~

~~(6) Following initial adjustment, the owner or operator must not adjust the:~~

~~(A) sensitivity or range;~~

~~(B) averaging period;~~

~~(C) alarm set points; or~~

~~(D) alarm delay time;~~

~~except as detailed in the maintenance plan required under 40 CFR 63.548(a), as specified in Section E.1 of this permit. In no event must the sensitivity be increased by more than one hundred percent (100%) or decreased more than fifty percent (50%) over a three hundred sixty-five (365) day period unless a responsible official certifies the baghouse has been inspected and found to be in good operating condition.~~

~~(7) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.~~

~~(8) For negative pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detector must be installed downstream of the baghouse and upstream of any wet acid gas scrubber.~~

~~(d) In the event that a bag leak detection system should malfunction, fail or otherwise need repair, the Permittee shall perform visible emissions of the stack exhausts associated with that bag leak detection system as follows:~~

~~(1) Visible emission notations of the bin room baghouse stack exhaust shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.~~

~~(2) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.~~

~~(3) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.~~

~~(4) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.~~

~~(5) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.~~

Pursuant to 326 IAC 20-13.1-9 and 40 CFR 64, the Permittee shall install and continuously operate a bag leak detection system for all baghouses controlling process vents and process fugitive emissions sources unless a system meeting the requirements of section 10(g) of this rule for a CEMS is installed for monitoring the concentration of lead. See Condition F.1.1(a)(8) of this permit or 326 IAC 20-13.1-9 of Attachment C for detailed requirements.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] ~~[326 IAC 20-13-8]~~ **[326 IAC 20-13.1-9]**

D.3.1~~2~~**0** Record Keeping Requirements

(a) In order to document the compliance status with Condition D.3.~~8~~**7**, the Permittee shall maintain a daily record of visible emission notations of the venturi scrubber stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (e.g. the process did not operate that day).

(b) In order to document the compliance status with Condition D.3.~~9~~**8**, the Permittee shall maintain a daily record of the pressure drop across the venturi scrubber controlling the battery crusher/breaker. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g. the process did not operate that day).

(c) ~~Pursuant to 326 IAC 20-13-8 and to document compliance with D.3.11, records for bag leak detection systems shall be maintained on site for a period of three (3) years and be available for an additional two (2) years and shall include the following information:~~

~~(1) Records of bag leak detection system output.~~

~~(2) Identification of the date and time of all bag leak detection system alarms.~~

~~(3) The time that procedures to determine the cause of the alarm were initiated.~~

~~(4) The cause of the alarm.~~

~~(5) An explanation of the actions taken.~~

~~(6) The date and time the alarm was corrected.~~

~~(7) Records of total operating time of an affected source during smelting operations for each six (6) month period.~~

~~(8) To document compliance with Condition D.3.11 (d), the Permittee shall maintain records of once per day visible emission notations of the stack exhaust.~~

Pursuant to Condition F.1.1(a)(8) and in order to document the compliance status with Condition D.3.9, the owner or operator of a secondary lead smelter shall comply with the following:

(1) Records for bag leak detection systems shall be maintained on site for a period of three (3) years and be available for an additional two (2) years and shall include the following information:

(A) Records of bag leak detection system output.

(B) Identification of the date and time of all bag leak detection system alarms.

(C) The time that procedures to determine the cause of the alarm were initiated.

(D) The cause of the alarm.

(E) An explanation of the corrective actions taken.

(F) The date and time the cause of the alarm was corrected.

(G) Records of total operating time of an affected source during smelting operations for each six (6) month period.

(d) ~~All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.~~ **Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the record keeping required by this condition.**

D.3.1~~3~~**1** Reporting Requirements

~~A quarterly report to document the compliance status with Condition D.3.11, including a summary of the following information:~~

~~(a) A description of the actions taken following each bag leak detection system alarm with:~~

~~(1) The procedures used to determine the cause of the alarm must be initiated within 30 minutes of the alarm.~~

~~(2) The cause of the alarm must be alleviated by taking the necessary corrective action(s), which may include, but not be limited to, the following:~~

~~(A) Inspecting the baghouse for air leaks, torn or broken filter elements, or any other malfunction that may cause an increase in emissions.~~

~~(B) Sealing off defective bags or filter media.~~

~~(C) Replacing defective bags or filter media, or otherwise repairing the control device.~~

~~(D) Sealing off a defective baghouse compartment.~~

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

~~(F) Shutting down the process producing the particulate emissions.~~

~~(b) Calculations of the percentage of time the alarm on the bag leak detection system was activated during the reporting period.~~

(a) Submit a report to document the compliance status with Condition D.3.9 within thirty (30) days after the end of each preceding six (6) month period ending June 30 and December 31 of each year that includes the following:

(1) A description of the actions taken following each bag leak detection system alarm pursuant to Condition D.1.11(a).

(2) Calculations of the percentage of total operating time, or the total operating time in hours and minutes the alarm on the bag leak detection system was activated during the reporting period.

This report shall be submitted ~~within thirty (30) calendar days following the end of each calendar quarter and~~ in accordance with Section C - General Reporting Requirements of this permit. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(~~34~~**35**).

SECTION F.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(14)]:

(a) One (1) natural gas-fired rotary dryer, identified as Unit 3, constructed in 1989 and modified in 2005, with a maximum capacity of 126,000 tons of lead scrap per year and a maximum heat input capacity of 12.5 million British thermal units per hour (MMBtu/hr), controlled by the rotary dryer baghouse.

(b) One (1) lead reverberatory furnace and, identified as Unit 4, constructed in 1989, with a maximum capacity of 24.3 million British thermal units per hour (MMBtu/hr), rated at

100,000 tons of lead per year, controlled by the process baghouse followed by identical, individual, and parallel, North and South sodium carbonate packed tower scrubbers.

(c) One (1) blast furnace (cupola), identified as Unit 5, constructed in 1973 and modified in 1989, rated at 30,000 tons of metal per year, controlled by the process baghouse followed by identical, individual, and parallel, North and South sodium carbonate packed tower scrubbers.

(d) Emission from the reverberatory charge point hoods and blast furnace (cupola) charge point hoods are controlled by the ventilation baghouse.

(e) Two (2) lead pig casting machines, constructed in 1989 and approved for modification in 2013, identified collectively as Unit 7, each rated at 120,000 tons of lead per year controlled by refinery baghouse No. 1 and refinery baghouse No. 2, with each baghouse exhausting to a separate stack.

Note: The 2013 modification only consists of the addition of refinery baghouse No. 2.

(f) Eleven (11) natural gas-fired pot furnaces, approved for modification in 2013, identified as Units 6K1, 6K2 and Units 6K4 through 6K12, all controlled by refinery baghouse No. 1 and refinery baghouse No. 2, with each baghouse exhausting to a separate stack, and including:

(1) Two (2) rated at 120 tons holding capacity and 3.4 million British thermal units per hour (MMBtu/hr), constructed in 1989, identified as Units 6K1 and 6K2,

(2) Three (3) rated at 100 tons holding capacity and 3.0 MMBtu/hr, constructed in 1989, identified as Units 6K9, 6K10, and 6K12,

(3) One (1) rated at 120 tons holding capacity and 3.0 MMBtu/hr, constructed in 1989, identified as Unit 6K11,

(4) One (1) rated at 100 tons holding capacity and 3.0 MMBtu/hr, constructed in 1973, identified as Unit 6K6,

(5) Two (2) rated at 100 tons holding capacity and 3.4 MMBtu/hr, constructed in 1973, identified as Units 6K7 and 6K8,

(6) One (1) rated at 115 tons holding capacity and 3.0 MMBtu/hr, constructed in 1973, identified as Unit 6K5,

(7) One (1) rated at 100 tons holding capacity and 3.0 MMBtu/hr, constructed in 1973 and modified in October 2009, identified as Unit 6K4.

Note: The 2013 modification only consists of the addition of refinery baghouse No. 2.

(g) One (1) lead-battery crusher/breaker, identified as Unit 1, constructed in 1989, which is rated at 126,000 tons of scrap metal per year, with particulate matter (PM) emissions controlled by a venturi scrubber followed by a voluntarily installed dust collector.

(i) Material handling, identified as Unit 9, approved for modification in 2013, controlled by bin room baghouse No. 1 and bin room baghouse No. 2, with each baghouse exhausting to a separate stack.

(1) One (1) slag crusher, constructed in 1994, with emissions controlled by a baghouse, identified as slag crusher baghouse venting to bin room baghouses No.1 and No. 2.

(2) One (1) strip casting machine, constructed in 1997.

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

(A) One (1) natural gas-fired seven (7) ton melting pot, identified as MP-1, constructed in 1997, with a capacity of 2.2 million British thermal units per hour; and

(B) One (1) natural gas-fired thirty-five (35) ton melting pot, identified as MP-2, constructed in 1997, with a capacity of 1.2 million British thermal units per hour.

Note: The 2013 modification only consists of the addition of bin room baghouse No. 2.

(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 2-7-5(1)]

F.1.1 Hazardous Air Pollutants: Secondary Lead Smelters [326 IAC 20-13.1]

(a) Pursuant to 326 IAC 20-13.1-1(c)(2) and 326 IAC 20-13.1-3(c), the Permittee shall comply with the following requirements by October 1, 2013 (included as Attachment C of this permit):

(1) 326 IAC 20-13.1-1 (Applicability)
(2) 326 IAC 20-13.1-2 (Definitions)
(3) 326 IAC 20-13.1-3(a) (Emission Limitations; lead standards for Exide Technologies, Incorporated)
(4) 326 IAC 20-13.1-5(b) and 5(h) (Emission limitations and operating provisions)
(5) 326 IAC 20-13.1-6 (Total enclosure requirements)
(6) 326 IAC 20-13.1-7 (Total enclosure monitoring requirements)
(7) 326 IAC 20-13.1-8 (Fugitive dust source requirements)
(8) 326 IAC 20-13.1-9 (Bag leak detection system requirements)
(9) 326 IAC 20-13.1-10(a) through 10(d) (Other requirements)
(10) 326 IAC 20-13.1-11(a) through 11(c) and 11(f) (Compliance testing)
(11) 326 IAC 20-13.1-12(a) (Compliance testing methods)
(12) 326 IAC 20-13.1-14(a), 14(b), 14(c)(1) through 14(c)(8), 14(c)(10) through 14(c)(13), 14(c)(15) through 14(c)(17), 14(d), 14(e)(1), 14(e)(4) through 14(e)(7), and 14(e)(9) through 14(e)(12) (Record keeping and reporting requirements)

(b) In addition to the requirements specified in Condition F.1.1(a) and pursuant to 326 IAC 20-13.1-1(c)(3), the Permittee shall comply with the following requirements beginning on January 6, 2014 (included as Attachment C of this permit):

(1) 326 IAC 20-13.1-5(d), 5(g), (5)(i), and (5)(j) (Emission limitations and operating provisions)
(2) 326 IAC 20-13.1-10(e) (Other requirements)
(3) 326 IAC 20-13.1-11(e) (Compliance testing)
(4) 326 IAC 20-13.1-12(b), 12(c), 12(d), 12(e) (Compliance testing methods)
(5) 326 IAC 20-13.1-13(a), 13}(b), and (d) (Notification requirements)
(6) 326 IAC 20-13.1-14(c)(9),14(e)(2),14(e)(8) through 14(e)(7), 14(e)(13), and 14(e)(14) (Record keeping and reporting requirements)
(7) 326 IAC 20-13.1-15 (Affirmative defense to civil penalties for exceedance of emissions limit during malfunction)

...

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

(1) IDEM has updated Section A.1 to reflect that this source is located in an area of nonattainment for the lead standard.

(2) On October 27, 2010, the Indiana Air Pollution Control Board issued revisions to 326 IAC 2. These revisions resulted in changes to the rule citations listed in the permit. These changes are not changes to the underlining provisions. The change is only to the citation of these rules in Section D - Preventative Maintenance Plan (see above for changes).

(3) On November 3, 2011, the Indiana Air Pollution Control Board issued a revision to 326 IAC 2. The revision resulted in a change to the rule citation of the “responsible official” definition.

(4) IDEM clarified the Section C - Instrument Specifications to indicate that the analog instrument must be capable of measuring the parameters outside the normal range.

(5) IDEM is changing the Section C Compliance Monitoring Condition to clearly describe when new monitoring for new and existing units must begin.

(6) IDEM added "where applicable" to the lists in Section C - General Record Keeping Requirements to more closely match the underlying rule.

(7) IDEM has separated the existing PM10 and PM2.5 emission limits in Conditions D.1.1, D.2.1, and D.3.1 since they are separate pollutants. IDEM has also clarified that the lead limits are to maintain minor status under 326 IAC 2-3 (Emission Offset), since this source is located in an area of nonattainment for the lead standard (see above for changes).

(8) IDEM has revised Sections E.1 and E.2 to clarify that NSPS Subpart L and NESHAP Subpart X are attached to the permit as Attachments A and B.

...

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

...

Source Location Status: ~~Attainment or Not Designated for all criteria pollutants by the State of Indiana Federally, Nonattainment for lead.~~
Nonattainment for Lead standard
Attainment for all other criteria pollutants

...

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

(a) A certification required by this permit meets the requirements of 326 IAC 2-7-6(1) if:

(1) it contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(~~34~~**35**), and

...

(c) A "responsible official" is defined at 326 IAC 2-7-1(~~34~~**35**).

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

...

(c) The annual compliance certification report shall include the following:

...

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(~~34~~**35**).

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

...

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

...

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(~~34~~**35**).

...

(c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(~~34~~**35**).

...

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

...

(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:

...

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(~~34~~**35**).

...

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

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(~~34~~**35**).

...

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

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(~~34~~**35**).

...

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

...

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

...

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

...

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

...

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(~~34~~**35**).

...

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

...

(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:

...

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(~~34~~**35**).

...

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

...

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

...

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(~~34~~**35**).

...

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

C.8 Performance Testing [326 IAC 3-6]

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

...

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(~~34~~**35**).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(~~34~~**35**).

...

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

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

(a) **For new units:**

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units shall be implemented on and after the date of initial start-up.

(b) Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance ~~or of initial start-up, whichever is later,~~ to begin such monitoring. If due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance ~~or the date of initial startup, whichever is later~~, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

...

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(~~34~~**35**).

~~Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.~~

(~~b~~**c**) For monitoring required by CAM, at all times, the Permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

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

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

(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale. **The analog instrument shall be capable of measuring values outside of the normal range.**

...

C.14 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

...

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(~~34~~**35**).

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

C.15 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

...

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

...

The emission statement does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(~~34~~**35**).

C.16 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. Support information includes the following**, where applicable**:

(AA) All calibration and maintenance records.

(BB) All original strip chart recordings for continuous monitoring instrumentation.

(CC) Copies of all reports required by the.

Records of required monitoring information include the following**, where applicable**:

(AA) The date, place, as defined in this permit, and time of sampling or measurements.

(BB) The dates analyses were performed.

(CC) The company or entity that performed the analyses.

(DD) The analytical techniques or methods used.

(EE) The results of such analyses.

(FF) The operating conditions as existing at the time of sampling or measurement.

...

C.17 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [40 CFR 64][326 IAC 3-8]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(~~34~~**35**). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

...

E.1.3 Standard of Performance for Secondary Lead Smelters [326 IAC 12-1] [40 CFR 60, Subpart L]

Pursuant to 40 CFR 60 Subpart L, the Permittee shall comply with the applicable provisions of Standard of Performance for Secondary Lead Smelters which are incorporated by reference as 326 IAC 12 as specified as follows **(included as Attachment A of this permit)**:

...

E.2.2 National Emissions Standard for Hazardous Air Pollutants from Secondary Lead Smelting [40 CFR Part 63, Subpart X]

Pursuant to CFR Part 63, Subpart X, the Permittee shall comply with the provisions of 40 CFR Part 63.541, for the affected source, as specified as follows **(included as Attachment B of this permit)**:

...

Conclusion and Recommendation

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Permit Modification No. 035-33188-00028. The staff recommend to the Commissioner that this Part 70 Significant Permit Modification be approved.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Brian Williams at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-5375 or toll free at 1-800-451-6027 extension 4-5375.

(b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

Appendix A: Emissions Calculations
Reverberatory and Blast Melting Furnaces

Company Name: Exide Technologies
Address City IN Zip: 2601 West Mt. Pleasant Blvd., Muncie, IN 47302
Permit Number: 035-33188-00028
Reviewer: Brian Williams

		Acid and Soda Wash[1]	Twin Packed Bed Sodium Carbonate Scrubber Specifications				Process Baghouse
	Maximum Metal Throughput	SO2 Control	PM, PM10, PM2.5, and Pb Control	SO2 Control	Air Flow Rate per Scrubber	Outlet Grain Loading[2]	PM, PM10, PM2.5, and Pb Control
	(tons/yr)	(%)	(%)	(%)	(ft^3/min)	(gr/ft^3)	(%)
	100,000	85.0%	65.0%	89.8%	45,000	0.00044	99.8%

Reverberatory Furnace (SCC 3-04-004-02)

	PM	PM_{10}	$PM_{2.5}$	SO2	NOx	Pb[3]
Emission Factors (lb/ton metal produced)	323.00	193.80	193.80	80.00	0.30	N/A
Uncontrolled Potential To Emit (tons/yr)	16,150	9,690	9,690	4,000	15	2,124
Controlled Potential to Emit (tons/yr)	11.31	6.78	6.78	61.2	15	1.49
Limited Potential to Emit (lb/hr)[4]	4.60	5.00	5.00	N/A	N/A	0.34
Limited Potential to Emit (tons/yr)[4]	20.15	21.90	21.90	99.00	N/A	1.49

Maximum Metal Throughput
(tons/yr)
30,000

Blast Furnace (Cupola) (SCC 3-04-004-26)

	PM	PM_{10}	$PM_{2.5}$	SO2	NOx	Pb
Emission Factors (lb/ton metal produced)	307.00	129.00	129.00	53.00	0.10	
Uncontrolled Potential To Emit (tons/yr)	4,605	1,935	1,935	795	1.50	
Controlled Potential to Emit (tons/yr)	3.22	1.35	1.35	12.16	1.50	See Above
Limited Potential to Emit (lb/hr)					N/A	
Limited Potential to Emit (tons/yr		See Above			N/A	

Reverberatory and Blast Furnace Charging Points

	Ventilation Baghouse Specifications		
	Control Efficiency	Air Flow Rate	Outlet Grain Loading[2]
	(%)	(ft^3/min)	(gr/ft^3)
	99.6%	90,000	0.000218

	PM	PM_{10}	$PM_{2.5}$	Pb[3]
Uncontrolled Potential To Emit (tons/yr)	3,011	3,285	3,285	526
Controlled Potential to Emit (tons/yr)	12.05	13.14	13.14	0.74
Limited Potential to Emit (lb/hr)[4]	2.75	3.00	3.00	0.17
Limited Potential to Emit (tons/yr)[4]	12.05	13.14	13.14	0.74

Methodology:
PM and SO2 Emission Factors from AP-42, Chapter 12.11 (Secondary Lead Processing), Table 12.11-2 (10/1986)
All other Emission Factors from EPA WebFire for respective Source Classification Code (SCC). Assumes PM2.5 = PM10
[1]The SO2 emissions are controlled first by the acid and soda wash which is equivalent to 85% and then followed by the scrubbers.
[2] Outlet grain loading based on stack test performed on August 23, 2005.
[3] Lead emissions from the reverberatory and blast furnaces based on control specifications.
[4] The PM, PM10, PM2.5, SO2, and Pb emission limits are combined for the reverberatory and blast furnaces since they have common control devices.
Pb = Lead
Reverberatory and Blast Furnace
Uncontrolled PTE (tons/yr) = Maximum Throughput (tons/yr) x EF (lb/ton) x 1/2,000 (ton/lb)
Controlled PTE (tons/yr) = Uncontrolled PTE (tons/yr) x (1 - Baghouse CE %) x (1 - Scrubber CE %)
Limited PTE (tons/yr) = Limited PTE (lb/hr) x 8,760 (hr/yr) x 1/2,000 (ton/lb)
Uncontrolled Pb PTE (tons/yr) = Controlled PTE (tons/yr) / ((1 - Baghouse CE %) x (1 - Scrubber CE %))
Controlled Pb PTE (tons/yr) = Outlet Grain Loading (gr/ft3) x Air Flow Rate (ft3/min) x 2 Scrubbers x 60 (min/hr) x 1/7,000 (lb/gr) x 8,760 (hr/yr) x 1/2,000 (ton/lb)
Charging Points
Charging Points Uncontrolled PTE (tons/yr) = Controlled PTE (tons/yr) / (1 - CE %)
Charging Points Controlled/Limited PTE (tons/yr) = Limited PTE (lb/hr) x 8,760 (hr/yr) x 1/2,000 (ton/lb)
Uncontrolled Pb PTE (tons/yr) = Controlled PTE (tons/yr) / ((1 - Baghouse CE %) x (1 - Scrubber CE %))
Controlled Pb PTE (tons/yr) = Outlet Grain Loading (gr/ft3) x Air Flow Rate (ft3/min) x 60 (min/hr) x 1/7,000 (lb/gr) x 8,760 (hr/yr) x 1/2,000 (ton/lb)

Appendix A: Emissions Calculations
Rotary Dryer, Pot Furnaces, and Pig Casting

Company Name: **Exide Technologies**
Address City IN Zip: **2601 West Mt. Pleasant Blvd., Muncie, IN 47302**
Permit Number: **035-33188-00028**
Reviewer: **Brian Williams**

Baghouse Specifications		
Control Efficiency	Air Flow Rate	Outlet Grain Loading[1]
(%)	(ft^3/min)	(gr/ft^3)
99.0%	15,500	0.00022

Rotary Dryer

	PM	PM_{10}	$PM_{2.5}$	Pb^2
Uncontrolled Potential To Emit (tons/yr)	1,971	1,971	1,971	12.8
Controlled Potential to Emit (tons/yr)	19.71	19.71	19.71	0.13
Limited Potential to Emit (lb/hr)	4.50	4.50	4.50	0.029
Limited Potential to Emit (tons/yr)	19.71	19.71	19.71	0.13

Refinery Baghouse Specifications		
Control Efficiency	Air Flow Rate	Outlet Grain Loading[1]
(%)	(ft^3/min)	(gr/ft^3)
99.0%	120,000	0.00002

Pot Furnaces and Pig Casting

	PM	PM_{10}	$PM_{2.5}$	Pb^2
Uncontrolled Potential To Emit (tons/yr)	2,081	2,300	2,300	9.0
Controlled Potential to Emit (tons/yr)	20.81	23.00	23.00	0.09
Limited Potential to Emit (lb/hr)	4.75	5.25	5.25	0.30
Limited Potential to Emit (tons/yr)	20.81	23.00	23.00	1.31

Methodology:
[1] Outlet grain loading based on stack test performed on August 23, 2005.
[2] Lead emissions based on control specifications.
Pb = Lead
Rotary Dryer modified 10/20/2005 and Rotary Dryer Baghouse installed on 10/20/2005.
Uncontrolled PTE (tons/yr) = Controlled PTE (tons/yr) / (1 - CE %)
Controlled/Limited PTE (tons/yr) = Limited PTE (lb/hr) x 8,760 (hr/yr) x 1/2,000 (ton/lb)
Uncontrolled Pb PTE (tons/yr) = Controlled PTE (tons/yr) / (1 - Baghouse CE %)
Controlled Pb PTE (tons/yr) = Outlet Grain Loading (gr/ft3) x Air Flow Rate (ft3/min) x 60 (min/hr) x 1/7,000 (lb/gr) x 8,760 (hr/yr) x 1/2,000 (ton/lb)

Appendix A: Emissions Calculations
Battery Crusher/Breaker
Material Handling/Slag Crushing

Company Name: **Exide Technologies**
Address City IN Zip: **2601 West Mt. Pleasant Blvd., Muncie, IN 47302**
Permit Number: **035-33188-00028**
Reviewer: **Brian Williams**

Venturi Scrubber Specifications		
Control Efficiency (%)	Air Flow Rate (ft^3/min)	Outlet Grain Loading[1] (gr/ft^3)
98.0%	35,000	0.000218

Battery Crusher/Breaker

	PM	PM_{10}	$PM_{2.5}$	Pb[3]
Uncontrolled Potential To Emit (tons/yr)	493	493	493	14.3
Controlled Potential to Emit (tons/yr)	9.86	9.86	9.86	0.29
Limited Potential to Emit (lb/hr)	2.25	2.25	2.25	0.065
Limited Potential to Emit (tons/yr)	9.86	9.86	9.86	0.28

Bin Room Baghouse Specifications		
Control Efficiency (%)	Air Flow Rate (ft^3/min)	Outlet Grain Loading[2] (gr/ft^3)
99.0%	90,000	0.00022

Material Handling/Slag Crushing

	PM	PM_{10}	$PM_{2.5}$	Pb[3]
Uncontrolled Potential To Emit (tons/yr)	985	985	985	74.3
Controlled Potential to Emit (tons/yr)	9.86	9.86	9.86	0.74
Limited Potential to Emit (lb/hr)	2.25	2.25	2.25	0.170
Limited Potential to Emit (tons/yr)	9.86	9.86	9.86	0.74

Methodology:

[1] Outlet grain loading based on stack test performed on September 9, 2004 at the source.

[2] Outlet grain loading based on stack test performed on August 23, 2005 at the source.

[3] Lead emissions based on control specifications.

Pb = Lead

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

Controlled/Limited PTE (tons/yr) = Limited PTE (lb/hr) x 8,760 (hr/yr) x 1/2,000 (ton/lb)

Uncontrolled Pb PTE (tons/yr) = Controlled PTE (tons/yr) / (1 - CE %)

Controlled Pb PTE (tons/yr) = Outlet Grain Loading (gr/ft3) x Air Flow Rate (ft3/min) x 60 (min/hr) x 1/7,000 (lb/gr) x 8,760 (hr/yr) x 1/2,000 (ton/lb)

Appendix A: Emissions Calculations
Soda Ash

Company Name: **Exide Technologies**
Address City IN Zip: **2601 West Mt. Pleasant Blvd., Muncie, IN 47302**
Permit Number: **035-33188-00028**
Reviewer: **Brian Williams**

Maximum Soda Ash Throughput per Silo (tons/yr)
6,389

Soda Ash Pneumatic Conveying thru 3 Silos

	PM	PM_{10}	$PM_{2.5}$
Emission Factors (ton/ton of soda ash)	0.00015	0.00015	0.00015
Uncontrolled Potential To Emit (tons/yr)	2.88	2.88	2.88
Limited Potential to Emit (lb/hr)	0.23	0.23	0.23
Limited Potential to Emit (tons/yr)	1.01	1.01	1.01

Emission Factor from AP-42 Chapter 9 (grain silo loading)
Uncontrolled PTE (tons/yr) = Maximum Throughput (tons/yr) x EF (lb/ton) x 1/2,000 (ton/lb) x 3 Silos
Limited PTE (tons/yr) = Limited PTE (lb/hr) x 8,760 (hr/yr) x 1/2,000 (ton/lb)

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

Company Name: Exide Technologies
Address City IN Zip: 2601 West Mt. Pleasant Blvd., Muncie, IN 47302
Permit Number: 035-33188-00028
Permit Reviewer: Brian Williams

1. Process Description

Emission Unit ID	Heat Input Capacity (MMBtu/hr)
Rotary Dryer	12.50
Reverberatory Furnace	24.30
Eleven (11) Pot Furnaces	37.60
Melting Pot (MP-1)	2.20
Melting Pot (MP-2)	1.20
Total	**77.80**

2. Combustion Emissions - Criteria Pollutants

		Emission Factor (lbs/MMCF)						
NOx Burner Type	Fuel Heat Value (MMBtu/MMCF)	PM*	PM10*	direct PM2.5	SO_2	NOx**	VOC	CO
Ordinary Burners	1,020	1.9	7.6	7.6	0.6	100	5.5	84.0

* PM emission factor is for filterable PM only. PM10 emission factor is for condensable PM10 and filterable PM combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
** Emission factors for NOx: Uncontrolled = 100 lbs/MMCF, Low NOx Burners = 50 lbs/MMCF
Emission factors are from AP 42, Chapter 1.4, Tables 1.4-1, and 1.4-2, SCC 1-01-006-02, 1-02-006-02, 1-03-006-02, 1-03-006-03. (7/98)

		Potential To Emit (tons/yr)						
Emission Unit ID	Potential Throughput (MMCF/yr)	PM	PM10	direct PM2.5	SO_2	NOx	VOC	CO
Rotary Dryer	107.35	0.10	0.41	0.41	0.03	5.37	0.30	4.51
Reverberatory Furnace	208.69	0.20	0.79	0.79	0.063	10.43	0.57	8.77
Eleven (11) Pot Furnaces	322.92	0.307	1.23	1.23	0.097	16.15	0.89	13.56
Melting Pot (MP-1)	18.89	0.02	0.07	0.07	0.01	0.94	0.05	0.79
Melting Pot (MP-2)	10.31	0.010	0.039	0.039	0.0031	0.52	0.028	0.43
Total	**668.16**	**0.63**	**2.54**	**2.54**	**0.20**	**33.41**	**1.84**	**28.06**

Methodology
Maximum Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 (hrs/yr) x 1 MMCF/1,000 MMBtu
Potential To Emit (tons/year) = Throughput (MMCF/yr) x Emission Factor (lbs/MMCF) x 1 ton/2,000 lbs

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

Company Name: **Exide Technologies**
Address City IN Zip: **2601 West Mt. Pleasant Blvd., Muncie, IN 47302**
Permit Number: **035-33188-00028**
Permit Reviewer: **Brian Williams**

3. Combustion Emissions - HAP Pollutants

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

	Potential To Emit (tons/yr)										
Emission Unit ID	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Cadmium	Chromium	Manganese	Mercury	Nickel	Total HAPs
Rotary Dryer	1.13E-04	6.44E-05	4.03E-03	9.66E-02	1.83E-04	5.90E-05	7.51E-05	2.04E-05	1.40E-05	1.13E-04	1.01E-01
Reverberatory Furnace	2.19E-04	1.25E-04	7.83E-03	1.88E-01	3.55E-04	1.15E-04	1.46E-04	3.97E-05	2.71E-05	2.19E-04	1.97E-01
Eleven (11) Pot Furnaces	3.39E-04	1.94E-04	1.21E-02	2.91E-01	5.49E-04	1.78E-04	2.26E-04	6.14E-05	4.20E-05	3.39E-04	3.05E-01
Melting Pot (MP-1)	1.98E-05	1.13E-05	7.09E-04	1.70E-02	3.21E-05	1.04E-05	1.32E-05	3.59E-06	2.46E-06	1.98E-05	1.78E-02
Melting Pot (MP-2)	1.08E-05	6.18E-06	3.86E-04	9.28E-03	1.75E-05	5.67E-06	7.21E-06	1.96E-06	1.34E-06	1.08E-05	9.72E-03
Total	**7.02E-04**	**4.01E-04**	**2.51E-02**	**6.01E-01**	**1.14E-03**	**3.67E-04**	**4.68E-04**	**1.27E-04**	**8.69E-05**	**7.02E-04**	

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

Total HAP =	**0.63**
Highest Single HAP =	**6.01E-01**
	Hexane

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

4. Combustion Emissions - Greenhouse Gas Emissions

Emission Factor (lbs/MMCF)		
CO2	**CH4**	**N20**
120,000	2.3	2.2

	Potential To Emit (tons/yr)			
Emission Unit ID	**CO2**	**CH4**	**N20**	**CO2e**
Rotary Dryer	6,441.18	0.12	0.12	6,480.38
Reverberatory Furnace	12,521.65	0.24	0.23	12,597.85
Eleven (11) Pot Furnaces	19,375.06	0.371	0.355	19,492.97
Melting Pot (MP-1)	1,133.65	0.02	0.02	1,140.55
Melting Pot (MP-2)	618.35	0.012	0.011	622.12
Total	**40,089.88**	**0.768**	**0.735**	**40,333.86**

Methodology
The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

Appendix A: Emission Calculations
GHG Calcs for the Blast Furnace (Cupola)

Company Name: **Exide Technologies**
Address City IN Zip: **2601 West Mt. Pleasant Blvd., Muncie, IN 47302**
Permit Number: **035-33188-00028**
Permit Reviewer: **Brian Williams**

Fuel Type	Carbon Content % [a]	Material Processed (tons)	CO2 [b]	CH4	N2O
Lead Scrap	0.08	20,939.00	55.94	NA	NA
Lime stone	0.05	100.80	0.17	NA	NA
Cast Iron	3.57	938.40	111.88	NA	NA
Coke	91.29	3,595.30	10,961.39	NA	NA
TOTAL			**11,129.39**	**NA**	**NA**

Methodology

[a]Determined by collecting three representative samples throughout the year and compositing for analysis using ASTM C25-06
Ratio of Mol wt CO2:C = 44/12 = 3.67
conversion factor to convert tons to metric tons = 2,000/2205 = 0.91

[b](3.67 x 0.91) x (Annual mass of specific fuel type x Carbon content of fuel type) [% as decimal fraction]

Appendix A: Emission Calculations
Fugitive Dust Emissions - Paved Roads

Company Name: Exide Technologies
Address City IN Zip: 2601 West Mt. Pleasant Blvd., Muncie, IN 47302
Permit Number: 035-33188-00028
Permit Reviewer: Brian Williams

Paved Roads at Industrial Site
The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (1/2011).

Vehicle Informtation (provided by source)

Type	Maximum number of vehicles per day	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Tool Room deliveries - Sector 1, loaded	6.0	1.0	6.0	7.0	42.0	181	0.034	0.2	75.1
Refinery Fuel Station deliveries - Sector 1, loaded	1.0	1.0	1.0	7.0	7.0	251	0.048	0.0	17.4
Bin Room to Maintenance Room - Sector 1, loaded	6.0	1.0	6.0	7.0	42.0	127	0.024	0.1	52.7
Tool Room deliveries - Sector 1, unloaded	6.0	1.0	6.0	5.0	30.0	181	0.034	0.2	75.1
Refinery Fuel Station deliveries - Sector 1, unloaded	1.0	1.0	1.0	5.0	5.0	251	0.048	0.0	17.4
Bin Room to Maintenance Room - Sector 1, unloaded	6.0	1.0	6.0	5.0	30.0	127	0.024	0.1	52.7
		Totals	**26.0**		**156.0**			**0.8**	**290.2**

Average Vehicle Weight Per Trip = 6.0 tons/trip
Average Miles Per Trip = 0.03 miles/trip

Unmitigated Emission Factor, Ef = [k * (sL)^0.91 * (W)^1.02] (Equation 1 from AP-42 13.2.1)

	PM	PM10	PM2.5	
where k =	0.011	0.0022	0.00054	lb/VMT = particle size multiplier (AP-42 Table 13.2.1-1)
W =	6.0	6.0	6.0	tons = average vehicle weight (provided by source)
sL =	2.96	2.96	2.96	g/m^2 = silt loading value based on site specific source sample)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = E * [1 - (p/4N)] (Equation 2 from AP-42 13.2.1)
Mitigated Emission Factor, Eext = Ef * [1 - (p/4N)]
where p = 120 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)
N = 365 days per year

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	0.184	0.037	0.0090	lb/mile
Mitigated Emission Factor, Eext =	0.169	0.034	0.0083	lb/mile

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)
Tool Room deliveries - Sector 1, loaded	0.007	1.38E-03	3.39E-04	0.006	1.27E-03	3.11E-04
Refinery Fuel Station deliveries - Sector 1, loaded	1.59E-03	3.19E-04	7.83E-05	1.46E-03	2.93E-04	7.18E-05
Bin Room to Maintenance Room - Sector 1, loaded	4.84E-03	9.68E-04	2.38E-04	4.44E-03	8.89E-04	2.18E-04
Tool Room deliveries - Sector 1, unloaded	6.90E-03	1.38E-03	3.39E-04	0.006	1.27E-03	3.11E-04
Refinery Fuel Station deliveries - Sector 1, unloaded	1.59E-03	3.19E-04	7.83E-05	1.46E-03	2.93E-04	7.18E-05
Bin Room to Maintenance Room - Sector 1, unloaded	4.84E-03	9.68E-04	2.38E-04	4.44E-03	8.89E-04	2.18E-04
Totals	**0.027**	**0.005**	**0.001**	**0.024**	**0.005**	**0.001**

Methodology
Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] * [Maximum trips per day (trip/day)]
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip) / [5280 ft/mile]
Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] * [Maximum one-way distance (mi/trip)]
Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]
Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]
Unmitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] * [Unmitigated Emission Factor (lb/mile)] * (ton/2000 lbs)
Mitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] * [Mitigated Emission Factor (lb/mile)] * (ton/2000 lbs)

Abbreviations
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particle Matter (<2.5 um)
PTE = Potential to Emit

Appendix A: Emission Calculations
Fugitive Dust Emissions - Paved Roads

Company Name: **Exide Technologies**
Address City IN Zip: **2601 West Mt. Pleasant Blvd., Muncie, IN 47302**
Permit Number: **035-33188-00028**
Permit Reviewer: **Brian Williams**

Paved Roads at Industrial Site
The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (1/2011).

Vehicle Informtation (provided by source)

Type	Maximum number of vehicles per day	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Shipping dock - Sector 2, loaded	20.0	1.0	20.0	36.0	720.0	368	0.070	1.4	508.8
Pb to RLS - Sector 2, loaded	2.0	1.0	2.0	36.0	72.0	387	0.073	0.1	53.5
Slag out - Sector 2, loaded	4.0	1.0	4.0	36.0	144.0	132	0.025	0.1	36.5
Shipping dock - Sector 2, unloaded	20.0	1.0	20.0	16.0	320.0	368	0.070	1.4	508.8
Pb to RLS - Sector 2, unloaded	2.0	1.0	2.0	16.0	32.0	387	0.073	0.1	53.5
Slag out - Sector 2, unloaded	4.0	1.0	4.0	16.0	64.0	132	0.025	0.1	36.5
Maintenance deliveries - Sector 2, loaded	6.0	1.0	6.0	7.0	42.0	439	0.083	0.5	182.1
Tool Room deliveries - Sector 2, loaded	6.0	1.0	6.0	7.0	42.0	421	0.080	0.5	174.6
Refinery Fuel Station deliveries - Sector 2, loaded	1.0	1.0	1.0	7.0	7.0	439	0.083	0.1	30.3
Bin Room to Maintenance Room - Sector 2, loaded	6.0	1.0	6.0	7.0	42.0	443	0.084	0.5	183.7
Maintenance deliveries - Sector 2, unloaded	6.0	1.0	6.0	5.0	30.0	439	0.083	0.5	182.1
Tool Room deliveries - Sector 2, unloaded	6.0	1.0	6.0	5.0	30.0	421	0.080	0.5	174.6
Refinery Fuel Station deliveries - Sector 2, unloaded	1.0	1.0	1.0	5.0	5.0	439	0.083	0.1	30.3
Bin Room to Maintenance Room - Sector 2, unloaded	6.0	1.0	6.0	5.0	30.0	443	0.084	0.5	183.7
		Totals	**90.0**		**1,580.0**			**6.4**	**2,339.2**

Average Vehicle Weight Per Trip = 17.6 tons/trip
Average Miles Per Trip = 0.07 miles/trip

Unmitigated Emission Factor, Ef = [k * (sL)^0.91 * (W)^1.02] (Equation 1 from AP-42 13.2.1)

	PM	PM10	PM2.5	
where k =	0.011	0.0022	0.00054	lb/VMT = particle size multiplier (AP-42 Table 13.2.1-1)
W =	17.6	17.6	17.6	tons = average vehicle weight (provided by source)
sL =	0.45	0.45	0.45	g/m^2 = silt loading value based on site specific source sample)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = E * [1 - (p/4N)] (Equation 2 from AP-42 13.2.1)
Mitigated Emission Factor, Eext = Ef * [1 - (p/4N)]
where p = 120 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)
N = 365 days per year

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	0.099	0.020	0.0049	lb/mile
Mitigated Emission Factor, Eext =	0.091	0.018	0.0045	lb/mile

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)
Shipping dock - Sector 2, loaded	0.03	0.01	0.00	0.02	0.00	0.00
Pb to RLS - Sector 2, loaded	0.00	0.00	0.00	0.00	0.00	0.00
Slag out - Sector 2, loaded	0.00	0.00	0.00	0.00	0.00	0.00
Shipping dock - Sector 2, unloaded	0.03	0.01	0.00	0.02	0.00	0.00
Pb to RLS - Sector 2, unloaded	0.00	0.00	0.00	0.00	0.00	0.00
Slag out - Sector 2, unloaded	0.00	0.00	0.00	0.00	0.00	0.00
Maintenance deliveries - Sector 2, loaded	0.01	0.00	0.00	0.01	0.00	0.00
Tool Room deliveries - Sector 2, loaded	0.01	0.00	0.00	0.01	0.00	0.00
Refinery Fuel Station deliveries - Sector 2, loaded	0.00	0.00	0.00	0.00	0.00	0.00
Bin Room to Maintenance Room - Sector 2, loaded	0.01	0.00	0.00	0.01	0.00	0.00
Maintenance deliveries - Sector 2, unloaded	0.01	0.00	0.00	0.01	0.00	0.00
Tool Room deliveries - Sector 2, unloaded	0.01	0.00	0.00	0.01	0.00	0.00
Refinery Fuel Station deliveries - Sector 2, unloaded	0.00	0.00	0.00	0.00	0.00	0.00
Bin Room to Maintenance Room - Sector 2, unloaded	0.01	0.00	0.00	0.01	0.00	0.00
Totals	**0.12**	**0.02**	**0.01**	**0.11**	**0.02**	**0.01**

Methodology
Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] * [Maximum trips per day (trip/day)]
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip) / [5280 ft/mile]
Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] * [Maximum one-way distance (mi/trip)]
Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]
Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]
Unmitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] * [Unmitigated Emission Factor (lb/mile)] * (ton/2000 lbs)
Mitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] * [Mitigated Emission Factor (lb/mile)] * (ton/2000 lbs)

Abbreviations
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particle Matter (<2.5 um)
PTE = Potential to Emit

Appendix A: Emission Calculations
Fugitive Dust Emissions - Paved Roads

Company Name: **Exide Technologies**
Address City IN Zip: **2601 West Mt. Pleasant Blvd., Muncie, IN 47302**
Permit Number: **035-33188-00028**
Permit Reviewer: **Brian Williams**

Paved Roads at Industrial Site
The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (1/2011).

Vehicle Informtation (provided by source)

Type	Maximum number of vehicles per day	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Breaker deliveries - Sector 3, loaded	18.0	1.0	18.0	36.0	648.0	276	0.052	0.9	343.4
RLS deliveries - Sector 3, loaded	22.0	1.0	22.0	36.0	792.0	308	0.058	1.3	468.4
Bin Room deliveries - Sector 3, loaded	1.0	1.0	1.0	36.0	36.0	176	0.033	0.0	12.2
Pb to RLS - Sector 3, loaded	2.0	1.0	2.0	36.0	72.0	258	0.049	0.1	35.7
Plastic out - Sector 3, loaded	2.0	1.0	2.0	36.0	72.0	185	0.035	0.1	25.6
Breaker deliveries - Sector 3, unloaded	18.0	1.0	18.0	16.0	288.0	276	0.052	0.9	343.4
RLS deliveries - Sector 3, unloaded	22.0	1.0	22.0	16.0	352.0	308	0.058	1.3	468.4
Bin Room deliveries - Sector 3, unloaded	1.0	1.0	1.0	16.0	16.0	176	0.033	0.0	12.2
Pb to RLS - Sector 3, unloaded	2.0	1.0	2.0	16.0	32.0	258	0.049	0.1	35.7
Plastic out - Sector 3, unloaded	2.0	1.0	2.0	16.0	32.0	185	0.035	0.1	25.6
Bin Room Fuel Station deliveries - Sector 3, loaded	1.0	1.0	1.0	7.0	7.0	186	0.035	0.0	12.9
Bin Room Fuel Station deliveries - Sector 3, unloaded	1.0	1.0	1.0	5.0	5.0	186	0.035	0.0	12.9
		Totals	**92.0**		**2352.0**			**4.9**	**1796.2**

Average Vehicle Weight Per Trip = 25.6 tons/trip
Average Miles Per Trip = 0.05 miles/trip

Unmitigated Emission Factor, Ef = [k * (sL)^0.91 * (W)^1.02] (Equation 1 from AP-42 13.2.1)

	PM	PM10	PM2.5	
where k =	0.011	0.0022	0.00054	lb/VMT = particle size multiplier (AP-42 Table 13.2.1-1)
W =	25.6	25.6	25.6	tons = average vehicle weight (provided by source)
sL =	0.90	0.90	0.90	g/m^2 = silt loading value based on site specific source sample)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = E * [1 - (p/4N)] (Equation 2 from AP-42 13.2.1)
Mitigated Emission Factor, Eext = Ef * [1 - (p/4N)]
where p = 120 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)
N = 365 days per year

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	0.272	0.054	0.0134	lb/mile
Mitigated Emission Factor, Eext =	0.250	0.050	0.0123	lb/mile

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)
Breaker deliveries - Sector 3, loaded	0.05	0.01	0.00	0.04	0.01	0.00
RLS deliveries - Sector 3, loaded	0.06	0.01	0.00	0.06	0.01	0.00
Bin Room deliveries - Sector 3, loaded	0.00	0.00	0.00	0.00	0.00	0.00
Pb to RLS - Sector 3, loaded	0.00	0.00	0.00	0.00	0.00	0.00
Plastic out - Sector 3, loaded	0.00	0.00	0.00	0.00	0.00	0.00
Breaker deliveries - Sector 3, unloaded	0.05	0.01	0.00	0.04	0.01	0.00
RLS deliveries - Sector 3, unloaded	0.06	0.01	0.00	0.06	0.01	0.00
Bin Room deliveries - Sector 3, unloaded	0.00	0.00	0.00	0.00	0.00	0.00
Pb to RLS - Sector 3, unloaded	0.00	0.00	0.00	0.00	0.00	0.00
Plastic out - Sector 3, unloaded	0.00	0.00	0.00	0.00	0.00	0.00
Bin Room Fuel Station deliveries - Sector 3, loaded	0.00	0.00	0.00	0.00	0.00	0.00
Bin Room Fuel Station deliveries - Sector 3, unloaded	0.00	0.00	0.00	0.00	0.00	0.00
Totals	**0.24**	**0.05**	**0.01**	**0.22**	**0.04**	**0.01**

Methodology
Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] * [Maximum trips per day (trip/day)]
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip) / [5280 ft/mile]
Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] * [Maximum one-way distance (mi/trip)]
Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]
Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]
Unmitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] * [Unmitigated Emission Factor (lb/mile)] * (ton/2000 lbs)
Mitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] * [Mitigated Emission Factor (lb/mile)] * (ton/2000 lbs)

Abbreviations
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particle Matter (<2.5 um)
PTE = Potential to Emit

Appendix A: Emission Calculations
Fugitive Dust Emissions - Paved Roads

Company Name: **Exide Technologies**
Address City IN Zip: **2601 West Mt. Pleasant Blvd., Muncie, IN 47302**
Permit Number: **035-33188-00028**
Permit Reviewer: **Brian Williams**

Paved Roads at Industrial Site
The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (1/2011).

Vehicle Informtation (provided by source)

Type	Maximum number of vehicles per day	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
RLS deliveries - Sector 4, loaded	22.0	1.0	22.0	36.0	792.0	308	0.058	1.3	468.4
Pb to RLS - Sector 4, loaded	2.0	1.0	2.0	36.0	72.0	322	0.061	0.1	44.5
Junk Transfers - Sector 4, loaded	8.0	1.0	8.0	36.0	288.0	399	0.076	0.6	220.7
Plastic out - Sector 4, loaded	2.0	1.0	2.0	36.0	72.0	309	0.059	0.1	42.7
RLS deliveries - Sector 4, unloaded	22.0	1.0	22.0	16.0	352.0	308	0.058	1.3	468.4
Pb to RLS - Sector 4, unloaded	2.0	1.0	2.0	16.0	32.0	322	0.061	0.1	44.5
Junk Transfers - Sector 4, unloaded	8.0	1.0	8.0	16.0	128.0	399	0.076	0.6	220.7
Plastic out - Sector 4, unloaded	2.0	1.0	2.0	16.0	32.0	309	0.059	0.1	42.7
		Totals	**68.0**		**1,768.0**			**4.3**	**1,552.6**

Average Vehicle Weight Per Trip = 26.0 tons/trip
Average Miles Per Trip = 0.06 miles/trip

Unmitigated Emission Factor, Ef = [k * (sL)^0.91 * (W)^1.02] (Equation 1 from AP-42 13.2.1)

	PM	PM10	PM2.5	
where k =	0.011	0.0022	0.00054	lb/VMT = particle size multiplier (AP-42 Table 13.2.1-1)
W =	26.0	26.0	26.0	tons = average vehicle weight (provided by source)
sL =	1.85	1.85	1.85	g/m^2 = silt loading value based on site specific source sample)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = E * [1 - (p/4N)] (Equation 2 from AP-42 13.2.1)
Mitigated Emission Factor, Eext = Ef * [1 - (p/4N)]
where p = 120 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)
N = 365 days per year

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	0.533	0.107	0.0262	lb/mile
Mitigated Emission Factor, Eext =	0.489	0.098	0.0240	lb/mile

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)
RLS deliveries - Sector 4, loaded	0.12	0.02	0.01	0.11	0.02	0.01
Pb to RLS - Sector 4, loaded	0.01	0.00	0.00	0.01	0.00	0.00
Junk Transfers - Sector 4, loaded	0.06	0.01	0.00	0.05	0.01	0.00
Plastic out - Sector 4, loaded	0.01	0.00	0.00	0.01	0.00	0.00
RLS deliveries - Sector 4, unloaded	0.12	0.02	0.01	0.11	0.02	0.01
Pb to RLS - Sector 4, unloaded	0.01	0.00	0.00	0.01	0.00	0.00
Junk Transfers - Sector 4, unloaded	0.06	0.01	0.00	0.05	0.01	0.00
Plastic out - Sector 4, unloaded	0.01	0.00	0.00	0.01	0.00	0.00
Totals	**0.41**	**0.08**	**0.02**	**0.38**	**0.08**	**0.02**

Methodology
Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] * [Maximum trips per day (trip/day)]
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip) / [5280 ft/mile]
Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] * [Maximum one-way distance (mi/trip)]
Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]
Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]
Unmitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] * [Unmitigated Emission Factor (lb/mile)] * (ton/2000 lbs)
Mitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] * [Mitigated Emission Factor (lb/mile)] * (ton/2000 lbs)

Abbreviations
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particle Matter (<2.5 um)
PTE = Potential to Emit

Appendix A: Emission Calculations
Fugitive Dust Emissions - Paved Roads

Company Name: **Exide Technologies**
Address City IN Zip: **2601 West Mt. Pleasant Blvd., Muncie, IN 47302**
Permit Number: **035-33188-00028**
Permit Reviewer: **Brian Williams**

Paved Roads at Industrial Site
The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (1/2011).

Vehicle Informtation (provided by source)

Type	Maximum number of vehicles per day	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)[1]	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Paved Parking Lot #1 - Employee Vehicles	40.0	1.0	40.0	2.1	84.0	450	0.085	3.4	1244.3
		Totals	**40.0**		**84.0**			**3.4**	**1244.3**

Average Vehicle Weight Per Trip = 2.1 tons/trip
Average Miles Per Trip = 0.09 miles/trip

Unmitigated Emission Factor, Ef = [k * (sL)^0.91 * (W)^1.02] (Equation 1 from AP-42 13.2.1)

	PM	PM10	PM2.5	
where k =	0.011	0.0022	0.00054	lb/VMT = particle size multiplier (AP-42 Table 13.2.1-1)
W =	2.1	2.1	2.1	tons = average vehicle weight (provided by source)
sL =	2.96	2.96	2.96	g/m^2 = silt loading value based on site specific source sample)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = E * [1 - (p/4N)] (Equation 2 from AP-42 13.2.1)
Mitigated Emission Factor, Eext = Ef * [1 - (p/4N)]
where p = 120 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)
N = 365 days per year

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	0.063	0.013	0.0031	lb/mile
Mitigated Emission Factor, Eext =	0.058	0.012	0.0028	lb/mile

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)
Paved Parking Lot #1 - Employee Vehicles	0.04	0.01	0.00	0.04	0.01	0.00
Totals	**0.04**	**0.01**	**0.00**	**0.04**	**0.01**	**0.00**

Methodology
[1] Average vehicle wieght estimated based upon information provided in reference: United States Environmental Protection Agency (USEPA). 2012. Light-Duty Automotive Technology, Carbon Dioxide Emissions, and Fuel Economy Trends: 1975 Through 2011

Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] * [Maximum trips per day (trip/day)]
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip) / [5280 ft/mile]
Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] * [Maximum one-way distance (mi/trip)]
Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]
Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]
Unmitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] * [Unmitigated Emission Factor (lb/mile)] * (ton/2000 lbs)
Mitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] * [Mitigated Emission Factor (lb/mile)] * (ton/2000 lbs)

Abbreviations
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particle Matter (<2.5 um)
PTE = Potential to Emit

Appendix A: Emission Calculations
Fugitive Dust Emissions - Unpaved Roads

Company Name: **Exide Technologies**
Address City IN Zip: **2601 West Mt. Pleasant Blvd., Muncie, IN 47302**
Permit Number: **035-33188-00028**
Permit Reviewer: **Brian Williams**

Unpaved Roads at Industrial Site
The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2 (11/2006).

Vehicle Information (provided by source)

Type	Maximum number of vehicles	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)[1]	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Unpaved Parking Lot #2 - Employee Vehicles	60.0	1.0	60.0	2.1	126.0	420	0.080	4.8	1742.0
		Totals	**60.0**		**126.0**			**4.8**	**1742.0**

Average Vehicle Weight Per Trip = 2.1 tons/trip
Average Miles Per Trip = 0.08 miles/trip

Unmitigated Emission Factor, Ef = k*[(s/12)^a]*[(W/3)^b] (Equation 1a from AP-42 13.2.2)

	PM	PM10	PM2.5	
where k =	4.9	1.5	0.15	lb/mi = particle size multiplier (AP-42 Table 13.2.2-2 for Industrial Roads)
s =	4.8	4.8	4.8	% = mean % silt content of unpaved roads (AP-42 Table 13.2.2-1 Sand/Gravel Processing Plant)
a =	0.7	0.9	0.9	= constant (AP-42 Table 13.2.2-2 for Industrial Roads)
W =	2.1	2.1	2.1	tons = average vehicle weight (provided by source)
b =	0.45	0.45	0.45	= constant (AP-42 Table 13.2.2-2 for Industrial Roads)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = E * [(365 - P)/365] (Equation 2 from AP-42 13.2.2)
Mitigated Emission Factor, Eext = E * [(365 - P)/365]
where P = 120 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	2.20	0.56	0.06	lb/mile
Mitigated Emission Factor, Eext =	1.48	0.38	0.04	lb/mile

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)
Unpaved Parking Lot #2 - Employee Vehicles	1.91	0.49	0.05	1.28	0.33	0.03
Totals	**1.91**	**0.49**	**0.05**	**1.28**	**0.33**	**0.03**

Methodology
[1] Average vehicle wieght estimated based upon information provided in reference: United States Environmental Protection Agency (USEPA). 2012. Light-Duty Automotive Technology, Carbon Dioxide Emissions, and Fuel Economy Trends: 1975 Through 2011

Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] * [Maximum trips per day (trip/day)]
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip) / [5280 ft/mile]
Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] * [Maximum one-way distance (mi/trip)]
Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]
Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]
Unmitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) * (Unmitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
Mitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) * (Mitigated Emission Factor (lb/mile)) * (ton/2000 lbs)

Abbreviations
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particulate Matter (<2.5 um)
PTE = Potential to Emit

Appendix A: Emission Calculations
Fugitive Dust Emissions - Unpaved Roads

Company Name: **Exide Technologies**
Address City IN Zip: **2601 West Mt. Pleasant Blvd., Muncie, IN 47302**
Permit Number: **035-33188-00028**
Permit Reviewer: **Brian Williams**

Unpaved Roads at Industrial Site
The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2 (11/2006).

Vehicle Information (provided by source)

Type	Maximum number of vehicles	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)[1]	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Truck Parking and Turnaround, loaded	50.0	1.0	50.0	36.0	1800.0	400	0.076	3.8	1382.6
		Totals	**50.0**		**1800.0**			**3.8**	**1382.6**

Average Vehicle Weight Per Trip = 36.0 tons/trip
Average Miles Per Trip = 0.08 miles/trip

Unmitigated Emission Factor, Ef = k*[(s/12)^a]*[(W/3)^b] (Equation 1a from AP-42 13.2.2)

	PM	PM10	PM2.5	
where k =	4.9	1.5	0.15	lb/mi = particle size multiplier (AP-42 Table 13.2.2-2 for Industrial Roads)
s =	4.8	4.8	4.8	% = mean % silt content of unpaved roads (AP-42 Table 13.2.2-1 Sand/Gravel Processing Plant)
a =	0.7	0.9	0.9	= constant (AP-42 Table 13.2.2-2 for Industrial Roads)
W =	36.0	36.0	36.0	tons = average vehicle weight (provided by source)
b =	0.45	0.45	0.45	= constant (AP-42 Table 13.2.2-2 for Industrial Roads)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = E * [(365 - P)/365] (Equation 2 from AP-42 13.2.2)
Mitigated Emission Factor, Eext = E * [(365 - P)/365]
where P = 120 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	7.89	2.01	0.20	lb/mile
Mitigated Emission Factor, Eext =	5.30	1.35	0.14	lb/mile

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)
Truck Parking and Turnaround, loaded	5.46	1.39	0.14	3.66	0.93	0.09
Totals	**5.46**	**1.39**	**0.14**	**3.66**	**0.93**	**0.09**

Methodology

[1] Average vehicle wieght estimated based upon information provided in reference: United States Environmental Protection Agency (USEPA). 2012. Light-Duty Automotive Technology, Carbon Dioxide Emissions, and Fuel Economy Trends: 1975 Through 2011

Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] * [Maximum trips per day (trip/day)]
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip) / [5280 ft/mile]
Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] * [Maximum one-way distance (mi/trip)]
Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]
Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]
Unmitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) * (Unmitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
Mitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) * (Mitigated Emission Factor (lb/mile)) * (ton/2000 lbs)

Abbreviations
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particulate Matter (<2.5 um)
PTE = Potential to Emit

Appendix A: Emission Calculations
Summary of Emissions

Company Name: Exide Technologies
Address City IN Zip: 2601 West Mt. Pleasant Blvd., Muncie, IN 47302
Permit Number: 035-33188-00028
Permit Reviewer: Brian Williams

Unlimited Potential to Emit (tons/year)

Process	PM	PM10	PM2.5	SO2	NOx	VOC	CO	GHGs as CO2e	Total HAPs	Pb
Battery Crusher/Breaker	493	493	493	0	0	0	0	0	14.3	14.3
Soda Ash Pneumatic Conveying thru 3 silos	2.88	2.88	2.88	0	0	0	0	0	0	0
Rotary Dryer (Including Combustion)	1,971	1,971	1,971	12.8	5.37	0.30	4.51	6,480	12.9	12.8
Reverberatory Furnace	16,150	9,690	9,690	4,000	15.00	0.57	8.77	12,598	2,124	2,124
Blast Furnace (Cupola)	4,605	1,935	1,935	795	1.50	0	0	11,129		
Reverberatory and Blast Furnaces (Cupola) Charging Points combined	3,011	3,285	3,285	0	0	0	0	0	526	526
Eleven (11) Pot Furnaces (Stack 9)	2,081	2,301	2,301	0.10	16.15	0.89	13.56	19,493	9.3	9.0
Two (2) Pig Casting Machines				0	0	0	0	0		
Material Handling/Slag Crusher	985	985	985	0	0	0	0	0	74.3	74.3
Insignificant Melting Pots	0.03	0.11	0.11	0.01	1.46	0.08	1.23	1,763	0.03	0
Fugitive Emissions - Paved Roads	0.77	0.15	0.04	0	0	0	0	0	0	0
Fugitive Emissions - Unpaved Roads	4.95	1.26	0.13	0	0	0	0	0	0	0
Total	**29,305**	**20,665**	**20,664**	**4,808**	**39.47**	**1.84**	**28.06**	**51,463**	**2,761**	**2,760**

Limited Potential to Emit (tons/year)

Process	PM	PM10	PM2.5	SO2	NOx	VOC	CO	GHGs as CO2e	Total HAPs	Pb
Battery Crusher/Breaker	9.86	9.86	9.86	0	0	0	0	0	0.28	0.28
Soda Ash Pneumatic Conveying thru 3 silos	1.01	1.01	1.01	0	0	0	0	0	0	0
Rotary Dryer (Including Combustion)	19.71	19.71	19.71	0.16	5.37	0.30	4.51	6,480	0.23	0.13
Reverberatory Furnace					15.0	0.57	8.77	12,598	1.69	1.49
Blast Furnace (Cupola)	20.15	21.90	21.90	99.00	1.5	0	0	11,129		
Reverberatory and Blast Furnaces (Cupola) Charging Points combined	12.05	13.14	13.14	0	0	0	0	0	0.74	0.74
Eleven (11) Pot Furnaces (Stack 9)	20.81	23.00	23.00	0.10	16.15	0.89	13.56	19,493	1.62	1.31
Two (2) Pig Casting Machines				0	0	0	0	0		
Material Handling/Slag Crusher	9.86	9.86	9.86	0	0	0	0	0	0.74	0.74
Insignificant Melting Pots				0.01	1.46	0.08	1.23	1,763	0.03	
Fugitive Emissions - Paved Roads	0.77	0.15	0.04	0	0	0	0	0	0	0
Fugitive Emissions - Unpaved Roads	4.95	1.26	0.13	0	0	0	0	0	0	0
Total	**99.14**	**99.88**	**98.63**	**99.26**	**39.47**	**1.84**	**28.06**	**51,463**	**5.33**	**4.70**

Indiana Department of Environmental Management
Office of Air Quality

Air Quality Analysis - Appendix B

Source Description and Location

Source Name:	Exide Technologies
Source Location:	2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302
County:	Delaware
SIC Code:	3341 (Secondary Smelting and Refining of Nonferrous Metals)
Operation Permit No.:	T 035-31230-00028
Operation Permit Issuance Date:	August, 1, 2012
Significant Permit Modification No.:	035-33188-00028
Reviewer:	Jeffery Stoakes

Proposed Project

Exide Technologies (Exide) submitted a significant permit modification application to their Title V permit in May, 2013.

Exide plans to construct and install two new baghouses to existing processes. One new baghouse will be Refinery Baghouse #2. This new baghouse will be added to the refinery area where two pig casting machines and 11 pot furnaces are located. This new baghouse will have its own exhaust stack separate from the existing refinery baghouse stack. Exide will maintain the lead Prevention of Significant Deterioration (PSD) minor limit combined for both baghouses.

The second new baghouse will be installed in the bin room area, where lead containing material storage and slag crushing are contained. This new baghouse will have its own exhaust stack separate from the existing bin room baghouse stack. Exide will maintain the lead PSD minor limit combined for both baghouses.

Air Consulting Services prepared the permit application for Exide. This technical support document provides the air quality analysis review for Exide.

Analysis Summary

Based on the potential emissions after controls, a National Ambient Air Quality Standard (NAAQS) air quality analysis was triggered for Lead. This area of Delaware County has been classified as non-attainment for lead. The NAAQS modeling for lead using monitored design values from February 2012 showed violations of the standards. At current monitored design values, the proposed project should not contribute to any violation of the NAAQS. An additional impact analysis was conducted and showed no significant impact.

Air Quality Impact Objectives

The purpose of the air quality impact analysis in the permit application is to accomplish the following objectives. Each objective is individually addressed in this document in each section outlined below.

A. Establish which pollutants require an air quality analysis based on PSD significant emission rates.

B. Provide analyses of actual stack heights with respect to Good Engineering Practice (GEP), the meteorological data used, a description of the model used in the analysis, and the receptor grid utilized for the analyses.

C. Determine the significant impact level, the area impacted by the source's emissions and background air quality levels.

D. Demonstrate that the source will not cause or contribute to a violation of the NAAQS.

E. Summarize the Air Quality Analysis.

Section A - Pollutants Analyzed for Air Quality Impact

Applicability

The PSD requirements, 326 IAC 2-2, apply in attainment and unclassifiable areas and require an air quality impact analysis of each regulated pollutant emitted in significant amounts by a major stationary source or modification. Significant emission levels for each pollutant are defined in 326 IAC 2-2-1 and in the Code of Federal Regulations (CFR) 52.21(b) (23) (i).

Proposed Project Emissions

Lead is the pollutants that will be emitted from Exide and is summarized below in Table 1. Lead will require an air quality analysis.

TABLE 1
Significant Emission Rates for PSD

POLLUTANT	**SOURCE EMISSION RATE** (Facility totals in tons/year)	**SIGNIFICANT EMISSION RATE** (tons/year)	**PRELIMINARY AQ ANALYSIS REQUIRED**
Lead	1.73	0.6	Yes

Exide's permitted emission rates were taken from emissions calculation sheets. These are the emission rates that were modeled in Table 1. The modeled emission rates for each of the new secondary baghouses are the total permitted emission rate for the baghouse process. The emissions rates listed in Table 1 are currently permitted and there will not be an increase in the overall emission limits.

Section B – Good Engineering Practice (GEP), Met Data, Model Used, Receptor Grid and Terrain

Applicability

Stacks should comply with GEP requirements established in 326 IAC 1-7-4. If stacks are lower than GEP, excessive ambient concentrations due to aerodynamic downwash may occur. Dispersion modeling credit for stacks taller than 65 meters (213 feet) are limited to GEP for the purpose of establishing emission limitations. The GEP stack height takes into account the distance and dimensions of nearby structures, which would affect the downwind wake of the stack. The downwind wake is considered to extend five times the lesser of the structure's height or width. A GEP stack height is determined for each nearby structure by the following formula:

$$Hg = H + 1.5L$$

Where: Hg is the GEP stack height
H is the structure height
L is the structure's lesser dimension (height or width)

New Stacks

Since the new stack heights for Exide are below GEP stack height, the effect of aerodynamic downwash will be accounted for in the air quality analysis for the project.

Meteorological Data

The National Weather Service (NWS) 1-minute Automated Surface Observation Station (ASOS) meteorological data used in AERMOD consisted of 2006 through 2010 surface Indianapolis International Airport and upper air data from Wright-Patterson Air Force base in Dayton, Ohio. The meteorological data was preprocessed using the latest versions of AERMINUTE, AERSURFACE, and AERMET at that time the permit was prepared.

Model Description

IDEM used AERMOD, Version 12345, All regulatory default options were utilized in the U.S. EPA approved model, as listed in the 40 Code of Federal Register Part 51, Appendix W “Guideline on Air Quality Models”.

After the modeling was complete, LEADPOST (Version 13262) was used to calculate the three month rolling average. This tool calculates and outputs the rolling cumulative (all sources) 3-month average concentration at each modeled receptor with source group contributions and the maximum cumulative (all sources) rolling 3-month average concentration by receptor.

Receptor Grid

OAQ modeling used the receptor grid outlined below:

- 100 meter spacing along the facility’s property boundary,
- 100 meter spacing from 0 to 2,000 meters from the facility,
- 500 meters spacing from 2,000 to 10,000 meters from the facility,

Treatment of Terrain

Receptor terrain elevation inputs were interpolated from NED (National Elevation Dataset) data obtained from the USGS. NED terrain data was preprocessed using AERMAP.

Section C - Significant Impact Level/Area (SIA) and Background Air Quality Levels

There is not a significant impact level for lead, however, since the area in classified as non-attainment for lead, a NAAQS analysis will be completed.

Pre-construction Monitoring Analysis - Applicability

The PSD rule, 326 IAC 2-2-4, requires an air quality analysis of the new source or the major modification to determine if the pre-construction monitoring threshold is triggered. In most cases, monitoring data taken from a similar geographic location can satisfy this requirement if the pre-construction monitoring threshold has been exceeded. Also, post construction monitoring could be required if the air quality in that area could be adversely impacted by applicant's emissions.

Exide satisfies the preconstruction monitoring requirement since there is source specific air quality monitoring data.

Background Concentrations - Applicability

EPA's "Ambient Monitoring Guidelines for Prevention of Significant Deterioration" (EPA-450/4-87-007) Section 2.4.1 is cited for approval of the monitoring sites chosen for this area.

Background Monitors

Table 2 shows background data taken from the representative monitoring station for Exide. The monitored design value was for the 3-month rolling average from December 2011-February 2012. The design value is greater than the NAAQS 3-month rolling average of 0.15 microgram per cubic meter ($\mu g/m^3$). The monitor, an Exide sited monitor, has been below the NAAQS for 13 consecutive readings including the most current data of June 2013.

TABLE 2
Existing Monitoring Data Used For Background Concentrations

Pollutant	Averaging Period	Location	Monitoring Site	Monitored Design Values
Lead	3-month Rolling Average	Delaware County-Mt.Pleasant Road	18-035-0009	0.34

Section D - NAAQS Analysis

NAAQS Compliance Analysis and Results

IDEM supplied emission inventories of all point sources within a 50-kilometer radius of Exide. The NAAQS inventories are generated from I-STEPS (State Emission Processing System) in accordance with 326 IAC 2-6. Exide is the only source that contributes to the NAAQS inventory.

NAAQS modeling for the appropriate time-averaging periods for lead was conducted and compared to the respective NAAQS limit. IDEM modeling results are shown in Table 3. All maximum-modeled concentrations were compared to the respective NAAQS limit. Using the monitored design value of 0.34 µg/m^3 Exide with the new baghouses would exceed the NAAQS.

TABLE 3
NAAQS Analysis

Pollutant	Year	Time-Averaging Period	Maximum Concentration ug/m3	Background Concentration ug/m3	Total ug/m3	NAAQS Limit ug/m3	NAAQS Violation
Lead	2008	3-month Rolling Average	0.09	0.34	0.43	0.15	YES

The maximum modeled concentration was 0.09 µg/m^3. The maximum impact is located on the northern fence line of Exide's property. The monitored design value has decreased to 0.03 µg/m^3 for the last three 3-month rolling averages. Using the same permitted emission rates, the proposed baghouses should not contribute to a violation of the Lead NAAQS.

Part E – Qualitative Analysis

Additional Impact Analysis

All PSD permit applicants must prepare an additional impact analysis for each pollutant subject to regulation under the Act. This analysis assesses the impacts on growth, soils and vegetation, endangered species and visibility caused by any increase in emissions of any regulated pollutant from the source.

Economic Growth

The purpose of the growth analysis is to quantify project associated growth and estimate the air quality impacts from this growth either quantitatively or qualitatively.

No additional jobs will be created as a result of the proposed project. It is not expected that growth impacts will cause a violation of the NAAQs or the PSD increment.

Soils and Vegetation Analysis

A list of soil types present in the general area was determined. Soil types include the following: Loamy Glacial Till, Moderate Thick Loess over Loamy Glacial Till and Thin Loess over Loamy Glacial Till.

Due to the agricultural nature of the land, crops in the Delaware County area consist mainly of corn, sorghum, wheat, soybeans, and oats (2002 Agricultural Census for Delaware County). The maximum modeled concentrations for Exide are well below the threshold limits necessary to have adverse impacts on the surrounding vegetation such as autumn bent, nimblewill, barnyard grass, bishopscap and horsetail, and milkweed (Flora of Indiana – Charles Deam). Livestock in Delaware County consist mainly of hogs, cattle, and sheep (2002 Agricultural Census for Delaware County) and will not be adversely impacted from the facility. Trees in the area are mainly hardwoods. These are hardy trees and no significant adverse impacts are expected due to modeled concentrations.

Federal and State Endangered Species Analysis

Federal and state endangered are listed by the U.S. Fish and Wildlife Service; Division of Endangered Species for Indiana. For Delaware County this includes 7 mollusks, 5 reptiles, 6 birds, and 2 mammals which have habitat within the county. The mollusks, certain species of birds and mammals are found along rivers and lakes, while the other species of birds and mammals are found in forested areas. The facility is not expected to have any additional adverse effects on the habitats of the species than what has already occurred from the industrial, farming, and residential activities in the area.

Federal and state endangered plants are listed by the U.S. Fish and Wildlife Service, Division of Endangered Species for Indiana. At this time 8 state endangered plant species are found in Delaware County. The endangered plants do not thrive in industrialized and residential areas. The facility is not expected to adversely affect any plant on the endangered species list.

Additional Analysis Conclusions

Finally, the results of the additional impact analysis conclude the operation of the facility will have no significant impact on economic growth, soils, vegetation or visibility in the immediate vicinity or on any Class I area.

Summary of Air Quality Analysis

Delaware County is designated as nonattainment for Lead. Lead emission rates associated with the proposed facility exceeded the respective significant emission rates. Exide did trigger the preconstruction monitoring threshold level for but satisfies the preconstruction monitoring requirement since there is existing air quality monitoring data. The NAAQS modeling for lead using monitored design values from February 2012 showed violations of the standards. At current monitored design values, the proposed project should not contribute to any violation of the NAAQS. The nearest Class I area is Mammoth Cave National Park in Kentucky 350 kilometers away from the source. An additional impact analysis was required but the operation of the proposed facility will have no significant impact.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Steve Bennett
Exide Technologies
PO Box 2098
Muncie, IN 47302

DATE: February 4, 2014

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

SUBJECT: Final Decision
Significant Permit Modification
035-33188-00028

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

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

A copy of the final decision and supporting materials has also been sent via standard mail to:
Robert Saurer – Plant Manager
Scott Flack – Air Consulting Services
OAQ Permits Branch Interested Parties List

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

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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

February 4, 2014

TO: JFK Library – Muncie Branch

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

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: Exide Technologies
Permit Number: 035-33188-00028

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures
Final Library.dot 6/13/2013

Mail Code 61-53

IDEM Staff	GHOTOPP 2/4/2014 Exide Technologies 035-33188-00028 Final		
Name and address of Sender	▶	Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: **CERTIFICATE OF MAILING ONLY**

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2		Robert Saurer Plant Mgr Exide Technologies PO Box 2098 Muncie IN 47302 *(RO CAATS)*									
3		JFK Library Muncie Branch 1700 McCalliard Rd Muncie IN 47302 *(Library)*									
4		Muncie City Council and Mayors Office 300 N. High St Muncie IN 47305 *(Local Official)*									
5		Delaware County Health Department 200 W Main St, County Bldg Room 207-309 Muncie IN 47305-2874 *(Health Department)*									
6		Mr. Scott Flack Air Consulting Services P.O. Box 4813 Lafayette IN 47903 *(Consultant)*									
7		Delaware County Commissioners 100 West Main Street Muncie IN 47305 *(Local Official)*									
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