



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: August 2, 2012

RE: Exide Technologies/035-31230-00028

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 13-15-5-3, this permit 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 13-15-6-1(b) or IC 13-15-6-1(a) require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204.

For an **initial Title V Operating Permit**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **thirty (30)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(b).

For a **Title V Operating Permit renewal**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **fifteen (15)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(a).

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 an initial Title V operating permit, permit renewal, 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 impracticable 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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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.

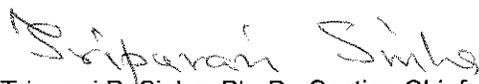
Operation Permit No.: 035-31230-00028	
Issued by:  Tripurari P. Sinha, Ph. D., Section Chief Permits Branch Office of Air Quality	Issuance Date: August 1, 2012 Expiration Date: August 1, 2017

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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
County Location:	Delaware
Source Location Status:	Attainment or Not Designated for all criteria pollutants by the State of Indiana Federally, Nonattainment for lead.
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 identified collectively as Unit 7, each rated at 120,000 tons of lead per year controlled by the refinery baghouse.

- (f) Eleven (11) natural gas-fired pot furnaces, identified as Units 6K1, 6K2 and Units 6K4 through 6K12, all controlled by the refinery baghouse, 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) Four (4) 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.
- (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, controlled by bin room baghouse.
 - (1) One (1) slag crusher, constructed in 1994, with emissions controlled by a baghouse, identified as slag crusher baghouse venting to bin room baghouse,
 - (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.

- (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(34), 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(34).

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(34).

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(34).

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(34).
- (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(34).

- (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(34).
- (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(34).

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(34).

- (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(34).

- (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(34).

- (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(34).

- (e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, 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(34).

- (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).
- (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) 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:

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(34).

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

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

- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale

such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.

- (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(34).

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(34).

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:
 - (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:

- (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(34). 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 Minor Limit [326 IAC 2-2]

(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 are limited as shown in the table as follows:

Emission Units	Control Equipment	PM Limit (lb/hr)	PM10/PM2.5 Limit (lb/hr)	Lead Limit (lb/hr)
Rotary dryer (Unit 3)	Rotary dryer baghouse	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	5.00	0.34
Reverberatory and blast furnace charge points hoods emissions	Ventilation baghouse	3.00	3.00	0.17

(c) The combined SO₂ 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 shall keep the source wide total PM, PM10, PM2.5 and SO2 below one hundred (100) tons per year and Lead below five (5) tons per year and will render the requirements of 326 IAC 2-2 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 Sulfur Dioxide (SO₂) [326 IAC 7-1.1]

Pursuant to 326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations), the SO₂ 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.1.4 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:

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

D.1.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

Compliance Determination Requirements

D.1.6 Particulate Matter (PM), Sulfur Dioxide (SO₂) 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, 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 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.
- (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.1.7 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11] [326 IAC 20-13-6]

- (a) Pursuant to 326 IAC 20-13-6 and in order to demonstrate the compliance status with lead limits in Condition D.1.2, 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.
- (b) In order to demonstrate the compliance status with Condition D.1.1 and Condition D.1.4, the Permittee shall perform PM, PM₁₀, PM_{2.5} 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 includes filterable and condensable PM₁₀.
- (c) Testing shall be conducted in accordance with Section C - Performance Testing.

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 Visible Emissions Notations [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- (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.1.10 Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

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.1.11 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.1.12 SO₂ Monitor Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(1)]

- (a) Whenever the SO₂ 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.1.13 Bag Leak Detection System Monitoring [326 IAC 20-13-5] [326 IAC 20-13-8] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

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.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] [326 IAC 20-13-8]

D.1.14 Record Keeping Requirements

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- (a) In order to document the compliance status with Conditions 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, 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, 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, the Permittee shall maintain records of SO₂ 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) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.15 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 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).
- (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.

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).

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 identified collectively as Unit 7, each rated at 120,000 tons of lead per year controlled by the refinery baghouse.
- (f) Eleven (11) natural gas-fired pot furnaces, identified as Units 6K1, 6K2 and Units 6K4 through 6K12, all controlled by the refinery baghouse, 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) Four (4) 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.

(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 Minor Limit [326 IAC 2-2]

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)	Lead Limit (lb/hr)
Pig casting	Refinery	5.25	5.25	0.3
Pot furnaces (6K1-3) (6K5-12)	Baghouse			

Compliance with these limits in combination with D.1.1 and D.3.1 shall keep the source wide total PM, PM10, and PM2.5 below one hundred (100) tons per year and Lead below five (5) tons per year and will render the requirements of 326 IAC 2-2 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 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:

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

D.2.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

Compliance Determination Requirements

D.2.5 Particulate Matter (PM) and Lead (Pb) [326 IAC 2-7-6(6)]

- (a) In order to ensure compliance with Conditions D.2.1, D.2.2 and D.2.3, the refinery baghouse 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.2.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [326 IAC 20-13-6]

- (a) Pursuant to 326 IAC 20-13-6 and in order to demonstrate the compliance status with lead limits in Condition D.2.2, the Permittee shall conduct lead testing from the refinery baghouse, utilizing methods as approved by the commissioner in accordance with the following schedule:
 - (1) every twelve (12) calendar months thereafter; 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.
- (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.
- (c) Testing shall be conducted in accordance with Section C - Performance Testing.

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 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.2.9 Bag Leak Detection System Monitoring [326 IAC 20-13-5] [326 IAC 20-13-8] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

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.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] [326 IAC 20-13-8]

D.2.10 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.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.11 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.

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).

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/Slag Crusher/insignificant melting pots, identified as Unit 9, controlled by bin room 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.3.1 PSD Minor Limit [326 IAC 2-2]

Pursuant to Administrative Amendment No. 035-21590-00028, issued on October 20, 2005, the PM, PM10, PM2.5 and Lead emissions from the venturi scrubber, fabric filters and bin room baghouse shall be limited as shown in the table below:

Emission Units	Control Equipment	PM Limit (lb/hr)	PM10/PM2.5 Limit (lb/hr)	Lead Limit (lb/hr)
Battery crusher/breaker (Unit 1)	Venturi Scrubber	2.25	2.25	0.065
Soda ash wash and 2 silos (Unit 2)	Fabric filters	0.23	0.23	-
Material Handling/Slag Crusher/insignificant melting pots	Bin Room Baghouse	2.25	2.25	0.17

Compliance with these limits in combination with D.1.1 and D.2.1 shall keep the source wide total PM, PM10 and PM2.5 below one hundred (100) tons per year and Lead below five (5) tons per year and will render the requirements of 326 IAC 2-2 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 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

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:

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

D.3.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

Compliance Determination Requirements

D.3.5 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, 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, the bin room baghouse 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.3.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [326 IAC 20-13-6]

- (a) Pursuant to 326 IAC 20-13-6 and in order to demonstrate the compliance status with Condition D.3.2, the Permittee shall conduct lead testing from the venturi scrubbers and bin room baghouse, 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.
- (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 includes filterable and condensable PM10.
- (c) Testing shall be conducted in accordance with Section C - Performance Testing.

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 Visible Emissions Notations [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

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

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.

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.3.10 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.3.11 Bag Leak Detection System Monitoring [326 IAC 20-13-5] [326 IAC 20-13-8]

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.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] [326 IAC 20-13-8]

D.3.12 Record Keeping Requirements

- (a) In order to document the compliance status with Condition D.3.8, 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, 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.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.3.13 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.

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).

SECTION E.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

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:

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

SECTION E.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

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:

- (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

**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

<input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12) <ul style="list-style-type: none">• The Permittee must notify the Office of Air Quality (OAQ), 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
(Submmit 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 (SO₂)
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: _____

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

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

Indiana Department of Environmental Management
Office of Air Quality

Attachment A:

**Secondary Lead Smelters
NSPS Requirements
[40 CFR Part 60, Subpart L]**

Source Name:	Exide Technologies
Source Location:	2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302
County:	Delaware
SIC Code:	3341
Permit Renewal No.:	T035-31230-00028
Permit Reviewer:	Ghassan Shalabi

§ 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.

Indiana Department of Environmental Management
Office of Air Quality

Attachment B:

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

**NESHAP Requirements
[40 CFR Part 63, Subpart X]**

Source Name: Exide Technologies
 Source Location: 2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302
 County: Delaware
 SIC Code: 3341
 Permit Renewal No.: T035-31230-00028
 Permit Reviewer: Ghassan Shalabi

§ 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).

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

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

³Applicable 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).

¹Enclosure 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).

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

where:

F = correction factor (no units)

CO₂= 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.

[68 FR 37350, June 23, 2003]

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document (TSD) for a Part 70 Permit Renewal

Source Description and Location

Source Name:	Exide Technologies
Source Location:	2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302
County:	Delaware
SIC Code:	3341
Permit Renewal No.:	T035-31230-00028
Permit Reviewer:	Ghassan Shalabi

Public Notice Information

On June 04, 2012, the Office of Air Quality (OAQ) had a notice published in Muncie Star Press in Muncie, Indiana, stating that Exide Technologies had applied for the renewal of their Part 70 Operating Permit issued on September 07, 2007. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Comments Received

OAQ received comments from Sam Portanova, Region 5 of the United States Environmental Protection Agency (U.S. EPA)

The comments are summarized in the subsequent pages, with IDEM's corresponding responses.

The IDEM does not amend the Technical Support Document (TSD). The TSD is maintained to document the original review. This addendum to the TSD is used to document comments, responses to comments and changes made from the time the permit was drafted until a final decision is made.

Other Changes

Upon further review, the OAQ has decided to make the following revisions to the permit:

Change No. 1: To correct a typographical error, the TABLE OF CONTENTS is changed as follows:

**E.1 ~~FACILITY OPERATION CONDITIONS – Secondary Lead Smelting~~ EMISSIONS UNIT
OPERATION CONDITIONS: NSPS
~~National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements~~
[326 IAC 2-7-5(1)]**

- E.1.1 General Provisions Relating to ~~NESHAP [326 IAC 20-1]~~ [40 CFR 63, Subpart A] **NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]**
- E.1.2 General Provision Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR 60, Subpart A]
- E.1.3 Standard of Performance for Secondary Lead Smelters [326 IAC 12-1] [40 CFR 60, Subpart L]

E.1 FACILITY OPERATION CONDITIONS — Secondary Lead Smelting EMISSIONS UNIT
OPERATION CONDITIONS: NESHP

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

Change No. 2: To correct a typographical error, Condition D.1.8 is changed as follows:

D.1.8 Compliance Requirements [326 IAC 20-13-7]

...

- (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.42 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.42 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.

IDEM Contact

Questions regarding this proposed permit can be directed to Ghassan Shalabi at the Indiana Department Environmental Management, Office of Air Quality, MC 61-53, Room 1003, 100 North Senate Avenue, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-5378 or toll free at 1-800-451-6027 extension 4-5378.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Operating Permit Renewal

Source Background and Description

Source Name:	Exide Technologies
Source Location:	2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302
County:	Delaware
SIC Code:	3341
Permit Renewal No.:	T035-31230-00028
Permit Reviewer:	Ghassan Shalabi

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Exide Technologies relating to the operation of a secondary lead smelting operation. On December 07, 2011, Exide Technologies submitted an application to the OAQ requesting to renew its operating permit. Exide Technologies was issued its Part 70 Operating Permit T035-22352-00028 on September 07, 2007.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units:

- (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 identified collectively as Unit 7, each rated at 120,000 tons of lead per year controlled by the refinery baghouse.
- (f) Eleven (11) natural gas-fired pot furnaces, identified as Units 6K1, 6K2 and Units 6K4 through 6K12, all controlled by the refinery baghouse, 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) Four (4) 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.
- (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, 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, controlled by bin room baghouse.
- (1) One (1) slag crusher, constructed in 1994, with emissions, and
 - (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.
- (j) Roadway surface fugitive emissions.

Emission Units and Pollution Control Equipment Constructed and/or Operated without a Permit

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

Insignificant Activities

The source also consists of the following insignificant activities:

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

Existing Approvals

Since the issuance of the Part 70 Operating Permit T035-22352-00028 on September 07, 2007, the source has constructed or has been operating under the following additional approvals:

- (a) Significant Permit Modification No. 035-26410-00028 issued on September 12, 2008;
- (b) Administrative Amendment No. 035-28360-00028 issued on August 25, 2009; and
- (c) Administrative Amendment No. 035-29201-00028 issued on May 05, 2010.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the State Implementation Plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

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 ²	Not designated, by the State of Indiana.

¹Unclassifiable 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.

²Federally, 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.

- (a) Ozone Standards

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

- (b) **PM_{2.5}**
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} and SO₂ 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) **Other Criteria Pollutants**
Delaware County has been classified as attainment or unclassifiable in Indiana for SO₂, CO, PM₁₀, NO₂, and Pb. 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.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Unrestricted Potential Emissions	
Pollutant	Tons/year
PM	29781.2
PM ₁₀	20652.1
PM _{2.5}	20652.1
SO ₂	4795.1
VOC	1.8
CO	27.5
NO _x	38.7
GHGs as CO ₂ e	50837
Single HAP	587
Total HAP	587.5

HAP's	Potential To Emit (tons/year)
Lead (Pb)	587
Benzene	4.51x10 ⁻⁴
Dichlorobenzene	2.58x10 ⁻⁴
Formaldehyde	1.61x10 ⁻²
Hexane	3.86x10 ⁻¹
Toluene	7.3x10 ⁻⁴
Cadmium	2.36x10 ⁻⁴
Chromium	3x10 ⁻⁴
Manganese	8.16x10 ⁻⁵
Nickel	4.51x10 ⁻⁴
TOTAL	587.5

Appendix A of this TSD reflects the unrestricted potential emissions of the source.

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM10, PM2.5 and SO2 is equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7 and will be issued a Part 70 Operating Permit Renewal.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is equal to or greater than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is equal to or greater than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

Actual Emissions

No previous emission data has been received from the source.

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, because the source met the following:

- (a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.
- (b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any new control equipment is considered federally enforceable only after issuance of this Part 70 permit renewal, 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 Renewal (tons/year)										
	PM	PM ₁₀ *	PM _{2.5} **	SO ₂	NO _x	VOC	CO	GHGs	Lead	Total HAPs	Worst Single HAP
Battery Crusher/Breaker	9.86	9.86	9.86	-	-	-	-	-	0.29	0.29	Lead 0.29
Soda Ash Pneumatic Conveying thru 2 Silos	1	1	1	-	-	-	-	-	-	-	-
Rotary Dryer (including combustion)	19.70	19.70	19.70	0.033	5.5	0.3	4.6	6,663	0.13	0.23	Lead 0.13
Reverberatory Furnace	21.9	21.9	21.9	61.20	15	-	-	12,850	1.49	1.51	Lead 1.49
Blast Furnace (cupola)				12.16	1.5						
Reverberatory Furnace and Blast Furnace (cupola) charging points combined	13.2	13.2	13.2	-	-	-	-	-	0.74	0.74	Lead 0.74
Twelve (12) Pot Furnaces and two (2) Pig Machines combined	23.4	24.6	24.6	.1	21.5	1.2	18	25,911	0.09	0.5	Lead 0.09
Material Handling/Slag crushers/insignificant melting pots	9.86	9.86	9.86	<0.01	1.5	0.1	1.3	1,798	0.74	0.77	Lead 0.74
Total PTE of Entire Source	98.80	99.86	99.86	73.5	45.0	0.1	1.3	47,222	3.5	4.04	Lead 3.5
Title V Major Source Thresholds	NA	100	100	100	100	100	100	100,000 CO ₂ e	5	25	10
PSD Major Source Thresholds	100	100	100	100	100	100	100	100,000 CO ₂ e	5	NA	NA

negl. = negligible

*Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".

**PM_{2.5} listed is direct PM_{2.5}.

This existing stationary source is not major for PSD because the emissions of each regulated pollutant are less than one hundred (<100) tons per year, emissions of GHGs are less than one hundred thousand (<100,000) tons of CO₂ equivalent emissions (CO₂e) per year, and it is in one of the twenty-eight (28) listed source categories.

Federal Rule Applicability

CAM

- (a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to each existing pollutant-specific emission unit that meets the following criteria:

- (1) has a potential to emit before controls equal to or greater than the major source threshold for the pollutant involved;
- (2) is subject to an emission limitation or standard for that pollutant; and
- (3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each existing emission unit and specified pollutant subject to CAM:

Emission Unit / Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Reverberatory furnace/Blast furnace (cupola)-SO ₂	North and South sodium carbonate packed tower scrubbers	Y	4795	73.5	100.0	N ¹	N
Reverberatory furnace/Blast furnace (cupola)-Lead	North and South sodium carbonate packed tower scrubbers	Y	261	1.49	5	N ²	N
Reverberatory furnace/Blast furnace (cupola)-PM	North and South sodium carbonate packed tower scrubbers	Y	20755	21.9	100	N ³	N
Reverberatory furnace/Blast furnace (cupola)-PM10	North and South sodium carbonate packed tower scrubbers	Y	11625	21.9	100	Y	N
Reverberatory furnace/Blast furnace (cupola)-PM2.5	North and South sodium carbonate packed tower scrubbers	Y	11625	21.9	100	Y	N
Reverberatory furnace/Blast furnace (cupola) Charge Point emissions-Lead	Ventilation baghouse	Y	129.5	0.74	5	N ²	N
Reverberatory furnace/Blast furnace (cupola) Charge Point emissions-PM	Ventilation baghouse	Y	3300	13.2	100	N ³	N
Reverberatory furnace/Blast furnace (cupola) Charge Point emissions-PM10	Ventilation baghouse	Y	3300	13.2	100	Y	N
Reverberatory furnace/Blast furnace (cupola) Charge Point emissions-PM2.5	Ventilation baghouse	Y	3300	13.2	100	Y	N
Rotary Dryer (lead)	rotary dryer baghouse	Y	13	0.13	5	N ²	N
Rotary Dryer PM	rotary dryer baghouse	Y	1970	19.7	100	Y	N

Emission Unit / Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Rotary Dryer PM10	rotary dryer baghouse	Y	1970	19.7	100	Y	N
Rotary Dryer PM2.5	rotary dryer baghouse	Y	1970	19.7	100	Y	N
Eleven (11) Pot Furnaces, Two Lead Pig Casting (Lead)	refinery baghouse	Y	9	0.096	5	Y	N
Eleven (11) Pot Furnaces, Two Lead Pig Casting PM	refinery baghouse	Y	2300	23.4	100	Y	N
Eleven (11) Pot Furnaces, Two Lead Pig Casting PM10	refinery baghouse	Y	2301.6	24.6	100	Y	N
Eleven (11) Pot Furnaces, Two Lead Pig Casting PM2.5	refinery baghouse	Y	2301.6	24.6	100	Y	N
Battery Crusher/Breaker (Lead)	Venturi scrubber	Y	14.5	0.29	5	N ²	N
Battery Crusher/Breaker PM	Venturi scrubber	Y	493	9.86	100.0	Y	N
Battery Crusher/Breaker PM10	Venturi scrubber	Y	493	9.86	100.0	Y	N
Battery Crusher/Breaker PM2.5	Venturi scrubber	Y	493	9.86	100.0	Y	N
Material Handling, Slag Crushing and melting pots- Lead	bin room baghouse	Y	74	0.74	5	N ²	N
Material Handling, Slag Crushing and melting pots-PM	bin room baghouse	Y	960	9.86	100	Y	N
Material Handling, Slag Crushing and melting pots-PM10	bin room baghouse	Y	960	9.86	100	Y	N
Material Handling, Slag Crushing and melting pots-PM2.5	bin room baghouse	Y	960	9.86	100	Y	N

N¹ for SO2, there is a Continuous Monitoring System (CEMS) on the discharge end of the control device for these emission units

N² for lead, these emission units have an applicable NESHAP 40 CFR Part 63, Subpart X requirement

N³ for PM, these emission units have an applicable limit in NSPS 40CFR Part 60, Subpart L

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to the Reverberatory/Blast furnaces for PM10 and PM2.5, the Reverberatory and Blast furnaces charge point emissions for PM10 and PM2.5, the Rotary Drier for PM, PM10, and PM2.5, the eleven Pot furnaces and the Two Lead Pig Casting for Lead, PM, PM10, PM2.5, the Battery Crusher/Breaker for PM, PM10, PM2.5 and the Material Handling, the Slag Crushing and the Melting Pots for PM, PM10 and PM 2.5.

NSPS

(b) The requirements of the New Source Performance Standard 40 CFR Part 60, Subpart Kb, (Standards of Performance for Storage Vessels) and 326 IAC 12 are not included for this source because the capacity of each tank is below the applicable capacity of 75 m³ (19,813 gallons).

- (c) This source is subject to the New Source Performance Standards for 40 CFR Part 60, Subpart L (Standards of Performance for Secondary Lead Smelters), which is incorporated by reference as 326 IAC 12. The units subject to this rule include the following:
- (1) The reverberatory furnace
 - (2) The blast furnace (cupola)
 - (3) The pot furnaces

This source is subject to the following portions of Subpart L:

- (1) 40 CFR 60.120
 - (2) 40 CFR 60.121
 - (3) 40 CFR 60.122
 - (4) 40 CFR 60.123
- (d) The requirements of the New Source Performance Standards, 40 CFR Part 60, Subpart R (Standards of Performance for Primary Lead Smelters) and 326 IAC 12 are not included for this source because it does not engage in the production of lead from lead sulfide ore through the use of pyrometallurgical techniques. This source is a stationary secondary lead smelting operation whereby lead is recovered by smelting the lead from lead acid batteries and other sources of scrap lead.
- (e) The requirements of the New Source Performance Standards 40 CFR Part 60, Subpart KK (Standards of Performance for Lead-Acid Battery Manufacturing Plants) and 326 IAC 12 are not included for this source because it does not produce a storage battery using lead or lead compounds. This source is a stationary secondary lead smelting operation whereby lead is recovered by smelting the lead from lead acid batteries and other sources of scrap lead.

NESHAP

- (f) The requirements of the National Emission Standards for Hazardous Air Pollutants 40 CFR 61 are not included for this source because neither the source nor any specific emission unit performs any activity specifically regulated by 40 CFR 61.
- (g) This source is subject to the National Emission Standards for Hazardous Air Pollutants for Secondary Lead Smelting, 40 CFR Part 63, Subpart X, which is incorporated by reference as 326 IAC 20-13. The units subject to this rule include the following:
- (1) blast furnace
 - (2) reverberatory furnace
 - (3) refining kettles (eleven (11) pot furnaces)
 - (4) rotary dryer
 - (5) process fugitive sources
 - (6) fugitive dust sources

This source is subject to the following portions of Subpart X:

- (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

The provisions of 40 CFR 63 Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63 Subpart X.

- (h) The requirements of the 40 CFR Part 63, Subpart DD (National Emission Standards for Hazardous Air Pollutants from Off-site Waste and Recovery Operations) are not included for this source because Exide Technologies is an area source of HAPs. The National Emission Standards for Hazardous Air Pollutants, 40 CFR 63.680 Subpart DD (National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations) applies to major sources of HAPs.
- (i) The requirements of the National Emission Standards for Hazardous Air Pollutants from Primary Lead Smelting 40 CFR Part 63, Subpart TTT are not included for this source because Exide Technologies is a secondary lead smelter and does not engage in the production of lead metal from lead sulfide ore concentrates through the use of pyrometallurgical techniques.

State Rule Applicability - Entire Source

326 IAC 1-6-3 (Preventive Maintenance Plan)
The source is subject to 326 IAC 1-6-3.

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))
PSD applicability is discussed under the Permit Level Determination – PSD section.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
This secondary lead smelting source is an existing area source that was constructed in 1973. There have been no modifications to this source on or after July 27, 1997. Therefore, the requirements of 326 IAC 2-4.1 (New Source Toxics Control) are not applicable to this source.

326 IAC 2-6 (Emission Reporting)
This source, not located in Lake, Porter, or LaPorte County, is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit pursuant to 326 IAC 2-7 (Part 70). The potential to emit of VOC and PM10 is less than 250 tons per year; and the potential to emit of CO, NOx, and SO2 is less than 2,500 tons per year. Therefore, pursuant to 326 IAC 2-6-3(a)(2), triennial reporting is required. An emission statement shall be submitted in accordance with the compliance schedule in 326 IAC 2-6-3 by July 1, and every three (3) years thereafter. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 5-1 (Opacity Limitations)
This source is subject to the opacity limitations specified in 326 IAC 5-1-2(1)

326 IAC 14 (Emission Standards for Hazardous Air Pollutants)
There are no provisions under 326 IAC 14 (and 40 CFR Part 61) for a secondary lead smelting and refining operation. Lead is not identified in the list of substances in 40 CFR 61.01(a), (b) or (c) (National Emission Standards for Hazardous Air Pollutants: Subpart A - General Provisions). Therefore, this source is not subject to 326 IAC 14 (Emission Standards for Hazardous Air Pollutants).

326 IAC 15 (Lead Emission Limitations)

Pursuant to 326 IAC 15-1-2, Exide Technologies facilities located in Frankfort and Logansport have applicable requirements under 326 IAC 15. Since this source is located in Muncie, 326 IAC 15 does not apply to this source.

326 IAC 20-13 (Hazardous Air Pollutants: Secondary Lead Smelters)

The following sections are applicable to this source:

- 326 IAC 20-13-1 (Secondary Lead Smelters)
- 326 IAC 20-13-3 (Lead Standards for Exide Corporation)
- 326 IAC 20-13-5 (Operational and Work Practice Standards)
- 326 IAC 20-13-6 (Compliance Testing)
- 326 IAC 20-13-7 (Compliance Requirements)
- 326 IAC 20-13-8 (Bag Leak Detection System Requirements)

State Rule Applicability – Individual Facilities

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

- (a) Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the following units shall be limited as follows when operating at the listed process weight rate:

Emission Unit	Process Weight Rate (tons/hr)	PM Emission Limit (lb/hr)
Lead Battery Crusher/Breaker	14.4	24.5
Soda ash pneumatic conveying through 2 silos	0.73	3.3
Rotary Dryer	11.4	21.0
Pig Casting	27.4	37.7
Pot Furnaces	13.7	23.7
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:

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

In order to comply with these limits, venturi scrubber, refinery baghouse, rotary dryer baghouse, and bin room baghouse shall be in operation at all times that the facilities are in operation.

- (b) Pursuant to 326 IAC 6-3-1 (c)(5), the reverberatory furnace and blast furnace (cupola) are subject to the New Source Performance Standards for 40 CFR Part 60, Subpart L (Standards of Performance for Secondary Lead Smelters), and therefore 326 IAC 6-3-2 does not apply to the reverberatory furnace and blast furnace (cupola).

326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations)
326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations) applies to the blast furnace (cupola) because the source has the potential to emit greater than twenty-five (25) tons per year of SO₂. Pursuant to this rule, the SO₂ emissions from the firing of coke fuel at the blast furnace (cupola) shall not exceed six (6) pounds per million British thermal units (MMBtu) heat input.

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.

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

Emission Unit	Control Device	Pollutant	Frequency of Testing
Rotary Dryer	Rotary Dryer Baghouse	Lead	Once every 1 year
Rotary Dryer	Rotary Dryer Baghouse	PM	Once every 5 years
Rotary Dryer	Rotary Dryer Baghouse	PM10	Once every 5 year
Rotary Dryer	Rotary Dryer Baghouse	PM2.5	Once every 5 year
Reverberatory Furnace	Process Baghouse and North and South sodium Carbonate Tower Scrubber	Lead	Once every 1 year
Blast furnace (Cupola)	Process Baghouse and North and South sodium Carbonate Tower Scrubber	Lead	Once every 1 year
Reverberatory Furnace	Process Baghouse and North and South sodium Carbonate Tower Scrubber	PM	Once every 5 years
Reverberatory Furnace	Process Baghouse and North and South sodium Carbonate Tower Scrubber	PM10	Once every 5 years
Reverberatory Furnace	Process Baghouse and North and South sodium Carbonate Tower Scrubber	PM2.5	Once every 5 years
Blast furnace	Process Baghouse and	PM	Once every 5 years

Emission Unit	Control Device	Pollutant	Frequency of Testing
(Cupola)	North and South sodium Carbonate Tower Scrubber		
Blast furnace (Cupola)	Process Baghouse and North and South sodium Carbonate Tower Scrubber	PM10	Once every 5 years
Blast furnace (Cupola)	Process Baghouse and North and South sodium Carbonate Tower Scrubber	PM2.5	Once every 5 years
Reverberatory and blast furnace charge points hoods	Ventilation baghouse	PM	Once every 5 year
Reverberatory and blast furnace charge points hoods	Ventilation baghouse	PM10	Once every 5 year
Reverberatory and blast furnace charge points hoods	Ventilation baghouse	PM2.5	Once every 5 year
Two Lead Casting Machines	Refinery Baghouse	Lead	Once every 1 year
Two Lead Casting Machines	Refinery Baghouse	PM	Once every 5 years
Two Lead Casting Machines	Refinery Baghouse	PM10	Once every 5 years
Two Lead Casting Machines	Refinery Baghouse	PM2.5	Once every 5 years
lead-battery crusher/breaker	Venturi scrubber	Lead	Once every 1 year
lead-battery crusher/breaker	Venturi scrubber	PM	Once every 5 years
lead-battery crusher/breaker	Venturi scrubber	PM10	Once every 5 years
lead-battery crusher/breaker	Venturi scrubber	PM2.5	Once every 5 years
Material Handling/Slag Crusher/insignificant melting pots	Bin room baghouse	Lead	Once every 1 year
Material Handling/Slag Crusher/insignificant melting pots	Bin room baghouse	PM	Once every 5 years
Material Handling/Slag Crusher/insignificant melting pots	Bin room baghouse	PM10	Once every 5 years
Material Handling/Slag Crusher/insignificant melting pots	Bin room baghouse	PM2.5	Once every 5 years

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

Control	Parameter	Frequency	Range	Excursions and Exceedances
North Carbonate Packed Tower	Water Pressure Drop	Daily	5 to 25 inches	Response Steps
	Visible Emissions		Normal-Abnormal	
South Carbonate Packed Tower	Water Pressure Drop	Daily	5 to 25 inches	Response Steps
	Visible Emissions		Normal-Abnormal	
Venturi Scrubber	Water Pressure Drop	Daily	10 to 25 inches	Response Steps
	Visible Emissions		Normal-Abnormal	

These monitoring conditions are necessary because the scrubbers for the secondary lead smelting operation must operate properly to ensure compliance with 40 CFR 60, Subpart L, 40 CFR 63, Subpart X, 326 IAC 20-13, 326 IAC 6-3 (Particulate Limitations for Manufacturing Processes), and to render the requirements of 326 IAC 2-2 (PSD) not applicable.

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. 003-24467-00224. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

Change 1: The source is voluntarily adding a dust collector downstream of the existing venturi scrubber that serves the battery breaker process. IDEM, OAQ is changing the permit as follows:

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:

...

- (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**.

...

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 **followed by a voluntarily installed dust collector**.

...

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

Recommendation

The staff recommends to the Commissioner that the Part 70 Operating Permit Renewal be approved. This recommendation is based on the following facts and conditions:

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

An application for the purposes of this review was received on December 07, 2011.

Conclusion

The operation of this secondary lead smelting operation shall be subject to the conditions of the attached Part 70 Operating Permit Renewal No. 035-31230-00028.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Ghassan Shalabi 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) 233-5378 or toll free at 1-800-451-6027 extension 4-5378.
- (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

Exide Corporation
 2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302
 T035-31230-00028
 Ghassan Shalabi
 03/07/12
Emissions Summary

Uncontrolled	PM Emissions	PM10/PM2.5 Emissions	SO2 Emissions	NOx Emissions	Lead Emissions	CO Emissions	VOC Emissions
	tpy	tpy	tpy	tpy	tpy	tpy	tpy
Battery Crusher/Breaker	493	493	-	-	14.5	-	-
Soda Ash Pneumatic Conveying thru 2 Silos	2.87	2.87	-	-	-	-	-
Rotary Dryer (including combustion)	1970	1970	0.033	5.5	13	4.6	0.3
Reverberatory Furnace	16150	9690	4000	15	261	8.9	0.6
Blast Furnace (cupola)	4605	1935	795	1.5			
Reverberatory Furnace and Blast Furnace (cupola) Charging points combined	3300	3300	-	-	129.5		
Eleven (11) Pot Furnaces(Stack 9) and Two (2) Pig Machines combined	2300.3	2301.2	0.1	15.2	9	12.7	0.8
Material Handling/Slag Crusher/insignificant melting pots	960	960	<0.01	1.5	74	1.3	0.1
Total	29781.2	20652.1	4795.1	38.7	501.0	27.5	1.8

Limited	PM Emissions	PM10/PM2.5 Emissions	SO2 Emissions	NOx Emissions	Lead Emissions	CO Emissions	VOC Emissions	Controlled	PM Emissions	PM10/PM2.5 Emissions	SO2 Emissions	NOx Emissions	Lead Emissions	CO Emissions	VOC Emissions
	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)		(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)
Battery Crusher/Breaker	9.86	9.86	-	-	14.5	-	-	Battery Crusher/Breaker	493	493	-	-	0.29	-	-
Soda Ash Pneumatic Conveying thru 2 Silos	1	1	-	-	-	-	-	Soda Ash Pneumatic Conveying thru 2 Silos	2.87	2.87	-	-	-	-	-
Rotary Dryer (including combustion)	19.7	19.7	0.033	5.5	13	4.6	0.3	Rotary Dryer (including combustion)	1970	1970	0.033	5.5	0.13	4.6	0.3
Reverberatory Furnace	21.9	21.9	4000	15	261	8.9	0.6	Reverberatory Furnace	16150	9690	61.2	15	1.49	8.9	0.6
Blast Furnace (cupola)			795	1.5				Blast Furnace (cupola)	4605	1935	12.16	1.5			
Reverberatory Furnace and Blast Furnace (cupola) Charging points combined	13.2	13.2	-	-	129.5			Reverberatory Furnace and Blast Furnace (cupola) Charging points combined	3300	3300	-	-	0.74		
Eleven (11) Pot Furnaces(Stack 9) and Two (2) Pig Machines combined	23.3	24.2	0.1	15.2	9	12.7	0.8	Eleven (11) Pot Furnaces(Stack 9) and Two (2) Pig Machines combined	2300.4	2301.6	0.1	21.5	0.09	18	1.2
Material Handling/Slag Crusher/insignificant melting pots	9.86	9.86	<0.01	1.5	74	1.3	0.1	Material Handling/Slag Crusher/insignificant melting pots	960	960	<0.01	1.5	0.74	1.3	0.1
Total	98.8	99.7	4795.1	38.7	501.0	27.5	1.8	Total	29781.3	20652.5	73.5	45.0	3.5	32.8	2.2

Reverberatory Furnace and Blast Furnace

Twin Packed Bed Sodium Carbonate Scrubber efficiency = 65% for PM, PM10, PM2.5 and Lead
 Twin Packed Bed Sodium Carbonate Scrubber efficiency = 89.8 for SO2
 Maximum throughput = 100,000 ton/yr for Reverberatory Furnace
 Maximum throughput = 30,000 ton/yr for Blast Furnace
 Air flow rate = 45000 cuft/min for each scrubber (90,000 total)
 Outlet Grain loading = 0.00044 gr/cuft for the twin packed scrubbers (stack test performed on August 23, 2005 at source)

Reverberatory Furnace
 Uncontrolled Emissions:
 PM: 100000 ton/yr * 323 lb/ton * ton/2000 lb = 16150 ton/yr Emission Factors from SCC 3-04-004-02 for Reverberatory Furnace
 PM10/PM2.5: 100000 ton/yr * 193.8 lb/ton * ton/2000 lb = 9690 ton/yr
 SOx: 100000 ton/yr * 80 lb/ton * ton/2000 lb = 4000 ton/yr
 NOx: 100000 ton/yr * 0.3 lb/ton * ton/2000 lb = 15 ton/yr
 Controlled Emissions:
 PM, PM10 and PM2.5 Limited Emissions = 5 lbs/hr (PSD Minor Limit)
 SOx:
 The SO2 emissions are controlled by the first acid and soda wash which is equivalent to 85% and the scrubber efficiency which is 89.8%
 SOx: 4000 ton/yr * (1-.85) * (1-.898) = 61.2 ton/yr
 NOx: 15 ton/yr

Blast Furnace
 Uncontrolled Emissions:
 PM: 30000 ton/yr * 307 lb/ton * ton/2000 lb = 4605 ton/yr Emission Factors from SCC 3-04-004-03 for Blast Furnace
 PM10/PM2.5: 30000 ton/yr * 129 lb/ton * ton/2000 lb = 1935 ton/yr
 SOx: 30000 ton/yr * 53 lb/ton * ton/2000 lb = 795 ton/yr
 NOx: 30000 ton/yr * 0.1 lb/ton * ton/2000 lb = 1.5 ton/yr
 Controlled Emissions:
 PM/PM10/PM2.5 Limited Emissions are combined with Reverberatory Furnace controlled emissions.
 SOx:
 The SO2 emissions are controlled by the first acid and soda wash which is equivalent to 85% and the scrubber efficiency which is 89.8%
 SOx: 795 ton/yr * (1-.85) * (1-.898) = 12.16 ton/yr
 NOx: 1.5 ton/yr

Lead emission after control= ((0.00044 gr/cuft * 90,000 cuft/min * 60 min/hr) / lb/7000 gr) * (8760 hr/yr / ton/2000 lb) = 1.49 ton/yr
 Lead emission before controls= 1.49 ton/year / ((1-.998) * (1-.65)) = 261 ton/year

Emissions from Reverberatory Furnace charging points and Blast Furnace charging points

Ventilation Baghouse control efficiency= 99.6%
 Air flow rate = 90000 cuft/min
 Outlet Grain loading for lead = 0.000218 gr/cuft (stack test performed on August 23, 2005 at source)

PM, PM10 and PM2.5 Limited Emissions = 3 lbs/hr = 13.2 tpy (PSD Minor Limit)
 PM, PM10 and PM2.5 uncontrolled = 13.2 ton/year / (1-.996) = 3300 ton/year

Lead emission after control= ((0.000218 gr/cuft * 90,000 cuft/min * 60 min/hr) / lb/7000 gr) * (8760 hr/yr / ton/2000 lb) = 0.74 ton/yr
 Lead emission before controls= 0.74 ton/year / ((1-.998) * (1-.65)) = 129.5 ton/year

Appendix A: Emission Calculations
Company Name: Exide Corporation
Address City IN Zip: 2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302
Permit Number: T035-31230-00028
Reviewer: Ghassan Shalabi
Date: 03/07/12

Battery Crusher/Breaker

Venturi scrubber
 Scrubber efficiency= 98%
 Air flow rate = 35,000 cuft/min
 Outlet Grain loading for lead = 0.000218 gr/cuft (stack test performed on September 9, 2004 at source)

PM, PM10 and PM2.5 Limited Emissions = 2.25 lbs/hr = 9.86 tpy (PSD Minor Limit)
 PM, PM10 and PM2.5 uncontrolled = 9.86 ton/year/ (1-.98)= 493 ton/year

Lead emission after control= ((0.000218 gr/cuft * 35,000 cuft/min * 60 min/hr)/ lb/7000 gr) * (8760 hr/yr / ton/2000 lb) = 0.29 ton/yr
 Lead emission before control= 0.29 ton/year/ (1-.98)= 14.5 ton/year

Pot Furnaces and Pig Casting

Refinery baghouse efficiency= 99% (Stack 9)(Stacks 10-21 for combustible units at these operations)
 Air flow rate = 120,000 cuft/min
 Outlet Grain loading for lead = 0.00002 gr/cuft (stack test performed on August 23, 2005 at source)

PM, PM10 and PM2.5 Limited Emissions = 5.25 lbs/hr = 23 tpy (PSD Minor Limit)
 PM, PM10 and PM2.5 uncontrolled = 23 ton/year/ (1-.99)= 2300 ton/year

Lead emission after control= ((0.00002 gr/cuft * 120,000 cuft/min * 60 min/hr)/ lb/7000 gr) * (8760 hr/yr / ton/2000 lb) = 0.09 ton/yr
 Lead emission before control = 0.09 ton/year/(1-.99) = 9 ton/year

Material Handling/Slag crushing

Bin room baghouse efficiency=99%
 Air flow rate = 90,000 cuft/min
 Outlet Grain loading = 0.00022 gr/cuft (stack test performed on August 23, 2005 at souree)

PM, PM10 and PM2.5 Limited Emissions = 2.19 lbs/hr = 9.6 tpy (PSD Minor Limit)
 PM, PM10 and PM2.5 uncontrolled = 9.6 ton/year/ (1-.99)= 960 ton/year

Lead emission after control= ((0.00022 gr/cuft * 90,000 cuft/min * 60 min/hr)/ lb/7000 gr) * (8760 hr/yr / ton/2000 lb) = 0.74 ton/yr
 Lead emission before control=0.74 ton/year/(1-.99)=74 ton/year

Rotary Dryer

Rotary Dryer modified 10/20/2005 Rotary Dryer Baghouse installed on 10/20/2005.
 Baghouse efficiency=99%
 Air flow rate = 15500 cuft/min
 Outlet Grain loading = 0.00022 gr/cuft (stack test performed on August 23, 2005 at source)

PM, PM10 and PM2.5 Limited Emissions = 4.50 lbs/hr = 19.70 tpy (PSD Minor Limit)
 PM, PM10 and PM2.5 uncontrolled = 19.7 ton/year/ (1-.99)= 1970 ton/year

Lead emission after control= ((0.00022 gr/cuft * 15500 cuft/min * 60 min/hr)/ lb/7000 gr) * (8760 hr/yr / ton/2000 lb) = 0.13 ton/yr
 Lead emission before control = 0.13 ton/year/(1-.99)=13 ton/year

Soda Ash Pneumatic Conveying thru 2 Silos

Fabric Filters
 Throughput = 6389 ton/yr
 Emission Factor = 0.00015 ton/ton AP-42 Chapter 9 (grain silo loading)

PM, PM10 and PM2.5before control = 6389 ton/yr * 0.00015 ton/ton * 3 = 2.87 ton/yr
 PM, PM10 and PM2.5 Limited Emissions = 0.23 lbs/hr (PSD Minor Limit)

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

Company Name: Exide Corporation
Address City IN Zip: 2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302
Permit Number: T035-31230-00028
Reviewer: Ghassan Shalabi
Date: 03/07/2012

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
12.6	1000	110.4

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.1	0.4	0.4	0.03	5.5	0.3	4.6

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined
 PM2.5 emission factor is filterable and condensable PM2.5 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 25

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02,

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

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

See page 5 for HAPs emissions calculations.

updated 7/11

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

Company Name: Exide Corporation
Address City IN Zip: 2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302
Permit Number: T035-31230-00028
Reviewer: Ghassan Shalabi
Date: 03/07/2012

HAPs - Organics					
Emission Factor in lb/l	Benzene 2.1E-03	Dichlorobenz 1.2E-03	Formaldehyd 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in t	1.159E-04	6.623E-05	4.139E-03	9.934E-02	1.876E-04

HAPs - Metals						
Emission Factor in lb/l	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	
Potential Emission in t	2.759E-05	6.071E-05	7.726E-05	2.097E-05	1.159E-04	1.041E-01

Methodology is the same as page

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

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

Company Name: Exide Corporation
Address City IN Zip: 2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302
Permit Number: T035-31230-00028
Reviewer: Ghassan Shalabi
Date: 03/07/2012

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/l	120,000	2.3	2.2
Potential Emission in tons/yr	6,623	0.1	0.1
Summed Potential Emissions in tons/yr	6,623		
CO2e Total in tons/yr	6,663		

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.
 $\text{Emission (tons/yr)} = \text{Throughput (MMCF/yr)} \times \text{Emission Factor (lb/MMCF)} / 2,000 \text{ lb/ton}$
 $\text{CO2e (tons/yr)} = \text{CO2 Potential Emission ton/yr} \times \text{CO2 GWP (1)} + \text{CH4 Potential Emission ton/yr} \times \text{CH4 GWP (21)} + \text{N2O Potential Emission ton/yr} \times \text{N2O GWP (310)}.$

updated 7/11

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Pot Furnaces (Stacks 10-21)**

Company Name: Exide Corporation
Address City IN Zip: 2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302
Permit Number: T035-31230-00028
Reviewer: Ghassan Shalabi
Date: 03/07/2012

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
34.6	1000	303.1
49		

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx 100 **see below	VOC	CO
Potential Emission in tons/yr	0.3	1.2	1.2	0.09	15.2	0.8	12.7

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined
 PM2.5 emission factor is filterable and condensable PM2.5 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 25

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-04-006-02

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

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

**Appendix A: Emissions Calculations
 Natural Gas Combustion Only
 MM BTU/HR <100
 HAPs Emissions
 Pot Furnaces (Stacks 10-21)**

Company Name: Exide Corporation
Address City IN Zip: 2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302
Permit Number: T035-31230-00028
Reviewer: Ghassan Shalabi
Date: 03/07/2012

HAPs - Organics					
Emission Factor in lb/l	Benzene 2.1E-03	Dichloroben 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in t	3.183E-04	1.819E-04	1.137E-02	2.728E-01	5.153E-04

HAPs - Metals						
Emission Factor in lb/l	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	
Potential Emission in t	7.577E-05	1.667E-04	2.122E-04	5.759E-05	3.183E-04	2.860E-01

Methodology is the same as page

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

**Appendix A: Emissions Calculations
 Natural Gas Combustion Only
 MM BTU/HR <100
 Greenhouse Gas Emissions
 Pot Furnaces (Stacks 10-21)**

Company Name: Exide Corporation
Address City IN Zip: 2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302
Permit Number: T035-31230-00028
Reviewer: Ghassan Shalabi
Date: 03/07/2012

Emission Factor in lb/l	Greenhouse Gas		
	CO2	CH4	N2O
	120,000	2.3	2.2
Potential Emission in tons/yr	18,186	0.3	0.3
Summed Potential Emissions in tons/yr	18,186		
CO2e Total in tons/yr	18,296		

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.
 $Emission (tons/yr) = Throughput (MMCF/yr) \times Emission\ Factor (lb/MMCF) / 2,000\ lb/ton$
 $CO2e (tons/yr) = CO2\ Potential\ Emission\ ton/yr \times CO2\ GWP (1) + CH4\ Potential\ Emission\ ton/yr \times CH4\ GWP (21) + N2O\ Potential\ Emission\ ton/yr \times N2O\ GWP (310).$

updated 7/11

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Insignificant melting pot**

Company Name: Exide Corporation
Address City IN Zip: 2601 West Mt. Pleasant Blvd., Muncie, Indiana 4
Permit Number: T035-31230-00028
Reviewer: Ghassan Shalabi
Date: 03/07/2012

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
3.4	1000	29.8

	Pollutant						
	PM*	PM10*	direct PM2.5	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.03	0.1	0.1	0.01	1.5	0.1	1.3

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined. PM2.5 emission factor is filterable and condensable PM2.5 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 25

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-04-006-02

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

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

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

Company Name: Exide Corporation
Address City IN Zip: 2601 West Mt. Pleasant Blvd., Muncie, Indiana 4
Permit Number: T035-31230-00028
Reviewer: Ghassan Shalabi
Date: 03/07/2012

HAPs - Organics					
	Benzene	Dichlorobe	Formaldehy	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	3.127E-05	1.787E-05	1.117E-03	2.681E-02	5.063E-05

HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	7.446E-06	1.638E-05	2.085E-05	5.659E-06	3.127E-05

2.810E-02

Methodology is the same as page 1.

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

updated 7/11

See Page 12 for Greenhouse Gas calculations.

**Appendix A: Emissions Calculations
 Natural Gas Combustion Only
 MM BTU/HR <100
 Greenhouse Gas Emissions
 Insignificant melting pot**

**Company Name: Exide Corporation
 Address City IN Zip: 2601 West Mt. Pleasant Blvd., Muncie, Indiana 4
 Permit Number: T035-31230-00028
 Reviewer: Ghassan Shalabi
 Date: 03/07/2012**

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	1,787	0.0	0.0
Summed Potential Emissions in tons/yr	1,787		
CO2e Total in tons/yr	1,798		

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).

updated 7/11

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

Company Name: Exide Technologies
Address City IN Zip: 2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302
Permit Number: 035-31230-00028
Reviewer: Ghassan Shalabi
Date: 03/07/2012

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
24.3	1000	212.9

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.2	0.8	0.8	0.1	10.6	0.6	8.9

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

PM2.5 emission factor is filterable and condensable PM2.5 combined.

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

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-04-006-02

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

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

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

Company Name: Exide Technologies
Address City IN Zip: 2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302
Permit Number: 035-31230-00028
Reviewer: Ghassan Shalabi
Date: 03/07/2012

HAPs - Organics					
	Benzene	Dichlorobenze	Formaldehyd	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	2.235E-04	1.277E-04	7.983E-03	1.916E-01	3.619E-04

HAPs - Metals					
	Lead	Cadmium	Chromium	Manganes	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	5.322E-05	1.171E-04	1.490E-04	4.044E-05	2.235E-04

2.009E-01

Methodology is the same as page 1.

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

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

Company Name: Exide Technologies
Address City IN Zip: 2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302
Permit Number: 035-31230-00028
Reviewer: Ghassan Shalabi
Date: 03/07/2012

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	12,772	0.2	0.2
Summed Potential Emissions in tons/yr	12,773		
CO2e Total in tons/yr	12,850		

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.
 $Emission (tons/yr) = Throughput (MMCF/yr) \times Emission Factor (lb/MMCF) / 2,000 lb/ton$
 $CO2e (tons/yr) = CO2 Potential Emission ton/yr \times CO2 GWP (1) + CH4 Potential Emission ton/yr \times CH4 GWP (21) + N2O Potential Emission ton/yr \times N2O GWP (310).$

updated 7/11

GHG Calcs for the Blast Furnace (Cupola)**Company Name:** Exide Technologies**Address:** 2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302**Permit No.** 035-31230-00028**Reviewer:** Ghassan Shalabi**Date:** 03/07/2012

Fuel Type	Carbon Content % ^a	Material Processed (tons)	CO ₂ ^b	CH ₄	N ₂ O
Lead Scrap	0.08	20939	55.94398	NA	NA
Lime stone	0.05	100.8	0.168321	NA	NA
Cast Iron	3.57	938.4	111.8829	NA	NA
Coke	91.29	3595.3	10961.39	NA	NA
TOTAL			11129.39	NA	NA

^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: PM and PM10 Calculated Emission Limitations
Summary**

Company Name: Exide Technologies
Address: 2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302
Permit No. 035-31230-00028
Reviewer: Ghassan Shalabi
Date: 03/07/2012

Emission Unit	Control Unit	PM and PM 10 PSD Minor Limit	
		* (lbs/hour)	(tons/year)
Battery crusher/breaker	Venturi scrubber	2.25	9.86
Soda ash pneumatic conveying through 2 silos	Fabric filters	0.23	1.00
Reverberatory furnace Blast furnace	Twin Packed Bed Sodium Carbonate Scrubbers	5.00	21.9
Pot furnaces (Stack 9) Pig casting	Refinery baghouse	5.25	23.0
Rotary dryer	Rotary dryer baghouse	4.50	19.7
Material handling/Slag Crusher	Bin room baghouse	2.19	9.60
Reverberatory and Blast furnace charge points	Ventilation baghouse	3.00	13.20
			98.27

Based on Emission Limits taken by the Permittee for PSD Minor Limit.
 Total tons/yr does not include combustion from pot furnace stacks 10-21 and rotary dryer



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Steve Bennett
Exide Technologies
PO Box 2098
Muncie, IN 47302

DATE: August 2, 2012

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

SUBJECT: Final Decision
Part 70 Operating Permit Renewal
035-31230-00028

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:
Daniel M. Henke, Responsible Official
Scott Flack, Consultant, 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.

Final Applicant Cover letter.dot 11/30/07



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

August 2, 2012

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: 035-31230-00028

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 11/30/07

Mail Code 61-53

IDEM Staff	PWAY 8/1/2012 Exide Technologies 035-031230-00028 (final)		Type of Mail: CERTIFICATE OF MAILING ONLY	AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204		

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		Steve Bennett Exide Technologies PO Box 2098 Muncie IN 47302 (Source CAATS)										
2		Daniel M Henke 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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Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is \$50,000 per piece subject to a limit of \$50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is \$500. The maximum indemnity payable is \$25,000 for registered mail, sent with optional postal insurance. See Domestic Mail Manual R900, S913, and S921 for limitations of coverage on inured and COD mail. See International Mail Manual for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
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