



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant
DATE: September 7, 2007
RE: Exide Technologies / 035-22352-00028
FROM: Nisha Sizemore
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, Room 1049, 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 OFFICE OF AIR QUALITY

**Exide Technologies
2601 West Mount Pleasant Boulevard
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.: T035-22352-00028	
Original signed by: Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: September 7, 2007 Expiration Date: September 7, 2012

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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.4 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

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

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

Source Address:	2601 West Mount Pleasant Boulevard, Muncie, Indiana 47302
Mailing Address:	P.O. Box 2098, Muncie, Indiana
General Source Phone Number:	765-747-9980
SIC Code:	3341
County Location:	Delaware
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

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

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) Twelve (12) natural gas-fired pot furnaces, identified as Units 6K1 through 6K12, all controlled by the refinery baghouse, including:

- (1) Three (3) rated at 125 tons holding capacity and 3.5 million British thermal units per hour (MMBtu/hr), constructed in 1989, identified as Units 6K1, 6K2, and 6K11,
 - (2) Three (3) rated at 100 tons holding capacity and 3.5 MMBtu/hr, constructed in 1989, identified as Units 6K9, 6K10, and 6K12,
 - (3) Four (4) rated at 100 tons holding capacity and 3.1 MMBtu/hr, constructed in 1973, identified as Units 6K5, 6K6, 6K7, and 6K8,
 - (4) Two (2) rated at 50 tons holding capacity and 3.1 MMBtu/hr, constructed in 1973, identified as Units 6K3 and 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 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(15)]

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, T035-22352-00028, 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]

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. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). 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) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by the "responsible official" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) The "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. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance 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 the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

**B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)][326 IAC 2-7-6(1) and (6)]
[326 IAC 1-6-3]**

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

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

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

The PMP extension notification does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.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, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality,
Compliance Section), or
Telephone Number: 317-233-0178 (ask for Compliance Section)
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 Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

The notice fulfills the requirement of 326 IAC 2-7-5(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 the certification by the "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)(9) 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.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

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 T035-22352-00028 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, the previous FESOP is 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 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

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

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

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

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

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

B.16 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 the certification by the "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.17 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 the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, 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 deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.18 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
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application shall be certified by the "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.19 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 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.20 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),(c), or (e) 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
Permits 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, 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),(c), or (e). 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), (c)(1), and (e)(2).

- (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 the certification by the "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.21 Source Modification Requirement [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.

B.22 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.23 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
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require the certification by the "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.24 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.25 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 5-1-3 (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 or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

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

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

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

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

C.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
Asbestos Section, Office of Air Quality
100 North Senate Avenue
MC 61-52 IGCN 1003
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "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 Accredited Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

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

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

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

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

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "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 certification by the "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)]

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
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 the certification by the "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.

C.11 Maintenance of Continuous Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

- (a) The Permittee shall install, calibrate, maintain, and operate all necessary continuous emission monitoring systems (CEMS) and related equipment, as required by this permit.
- (b) In the event that a breakdown of a continuous emission monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.
- (c) Whenever a continuous emission monitor other than an opacity monitor is malfunctioning or will be down for calibration, maintenance or repairs, the Permittee shall comply with Condition D.1.12 until such time as the continuous monitor is back in operation.
- (d) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 3-5.

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

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

C.13 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(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.14 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

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

C.15 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

- (a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by

excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:

- (1) initial inspection and evaluation;
 - (2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or
 - (3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
- (1) monitoring results;
 - (2) review of operation and maintenance procedures and records; 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 maintain the following records:
- (1) monitoring data;
 - (2) monitor performance data, if applicable; and
 - (3) corrective actions taken.

C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][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 take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by the "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.17 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]

- (a) Pursuant to 326 IAC 2-6-3(b)(2), starting in 2005 and every three (3) years thereafter, the Permittee shall submit by 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:
- (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
 - (2) 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 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The emission statement 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.18 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. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.19 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

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

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. 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.
- (f) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C- General Record Keeping Requirements available for review upon a request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.

Stratospheric Ozone Protection

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

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

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

SECTION D.1 FACILITY OPERATION CONDITIONS

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

- (a) One (1) 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.

(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) Pursuant to Administrative Amendment No. 035-21590-00028, issued on October 20, 2005 and revised by this permit the PM, PM10 and lead emissions are limited as shown in the table as follows:

Emission Units	Control Equipment	PM Limit (lb/hr)	PM 10 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 and PM10 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 Limitations 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 comply 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 comply 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 comply with Conditions D.1.1, D.1.2 and D.1.3, both individual North and 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 either the North or South scrubber ceases operation for any reason, both furnaces shall immediately be shut down.
- (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 compliance 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) the Permittee's next lead test from the rotary dryer shall take place before July 2008;
 - (2) the Permittee's next lead test on the reverberatory and blast furnace charging points shall take place before September 2008;
 - (3) the Permittee's next lead test on the process baghouse and north and south sodium carbonate packed tower scrubber shall take place before August 2007;
 - (4) every twelve (12) calendar months; or
 - (5) 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 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 compliance with Condition D.1.1 and Condition D.1.4, the Permittee shall perform:
 - (1) PM and PM10 testing on the process baghouse, north and south sodium carbonate packed tower scrubber and ventilation baghouse before October 2007; and
 - (2) PM and PM10 testing on the rotary dryer before July 2011.

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.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) The Permittee shall install and maintain an ambient air quality-monitoring network for lead as follows:
- (1) Unless the Permittee has received approval to operate an ambient air quality monitoring network, the Permittee shall submit a proposed ambient monitoring

and quality assurance plan to IDEM. Ambient monitoring and quality assurance plans must be updated based on changes in monitoring processes or to the monitoring network and plan changes must be approved by the department.

- (2) If the Permittee has not received approval of this rule, the Permittee shall commence ambient monitoring within thirty (30) days after IDEM's approval of the proposed ambient monitoring and quality assurance plan. If the Permittee has received approval of this rule, the Permittee shall commence monitoring under this rule within thirty (30) days after such date.
- (3) The ambient monitoring shall be:
 - (A) performed using U.S. EPA-approved methods, procedures, and quality assurance programs, and in accordance with the ambient monitoring and quality assurance plan as approved by IDEM; or
- (4) The Permittee shall submit a quarterly report to the department within forty-five (45) days after the end of the quarter in which the data was collected. The report shall include the following:
 - (A) Ambient air quality monitoring network data and quality assurance data.
 - (B) If a violation of the quarterly NAAQS for lead occurred, identification of the cause of the violation and corrective actions taken to address the violation.
- (5) After twenty-four (24) months from the commencement date of monitoring pursuant to the approved monitoring plan, the Permittee may submit a request to discontinue ambient monitoring. The commissioner may deny the request if a determination is made that continued monitoring is in the interest of public health and the environment.

This ambient air-monitoring network consists of two (2) lead monitoring sites and one meteorological monitoring site. The site addresses are listed as 2601 W. Mt. Pleasant Blvd. One site (AQS # 180350008) is west-northwest of the Exide Plant. The second site (AQS # 180350009) is located north-northeast of the plant.

- (f) 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)]

For the north and south sodium carbonate packed scrubbers, controlling emissions from the reverberatory furnace and blast furnace (cupola), 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.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

- (a) To document compliance 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) To document compliance 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) To document compliance 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) To document compliance 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 to document compliance 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 compliance 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 compliance 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:
 - (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.
- (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(15)]:

- (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) Twelve (12) natural gas-fired pot furnaces, identified as Units 6K1 though 6K12, all controlled by the refinery baghouse, including:
 - (1) Three (3) rated at 125 tons holding capacity and 3.5 million British thermal units per hour (MMBtu/hr), constructed in 1989, identified as Units 6K1, 6K2, and 6K11,
 - (2) Three (3) rated at 100 tons holding capacity and 3.5 MMBtu/hr, constructed in 1989, identified as Units 6K9, 6K10, and 6K12,
 - (3) Four (4) rated at 100 tons holding capacity and 3.1 MMBtu/hr, constructed in 1973, identified as Units 6K5, 6K6, 6K7, and 6K8,
 - (4) Two (2) rated at 50 tons holding capacity and 3.1 MMBtu/hr, constructed in 1973, identified as Units 6K3 and 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]

Pursuant to Administrative Amendment No. 035-21590-00028 issued on October 20, 2005 and revised by this permit, the PM, PM10 and lead emissions are limited as shown in the table as follows:

Emission Units	Control Equipment	PM Limit (lb/hr)	PM 10 Limit (lb/hr)	Lead Limit (lb/hr)
Pig casting	Refinery Baghouse	5.25	5.25	0.02
Pot furnaces (6K1-12)				

Compliance with these limits in combination with D.1.1 and D.3.1 shall keep the source wide total PM and PM10 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 Limitations 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 comply 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 twelve (12) 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 compliance 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) the Permittee's next lead test from the refinery baghouse shall take place before September 2007;
 - (2) 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 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 compliance with Condition D.2.1 and Condition D.2.3, the Permittee shall perform PM and PM10 testing on the refinery baghouse before September 2008, 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) The Permittee shall install and maintain an ambient air quality-monitoring network for lead as follows:
- (1) Unless the Permittee has received approval to operate an ambient air quality monitoring network, the Permittee shall submit a proposed ambient monitoring

and quality assurance plan to IDEM. Ambient monitoring and quality assurance plans must be updated based on changes in monitoring processes or to the monitoring network and plan changes must be approved by the department.

- (2) If the Permittee has not received approval of this rule, the Permittee shall commence ambient monitoring within thirty (30) days after IDEM's approval of the proposed ambient monitoring and quality assurance plan. If the Permittee has received approval of this rule, the Permittee shall commence monitoring under this rule within thirty (30) days after such date.
- (3) The ambient monitoring shall be:
 - (A) performed using U.S. EPA-approved methods, procedures, and quality assurance programs, and in accordance with the ambient monitoring and quality assurance plan as approved by IDEM; or
- (4) The Permittee shall submit a quarterly report to the department within forty-five (45) days after the end of the quarter in which the data was collected. The report shall include the following:
 - (A) Ambient air quality monitoring network data and quality assurance data.
 - (B) If a violation of the quarterly NAAQS for lead occurred, identification of the cause of the violation and corrective actions taken to address the violation.
- (5) After twenty-four (24) months from the commencement date of monitoring pursuant to the approved monitoring plan, the Permittee may submit a request to discontinue ambient monitoring. The commissioner may deny the request if a determination is made that continued monitoring is in the interest of public health and the environment.

This ambient air monitoring network consists of two (2) lead monitoring sites and one meteorological monitoring site. The site addresses are listed as 2601 W. Mt. Pleasant Blvd. One site (AQS # 180350008) is west-northwest of the Exide Plant. The second site (AQS # 180350009) is located north-northeast of the plant.

- (f) 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

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- (a) Pursuant to 326 IAC 20-13-8 and to document compliance 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 compliance 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(15)]:

- (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/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 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 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 and PM10 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 Limitations for Manufacturing Processes), 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 comply 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 comply 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 compliance 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) the Permittee's next lead test from the venturi scrubber shall take place before October 2008;
 - (2) the Permittee's next lead test on the bin room baghouse shall take place before August 2007;
 - (3) every twelve (12) calendar months; or
 - (4) 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 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 compliance with Condition D.3.1 and Condition D.3.2, the

Permittee shall perform PM and PM10 testing on the venturi scrubber and bin room baghouse before September 2008, 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 Permittee 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) The Permittee shall install and maintain an ambient air quality-monitoring network for lead as follows:
- (1) Unless the Permittee has received approval to operate an ambient air quality monitoring network, the Permittee shall submit a proposed ambient monitoring and quality assurance plan to IDEM. Ambient monitoring and quality assurance plans must be updated based on changes in monitoring processes or to the monitoring network and plan changes must be approved by the department.
 - (2) If the Permittee has not received approval of this rule, the Permittee shall commence ambient monitoring within thirty (30) days after IDEM's approval of the proposed ambient monitoring and quality assurance plan. If the Permittee has received approval of this rule, the Permittee shall commence monitoring under this rule within thirty (30) days after such date.
 - (3) The ambient monitoring shall be:
 - (A) performed using U.S. EPA-approved methods, procedures, and quality assurance programs, and in accordance with the ambient monitoring and quality assurance plan as approved by IDEM; or
 - (4) The Permittee shall submit a quarterly report to the department within forty-five (45) days after the end of the quarter in which the data was collected. The report shall include the following:
 - (A) Ambient air quality monitoring network data and quality assurance data.
 - (B) If a violation of the quarterly NAAQS for lead occurred, identification of the cause of the violation and corrective actions taken to address the violation.
 - (5) After twenty-four (24) months from the commencement date of monitoring pursuant to the approved monitoring plan, the Permittee may submit a request to discontinue ambient monitoring. The commissioner may deny the request if a determination is made that continued monitoring is in the interest of public health and the environment.

This ambient air-monitoring network consists of two (2) lead monitoring sites and one meteorological monitoring site. The site addresses are listed as 2601 W. Mt. Pleasant Blvd. One site (AQS # 180350008) is west-northwest of the Exide Plant. The second site (AQS # 180350009) is located north-northeast of the plant.

- (f) 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) To document compliance 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) To document compliance 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 compliance 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 FACILITY OPERATION CONDITIONS

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

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 facility description box is descriptive information and does not constitute enforceable conditions.)

E.1.1 General Provisions Relating to NESHAP [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 emissions from the following: the reverberatory furnace, blast furnace (cupola), rotary dryer, twelve (12) pot furnaces, lead pig casting, lead battery crusher/breaker, soda-ash/caustic soda neutralizing wash, and material handling associated with secondary lead smelting as specified in 40 CFR Part 63, Subpart X, in accordance with the schedule in 40 CFR 63, Subpart X.

E.1.2 National Emissions Standards for Hazardous Air Pollutants for Secondary Lead Smelters: Requirements [40 CFR 63, Subpart X] [326 IAC 20-13]

Pursuant to 40 CFR Part 63, Subpart X, the affected sources are each new or existing reverberatory furnace, blast furnace (cupola), rotary dryer, twelve (12) pot furnaces, lead pig casting, lead battery crusher/breaker, material handling, and all processes contributing to fugitive emissions and fugitive dust emissions associated with secondary lead smelting shall comply with the following provisions:

**National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting
40 CFR 60, Subpart X**

40 CFR 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

63.10	Yes.....	limits in subpart X.
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.

40 CFR 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.

40 CFR 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).
- (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.
- (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	§ 63.543(a),(c).

When reverberatory furnace not operating	2.0	by volume ¹ 360 parts per million	§ 63.543(a),(c)(1).
		by volume ¹ (existing). 70 parts per million	§ 63.543(a),(c)(2).
		by volume ¹ (new) ²	
Blast	2.0	360 parts per million by volume ¹ (existing). 70 parts per million	§ 63.543(a),(d). § 63.543(e).
		by volume ¹ (new) ² 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.

40 CFR 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 enclosure 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/min)	Citation
Control Option I			
Smelting furnace and dryer charging hoppers, chutes, and skip hoists.	2.0	¹ 90	§ 63.544 (b), (c).
Smelting furnace lead taps and molds during tapping.	2.0	¹ 90	§ 63.544 (b), (c).
Smelting furnace slag taps and molds during tapping.	2.0	¹ 90	§ 63.544 (b), (c).
Refining kettles	2.0	¹ 75	§ 63.544 (b), (c).
Dryer transition pieces	2.0	¹ 110	§ 63.544 (b), (c).
Agglomerating furnace process vents and product taps.	2.0	¹ 90	§ 63.544 (b), (c).
Control Option II			
Enclosed building ventilated to a control device.	2.0		§ 63.544 (b), (c).
Applicable to Both Control Options Dryer and agglomerating furnace emission vents.	2.0		§ 63.544(d).

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

40 CFR 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.

40 CFR 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.

40 CFR 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.

40 CFR 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.

40 CFR 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.

40 CFR 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).

40 CFR 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.

E.1.3 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.

Subpart L—Standards of Performance for Secondary Lead Smelters

§ 60.120 Applicability and designation of affected facility.

- (a) The provisions of this subpart are applicable to the following affected facilities in secondary lead smelters: Pot furnaces of more than 250 kg (550 lb) charging capacity, blast (cupola) furnaces, and reverberatory furnaces.
- (b) Any facility under paragraph (a) of this section that commences construction or modification after June 11, 1973, is subject to the requirements of this subpart.

§ 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,

§ 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.

§ 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

PART 70 OPERATING PERMIT

CERTIFICATION

Source Name: Exide Technologies
Source Address: 2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302
Mailing Address: P.O. Box 2098, Muncie, Indiana 47302
Part 70 Permit No.: T035-22352-00028

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 DATA SECTION**

Part 70 Quarterly Report

Source Name: Exide Technologies
Source Address: 2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302
Mailing Address: P.O. Box 2098, Muncie, Indiana 47302
Part 70 Permit No.: T035-22352-00028

Facility: Blast furnace (cupola)
Parameter: Charging materials
Limit: Slag content - Between 70% and 100%
Lead content - Between 0% and 30%

YEAR:

Month	Column 1
	This Month
Month 1	
Month 2	
Month 3	

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

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

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

Part 70 Quarterly Report

Source Name: Exide Technologies
Source Address: 2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302
Mailing Address: P.O. Box 2098, Muncie, Indiana 47302
Part 70 Permit No.: T035-22352-00028

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

YEAR:

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

No deviation occurred in this quarter.

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

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

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE 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
Mailing Address: P.O. Box 2098, Muncie, Indiana 47302
Part 70 Permit No.: T035-22352-00028

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), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and• The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.
--

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

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

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

Page 2 of 2

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

Form Completed by:

Title / Position:

Date:

Phone:

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

PART 70 OPERATING PERMIT QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Exide Technologies
Source Address: 2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302
Mailing Address: P.O. Box 2098, Muncie, Indiana 47302
Part 70 Permit No.: T035-22352-00028

Months: _____ to _____ Year: _____

Page 1 of 2

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

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

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

Addendum to the
Technical Support Document for a Part 70 Operating Permit

Source Name: Exide Technologies
Source Location: 2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302
Mailing Address: P.O. Box 2098, Muncie, Indiana 47302
County: Delaware
SIC Code: 3341
Operation Permit No.: T035-22352-00028
Permit Reviewer: Teresa Freeman

On May 7, 2007, the Office of Air Quality (OAQ) had a notice published in the Muncie Star Press, Muncie, Indiana, stating that Exide Technologies had applied for a Part 70 Operating Permit to operate of a secondary lead smelting operation. 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.

On June 6, 2007, Exide Technologies submitted comments on the proposed Part 70 permit. The Table of Contents has been modified to reflect any changes. The summary of the comments (bolded language has been added, the language with a line through it has been deleted) is as follows:

Comment 1: Condition C.11(c) states that whenever a continuous emission monitor (CEMS) other than an opacity monitor is malfunctioning or will be down for calibration, maintenance or repairs for a period of 4 hours or more, a calibrated backup CEMS must be brought online within 4 hours of shutdown of the primary CEMS. 326 IAC 2-7-5(3) (A) (iii) does not require installation of a backup CEMS.

Neither Condition D.1.13 nor 326 IAC 2-7-5(3) (A) (iii) requires installation of a backup CEMS within 4 hours. Condition D.1.13 applies only to SO₂ monitors, whereas Condition C.11(c) purports to apply to any CEMS. Further, with respect to SO₂ monitors, Condition D.1.13 requires Exide to monitor and record the slurry feed rate to demonstrate continued scrubber operation until the primary CEMS or backup CEMS is brought online. Condition D.1.13 does not require that a backup CEMS be brought online, nor does it specify a time period for doing so. Condition C.11 as written is inconsistent with Condition D.1.13.

The cited rule, 326 IAC 2-7-5(3) (A) (iii) likewise does not require installation of a backup CEMS. The rule merely requires that a Title V permit include requirements concerning the operation and maintenance of monitors, but does not dictate specific requirements. 326 IAC 3-5 is the rule governing CEMS. It does not require installation of a backup CEMS within 4 hours.

Condition C.11(c) in the draft Title V has been changed from the current FESOP, which requires only intermittent monitoring in the event of monitor breakdown. Exide currently performs parametric monitoring and visible emissions observations on control devices to ensure continuous compliance at all times, whether the CEMS is operating or not and is sufficient to ensure continuous compliance during any brief period that a monitor may be down.

Installation of a backup CEMS within 4 hours is not physically possible. Exide's current monitor operating procedures, which provide for repair or replacement of down monitors as soon as practicable, coupled with parametric monitoring, have always proved more than sufficient.

For these reasons, Condition C.11(c) should read as follows:

- (c) Whenever a continuous emission monitor other than an opacity monitor is malfunctioning or will be down for calibration, maintenance or repairs, **Exide shall effect such activities as soon as practicable in accordance with its standard operating procedures for CEMS. To the extent practicable, supplemental or intermittent monitoring of appropriate parameters should be implemented at intervals no less frequent than once an hour, or at intervals as specified in Section D,** ~~for a period of four (4) hours or more, a calibrated backup CEMS shall be brought online within four (4) hours of shutdown of the primary CEMS, and shall be operated until such time as the primary CEMS~~ **continuous monitor** is back in operation.

Condition C.11 (a) is vague and confusing because it fails to specify the CEMS being referred to. Exide requests that "as required by this Permit" be added at the end of Condition C.11 (a).

Condition C.11 (d) is incomplete. Exide requests that IDEM clarify which requirement or rule this section refers to.

Response 1: IDEM agrees that Condition D.1.13 (now Condition D.1.12) provides alternate monitoring methods during the time the CEMS is malfunctioning or is down for repairs or adjustment. Therefore, a backup CEMS is not required, and Condition C.11(c) and (d) are revised as follows:

C.11 Maintenance of Continuous Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

- (a) The Permittee shall install, calibrate, maintain, and operate all necessary continuous emission monitoring systems (CEMS) and related equipment, **as required by this permit.**
- (b) In the event that a breakdown of a continuous emission monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.
- (c) Whenever a continuous emission monitor other than an opacity monitor is malfunctioning or will be down for calibration, maintenance or repairs, **the Permittee shall comply with Condition D.1.12** ~~for a period of four (4) hours or more, a calibrated backup CEMS shall be brought online within four (4) hours of shutdown of the primary CEMS, and shall be operated until such time as the primary CEMS~~ **continuous monitor** is back in operation.
- (d) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to **326 IAC 3-5.**

Comment 2: A condition similar to Condition D.1.13 should be added to cover THC and CO₂ monitor downtime. Exide proposes to add the following to Condition D.1.13:

- (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.**

Response 2: IDEM agrees and Condition D.1.13 (b) (now Condition D.1.12 (b)) has been added accordingly as follows:

D.1.132 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.**

Comment 3: Condition D.1.1, PSD minor limit, changes the current FESOP (F035-14180-00028) by adding the language "For each individual charge." This language implies that each charge to the blast furnace must somehow be sampled or evaluated to establish the requisite mixture of slag and lead bearing materials. There is no reasonable or practicable way to perform such requirements for each charge. Amounts of slag and lead bearing material are recorded as they are generated or delivered. Such materials are then mixed and cannot be separately weighed on a charge-by-charge basis. Currently, Exide is required to determine and report the relative percentages of slag and lead bearing materials on a monthly basis. This ensures that overall charging to the blast furnace meets the mixture requirements. As a practical matter, most of the charge to the blast furnace is reverberatory slag. So long as the overall charge to the blast furnace consists of at least 70% by weight slag, Condition D.1.1 is satisfied. Invariably, the slag percentage is far greater than 70%. For these reasons, Condition D.1.1 should read as follows:

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

For the same reasons, the recordkeeping provision of Condition D.1.15 (a) and reporting requirement at Condition D.1.17 should be changed as follows:

Condition D.1.15 (a) to document compliance with Condition D.1.1 (a), the Permittee shall maintain monthly records of slag and lead-bearing materials charged to the blast furnace (cupola) (Unit 5).

Response 3: IDEM OAQ agrees to the change. Conditions D.1.1 (a), D.1.15 (a) (now Condition D.1.14 (a)) and D.1.17 (b) (now Condition D.1.15 (b)) have been changed as follows:

D.1.1 PSD Minor Limit [326 IAC 2-2]

- (a) ~~For each individual charge, e~~Only a mixture of 70% to 100% by weight slag and 0% to 30% by weight lead bearing materials for each individual charge may be charged in the blast furnace (cupola) (Unit 5).

D.1.154 Record Keeping Requirements

- (a) To document compliance with Condition D.1.1 (a), the Permittee shall maintain **monthly** records of slag and lead **bearing materials** ~~content from each individual~~ charged in the blast furnace cupola (Unit 5).

D.1.165 Reporting Requirements

- (a) A quarterly summary of the information to document compliance with Condition 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).

Additionally, a monthly report form has been added to the permit as follows:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

Part 70 Quarterly Report

Source Name: Exide Technologies
Source Address: 2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302
Mailing Address: P.O. Box 2098, Muncie, Indiana 47302
Part 70 Permit No.: T035-22352-00028

Facility: Blast furnace (cupola)
Parameter: Charging materials
Limit: Slag content - Between 70% and 100%
Lead content - Between 0% and 30%

YEAR:

Month	Column 1
	This Month
Month 1	
Month 2	
Month 3	

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

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

Attach a signed certification to complete this report.

Comment 4: Condition D.1.4 states an incorrect process weight rate and PM emission limit for the rotary dryer. As stated in Condition A.2 (a) in the draft Title V, the rotary dryer has a maximum capacity of 126,000 tons of lead scrap per year. Therefore, the correct process weight rate in tons per hours is 14.44. The correct emission limit is therefore 24.5 pounds per hour, on a process weight basis.

In Appendix A, Emission Calculation, the air flow rate for the rotary dryer should be 15,500 cuft./min.

Response 4: No change will be made to the original TSD. The OAQ prefers that the TSD reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

The corrected calculation is as follows:

Lead emission after control = ((0.00022 gr/cuft * ~~120,000~~ 15,500 cuft/min * 60 min/hr)/lb/7000gr) = 0.029 lb/hr

Lead emission after control = ((0.00022 gr/cuft * 15,500 cuft/min * 60min/hr)/lb/7000gr)*(8760 hr/yr/ton/2000lb) = 0.13 ton/yr

Lead emission before control = ~~0.99~~ 0.13 ton/year/ (1-.99) = ~~99~~ 13 ton/year

Condition D.1.4 and Condition D.1.1 (b) have been revised as follows:

D.1.4 Particulate Emissions [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations 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	11.4 14.44	21.0 24.5

D.1.1 PSD Minor Limit [326 IAC 2-2]

(b) Pursuant to Administrative Amendment No. 035-21590-00028, issued on October 20, 2005 and revised by this permit the PM, PM10 and lead emissions are limited as shown in the table as follows:

Emission Units	Control Equipment	PM Limit (lb/hr)	PM 10 Limit (lb/hr)	Lead Limit (lb/hr)
Rotary dryer (Unit 3)	Rotary dryer baghouse	4.50	4.50	0.23 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

Comment 5: Condition D.1.6(c) requires that both the blast and reverberatory furnaces must be shut down immediately in the event either the North or South scrubber ceases operation for any reason. Exide contends that either scrubber individually can meet emission limits applicable to the furnaces in the event the other scrubber is temporarily down for repair or maintenance.

Exide requests a sixty-day extension of comment period for the following reasons: The draft permit currently states that Exide must suspend operation of its reverberatory and blast furnaces when either one of its sodium carbonate packed scrubbers (hereafter "North and South scrubbers") is shut down for repair or maintenance. Exide has previously discussed this provision with the Office of Air Quality (OAQ), and have agreed that Exide may perform emission tests upon its North and South scrubbers to demonstrate that emission limits will be met by a single scrubber when the other is temporarily down. Exide is currently preparing an emissions testing protocol for the North and South scrubbers for OAQ's approval and will schedule and perform the emissions tests as soon as practicable after OAQ approves the testing protocol. OAQ has stated that successful emissions tests will result in modification of the shutdown provision to allow for continued operation of the furnaces with one scrubber in operation while the other is undergoing repair or maintenance. Exide is concerned that issuance of the permit with this condition may result in a technical violation of the permit and will need to appeal that condition.

Further, without an extension of the comment period, upon submittal of acceptable emissions testing results demonstrating compliance, Exide will need to request an amendment of its Title V. While the modification request is pending, Exide will be placed in the position of having to shut down the furnaces unnecessarily in the event one scrubber goes down, or of technically violating its permit.

Response 5: IDEM OAQ is concerned about the timing of the issuance of the permit. IDEM does not know how long it will take for Exide to test the scrubber. IDEM, also, does not know whether the test will demonstrate that the operation of a single scrubber will meet the emission limits. Due to the uncertainty involved, IDEM does not believe testing can be performed and validated within a timeframe of 60 days from the expiration of the comment period.

After successful stack tests on a scrubber by Exide, IDEM will be in a position to modify the permit. Therefore, extension of the comment period is not granted at this time. No change has been made to Condition D.1.6(c) as a result of this comment.

Comment 6: Condition D.1.12 regarding scrubber failure detection and subsequent shutdown requirements is repetitive and inconsistent with Condition D.1.6(c). Exide requests that Condition D.1.12 be deleted to alleviate both confusion and the inconsistency with Comment 5.

Response 6: Condition D.1.12 (now Condition D.1.11) allows the operation in case of emergency. The condition has been revised per IDEM's current model as follows:

D.1.121 Scrubber Failure Detection [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

~~In the event that a scrubber system failure has been observed:~~

~~The feed to the process must be shut off immediately, and the process shall be shut down as soon as practicable, until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section C - Emergency Provisions).~~

For the north and south sodium carbonate packed scrubbers, controlling emissions from the reverberatory furnace and blast furnace (cupola), 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).

Comment 7: Condition D.1.8 as written unnecessarily accelerates stack testing that Exide currently performs in accordance with a previously approved schedule. Currently, Exide performs PM stack tests on the scrubbers and process baghouses on a regular cycle, with the next tests due by September 2008. Exide currently performs lead testing in accordance with 326 IAC 20-12-6. However, there is no requirement in any of the rules cited in the draft permit, or anywhere in the Part 70 rules, to perform additional stack tests with 180 days of permit issuance as if Exide were a new source. Since there have been no significant changes to Exide's operations and since Exide's current testing schedule demonstrates continued compliance with the applicable lead and PM limits, additional tests within 180 days of permit issuance are not necessary. Exide should simply continue with its current testing schedule.

Furthermore, PM and PM10 testing on the process baghouse, and ventilation baghouse is currently scheduled for 2008. Therefore, there is no need to accelerate this testing to September 2007. As a practical matter, depending upon when the Title V is issued, it may not be possible to perform the PM testing before September 2007, since it is already June 2007.

Condition D.3.7 (a) should not require lead testing from the venturi scrubber and bin room baghouse with 180 days of permit issuance, for the reasons stated in Comment for D.1.8. Exide last performed lead testing on the venturi scrubber October 4, 2006, and is next scheduled to test October 2, 2008 because the earlier test showed lead emissions less than 50% of the standard. The bin room baghouse was last tested for lead September 6, 2005, and is scheduled for testing September 2007, since it also last tested at less than 50% of the standard.

Response 7: At the time of the draft permit, IDEM OAQ did not have the latest stack tests validated; therefore testing was required within 180 days. IDEM OAQ has approved the stack test results. IDEM agrees to keep the current schedule of testing. 326 IAC 20-13-6 allows Exide to use the current schedule of testing. Condition D.2.7 contains similar requirements and has been changed to maintain consistency with the language in the other testing conditions. Condition D.1.8 (now Condition D.1.7), Condition D.2.7 (now Condition D.2.6) and Condition D.3.7 (now Condition D.3.6) have been changed as follows:

D.1.87 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 compliance 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 within 180 days of issuance of this permit and in accordance with the following schedule:**

- (1) **the Permittee's next lead test from the rotary dryer shall take place before July 2008;**
- (2) **the Permittee's next lead test on the reverberatory and blast furnace charging points shall take place before September 2008;**
- (3) **the Permittee's next lead test on the process baghouse and north and south sodium carbonate packed tower scrubber shall take place before August 2007;**
- (14) every twelve (12) calendar months thereafter; or
- (25) 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 compliance test, the Permittee shall be allowed up to twenty four (24) calendar months to the next annual compliance test.

~~(c) Pursuant to 326 IAC 20-13-6 and in order to demonstrate compliance with lead limits, the Permittee shall conduct lead testing from the reverberatory furnace and blast furnace (cupola) charging points stacks within 180 days of issuance of this permit and every~~

~~twenty four (24) months thereafter.~~

- (db) In order to demonstrate compliance with Condition D.1.1 and Condition D.1.4, the Permittee shall perform:
- (1) PM and PM10 testing on the process baghouse, north and south sodium carbonate packed tower scrubber and ventilation baghouse before ~~September~~ **October 2007**; and
 - (2) PM and PM10 testing on the rotary **dryer before July 2011** ~~within 180 days of issuance of this permit.~~

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.2.76 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 compliance 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** ~~within 180 days of issuance of this permit and~~ **in accordance with the following schedule:**
- (1) **the Permittee's next lead test from the refinery baghouse shall take place before September 2007;**
 - (2) **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 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 compliance with Condition D.2.1 and Condition D.2.3, the Permittee shall perform PM and PM10 testing on the refinery baghouse before September 2008, 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.3.76 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 compliance 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 180 days of issuance of this permit and~~ **in accordance with the following schedule:**
- (1) **the Permittee's next lead test from the venturi scrubber shall take place before October 2008;**
 - (2) **the Permittee's next lead test on the bin room baghouse shall take place before August 2007;**
 - (43) every twelve (12) calendar months ~~thereafter~~; or
 - (24) 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 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 compliance with Condition D.3.1 and Condition D.3.2, the Permittee shall perform PM and PM10 testing on the venturi scrubber and bin room baghouse before September 2008, 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.

Comment 8: Condition D.1.9 (d), Condition D.2.8 (d) and Condition D.3.6 require limits on baghouse alarms at the stacks exhausting process, process fugitive and fugitive dust emissions, and exterior dust handling systems of dry collectors of lead emitting processes. Exide employs bag leak detection systems on these emission points to ensure compliance. These monitors sound an alarm when a bag leak is detected. However, moisture in the exhaust from these emission points results in false alarms from time to time. In order to determine whether there is measurable particulate in the exhaust following an alarm, Exide employs a method previously worked out with IDEM's consent whereby a glass rod is inserted into the exhaust stream. If particulate is found on the glass rod, Exide proceeds to implement measures in its compliance response plan to ensure compliance. Otherwise, the alarm is recorded as a false alarm. Exide needs to ensure that Condition D.1.9 (d) is not interpreted to include such false alarms. Therefore, Exide proposes adding a Condition D.1.9 (d) (5) as follows:

- (5) **In accordance with Exide's approved Compliance Response Plan, Exide shall check emissions from the emission points in this Condition D.1.9 (d) for particulates using a glass rod test following an opacity monitor alarm. In the event the glass rod test does not indicate particulate in the exhaust, Exide may record such alarm as a false alarm. Such false alarms shall not be considered deviations from this permit.**

Response 8: IDEM OAQ does not require a Compliance Response Plan any longer. The requested change sounds like a reasonable response step, but no change to the permit is needed.

Comment 9: Condition D.3.5 (a) appears to link the bin room baghouse to the lead-battery crusher/breaker. In fact, the bin room baghouse controls material storage and slag crushing. Therefore, slag crushing should not have to cease in the event the venturi scrubber is not operating. Further, material storage cannot "cease" in the sense that material previously stored will remain in place, and material handling may still be necessary in relation to other plant operations.

Exide employs a CEMS and maintains the bin room under negative pressure to ensure against exceedances from the bin room baghouse. Therefore, the bin room baghouse should not relate to compliance with Condition D.3.1, PSD Minor Limit. For these reasons, Condition D.3.5(a) should read as follows, and a new Condition D.3.5(b) should be added (with existing subsection (b) changed to (c)):

- (a) **In order to comply with Condition D.3.1, Condition D.3.2 and Condition D.3.3, the venturi scrubber shall be in operation at all times that the lead-battery crusher/breaker as in operation.**
- (b) **In order to comply with Condition D.3.2, the bin room baghouse shall be in operation at all times that slag crushing is in operation.**

Response 9: Condition 3.5(a) is now Condition D.3.5 (a) and (b) to separate the venturi scrubber requirement from the bin room baghouse requirements. The bin room baghouse has a separate PSD Minor Limit applied to it. Although the limits are the same for the venturi scrubber, they are

separate limitations. The following changes have been made to Condition D.3.5:

D.3.5 Particulate Matter (PM) and Lead (Pb) [326 IAC 2-7-6(6)]

(a) In order to comply with Condition D.3.1, Condition D.3.2 and Condition D.3.3, the venturi scrubber and bin room baghouse shall be in operation at all times that the lead-battery crusher/breaker and material storage and slag crushing are in operation.

(b) **In order to comply with Condition D.3.1, Condition D.3.2 and Condition D.3.3, the bin room baghouse shall be in operation at all times that slag crushing is in operation.**

(b)c)...

Comment 10: In Condition D.3.3, the process weight rate for the soda ash wash and 2 silos is incorrect. The process weight rate in the draft appears to be based upon the capacity of one silo which is 6,388.9 tons per year (See Condition A.2 (b) in Exide's current FESOP). Since there are two silos with that capacity, the process weight rate and the process emission limit in Condition D.3.3 for the silos should be doubled, to 1.46 tons/hr. and 6.6 lbs. /hr. respectively. In addition, there is a third silo, a soda ash silo constructed in 1992 with a capacity of 50,000 pounds, controlled by a fabric filter. Condition A.2 (h) should be amended to reference this silo and a process weight rate and process emission limit for the soda ash silo should be added to Condition D.3.3.

Response 10: The calculations for the silos were incorrect. Exide provided additional information on the silos after the comment period and are now included in the calculations. The following is the correct calculations for the lime storage silos that were found in the TSD Appendix A Emission Calculations:

Soda Ash Pneumatic Conveying thru 2 3 Silos

Fabric Filters

Silos 2a and 2b have a capacity of 210,000 lbs each and each are refilled 24 times per year for a total of 10,080,000 lbs/yr or 5,040 tons/yr (0.575 ton/hr) each

Third silo has a capacity of 50,000 pounds and is refilled 365 times per year for a total of 18,250,000 lbs/yr or 9,125 ton/yr (1.04 ton/hr)

Total process weight rate through the 3 silos= 2 * 0.575 tons/hr + 1.04 tons/hr = 2.19 tons/hr

Throughput= ~~6389~~ **10,080 ton/yr total through silos 2a and 2 b and 9,125 ton/yr through third silo***
Emission Factor= 0.00015 ton/ton AP-42 Chapter 9 (grain silo loading)

PM and PM10 before control= (~~6389~~ **10,080 ton/yr * 0.00015 ton/ton * 2**) + (**9,125 ton/yr * 0.00015**) =
2.87 ton/ yr

PM and PM10 Limited Emissions = 0.23 lb/yr (PSD Minor Limit)

*updated using tank throughput and number of refills per year

The following changes have been made to Condition D.3.3 as a result of comment and updated calculations:

D.3.3 Particulate Emissions [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), 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	0.7 30.575	3.3 2.83
Silo 2b	0.7 30.575	3.3 2.83
Silo 3	0.7 31.04	3.3 4.21

Comment 11: Conditions D.1.7, D.2.6 and D.3.6 repeats requirements included in Conditions D.1.14, D.2.10 and D.3.12 and should be deleted.

Response 11: IDEM OAQ agrees that Conditions D.1.7, D.2.6 and D.3.6 are duplicated in other conditions. Therefore, the conditions have been removed. The remaining conditions have been renumbered and the following have been revised as a result of this comment:

~~D.1.7~~ Operational and Work Practice Standards [326 IAC 20-13-5]

~~Pursuant to 326 IAC 20-13-5 (Operational and Work Practice Standards), the Permittee must maintain and operate each baghouse controlling process and process fugitive sources, excluding baghouses equipped with HEPA filters or used exclusively for the control of fugitive dust emissions, 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.~~

~~D.2.6~~ Operational and Work Practice Standards [326 IAC 20-13-5]

~~Pursuant to 326 IAC 20-13-5 (Operational and Work Practice Standards), the Permittee must maintain and operate each baghouse controlling process and process fugitive sources, excluding baghouses equipped with HEPA filters or used exclusively for the control of fugitive dust emissions, 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.~~

~~D.3.6~~ Operational and Work Practice Standards [326 IAC 20-13-5]

~~Pursuant to 326 IAC 20-13-5 (Operational and Work Practice Standards), the Permittee must maintain and operate each baghouse controlling process and process fugitive sources, excluding baghouses equipped with HEPA filters or used exclusively for the control of fugitive dust emissions, 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.~~

~~D.1.154~~ Record Keeping Requirements

- ~~(b) To document compliance with Condition D.1.409, 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, (~~i.e.g.~~, the process did not operate that day).

- (c) To document compliance with Condition D.1.4410, 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, (~~i.e.g.~~, the process did not operate that day).
- (d) To document compliance with Condition D.1.4312, 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 to document compliance with Condition D.1.4413, 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:

 - (8) To document compliance with Condition D.1.4413 (d), the Permittee shall maintain records of once per day visible emission notations of the stack exhaust.
- (ef) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.175 Reporting Requirements

- (b) A quarterly report to document compliance with Condition D.1.4413, including a summary of the following information:
...

D.2.140 Record Keeping Requirements

- (a) Pursuant to 326 IAC 20-13-8 and to document compliance with Condition D.2.409, 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:
 - (8) To document compliance with Condition D.2.409 (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.2.121 Reporting Requirements

A quarterly report to document compliance with Condition D.2.409, including a summary of the following information:
...

D.3.132 Record Keeping Requirements

- (a) To document compliance with Condition D.3.98, 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, (~~i.e.g.~~, the process did not operate that day).
- (b) To document compliance with Condition D.3.409, 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, (~~i.e.g.~~, the process did not operate that day).

- (c) Pursuant to 326 IAC 20-13-8 and to document compliance with Condition D.3.4211, 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:

- (8) To document compliance with Condition D.3.4211 (d), the Permittee shall maintain records of once per day visible emission notations of the stack exhaust.

D.3.143 Reporting Requirements

A quarterly report to document compliance with Condition D.3.4211, including a summary of the following information:

...

Comment 12: Condition D.3.11 as written would require processes to be shut down if only one of the sodium carbonate packed tower scrubbers is down and should be removed because this issue is covered by Condition D.1.6(c). IDEM should consider combining Section D.1 and Section D.3. Many of the conditions of Section D.1 are repeated in Section D.3, which is unnecessarily burdensome and confusing.

Response 12: The conditions in Section D.3 pertain to the lead-battery crusher/breaker, soda ash wash, silos and the material handling/slag crusher/insignificant melting pots, and do not pertain to the equipment or control devices in Section D.1. The following changes have been made to Condition D.3.11 (now Condition D.3.10) to specify the venturi scrubber and clarify actions required during failure of the scrubber:

D.3.140 Scrubber Failure Detection [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

~~In the event that a scrubber system failure has been observed:~~

~~The feed to the process must be shut off immediately, and the process shall be shut down as soon as practicable, until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section C - Emergency Provisions).~~

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).

On April 24, 2007, Exide Technologies submitted an application to install a baghouse at the slag crusher. The new baghouse will exhaust into the bin room and the existing bin room baghouse will continue to control the particulate and lead emissions. The new baghouse will lower the dust concentrations within the bin room. Conditions A.2 has been revised as follows:

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

- (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, 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.

Upon further review, the OAQ has decided to make the following revisions to the permit (bolded language has been added, the language with a line through it has been deleted).

1. Mail Codes have been added to all IDEM addresses throughout the permit.

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Title V Operating Permit

Source Background and Description

Source Name: Exide Technologies
Source Location: 2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302
Mailing Address: P.O. Box 2098, Muncie, Indiana 47302
County: Delaware
SIC Code: 3341
Operation Permit No.: T035-22352-00028
Permit Reviewer: Teresa Freeman

The Office of Air Quality (OAQ) has reviewed an initial Title V application from Exide Technologies relating to the operation of a secondary lead smelting operation. Exide Technologies was issued an initial FESOP 035-5386-00028 on December 13, 1996, and a renewal FESOP 035-14180-00028 on February 25, 2002.

Pursuant to 40 CFR 63.541(c), area sources subject to 40 CFR 63, Subpart X (Secondary Lead Smelting), are required to apply for a Title V permit by December 9, 2005. Exide Technologies is an area source subject to 40 CFR 63, Subpart X.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted 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) Twelve (12) natural gas-fired pot furnaces, identified as Units 6K1 through 6K12, all controlled by the refinery baghouse, including:
 - (1) Three (3) rated at 125 tons holding capacity and 3.5 million British thermal units per hour (MMBtu/hr), constructed in 1989, identified as Units 6K1, 6K2, and 6K11,

- (2) Three (3) rated at 100 tons holding capacity and 3.5 MMBtu/hr, constructed in 1989, identified as Units 6K9, 6K10, and 6K12,
 - (3) Four (4) rated at 100 tons holding capacity and 3.1 MMBtu/hr, constructed in 1973, identified as Units 6K5, 6K6, 6K7, and 6K8,
 - (4) Two (2) rated at 50 tons holding capacity and 3.1 MMBtu/hr, constructed in 1973, identified as Units 6K3 and 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.

Unpermitted Emission Units and Pollution Control Equipment

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

New Emission Units and Pollution Control Equipment Receiving New Source Review Approval

There are no new emission units and pollution control equipment receiving new source review approval during this renewal review process.

Insignificant Activities

The source also consists of the following insignificant activities, 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.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

- (a) AA 035-21590-00028, issued on October 20, 2005
- (b) SPR 035-18190-00028, issued on June 28, 2004
- (c) FESOP Renewal 035-14180-00028, issued on February 25, 2002

The following terms and conditions from previous approvals have been determined no longer applicable; therefore, were not incorporated into this Part 70 permit:

- (a) All FESOP conditions.

Reason not incorporated: The source transitioned to a TV permit; therefore, the FESOP limits are no longer applicable.

Enforcement Issue

An enforcement action is pending for violations involving failure to maintain the building under negative pressure; failure to control emissions from the North-South running lead pig casting machine with the refinery baghouse; operation of the blast furnace while the South scrubber was not operating; failure to take corrective actions when North scrubber was operating outside the normal range; and failure to report periods when there were failures of the negative pressure system. A Notice of Violation (NOV) was issued December 11, 2006.

IDEM is aware of these violations and is working with Exide to correct the problems.

Recommendation

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

- (a) Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.
- (b) An administratively complete Title V Permit application for the purposes of this review was received on December 12, 2005. Additional information was received on March 8, 2007 and March 14, 2007.

There was no notice of completeness letter mailed to the Permittee.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (Pages 1 through 10).

County Attainment Status

The source is located in Delaware County.

Pollutant	Status
PM _{2.5}	Attainment
PM ₁₀	Attainment
SO ₂	Attainment
NO _x	Attainment
8-Hour Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) 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 emissions 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 emissions and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.
- (b) Delaware County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.
- (c) Delaware County has been classified as attainment for PM_{2.5}. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM 2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM_{2.5} emissions, it has directed states to regulate PM₁₀ emissions as a surrogate for PM_{2.5} emissions. See the State Rule Applicability – Entire Source section.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Pollutant	Potential To Emit (tons/year)
PM	29780
PM ₁₀	20652
SO ₂	4795
VOC	1.5
CO	22.6
NO _x	43.5
Lead (Pb)	587

Note: For the purpose of determining Title V applicability for particulates, PM₁₀, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
Lead (Pb)	587
Benzene	4.51×10^{-4}
Dichlorobenzene	2.58×10^{-4}
Formaldehyde	1.61×10^{-2}
Hexane	3.86×10^{-1}
Toluene	7.3×10^{-4}
Cadmium	2.36×10^{-4}
Chromium	3×10^{-4}
Manganese	8.16×10^{-5}
Nickel	4.51×10^{-4}
TOTAL	587.5

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29) of PM_{10} and SO_2 are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) This source has chosen to limit the emissions of single HAPs to below ten (10) tons per twelve (12) consecutive month period, and the emissions of any combination of HAPs to below twenty-five (25) tons per year and has been designated as an area source.
- (c) Fugitive Emissions
Since this type of operation is one of the twenty-eight (28) listed source categories under 326 IAC 2-7, fugitive emissions are counted toward the determination of Part 70 applicability.
- (d) Pursuant to 40 CFR 63.541, Exide Technologies is required to obtain a Title V operating permit because it is in a source category subject to 40 CFR Part 63, Subpart X (National Emission Standards for Hazardous Air Pollutants for Secondary Lead Smelters).

Potential to Emit After Issuance

Any control equipment is considered enforceable only after issuance of this Part 70 Operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Facility	PM (tons/yr)	PM ₁₀ (tons/yr)	SO ₂ (tons/yr)	VOC (tons/yr)	NOx (tons/yr)	CO (tons/yr)	Lead (tons/yr)	HAPs, (tons/yr)
Lead battery crusher/breaker, controlled by the venturi scrubber	9.86	9.86	-	-	-	-	0.29	0.29
Soda ash pneumatic conveying through 2 silos, controlled by the fabric filters	1	1	-	-	-	-	-	-
Rotary Dryer, controlled by the rotary dryer baghouse	19.7	19.7	0.033	0.3	5.5	4.6	0.99	1.09
Reverberatory Furnace, controlled by the ventilation baghouse and twin sodium carbonate packed tower scrubbers	21.9	21.9	99.0	-	16.5	-	1.49	1.49
Blast Furnace (cupola), controlled by the ventilation baghouse and North and South sodium carbonate packed tower scrubbers								
Twelve (12) Pot Furnaces, controlled by the refinery baghouse	23.0	23.0	0.1	1.2	21.5	18.0	0.09	0.49
Two Lead Pig Casting, controlled by the refinery baghouse			-	-	-	-		
Material Handling, Slag Crushing and insignificant activities controlled by the bin room baghouse	9.86	9.86	-	-	-	-	0.74	0.74
Fugitive Emissions (furnace charge point hoods), controlled by the ventilation baghouse	13.2	13.2	<0.01	0.1	1.5	1.3	0.74	0.76
Total Emissions	<100	<100	<100	1.6	45.0	23.9	<5	<10 single HAP <25 combination of HAPs

- (a) The limited PTE of each regulated pollutant is less than 100 tons per year and the lead emissions are less than 5 tons per year. Therefore, the source is not subject to 326 IAC 2-2.
- (b) Fugitive Emissions
Since this type of operation is in one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are counted toward the determination of PSD and Emission Offset applicability.

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet 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.

Federal Rule Applicability

- (a) The requirements of the New Source Performance Standard 40 CFR Part 60, Subparts K and Ka, (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 40,000 gallons.
- (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

Nonapplicable portions of the NSPS will not be included in the permit. 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.
- (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 (twelve (12) pot furnaces)
 - (4) rotary dryer
 - (5) process fugitive sources
 - (6) fugitive dust sources

Nonapplicable portions of the NESHAP will not be included in the permit. 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.
- (j) The requirements of 40 CFR 72 through 40 CFR 78 (Title IV - Acid Rain Requirements) are not included for this source because none of the emission units at the source are listed in 40 CFR 73.10, none of the emission units are identified as utility units serving a generator with a nameplate capacity of greater than twenty five (25) Megawatts nor have any of the emission units at the source been specifically opted in to the Acid Rain Program.
- (k) Compliance Assurance Monitoring (CAM) [40 CFR 64]
- (1) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to existing emission units that involve a pollutant-specific emission unit and meet the following criteria:

- (A) has a potential to emit before controls equal to or greater than the major source threshold for the pollutant involved;
- (B) is subject to an emission limitation or standard for that pollutant; and
- (C) 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
Battery Crusher/Breaker (PM10)	venturi scrubber	Y	493	9.86	100.0	Y	N
Battery Crusher/Breaker (Lead)	venturi scrubber	Y	14.5	0.29	5	N ²	N
Rotary Dryer (PM10)	rotary dryer baghouse	Y	1970	19.7	100	Y	N
Rotary Dryer (lead)	rotary dryer baghouse	Y	99	0.99	5	N ²	N
Reverberatory furnace/Blast furnace (cupola)-PM10	North and South sodium carbonate packed tower scrubbers	Y	20155	21.9	100	N ³	N
Reverberatory furnace/Blast furnace (cupola)-Lead	North and South sodium carbonate packed tower scrubbers	Y	261	1.49	5	N ²	N
Twelve (12) Pot Furnaces, Two Lead Pig Casting (PM10)	refinery baghouse	Y	2300	24.6	100	Y	N
Twelve (12) Pot Furnaces, Two Lead Pig Casting (Lead)	refinery baghouse	Y	9	0.096	5	N ²	N
Material Handling, Slag Crushing and melting pots- Lead	bin room baghouse	Y	960	9.6	100	N ²	N
Material Handling, Slag Crushing and melting pots-PM10	bin room baghouse	Y	960	9.6	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 PM10, these emission units have an applicable limit in NSPS 40CFR Part 60, Subpart L

- (2) Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to the venturi scrubber, rotary dryer baghouse, refinery baghouse and bin room baghouse for PM10, upon issuance of the Title V. The CAM plan will be incorporated into this Part 70 permit as follows:

- (A) Visible Emissions Notations shall be performed and recorded on a daily basis for the venturi scrubber, rotary dryer baghouse, refinery baghouse and bin room baghouse.
- (B) Parametric monitoring shall be performed and recorded on a daily basis for venturi scrubber.
- (C) Bag leak detection system monitoring are installed on the rotary dryer baghouse, refinery baghouse and bin room baghouse.

Compliance with the above monitoring conditions shall satisfy the requirements of 20 CFR 64, Compliance Assurance Monitoring for the venturi scrubber, rotary dry baghouse, refinery baghouse and bin room baghouse and the associated emission units.

State Rule Applicability – Entire Source

326 IAC 2-2 PSD Minor Limit

- (a) For each individual charge, only a mixture of 70% to 100% by weight slag and 0% to 30% by weight lead bearing materials for each individual charge may be charged in the blast furnace (cupola) (Unit 5).
- (b) Pursuant to Administrative Amendment No. 035-21590-00028 and revised by this permit the PM, PM10 and lead emissions are limited as shown in the table as follows:

Emission Units	Control Equipment	PM and PM10 Limit (lb/hr)	Lead Limit (lb/hr)
Battery crusher/breaker (Unit 1)	Venturi Scrubber	2.25	0.065
Soda ash wash and 2 silos (Unit 2)	Fabric filters	0.23	-
Rotary dryer (Unit 3)	Rotary dryer baghouse	4.50	0.23
Reverberatory furnace (Unit 4) and Blast furnace (cupola) (Unit 5)	process baghouse followed by North and South sodium carbonate packed tower scrubbers	5.00	0.34
Pig casting	Refinery Baghouse	5.25	0.02
Pot furnaces (Units 6K1-12)			
Material handling and Slag Crusher and insignificant activities	Bin Room Baghouse	2.19	0.17
Reverberatory and blast furnace charge points hoods emissions	Ventilation baghouse	3.00	0.17

- (c) The SO₂ emissions from the reverberatory furnace and blast furnace (cupola) shall be limited to less than 99 tons per year.

Compliance with these limits in combination with potential emission from combustion and insignificant activity sources shall keep the source wide total PM, PM10 and SO₂ below one hundred (100) tons per year, each, and Lead below five (5) tons per year and will render 326 IAC 2-2 (PSD) not applicable.

326 IAC 2-3 (Emission Offset)

Delaware County is attainment, maintenance attainment or unclassifiable for all criteria air pollutants. Therefore, the requirements of 326 IAC 2-3 (Emission Offset) do not apply.

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 that have increased the potential to emit any single HAP of greater than one (1) ton per year or any combination of HAP of greater than two and one half (2.5) tons per year. This source is subject to the National Emission Standards for Hazardous Air Pollutants, 40 CFR 63.541 Subpart X (National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting) and 326 IAC 20-13 (Hazardous Air Pollutants: Secondary Lead Smelters) because the source is a secondary lead smelting operation. 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)

Since this source is required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program, this source is subject to 326 IAC 2-6 (Emission Reporting). The source is required to submit an initial Emission Statement for 2005, to initiate billing of Title V permit fees. In accordance with the compliance schedule in 326 IAC 2-6-3(b)(2), subsequent emission statements must be submitted by July 1, 2008, and every 3 years after, covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 5-1 (Opacity Limitations)

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

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

326 IAC 8 (Volatile Organic Compound Rules)

This secondary lead smelting source commenced operation prior to January 1, 1980 and has the potential to emit less than one hundred (100) tons per year Volatile Organic Compounds (VOC). Therefore, this source is not subject to 326 IAC 8-6 (Organic Solvent Emission Limitations).

This source does not have any significant emission units that perform operations for which a VOC subcategory under 326 IAC 8-2 through 326 IAC 8-13 exists. Therefore, source wide operations are not subject to the provisions of 326 IAC 8 (Volatile Organic Compound Rules).

326 IAC 9 (Carbon Monoxide Emission Rules)

There are no provisions under 326 IAC 9 (Carbon Monoxide Emission Rules) for a secondary lead smelting and/or lead refining operation. Therefore, this source is not subject to the provisions of 326 IAC 9 (Carbon Monoxide Emission Rules).

326 IAC 10 (Nitrogen Oxide Rules)

There are no provisions under 326 IAC 10 (Nitrogen Oxide Rules) for a secondary lead smelting and/or lead refining operation. Therefore, this source is not subject to the provisions of 326 IAC 10 (Nitrogen Oxide Rules).

326 IAC 11 (Emission Limitations for Specific Types of Operations)

There are no provisions under 326 IAC 11 (Emission Limitations for Specific Types of Operations) for a secondary lead smelting and/or lead refining operation. Therefore, this source is not subject to the provisions of 326 IAC 11 (Emission Limitations for Specific Types of Operations).

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:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour and
P = 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).

State Rule Applicability - 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.

Testing Requirements

- (a) Pursuant to 326 IAC 20-13-6 and in order to demonstrate compliance with lead limits the Permittee shall conduct lead testing from rotary dryer, Process baghouse followed by North and South sodium carbonate packed tower scrubber, Refinery baghouse, Venturi scrubber, Bin room baghouse and ventilation baghouse within 180 days of issuance of this permit and:
 - (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 compliance test, the Permittee shall be allowed up to twenty four (24) calendar months to the next annual compliance test.
- (b) Pursuant to 326 IAC 20-13-6 and in order to demonstrate compliance with lead limits, the Permittee shall conduct lead testing from process fugitive stacks no later than twenty-four (24) months following the previous compliance test and every twenty-four (24) months thereafter.

Recent lead testing has been performed as follows:

Emission Unit	Results of last lead test	Date of last lead test	Date of last PM test
Rotary Dryer	Rotary dryer baghouse	modified in 2005 and not yet tested	modified in 2005 and not yet tested
Reverberatory Furnace and Blast Furnace (cupola)	Ventilation Baghouse: 0.000218 gr/dscf	September 8, 2004	September 2002
Reverberatory Furnace and Blast Furnace (cupola)	North Scrubber: 0.000063 gr/dscf South Scrubber: 0.000054 gr/dscf	August 23, 2005	September 2003
Pot Furnaces and Pig Casting	Refinery baghouse: 0.000018 gr/dscf	September 7, 2005	September 2003
Battery Crusher/Breaker	Venturi scrubber: 0.000046 gr/dscf	September 9, 2004	September 2003
Material Handling	Bin room baghouse 0.0000061 gr/dscf	August 23, 2005	September 2003
Reverberatory Furnace and Blast Furnace (cupola) charging points	ventilation baghouse: 0.0000131	September 9, 2004	September 2002

(c) In order to demonstrate compliance with PM and PM10 conditions, the Permittee shall perform:

- (1) PM and PM10 testing on the process baghouse, north and south sodium carbonate packed tower scrubber and ventilation baghouse before September 2007; and
- (2) PM and PM10 testing on the rotary within 180 days of issuance of this permit.
- (3) PM and PM10 testing on the refinery baghouse before September 2008
- (4) PM and PM10 testing on the venturi scrubber and bin room baghouse before September 2008

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. Testing shall be conducted in accordance with Section C - Performance Testing.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

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

- (a) Visible emission notations of the venturi scrubber and North and South sodium carbonate packed tower scrubbers stack exhaust once per day.
- (b) The Permittee shall record the total pressure drop across the venturi scrubber, North and South sodium carbonate packed tower scrubbers at least once daily when the processes are in operation when venting to the atmosphere.

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.

The compliance monitoring requirements for Lead emissions in 40 CFR Part 63.548 satisfies the requirements for compliance monitoring for PM and PM10 emissions.

Conclusion

The operation of this secondary lead smelting plant shall be subject to the conditions of the attached proposed Part 70 Operating Permit No. T035-22352-00028.

Exide Corporation
 2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302
 T035-22352-00028
 Teresa Freeman
 09/23/06

	PM Emissions (ton/yr)		PM10 Emissions (ton/yr)		SO2 Emissions (ton/yr)		NOx Emissions (ton/yr)		Lead Emissions (ton/yr)		CO Emissions (ton/yr)		VOC Emissions (ton/yr)	
	controlled	uncontrolled	controlled	uncontrolled	controlled	uncontrolled	controlled	uncontrolled	controlled	uncontrolled	controlled	uncontrolled	controlled	uncontrolled
Battery Crusher/Breaker	9.86	493	9.86	493	-	-	-	-	0.29	14.5	-	-	-	-
Soda Ash Pneumatic Conveying thru 2 Silos	1	2.87	1	2.87	-	-	-	-	-	-	-	-	-	-
Rotary Dryer (including combustion)	19.7	1970	19.7	1970	0.033	0.033	5.5	5.5	0.13	13	4.6	4.6	0.3	0.3
Reverberatory Furnace Blast Furnace (cupola)	21.9	16150 4605	21.9	9690 1935	61.2 12.16	4000 795	15 1.5	15 1.5	1.49	261	-	-	-	-
Reverberatory Furnace and Blast Furnace (cupola) Charging points combined	13.2	3300	13.2	3300	-	-	-	-	0.74	129.5	-	-	-	-
Twelve (12) Pot Furnaces(Stack 9) and Two (2) Pig Machines combined	23.4	2300.4	24.6	2301.6	0.1	0.1	21.5	21.5	0.09	9	18	18	1.2	1.2
Material Handling/Slag Crusher/insignificant melting pots	9.6	960	9.6	960	<0.01	<0.01	1.5	1.5	0.74	74	1.3	1.3	0.1	0.1
Total	98.7	29781.3	99.9	20652.5	73.5	4795.1	45.0	45.0	3.5	501.0	23.9	23.9	1.6	1.6

Appendix A: Emission Calculations
Company Name: Exide Corporation
Address City IN Zip: 2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302
Permit Number: T035-22352-00028
Reviewer: Teresa Freeman
Date: 09/23/06

Reverberatory Furnace and Blast Furnace

Twin Packed Bed Sodium Carbonate Scrubber efficiency = 65% for PM, PM10 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: 100000 ton/yr * 193.8 lb/ton * ton/2000 lb = 9690 ton/yr
SO_x: 100000 ton/yr * 80 lb/ton * ton/2000 lb = 4000 ton/yr
NO_x: 100000 ton/yr * 0.3 lb/ton * ton/2000 lb = 15 ton/yr

Controlled Emissions:

PM and PM10 Limited Emissions = 5 lbs/hr (PSD Minor Limit)
SO_x:
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%
SO_x: 4000 ton/yr * (1-.85) * (1-.898) = 61.2 ton/yr
NO_x: 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: 30000 ton/yr * 129 lb/ton * ton/2000 lb = 1935 ton/yr
SO_x: 30000 ton/yr * 53 lb/ton * ton/2000 lb = 795 ton/yr
NO_x: 30000 ton/yr * 0.1 lb/ton * ton/2000 lb = 1.5 ton/yr

Controlled Emissions:

PM/PM10 Limited Emissions are combined with Reverberatory Furnace controlled emissions.
SO_x:
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%
SO_x: 795 ton/yr * (1-.85) * (1-.898) = 12.16 ton/yr
NO_x: 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 and PM10 Limited Emissions = 3 lbs/hr (PSD Minor Limit)
PM and PM10 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: T035-22352-00028
Reviewer: Teresa Freeman
Date: 09/23/06

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 and PM10 Limited Emissions = 2.25 lbs/hr (PSD Minor Limit)
 PM and PM10 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 and PM10 Limited Emissions = 5.25 lbs/hr
 PM and PM10 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 source)

PM and PM10 Limited Emissions = 2.19 lbs/hr (PSD Minor Limit)
 PM and PM10 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 - testing required by April 20, 2006. 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 and PM10 Limited Emissions = 4.50 lbs/hr (PSD Minor Limit)
 PM and PM10 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 and PM10 before control = 6389 ton/yr * 0.00015 ton/ton * 3 = 2.87 ton/yr
 PM and PM10 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: T035-22352-00028
Reviewer: Teresa Freeman
Date: 9/23/2006

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

12.6

110.4

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr			0.033	5.5	0.3	4.6

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

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

Methodology PM and PM10 emissions have been included in PSD Minor Limit.

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

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

(SUPPLEMENT D 3/98)

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

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See page 2 for HAPs emissions calculations.

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

**HAPs Emissions
 Company Name: Exide Corporation
 Address City IN Zip: 2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302
 Permit Number: T035-22352-00028
 Reviewer: Teresa Freeman
 Date: 9/23/2006**

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	1.159E-04	6.623E-05	4.139E-03	9.934E-02	1.876E-04

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

1.041E-01

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

Pot Furnaces (Stacks 10-21)

Company Name: Exide Corporation

Address City IN Zip: 2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302

Permit Number: T035-22352-00028

Reviewer: Teresa Freeman

Date: 9/23/2006

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

49.0

429.2

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.4	1.6	0.1	21.5	1.2	18.0

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

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

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

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

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

Appendix A: Emissions Calculations

Natural Gas Combustion Only

MM BTU/HR <100

Pot Furnaces (Stacks 10-21)

HAPs Emissions

Company Name: Exide Corporation

Address City IN Zip: 2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302

Permit Number: T035-22352-00028

Reviewer: Teresa Freeman

Date: 9/23/2006

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	4.507E-04	2.575E-04	1.610E-02	3.863E-01	7.297E-04

HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	1.073E-04	2.361E-04	3.005E-04	8.156E-05	4.507E-04

4.050E-01

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: PM and PM10 Calculated Emission Limitations
Summary**

Company Name: Exide Technologies

Address: 2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302

Permit No. 035-22352-00028

Reviewer: Teresa Freeman

Date: January 26, 2007

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

Appendix A: Emissions Calculations

Natural Gas Combustion Only

MM BTU/HR <100

Insignificant melting pots

Company Name: Exide Corporation

Address City IN Zip: 2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302

Permit Number: T035-22352-00028

Reviewer: Teresa Freeman

Date: 4/10/2007

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

3.4

29.8

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.0	0.1	0.0	1.5	0.1	1.3

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

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

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

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

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

Appendix A: Emissions Calculations

Natural Gas Combustion Only

MM BTU/HR <100

Insignificant melting pots

HAPs Emissions

Company Name: Exide Corporation

Address City IN Zip: 2601 West Mt. Pleasant Blvd., Muncie, Indiana 47302

Permit Number: T035-22352-00028

Reviewer: Teresa Freeman

Date: 4/10/2007

HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	3.127E-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

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