INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
*We make Indiana a cleaner, healthier place to live.*

*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: November 1, 2006

RE: Scepter, Inc. / 083-12850-00015

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 according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

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

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

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

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

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

Enclosures
FNPER.dot 03/23/06

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

## Scepter, Inc.
## 6467 N. Scepter Road
## Bicknell, Indiana 47512

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

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17. This permit also addresses new source review requirements and is intended to fulfill the new source review procedures and permit revision requirements pursuant to 326 IAC 2-8-11.1, applicable to those conditions.

| Operation Permit No.: F083-12850-00015 | |
|---|---|
| Original signed by:<br><br>Nisha Sizemore, Chief<br>Permits Branch<br>Office of Air Quality | Issuance Date: November 1, 2006<br><br>Expiration Date: November 1, 2006 |

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## SECTION A SOURCE SUMMARY

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

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

The Permittee owns and operates a secondary aluminum smelting plant.

| | |
|---|---|
| Authorized individual: | President |
| Source Address: | 6467 N. Scepter Road, Bicknell, Indiana 47512 |
| Mailing Address: | 6467 N. Scepter Road, Bicknell, Indiana 47512 |
| General Source Phone: | 812-735-2500 |
| SIC Code: | 3341 |
| Source Location Status: | Knox<br>Attainment for all criteria pollutants |
| Source Status: | Federally Enforceable State Operating Permit (FESOP)<br>Minor Source, under PSD;<br>Minor Source, Section 112 of the Clean Air Act<br>1 of 28 Source Categories |

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

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

(a) Five (5) natural gas-fired rotary furnaces as described below:

(1) Two (2) rotary furnaces each with a nominal capacity (feed/charge rate) of 3,500 pounds of aluminum per hour, identified as EU-1A and EU-1B. Particulate emissions from furnaces EU-1A and EU-1B are controlled by a multi-compartment baghouse which exhausts through stack S1-1. EU-1A and EU-1B were constructed in 1977.

(2) One (1) rotary furnace, identified as EU-2, with a nominal capacity (feed/charge rate) of 7,000 pounds per hour. Particulate emissions from furnace EU-2 are controlled by a multi-compartment baghouse which exhausts through stacks S3-1, S3-2, S3-3, S3-4, S3-5, and S3-6. EU-2 was constructed in 1988.

(3) One (1) rotary furnace, identified as EU-3, with a nominal capacity (feed/charge rate) of 7,000 pounds per hour. Particulate emissions from furnace EU-3 are controlled by a multi-compartment baghouse which exhausts through stacks S4-1, S4-2, S4-3, and S4-4. EU-3 was constructed in 1981.

(4) One (1) rotary furnace, identified as EU-4, with a nominal capacity (feed/charge rate) of 7,000 pounds per hour. Particulate emissions from furnace EU-4 are controlled by a multi-compartment baghouse which exhausts through stacks S5-1, S5-2, S5-3, S5-4, and S5-5, and S5-6. EU-4 was constructed in 1995.

Under 40 CFR 63, Subpart RRR – National Emission Standards for Hazardous Air Pollutants: Secondary Aluminum Production, the rotary furnaces are existing group I furnaces. The furnaces are fueled using either natural gas or coal gas.

HCl emissions from the furnaces are controlled using a pH control system that injects ammonia into the exhaust stream when the pH falls below 0.5 pH units above the pH of the incoming city water. The ammonia injection is controlled using a conventional pH electrode and temperature sensor located in a slip stream of the furnace exhausts. After

ammonia injection and prior to entering the baghouse, the exhaust stream is cooled by passing through a water spray cooling system followed by an air-to-air cooling tower. The water used in the water spray cooling system will be pre-filtered landfill leachate and/or city water from the Restricted Waste Type I Landfill located on Bruce Road, Bicknell, Indiana. The pre-filtered landfill leachate is used on the exhaust gases from either Rotary Furnace EU-2 or Rotary Furnace EU-3. The maximum leachate injection rate will be 5,000 gallons per day total for both EU-2 and EU-3. After exiting the cooling system, the exhaust stream enters a baghouse, which controls the particulate emissions generated by the reaction of HCl with ammonia.

(b) Pouring and casting operations (installed in 1977) with a maximum throughput capacity of 10.1 tons per year.

(c) Aluminum can shredder (installed in 1977) with a maximum capacity of 4.0 tons per hour with particulate matter emissions controlled by a baghouse, exhausting within the building.

(d) Material handling operations (installed in 1977), handling 5.0 tons of dross and/or salt cake per hour.

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

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

(a) Natural gas-fired combustion sources each with heat input capacities less than 10 million British thermal units per hour; including direct heating systems for pre-heating molds and crucibles having a combined heat input capacity of 20 MMBtu per hour.

(b) Petroleum fuel other than gasoline dispensing facility consisting of two (2) diesel storage tanks each with a 7,500 gallon capacity.

(c) Degreasing operations consisting of one (1) cold cleaner unit with a maximum solvent usage of 145 gallons per twelve month period.

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

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

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

(a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either

(1) incorporated as originally stated,

(2) revised, or

(3) deleted

by this permit.

(b) All previous registrations and permits are superseded by this permit.

## SECTION B GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

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

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

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

B.3 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5]

This permit 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.4 Enforceability [326 IAC 2-8-6]

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

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

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

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

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

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

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

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

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit.

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

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

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

B.10 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This

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

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

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

B.11 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

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

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

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

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and

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

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

B.12 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) for the source as described in 326 IAC 1-6-3. At a minimum, the PMPs shall include:

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

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

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

(b) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ,. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

B.13 Emergency Provisions [326 IAC 2-8-12]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.

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

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

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

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

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, and the Southwest Regional Office, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

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

Southwest Regional Office:
Telephone No.: 1-888-672-8323 or,
Telephone No: 812-432-2570
Facsimile No.: 317-233-5967

(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
Indianapolis, Indiana 46204-2251

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

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

(A) A description of the emergency;

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

(C) Corrective actions taken.

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

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

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

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

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations or emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.

(g) Operations may continue during an emergency only if the following conditions are met:

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

(2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:

(A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and

(B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

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

(h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.14 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

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

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

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

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

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

B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

(1) That this permit contains a material mistake.

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

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]

(c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

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

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

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

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

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

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

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

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

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

B.17 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

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

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

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

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

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

B.18 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

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

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

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

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

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
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 which document, on a rolling five (5) year basis which document, all such changes and emission trades that are subject to 326 IAC 2-8-15(b) through (d). The Permittee shall make such records available, upon reasonable request, to public review.

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

(b) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).

(c) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

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

B.19 Permit Revision Requirement [326 IAC 2-8-11.1]

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

B.20 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-17-3-2] [IC13-30-3-1]

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

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

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

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

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

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

B.21 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

(a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

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

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

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

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

B.22 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]

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

(b) Failure to pay may result in administrative enforcement action, or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4320 (ask for OAQ, Billing, Licensing, and Training Section (BLT)), to determine the appropriate permit fee.

B.23 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][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

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

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

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

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

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

(a) Pursuant to 326 IAC 2-8:

(1) The potential to emit any regulated pollutant from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable;

(2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and

(3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

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

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

C.3 Opacity [326 IAC 5-1]

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

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

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

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

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

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

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

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

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

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

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

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

The Permittee shall comply with the applicable requirements of 326 IAC 14-10, 326 IAC 18, and 40 CFR 61.140.

(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
Indianapolis, Indiana 46204-2251

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

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

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

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

(g) Indiana 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.

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

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

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

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

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
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 Aauthorized individual@ as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the Aauthorized individual@ as defined by 326 IAC 2-1.1-1(1).

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

**Compliance Requirements [326 IAC 2-1.1-11]**

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

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

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

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

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented upon issuance of this permit. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

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

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

(a) In the event that a breakdown of the emission monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less often than four times an hour until such time as the continuous monitor is back in operation.

(b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment.

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

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

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

(a) When required by any condition of this permit, 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 have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale

(b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate 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 2-8-4] [326 IAC 2-8-5(a)(1)]**

C.15 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]

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

C.16 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]

(a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:

(1) initial inspection and evaluation;

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

(3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

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

(1) monitoring results;

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

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

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

(e) The Permittee shall maintain the following records:

(1) monitoring data;

(2) monitor performance data, if applicable; and

(3) corrective actions taken.

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

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

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

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

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

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

(a) Records of all required 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 2-8-4(3)(C)] [326 IAC 2-1.1-11]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the Aauthorized individual@ as defined by 326 IAC 2-1.1-1(1).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

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

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

(d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

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

**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) Five (5) natural gas-fired rotary furnaces as described below:

(1) Two (2) rotary furnaces each with a nominal capacity (feed/charge rate) of 3,500 pounds of aluminum per hour, identified as EU-1A and EU-1B. Particulate emissions from furnaces EU-1A and EU-1B are controlled by a multi-compartment baghouse which exhausts through stack S1-1. EU-1A and EU-1B were constructed in 1977.

(2) One (1) rotary furnace, identified as EU-2, with a nominal capacity (feed/charge rate) of 7,000 pounds per hour. Particulate emissions from furnace EU-2 are controlled by a multi-compartment baghouse which exhausts through stacks S3-1, S3-2, S3-3, S3-4, S3-5, and S3-6. EU-2 was constructed in 1988.

(3) One (1) rotary furnace, identified as EU-3, with a nominal capacity (feed/charge rate) of 7,000 pounds per hour. Particulate emissions from furnace EU-3 are controlled by a multi-compartment baghouse which exhausts through stacks S4-1, S4-2, S4-3, and S4-4. EU-3 was constructed in 1981.

(4) One (1) rotary furnace, identified as EU-4, with a nominal capacity (feed/charge rate) of 7,000 pounds per hour. Particulate emissions from furnace EU-4 are controlled by a multi-compartment baghouse which exhausts through stacks S5-1, S5-2, S5-3, S5-4, and S5-5, and S5-6. EU-4 was constructed in 1995.

Under 40 CFR 63, Subpart RRR – National Emission Standards for Hazardous Air Pollutants: Secondary Aluminum Production, the rotary furnaces are existing group I furnaces. The furnaces are fueled using either natural gas or coal gas.

HCl emissions from the furnaces are controlled using a pH control system that injects ammonia into the exhaust stream when the pH falls below 0.5 pH units above the pH of the incoming city water. The ammonia injection is controlled using a conventional pH electrode and temperature sensor located in a slip stream of the furnace exhausts. After ammonia injection and prior to entering the baghouse, the exhaust stream is cooled by passing through a water spray cooling system followed by an air-to-air cooling tower. The water used in the water spray cooling system will be pre-filtered landfill leachate and/or city water from the Restricted Waste Type I Landfill located on Bruce Road, Bicknell, Indiana. The pre-filtered landfill leachate is used on the exhaust gases from either Rotary Furnace EU-2 or Rotary Furnace EU-3. The maximum leachate injection rate will be 5,000 gallons per day total for both EU-2 and EU-3. After exiting the cooling system, the exhaust stream enters a baghouse, which controls the particulate emissions generated by the reaction of HCl with ammonia.

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

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

D.1.1 Emission Limitations for PM and PM10 [326 IAC 2-8] [326 IAC 2-2]

(a) The amount of aluminum processed in the rotary furnaces shall not exceed 110,400 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(b) The PM and PM10 emissions from the rotary furnaces shall not exceed 1.6 pounds per ton of aluminum processed. This limit combined with the aluminum throughput limit in (a) is equivalent to 88.3 tons of PM and PM10 per year.

Compliance with these limits and the PM and PM10 emission limits in Condition D.2.1 makes 326 IAC 2-7 (Part 70 Permit Program) and 326 IAC 2-2 (PSD) not applicable.

D.1.2 Emission Limitations for HCl [326 IAC 2-8]

The HCl emissions from the rotary furnaces shall not exceed 0.18 pounds per ton of aluminum processed. This limit combined with the aluminum throughput limit in Condition D.1.1 (a) is equivalent to 9.9 tons of HCl per year. Compliance with this limit makes 326 IAC 2-7 (Part 70 Permit Program) not applicable.

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from the rotary furnaces shall not exceed the following emission rates:

| Process/Unit | Process Weight (tons /hour) | Particulate Emission Limit (lbs/hour) |
|---|---|---|
| EU-1A | 1.75 | 6.0 |
| EU-1B | 1.75 | 6.0 |
| EU-2 | 3.5 | 9.5 |
| EU-3 | 3.5 | 9.5 |
| EU-4 | 3.5 | 9.5 |

The pounds per hour limitations were calculated using the following equation:

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

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

Compliance with the emission limitations in Condition D.1.1 ensures compliance with this condition.

D.1.4 General Provisions Relating to NESHAPs [326 IAC 20-1] [40 CFR 63, Subpart A]

The provisions of 40 CFR 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-1, apply to the rotary furnaces except when otherwise specified in 40 CFR 63, Subpart RRR.

D.1.5 Secondary Aluminum Smelting [40 CFR 63, Subpart RRR]

Pursuant to 40 CFR 63.1505(i)(3), the Permittee shall not discharge or allow to be discharged to the atmosphere from a Group 1 furnace any 3-day, 24-hour rolling average emissions of total tetra-, penta-, hexa-, and octachlorinated dibenzo dioxins and furans (D/F) in excess of 15 Φg of D/F TEQ per Mg ($2.1 \times 10^{-4}$ gr of D/F TEQ per ton) of feed/charge, where TEQ is the toxicity equivalents for dioxins and furans as defined in AInterim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs) and 1989 Update@ (EPA-625/3-89-016).

D.1.6 Operating and Monitoring Requirements [40 CFR 63.1506] [40 CFR 63.1510]

(a) Pursuant to 40 CFR 63.1506(b), the Permittee shall provide and maintain easily visible labels at each furnace that identifies the applicable emission limit and means of compliance. The labels shall include:

(1) The type of affected emission unit (i.e., Group 1 Furnace); and

(2) The applicable operational standard and control method, including the type of charge to be used in the furnace, flux materials and addition practices, and the applicable operating parameter ranges and requirements as incorporated in the Operation, Maintenance, and Monitoring (OM&M) Plan.

(b) Pursuant to 40 CFR 63.1506(c), the Permittee shall comply with the following requirements:

(1) Each furnace shall be equipped with a capture and collection system that meets the engineering standards for minimum exhaust rates as published by the American Conference of Governmental Industrial Hygienists in chapters 3 and 5 of AIndustrial Ventilation: A Manual of Recommended Practice.@

(2) Captured emissions shall be vented through a closed system, except that dilution air may be added to emission streams for the purpose of controlling temperature at the inlet to a fabric filter.

(3) The capture/collection system shall be operated according to the procedures and requirements in the Operation, Maintenance, and Monitoring Plan.

(c) Pursuant to 40 CFR 63.1506(d), the Permittee shall calibrate, operate, and maintain a device to measure and record the weight of feed/charge to each furnace. The Permittee shall operate the measurement system in accordance with the Operation, Maintenance, and Monitoring Plan. The accuracy of the weight measuring device shall be within one (1) percent of the weight being measured. The Permittee shall verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every (6) months.

(d) Pursuant to 40 CFR 63.1506(M), the Permittee shall:

(1) Maintain the 3-hour block average inlet temperature of each fabric filter at or below the average temperature established during the performance test, plus 14°C (25°F).

(2) During all operational phases for a given furnace/baghouse system, maintain free-flowing lime (or other alkaline agent such as ammonia) in the storage tank to the feed device and maintain the feeder setting at the same rate established during the performance test.

(3) Maintain the total reactive chlorine flux injection rate for each operating cycle or time period used in the performance test at or below the average rate established during the performance test.

(e) Pursuant to 40 CFR 63.1510(e), the Permittee shall calibrate, operate and maintain a device to measure and record the total weight of feed/charge to, or the aluminum production from, the furnaces over the same operating cycle or time period used in the performance test. The feed/charge or aluminum production must be measured and recorded on an emission unit basis. The accuracy of the weight measurement device shall be $\pm$1 percent of the weight being measured. The Permittee shall verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every 6 months.

(f) Pursuant to 40 CFR 63.1506(p), when a process parameter deviates from the value or range established during the performance test and incorporated in the Operation, Maintenance, and Monitoring (OM&M) Plan (see Condition D.1.7), the Permittee shall initiate corrective action. The corrective action shall restore operation of the affected emission unit (including the furnace or control device) to its normal or usual mode of operation as expeditiously as practicable in accordance with good air pollution control

practices for minimizing emissions. Corrective actions taken shall include follow-up actions necessary to return the furnace or control device parameter level(s) to the value or range of values established during the performance tests and steps to prevent the likely recurrence of the cause of the deviations.

D.1.7 Operation, Maintenance, and Monitoring (OM&M) Plan and Startup, Shutdown, and Malfunction (SSM) Plan [40 CFR 63.1510(b) and 63.1516(a)]

(a) Pursuant to 40 CFR 63.1510(b), the Permittee shall implement and revise as necessary a written Operation, Maintenance, and Monitoring (OM&M) Plan. Any changes to the OM&M Plan shall be submitted to the permitting authority for review and approval. Pending approval of the amended OM&M Plan, the Permittee shall comply with the provisions of the submitted plan. The OM&M Plan shall contain the following information:

(1) Process and control device parameters to be monitored to determine compliance, along with established operating levels or ranges, as applicable, for each process and control device.

(2) A monitoring schedule for each affected source and emission unit.

(3) Procedures for the proper operation and maintenance of each process unit and add-on control device used to meet the applicable emission limit in Condition D.1.5.

(4) Procedures for the proper operation and maintenance of monitoring devices or systems used to determine compliance, including:

(A) Calibration and certification of accuracy of each monitoring device, at least once every 6 months, according to the manufacturer=s instructions; and

(B) Procedures for the quality control and quality assurance of continuous emission monitoring systems as required by the general provisions in 40 CFR 63, Subpart A.

(5) Procedures for monitoring process and control device parameters.

(6) Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the value or range established during the performance testing, including:

(A) Procedures to determine and record the cause of a deviation or excursion, and the time the deviation or excursion began and ended; and

(B) Procedures for recording the corrective action taken, the time corrective action was initiated, and the time/date corrective action was completed.

(7) A maintenance schedule for each process and control device that is consistent with the manufacturer=s instructions and recommendations for routine and long-term maintenance.

(b) Pursuant to 40 CFR 63.1516(a), the Permittee shall maintain and implement a Startup, Shutdown, and Malfunction (SSM) Plan as required in 40 CFR 63.10(b). The SSM Plan shall contain specific procedures to be followed for operating and maintaining the source during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the standard.

D.1.8 Compliance Determination Requirements [40 CFR 63.1510]

(a) Pursuant to 40 CFR 63.1510, the Permittee shall calculate and record the 3-day, 24-hour rolling average emissions of D/F TEQ for each furnace on a daily basis. To calculate the 3-day, 24-hour rolling average, the Permittee shall:

(1) Calculate and record the total weight of material charged to each furnace for each 24-hour day of operation using the feed/charge weight data;

(2) Multiply the total feed/charge weight to the furnace for the 24-hour period by the emission rate (in lb/ton of feed/charge) for the furnace; and

(3) Calculate and record the 3-day, 24-day rolling average for D/F TEQ each day by summing the daily emission rate over the three (3) most recent consecutive days and dividing by 3.

(b) Pursuant to 40 CFR 63.1510(u) and as an alternative to the procedures in paragraphs (a) of this condition, the Permittee may demonstrate compliance with the D/F TEQ limit through performance tests on each emission unit.

D.1.9 Compliance Monitoring Requirements For 40 CFR 63, Subpart RRR [40 CFR 63.1510]

(a) Pursuant to 40 CFR 63.1510(c), the Permittee shall inspect the labels for each furnace at least once per calendar month to confirm that posted labels required by the operational standard in 40 CFR 63.1506(b) (Condition D.1.6) are intact and legible.

(b) Pursuant to 40 CFR 63.1510(d), the Permittee shall inspect each capture/collection and closed vent system at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in 40 CFR 63.1506(c) and record the results of each inspection.

(c) Pursuant to 40 CFR 63.1510(h), the Permittee shall calibrate, maintain and operate a device to continuously monitor and record the temperature of the fabric filter inlet gases consistent with the requirements for continuous monitoring systems in 40 CFR 63, Subpart A. The temperature monitoring device must meet each of the following performance and equipment specifications.

(1) The monitoring system must record the temperature in 15-minute block averages and calculate and record the average temperature for each 3-hour block period.

(2) The recorder response range must include zero and 1.5 times the average temperature established according to the requirements in 40 CFR 63.1512(a).

(3) The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple - potentiometer system or alternate reference, subject to approval by the Commissioner.

(d) Pursuant to 40 CFR 63.1510(i), the Permittee shall verify that the lime (or other alkaline agent) is always free-flowing by operating and maintaining a flow indicator system that confirms that lime (or other alkaline agent) is free-flowing during all operational phases for each furnace/baghouse system. If lime (or other alkaline agent) is found to not be free-flowing, the Permittee shall promptly initiate and complete corrective action.

(e) Pursuant to Alternative Monitoring Plan approved by the U.S. EPA on December 3, 2004 and to comply with 40 CFR 63.1510(j)(3), the Permittee shall record the weight of the reactive flux charged into the furnace at the beginning of the batch cycle, the charge time, the material type, and the weight of any additional flux material added to the batch during the batch cycle.

D.1.10 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the furnaces and their control devices. The approved Operation, Maintenance, and Monitoring (OM&M) Plan required by 40 CFR 63.63.150(b) and described in Condition D.1.7 satisfies the requirements of this condition.

**Compliance Determination Requirements**

D.1.11 Particulate Matter (PM) and Hazardous Air Pollutants (HAPs)

(a) Pursuant to F083-6099-00015, issued on December 12, 1996, and in order to comply with Conditions D.1.1, D.1.2, and D.1.3, the baghouse and pH control system shall be in operation and control emissions from the rotary furnaces at all times the 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.1.12 Particulate Matter and HCl

(a) The Permittee shall perform stack testing of PM and PM10 emissions from a representative natural gas-fired furnace using methods approved by the Commissioner. The stack tests shall be completed not later than five (5) years after the last valid compliance demonstration. The PM10 shall include filterable and condensable PM10.

(b) The Permittee shall perform stack testing of HCl emissions from a representative natural gas-fired furnace using methods approved by the commissioner. The stack tests shall be completed not later than five years after the last valid compliance demonstration.

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

D.1.13 Visible Emissions Notations

(a) Visible emission notations of the rotary furnace 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 at any baghouse exhaust, the Permittee shall take response steps in accordance with Section C – Response to Excursions and Exceedances. Observations of abnormal emissions that do not violate 326 IAC 6-4 (Fugitive Dust Emissions) or an applicable opacity limit is considered a deviation from this permit.

D.1.14 Monitoring Requirements

(a) Pursuant to the Consent Decree (Case No. 2001-10376-A, signed on February 11, 2003), the Permittee shall continuously monitor and record the following parameters for the HCl control system:

(1) The pH of the incoming city water;

(2) The variable pH set-point;

(3) The pH measurement of the gas stream; and

(4) The ammonia feed rate.

(b) The ammonia feed valve shall be opened when the gas stream pH measurement drops below the variable pH set point plus 0.5 pH units.

(c) The minimum ammonia feed rate shall be 50 scfh at all times when the applicable furnace/baghouse system is in one of the operational phases.

D.1.15 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouses used in conjunction with the furnaces, at least once per day when the furnaces are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C – Responses to Excursions and 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 – Responses to Excursions and 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.

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

D.1.16 Record Keeping Requirements

(a) To document compliance with Condition D.1.12, the Permittee shall maintain records of visible emission notations of the furnace stack exhausts once per day during normal daylight operations when one or more of the furnaces are in operation.

(b) To document compliance with Condition D.1.13, the Permittee shall maintain continuous records of the following parameters for the HCl control system:

(1) The pH of the incoming city water;

(2) The variable pH set-point;

(3) The pH of the gas stream; and

(4) The ammonia feed rate.

(c) To document compliance with Condition D.1.15, the Permittee shall maintain records once per day of pressure drop across each baghouse.

(d) To document compliance with Condition D.1.1(a), the Permittee shall maintain records of the amount of aluminum processed per month.

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

D.1.17 Record Keeping Requirements for 40 CFR 63, Subpart RRR

(a) To document compliance with Condition D.1.5, the Permittee shall maintain files of all information, including reports and notifications, required by 40 CFR 63.10 and 40 CFR 63.1517. The Permittee shall retain each record for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent two (2) years of records shall be retained at the source. The remaining three (3) years of records may be retained off-site. The Permittee may retain records on microfilm, computer disks, magnetic tape or microfiche.

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

D.1.18 Reporting Requirements For 40 CFR 63, Subpart RRR [40 CFR 63.1516]

(a) Pursuant to 40 CFR 63.1516(a), the Permittee shall keep records of each malfunction and record and report if an action taken during startup, shutdown, or malfunction is not consistent with the procedures in the Startup, Shutdown, and Malfunction (SSM) Plan. The plan shall include:

(1) The procedures to determine and record the cause of a malfunction and the time the malfunction began and ended; and

(2) Corrective actions to be taken in the event of a malfunction of a process or control device, including the actions taken to correct the malfunction or minimize emissions.

(b) Pursuant to 40 CFR 63.1516(b), the Permittee shall submit a semi-annual Excess Emissions/Summary Report within 60 days after the end of each six (6) month period. The report shall contain the information specified in 40 CFR 63.10(c). When no deviations have occurred, the Permittee shall submit a report stating that no excess emissions occurred during the reporting period. A report shall be submitted if any following conditions occur:

(1) An excursion of a compliant process or operating parameter value or range occurred.

(2) An action taken during a startup, shutdown, or malfunction was not consistent with the procedures in the SSM Plan.

(3) A furnace was not operated according to the requirements of 40 CFR 63, Subpart RRR.

(c) The Permittee shall submit an Annual Compliance Certification certifying compliance based upon, but not limited to, the following conditions:

(1) Any period of excess emissions that occurred during the year were reported as required by 40 CFR 63, Subpart RRR; and

(2) All monitoring, recordkeeping, and reporting requirements were met during the year.

D.1.19 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.1, D.1.2, and D.1.3 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the Aauthorized individual@ as defined by 326 IAC 2-1.1-1(1).

**SECTION D.2 FACILITY OPERATION CONDITIONS**

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

(b) Pouring and casting operations (installed in 1977) with a maximum throughput capacity of 10.1 tons per hour.

(c) Aluminum can shredder with a maximum capacity of 4.0 tons per hour with particulate matter emissions controlled by a baghouse, exhausting within the building.

(d) Material handling operations (installed in 1977), handling 5.0 tons of dross and/or salt cake per hour.

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

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

D.2.1 Emission Limitations for PM and PM10 [326 IAC 2-8] [326 IAC 2-2]

(a) The PM and PM10 emissions from the aluminum shredder shall not exceed 0.11 pounds per ton of aluminum processed. When operating at the maximum shredding capacity of 4.0 tons of aluminum per hour, this limit is equivalent to 1.9 tons of PM and PM10 per year.

(b) PM and PM10 emissions from the pouring and casting process shall not exceed 0.2 pounds per hour. When operating at the maximum throughput capacity of 10.1 tons per hour, this limit is equivalent to 0.66 tons of PM and PM10 per year.

(c) PM emissions from the dross and salt cake handling shall not exceed 0.22 pounds per ton of material processed. PM10 emissions from the dross and salt cake handling shall not exceed 0.20 pounds per ton of material processed. When operating at a maximum capacity of 5.0 tons per hour, this limit is equivalent to 4.82 tons of PM and 4.38 tons of PM10 per year.

Compliance with this limit and the limits in Condition D.1.1 makes 326 IAC 2-7 (Part 70 Permit Program) and 326 IAC 2-2 (PSD) not applicable.

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rates from the aluminum shredder, dross and salt cake handling, and pouring and casting operations shall not exceed the following emission rates:

| Process/Unit | Process Weight (tons /hour) | Particulate Emission Limit (lbs/hour) |
|---|---|---|
| Material Handling | 5.0 | 12.1 |
| Pouring and Casting Operations | 10.1 | 19.3 |
| Shredder | 4.0 | 10.4 |

These emission limits were calculated using the following equation:

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

$E = 4.10P^{0.67}$ Where: E = Rate of emission in pounds per hour; and
P = Process weight rate in tons per hour.

Compliance with the emission limitations in Condition D.7.1 ensures compliance with the limitations in this condition.

D.2.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the shredder and its control device.

**Compliance Determination Requirements**

D.2.4 Particulate Control

(a) In order to comply with D.2.1 and D.2.2, the baghouse used for particulate control shall be in operation and control emissions from the shredder at all times that the shredder is 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.

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

D.2.5 Visible Emissions Notations

(a) Visible emission notations of the shredder 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.

(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 at any baghouse exhaust, the Permittee shall take response steps in accordance with Section C – Response to Excursions and Exceedances. Observations of abnormal emissions that do not violate 326 IAC 6-4 (Fugitive Dust Emissions) or an applicable opacity limit is considered a deviation from this permit.

D.2.6 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouse used in conjunction with the process, at least once per day when the process is in operation, when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions and 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 and 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.

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

D.2.7 Record Keeping Requirements

(a) To document compliance with Condition D.2.5, the Permittee shall maintain records of visible emission notations of the shredder stack exhaust once per day during normal daylight operations, when venting to the atmosphere.

(b) To document compliance with Condition D.2.6, the Permittee shall maintain records once per shift of the pressure drop across the baghouse when venting to the atmosphere.

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

## SECTION D.3 FACILITY OPERATION CONDITIONS

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

(e) Degreasing operations consisting of one (1) cold cleaner unit with a maximum solvent usage of 145 gallons per twelve month period.

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

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

D.3.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations constructed after January 1, 1980, the Permittee shall:

(a) Equip the cleaner with a cover;

(b) Equip the cleaner with a facility for draining cleaned parts;

(c) Close the degreaser cover whenever parts are not being handled in the cleaner;

(d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(e) Provide a permanent, conspicuous label summarizing the operation requirements;

(f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

D.3.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

(a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without a remote reservoir constructed after July 1, 1990, the Permittee shall ensure that the following control equipment requirements are met:

(1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:

(A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius ($38^{O}C$) (one hundred degrees Fahrenheit ($100^{O}F$));

(B) The solvent is agitated; or

(C) The solvent is heated.

(2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius ($38^{O}C$) (one hundred degrees Fahrenheit ($100^{O}F$)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

(3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).

(4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.

(5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius ($38^{O}C$) (one hundred degrees Fahrenheit ($100^{O}F$)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius ($48.9^{O}C$) (one hundred twenty degrees Fahrenheit ($120^{O}F$)):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

(B) A water cover when solvent used is insoluble in, and heavier than, water.

(C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

(b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the Permittee shall ensure that the following operating requirements are met:

(1) Close the cover whenever articles are not being handled in the degreaser.

(2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.

(3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
# OFFICE OF AIR QUALITY

## FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: Scepter, Inc.
Source Address: 6467 N. Scepter Road, Bicknell, Indiana 47512
Mailing Address: 6467 N. Scepter Road, Bicknell, Indiana 47512
FESOP No.: F083-12850-00015

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

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify)_____

☐ Report (specify)_____

☐ Notification (specify)_____

☐ Affidavit (specify)_____

☐ Other (specify)_____

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

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**
**OFFICE OF AIR QUALITY**
**COMPLIANCE BRANCH**
**100 North Senate Avenue**
**Indianapolis, Indiana 46205**
**Phone: 317-233-0178**
**Fax: 317-233-6865**

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

Source Name: Scepter, Inc.
Source Address: 6467 N. Scepter Road, Bicknell, Indiana 47512
Mailing Address: 6467 N. Scepter Road, Bicknell, Indiana 47512
FESOP No.: F083-12850-00015

**This form consists of 2 pages**

**Page 1 of 2**

9 This is an emergency as defined in 326 IAC 2-7-1(12)
XThe Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-0178 or 317-233-6865, ask for Compliance Section); and
XThe 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<br>Describe: |
| Type of Pollutants Emitted: TSP, PM-10, $SO_2$, VOC, $NO_X$, CO, Pb, other: |
| Estimated amount of pollutant(s) emitted during emergency: |
| Describe the steps taken to mitigate the problem: |
| Describe the corrective actions/response steps taken: |
| Describe the measures taken to minimize emissions: |
| If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value: |

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

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

**FESOP Quarterly Report**

Source Name: Scepter, Inc.
Source Address: 6467 N. Scepter Road, Bicknell, Indiana 47512
Mailing Address: 6467 N. Scepter Road, Bicknell, Indiana 47512
FESOP No.: F083-12850-00015
Facility: Rotary Furnaces EU-1A, EU-1B, EU-2, EU-3, EU-4
Parameter: Aluminum
Limit: The amount of aluminum processed shall not exceed 110,400 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR:

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

9 No deviation occurred in this quarter.

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

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

Source Name: Scepter, Inc.
Source Address: 6467 N. Scepter Road, Bicknell, Indiana 47512
Mailing Address: 6467 N. Scepter Road, Bicknell, Indiana 47512
FESOP No.: F083-12850-00015

Months: _____ to _____ Year: _____

Page 1 of 2

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 ANo deviations occurred this reporting period@.

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

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

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

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

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

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

# Indiana Department of Environmental Management
# Office of Air Quality

## Addendum to the Technical Support Document (TSD) for a Federally Enforceable Operating Permit (FESOP) Renewal

**Source Background and Description**

| | |
|---|---|
| Source Name: | Scepter, Inc. |
| Source Location: | 6467 N. Scepter Road, Bicknell, Indiana 47512 |
| County: | Knox |
| SIC Code: | 3341 |
| Operation Permit No.: | 083-6099-00015 |
| Operation Permit Issuance Date: | December 12, 1996 |
| Operation Permit Renewal No: | 083-12850-00015 |
| Permit Reviewer: | ERG/AAB |

On August 22, 2006, the Office of Air Quality (OAQ) had a notice published in the Sun Commercial, Vincennes, Indiana, stating that Scepter, Inc. had applied for a Federally Enforceable State Operating Permit (FESOP) Renewal to operate a secondary aluminum plant using scrubbers and baghouses for control of HCl and particulate emissions. 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 September 19, 2006, Scepter, Inc. submitted comments on the proposed FESOP Renewal. The summary of the comments is provided below. Revisions to permit conditions are shown in bold for text that has been added and in strikeout for text that has been deleted):

**Comment 1:**

On Page 5 of the permit, the responsible official is still Garney B. Scott, III; however, his title is now President. Therefore, this should be changed.

**Response to Comment 1:** IDEM, OAQ has revised the title of the responsible office in Condition A.1 to reflect the new title of the responsible official. Condition A.1 has been revised as follows:

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

The Permittee owns and operates a secondary aluminum smelting plant.

| | |
|---|---|
| Authorized individual: | ~~Vice President of Operations~~ **President** |
| Source Address: | 6467 N. Scepter Road, Bicknell, Indiana 47512 |
| Mailing Address: | 6467 N. Scepter Road, Bicknell, Indiana 47512 |
| General Source Phone: | 812-735-2500 |
| SIC Code: | 3341 |
| Source Location Status: | Knox<br>Attainment for all criteria pollutants |
| Source Status: | Federally Enforceable State Operating Permit (FESOP)<br>Minor Source, under PSD;<br>Minor Source, Section 112 of the Clean Air Act<br>1 of 28 Source Categories |

**Comment 2:**

On Page 28 ( Condition D.1.15) of the permit, the pressure drop range is stated as "3.0 to 10.0 inches of water" whereas in the TSD ( Page 16) Compliance Requirements, the range is stated as "2.0 to 10.0 inches of water".

**Response to Comment 2:**

In comments received on October 10, 2004, Scepter stated that the pressure range for the baghouses used to control emissions from the furnaces is 3.0 to 10.0 inches of water, while the correct pressure range for the baghouse used to control emissions from the shredder is 2.0 to 10.0 inches of water. Hence, the pressure ranges provided in Conditions D.1.15 and D.2.6 are correct as stated. The TSD incorrectly states the pressure range for the baghouses used to control emissions from the furnaces as "2.0 to 10.0 inches" instead of "3.0 to 10.0 inches of water." Although the TSD is incorrect, no changes have been made to the TSD because the OAQ prefers that the Technical Support Document 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.

**Comment 3:**

On page 11 of the TSD under Records, item (c) states the permittee shall maintain "Records of 15-minute block average weights of gaseous or liquid reactive flux injection, total reactive flux injection rate and calculations....". However, Scepter received approval to keep the records on a per batch or cycle basis.

**Response to Comment 3:**

Scepter received approval from EPA for an alternative monitoring on December 3, 2004 (see Appendix B to the TSD for copy of EPA's approval letter). This alternative monitoring plan allowed Scepter to record the weight of the reactive flux charged in to the furnace at the beginning of the batch cycle, the charge time, the material type, and the weight of any additional flux material added to the batch during the batch cycle. Therefore, IDEM, OAQ agrees that the provision to maintain records of the "15-minute block average weights of gaseous or liquid reactive flux" stated in paragraph (c) on page 11 of the TSD is not required for this source since this would be inconsistent with the approved alternative monitoring plan. Scepter is required to maintain records of the amount of flux added to each batch to comply with the approved alternative monitoring plan, which are incorporated into the draft permit as Condition D.1.9(e). For clarification, IDEM, OAQ has revised Condition D.1.9(e) as shown below:

D.1.9 Compliance Monitoring Requirements For 40 CFR 63, Subpart RRR [40 CFR 63.1510]

. . .

(e) Pursuant to **Alternative Monitoring Plan approved by the U.S. EPA on December 3, 2004 and to comply with** 40 CFR 63.1510(j)(3), the Permittee shall record the weight of the reactive flux charged into the furnace at the beginning of the batch cycle, the charge time, the material type, and the weight of any additional flux material added to the batch during the batch cycle. ~~This alternative monitoring plan was approved by EPA on December 3, 2004, and makes the provisions of 40 CFR 63.1510(j)(3) not applicable.~~

No changes have been made to the TSD because the OAQ prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the 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.

**Comment 4:**

On Page 28 of the permit, Condition D.1.16, item (b), IDEM should clarify what is meant by "records shall be compiled on a monthly basis."

**Response to Comment 4:**

Under the consent order issued February 11, 2003, Scepter is required to "… continuously monitor and record the pH of the incoming city water, the variable pH set-point, the pH measurement of the gas stream, and the ammonia feed rate" for the scrubber used to control HCl emissions from the furnaces. To make Condition D.1.16 consistent with the requirements in the consent order, IDEM, OAQ has made the following revisions to Condition D.1.16(b):

D.1.16 Record Keeping Requirements

(a) …

(b) To document compliance with Condition D.1.13, the Permittee shall maintain ~~monthly~~ **continuous** records of the following parameters for the HCl control system:

(1) The pH of the incoming city water;

(2) The variable pH set-point;

(3) The pH of the gas stream; and

(4) The ammonia feed rate.

~~The records shall be compiled on a monthly basis.~~

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. The requirement to use an Indiana Accredited Asbestos inspector is a federally enforceable requirement. Condition C.8(g) has been corrected as follows:

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

…

(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.~~

2. On page 8 of the TSD, the County Attainment status indicated that Knox County was attainment for the 1-hour ozone standard. On August 7, 2006, a temporary emergency rule took effect revoking the one-hour ozone standard in Indiana. The Indiana Air Pollution Control Board has approved a permanent rule revision to incorporate this change into 326 IAC 1-4-1. The permanent revision to 326 IAC 1-4-1 will take effect prior to the expiration of the emergency rule. Therefore, the table on page 8 of the TSD should be revised as follows:

The source is located in Knox County.

| Pollutant | Status |
|---|---|
| PM10 | Attainment |
| PM2.5 | Attainment |
| $SO_2$ | Attainment |
| $NO_2$ | Attainment |
| ~~1-hour Ozone~~ | ~~Attainment~~ |
| 8-hour Ozone | Attainment |
| CO | Attainment |
| Lead | Attainment |

No changes have been made to the TSD because the OAQ prefers that the Technical Support Document 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.

# Indiana Department of Environmental Management
# Office of Air Quality

## Technical Support Document (TSD) for a Federally Enforceable Operating Permit (FESOP) Renewal

**Source Background and Description**

| | |
|---|---|
| Source Name: | Scepter, Inc. |
| Source Location: | 6467 N. Scepter Road, Bicknell, Indiana 47512 |
| County: | Knox |
| SIC Code: | 3341 |
| Operation Permit No.: | 083-6099-00015 |
| Operation Permit Issuance Date: | December 12, 1996 |
| Operation Permit Renewal No: | 083-12850-00015 |
| Permit Reviewer: | ERG/AAB |

The Office of Air Quality (OAQ) has reviewed a FESOP Renewal application from Scepter, Inc., relating to the operation of a secondary aluminum smelting plant.

**History**

Scepter, Inc. has been operating their secondary aluminum smelting operation under the FESOP 083-6099-00015, issued on December 12, 1996. A FESOP administrative amendment (083-11045-00015) was issue on July 21, 1999. The FESOP expired on December 12, 2001. Scepter, Inc. submitted a FESOP renewal application on October 12, 2000.

Although this source is a secondary aluminum smelting operation subject to the requirements of 40 CFR 63, Subpart RRR, Scepter is exempt from the Title V operating permit requirements because the source meets the definition of an area source. Pursuant to 40 CFR 63.1500(e), area sources subject to this subpart, you are exempt from the requirement obtain a Title V permit.

**Permitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units and pollution control devices:

(a) Five (5) natural gas-fired rotary furnaces as described below:

(1) Two (2) rotary furnaces each with a nominal capacity (feed/charge rate) of 3,500 pounds of aluminum per hour, identified as EU-1A and EU-1B. Particulate emissions from furnaces EU-1A and EU-1B are controlled by a multi-compartment baghouse which exhausts through stack S1-1. EU-1A and EU-1B were constructed in 1977.

(2) One (1) rotary furnace, identified as EU-2, with a nominal capacity (feed/charge rate) of 7,000 pounds per hour. Particulate emissions from furnace EU-2 are controlled by a multi-compartment baghouse which exhausts through stacks S3-1, S3-2, S3-3, S3-4, S3-5, and S3-6. EU-2 was constructed in 1988.

(3) One (1) rotary furnace, identified as EU-3, with a nominal capacity (feed/charge rate) of 7,000 pounds per hour. Particulate emissions from furnace EU-3 are controlled by a multi-compartment baghouse which exhausts through stacks S4-1, S4-2, S4-3, and S4-4. EU-3 was constructed in 1981.

(4) One (1) rotary furnace, identified as EU-4, with a nominal capacity (feed/charge rate) of 7,000 pounds per hour. Particulate emissions from furnace EU-4 are controlled by a multi-compartment baghouse which exhausts through stacks S5-1, S5-2, S5-3, S5-4, and S5-5, and S5-6. EU-4 was constructed in 1995.

Under 40 CFR 63, Subpart RRR – National Emission Standards for Hazardous Air Pollutants: Secondary Aluminum Production, the rotary furnaces are existing group I furnaces. The furnaces are fueled using either natural gas or coal gas.

HCl emissions from the furnaces are controlled using a pH control system that injects ammonia into the exhaust stream when the pH falls below 0.5 pH units above the pH of the incoming city water. The ammonia injection is controlled using a conventional pH electrode and temperature sensor located in a slip stream of the furnace exhausts. After ammonia injection and prior to entering the baghouse, the exhaust stream is cooled by passing through a water spray cooling system* followed by an air-to-air cooling tower. The water used in the water spray cooling system will be pre-filtered landfill leachate and/or city water from the Restricted Waste Type I Landfill located on Bruce Road, Bicknell, Indiana. The pre-filtered landfill leachate is used on the exhaust gases from either Rotary Furnace EU-2 or Rotary Furnace EU-3. The maximum leachate injection rate will be 5,000 gallons per day total for both EU-2 and EU-3. After exiting the cooling system, the exhaust stream enters a baghouse, which controls the particulate emissions generated by the reaction of HCl with ammonia.

(b) Pouring and casting operations (installed in 1977) with a maximum throughput capacity of 10.1 tons per year.

(c) Aluminum can shredder (installed in 1977) with a maximum capacity of 4.0 tons per hour with particulate matter emissions controlled by a baghouse, exhausting within the building.

(d) Material handling operations (installed in 1977), handling 5.0 tons of dross and/or salt cake per hour.

* - The water-spray cooling system will be added in 2006.

**Unpermitted Emission Units and Pollution Control Equipment**

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

**New Emission Units and Pollution Control Equipment Receiving Advanced Source Modification Approval**

Scepter submitted an application on April 22, 2005 for permission to modify the existing control equipment, pursuant to 326 IAC 2-8-4(11). The modification consists of adding a water-spray cooling system to the existing air-to-air cooling system used to cool furnace exhaust gases before they enter the baghouse. The water-spray cooling system will use pre-filtered leachate from a nearby Class I landfill. There are no new emission units or pollution control equipment planned for this source. The water-spray cooling system is being added to enhance the efficiency of the existing cooling towers currently used for this purpose. The water will be injected into the exhaust stream after ammonia injection but prior to the existing air-to-air cooling towers. The water will be injected into the exhaust stream at a maximum rate of 5,000 gallons of water per day using atomizing spray nozzles.

The following information was provided to IDEM, OAQ by Scepter:

Analytical Data:
As part of the application, Scepter, Inc. submitted analytical data of the leachate water. Samples were taken on May 9, 2005, and May 26, 2005. These samples were analyzed by Test America Analytical Testing Corporation, Indianapolis, IN. The initial wastewater sampled and tested contained elevated concentrations of chlorides, ammonia and dissolved solids. Scepter, Inc. believes that these concentrations are higher than normal because the leachate was not promptly removed from the landfill. Scepter, Inc. is working with IDEM's Office of Land Quality and feels that adequate pumping is now being performed.

HCl Emissions:
An increase in HCl emissions is not expected to occur from the chlorides in the leachate water because the duct temperature at the point of cooling water injection is nominally 500 $^{O}$F. Ammonia would be driven off as the leachate water evaporates, which would contribute to more efficient HCl collection and less ammonia use.

Dioxins and Furan Emissions:
The change in the cooling method is also not conducive to the formation of additional dioxins and furans due primarily to the low temperatures and the absence of additional organics, which are essentials in the formation of these pollutants. The baghouses have been tested and were found to be in compliance with the dioxin and furan limits in the draft FESOP renewal.

Particulate Matter Emissions:
The particulate emissions entering the baghouse are expected to increase as a result of the dissolved solids in the water. However, Scepter has demonstrated using stack tests that the increase in emissions resulting from this modification to the control system is estimated to be less than 2 lbs per hour. Because the increase is small, Scepter will continue to comply with the PM/PM10 limits in the draft FESOP renewal (see State Rule Applicability Section).

On August 2, 2005, the IDEM, OAQ issued an experimental operation approval to Scepter, Inc. allowing the source to conduct experimental tests for PM/PM10, HCl, Dioxin, and Furan. Tests were conducted on September 27 and 28, 2005. Based on a review of the test results, the emission rates during the tests were less than the existing limits specified in the FESOP. This modification will not trigger any new applicable requirements or violate any permit term and therefore does not require a construction permit.

**Insignificant Activities**

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

(a) Natural gas-fired combustion sources each with heat input capacities less than 10 million British thermal units per hour; including direct heating systems for pre-heating molds and crucibles having a combined heat input capacity of 20 MMBtu per hour.

(b) Petroleum fuel other than gasoline dispensing facility consisting of two (2) diesel storage tanks each with a 7,500 gallon capacity.

(c) Degreasing operations consisting of one (1) cold cleaner unit with a maximum solvent usage of 145 gallons per twelve month period.

**Existing Approvals**

The source has been operating under the previous FESOP 083-6099-00015, issued December 12, 1996 with an expiration date of December 12, 2001 and administrative amendment 083-11045-00015, issued in 1999 and an Exemption for an Experimental Operation 083-21487-00015, issued on August 2, 2005.

All conditions from previous approvals were incorporated into this FESOP except the following:

(a) F083-6099-00015, issued on December 12, 1996.

Condition D.1.1:

(1) The baghouses shall operate at all times that the furnaces are in operation and $PM_{10}$ emissions from each baghouse shall not exceed 5.38 pounds per hour. Therefore, the requirements of 326 IAC 2-7 do not apply.

(2) Pursuant to 326 IAC 6-3 (Process Operations - Particulate Matter Emissions), the baghouses shall be in operation at all times when the melt furnaces are in operation and the particulate matter emissions shall not exceed 1.71 pounds per ton of aluminum throughput.

Reason not incorporated: At the request of the source, the $PM_{10}$ emission limit in (1) has been revised to 1.6 pounds per ton of aluminum processed and a process limit of 110,400 tons of aluminum per twelve (12) consecutive month period. The PM limit in (2) has been revised to 1.6 pounds per ton of aluminum processed, because the previous limit allowed the PM emissions to exceed 100 tons per year (note: as a secondary metal processing facility this plant belongs to one of the 28 listed PSD source categories). The new limits will make the source minor for both Title V and PSD. For clarification, the process weight limitations for the furnaces are included in Condition D.1.3 of this proposed permit.

(b) F083-6099-00015, issued on December 12, 1996.

Condition D.1.2: The pH control system shall be operated at all times that the furnaces are in operation. HCl emissions from each baghouse shall not exceed 0.51 pounds per hour. Therefore, the requirements of 326 IAC 2-7 do not apply.

Reason not incorporated: At the request of the source, the HCl emission limit has been revised to 0.18 pounds per ton of aluminum processed. This limit combined with the aluminum throughput limit discussed in the previous paragraph will ensure that the HCl emissions do not exceed 9.9 tons per year. The source will operate the pH control system and baghouses to meet this emission limitation.

(c) F 083-6099-00015, issued on December 12, 1996.

Condition D.2.1(a): The $PM_{10}$ emissions from the shredder shall not exceed 0.82 pounds per hour.

Reason not incorporated: The $PM_{10}$ limit of 0.82 pounds per hour has been revised to 0.11 pounds of $PM_{10}$ per ton of aluminum shredded. A PM limit has also been added to this condition to make the source minor for Title V and PSD.

**Enforcement Issue**

On April 5 and 6, 2001 and January 9 and 10, 2002, the Permittee conducted compliance testing to determine compliance with the 0.51 pounds per hour limit in the source=s operating permit (No. F083-6099-00015, issued December 26, 1996). The results of these tests indicated that HCl emissions were 0.86 and 1.22 pounds per hour, respectively. As a result of these violations, the source made several modifications to the HCl control system and conducted additional stack tests on furnace EU-4 on July 22 and July 23, 2002. The results of these tests indicated that HCl emissions were 0.17 pounds per hour. To ensure continued compliance with the FESOP limits, the source entered into a consent decree, which was signed on February 11, 2003. This consent decree requires the source to:

(a) Continuously monitor and record the pH of the incoming city water, the variable pH set-point, the pH measurement of the gas stream, and the ammonia feed rate; and

(b) Conduct compliance testing of the natural gas rotary furnaces to demonstrate compliance with applicable HCl limits in the first and third quarters of 2003. These test were successfully completed by September 30, 2003.

These requirements have been incorporated into this proposed permit. There are no further enforcement actions pending.

**Recommendation**

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

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

An administratively complete FESOP renewal application for the purposes of this review was received on October 12, 2000. Additional information was received on February 13, 2001, February 15, 2001, May 12, 2003, March 23, 2004, September 9, 2004 and October 20, 2004. The application for the new water-spray cooling system was submitted to IDEM, OAQ on April, 2005, with additional information provided on June 7, 2005, July 7, 2005, July 26, 2005, November 3, 2005, November 28, 2005, May 31, 2006 and July 7, 2006.

**Emission Calculations**

See Appendix A of this document for detailed emissions calculations (Pages 1 through 12).

**Unrestricted Potential Emissions**

This table reflects the unrestricted potential emissions of the source, excluding the emission limits that were contained in the previous FESOP.

| Pollutant | Potential To Emit (tons/year) |
|---|---|
| PM | >250 |
| PM-10 | >250 |
| $SO_2$ | <100 |
| VOC | <100 |
| CO | <100 |
| $NO_x$ | <100 |

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

| HAP=s | Potential To Emit (tons/year) |
|---|---|
| Hydrogen Chloride | >10 |
| TOTAL | >10 |

(a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of $PM_{10}$ are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is equal to or greater than ten (10) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(c) Pursuant to 326 IAC 2-8, this source, otherwise required to obtain a Title V permit, has agreed to accept a permit with federally enforceable limits that restrict PTE to below Title V emission levels. Therefore, this source will be issued a Federally Enforceable State Operating Permit (FESOP).

(d) Fugitive Emissions
Since this type of operation is one of the twenty-eight (28) listed source categories under 326 IAC 2-2, the fugitive emissions are counted toward determination of PSD applicability.

**Potential to Emit After Issuance**

The source, issued a FESOP on December 12, 1996, has opted to remain a FESOP source, rather than apply for a Part 70 Operating Permit. The table below summarizes the potential to emit, reflecting all limits, of the significant emission units. Any control equipment is considered enforceable only after issuance of this Federally Enforceable State Operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in this permit. Since the source has not constructed any new emission units, the source=s potential to emit is based on the emission units included in the original FESOP (F083-6099-000153, issued December 12, 1996).

| | Potential to Emit (tons/year) | | | | | | |
|---|---|---|---|---|---|---|---|
| Process/facility | PM | PM-10 | $SO_2$ | VOC | CO | $NO_X$ | HAPs |
| Rotary furnaces (EU-1A) | 88.3 | 88.3 | 11.4 | 1.55 | 6.9 | 8.2 | Less than 9.9 tons of HCl per year and less than 24 tons per year combined HAPs |
| Rotary furnaces (EU-1B) | | | 11.4 | 1.55 | 6.9 | 8.2 | |
| Rotary furnaces (EU-2) | | | 22.7 | 3.1 | 13.8 | 16.4 | |
| Rotary furnaces (EU-3) | | | 22.7 | 3.1 | 13.8 | 16.4 | |
| Rotary furnaces (EU-4) | | | 22.7 | 3.1 | 13.8 | 16.4 | |
| Leachate Water-Spray Cooling System | | | 0 | 0 | 0 | 0 | |
| Pouring and Casting Operations | 0.66 | 0.66 | 8.88 | 6.13 | 0 | 0.44 | 0 |
| Aluminum Shredder | 1.9 | 1.9 | 0 | 0 | 0 | 0 | 0 |
| Material Handling (Dross and salt cake) | 4.82 | 4.38 | 0 | 0 | 0 | 0 | 0 |
| Natural Gas Combustion Sources with heat input less than 10 MMBtu/hr | 0.67 | 0.67 | 0.05 | 0.48 | 7.36 | 8.76 | negligible |
| Degreasing Operations | 0 | 0 | 0 | 0.5 | 0 | 0 | 0 |
| Total Emissions | 96.4 | 95.9 | 91.7 | 19.5 | 62.56 | 74.8 | (a) |

(a) Less than ten (10) tons per year of any single HAP and less than twenty-five (25) tons per year of any combination of HAPs.

**County Attainment Status**

The source is located in Knox County.

| Pollutant | Status |
|---|---|
| PM10 | Attainment |
| PM2.5 | Attainment |
| $SO_2$ | Attainment |
| $NO_2$ | Attainment |
| 1-hour Ozone | Attainment |

| | |
|---|---|
| 8-hour Ozone | Attainment |
| CO | Attainment |
| Lead | Attainment |

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

(b) Knox County has been classified as attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM2.5 emissions. Therefore, until the U.S. EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate the PM10 emissions as surrogate for PM2.5 emissions. See the State Rule Applicability for the source section.

(c) Knox County has been classified as attainment or unclassifiable for $PM_{10}$, $SO_2$, $NO_2$, CO and lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

**Federal Rule Applicability**

(a) No New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) have been included in this permit.

The requirements of 40 CFR 60, Subpart K, Ka, and Kb are not included in this permit for the diesel storage tanks. The two diesel storage tanks each have maximum capacities of 7,500 gallons, which is less than the applicability thresholds for 40 CFR 60, Subpart K, Ka, and Kb.

(b) The requirements for the National Emission Standards for Hazardous Air Pollutants (NESHAP), Subpart T are not included in this permit for the degreasing operations. Scepter uses only non-halogenated organic solvents in its degreasing operation.

(c) The rotary furnaces are subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs), 40 CFR 63, Subpart RRR - Secondary Aluminum Production (326 IAC 14) pertaining to dioxins and furans. Scepter is considered an existing secondary aluminum process unit, containing one or more Group 1 furnace emission units processing other than clean charge [63.1500(c)(4)]. This NESHAP was promulgated by the U.S. EPA on March 23, 2000 and became effective March 23, 2003. Although the Permittee has voluntarily agreed to limit its emissions to below major source levels, this source is subject to 40 CFR 63, Subpart RRR because this NESHAP contains requirements for secondary aluminum production facilities that are area sources. Under 40 CFR 63, Subpart RRR, area sources are subject to limitations on emissions of dioxins and furans.

Pursuant to 40 CFR 63, Subpart RRR, the Permittee shall comply with the following requirements of this NESHAP and with the applicable provisions of 40 CFR 63, Subpart A - General Provisions:

***Emission Limitations***

Pursuant to 40 CFR 63.1505(i)(3), the Permittee shall not discharge or allow to be discharged to the atmosphere from a Group 1 furnace any 3-day, 24-hour rolling average emissions of total tetra-, penta-, hexa-, and octachlorinated dibenzo dioxins and furans (D/F) in excess of 15 Φg of D/F TEQ per Mg ($2.1 \times 10^{-4}$ gr of D/F TEQ per ton) of

feed/charge, where TEQ is the toxicity equivalents for dioxins and furans as defined in "Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs) and 1989 Update" (EPA-625/3-89-016).

***Operating Requirements***

(a) Pursuant to 40 CFR 63.1506(b), the Permittee shall provide and maintain easily visible labels posted at each furnace that identifies the applicable emission limit and means of compliance. The labels shall include:

(1) The type of affected emission unit (i.e., Group 1 Furnace); and

(2) The applicable operational standard and control method, including the type of charge to be used in the furnace, flux materials and addition practices, and the applicable operating parameter ranges and requirements as incorporated in the Operation, Maintenance, and Monitoring Plan (OM&M).

(b) Pursuant to 40 CFR 63.1506(c), each furnace shall be equipped with a capture and collection system that meets the engineering standards for minimum exhaust rates as published by the American Conference of Governmental Industrial Hygienists in chapters 3 and 5 of "Industrial Ventilation: A Manual of Recommended Practice." Captured emissions shall be vented through a closed system, except that dilution air may be added to emission streams for the purpose of controlling temperature at the inlet to a fabric filter. The capture/collection system shall be operated according to the procedures and requirements in the Operation, Maintenance, and Monitoring Plan.

(c) Pursuant to 40 CFR 63.1506(d), the Permittee shall measure and record the weight of feed/charge (or throughput) for each furnace. The Permittee shall operate the measurement system in accordance with the Operation, Maintenance, and Monitoring Plan. The accuracy of the weight measuring device shall be within one (1) percent of the weight being measured. The Permittee shall verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every (6) months.

(d) Pursuant to 40 CFR 63.1506(m), the Permittee shall:

(1) Maintain the 3-hour block average inlet temperature of each fabric filter at or below the average temperature established during the performance test, plus 14$^{o}$C (25$^{o}$F).

(2) During all operational phases for a given furnace/baghouse system, maintain free-flowing lime (ammonia or other alkaline reagent) in the storage tank to the feed device and maintain the feeder setting at the same rate established during the performance test.

(3) Maintain the total reactive chlorine flux injection rate for each operating cycle or time period used in the performance test at or below the average rate established during the performance test.

(e) Pursuant to 40 CFR 63.1506(p), when a process parameter deviates from the value or range established during the performance test and incorporated in the Operation, Maintenance, and Monitoring (OM&M) Plan, the Permittee shall initiate corrective action. The corrective action shall restore operation of the affected emission unit (including the furnace or control device) to its normal or usual mode

of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. Corrective actions taken shall include follow-up actions necessary to return the furnace or control device parameter level(s) to the value or range of values established during the performance tests and steps to prevent the likely recurrence of the cause of the deviations.

(f) Pursuant to 40 CFR 63.1516(a), the Permittee shall maintain and implement a Startup, Shutdown, and Malfunction (SSM) Plan as required in 40 CFR 63.10(b). The SSM Plan shall contain specific procedures to be followed for operating and maintaining the source during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the standard.

***Monitoring Requirements***

(a) Pursuant to 40 CFR 63.1510(b), the Permittee shall prepare and implement a written Operation, Maintenance, and Monitoring (OM&M) plan. The OM&M plan shall contain the information required in 40 CFR 63.1510(b)(1) through (b)(8). The Permittee shall comply with all of the provisions of the OM&M plan unless and until the plan is revised in accordance with the provisions of 40 CFR 63.1510(b).

(b) Pursuant to 40 CFR 63.1510(e), the Permittee shall install, calibrate, operate, and maintain a device to measure and record the total weight of feed/charge to, or the aluminum production from, the furnaces over the same operating cycle or time period used in the performance test. The feed/charge or aluminum production must be measured and recorded on an emission unit basis. The accuracy of the weight measurement device shall be $\pm$1 percent of the weight being measured. The Permittee shall verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every 6 months.

(c) Pursuant to 40 CFR 63.1510(c), the Permittee shall inspect the labels for each furnace at least once per calendar month to confirm that posted labels as required by the operational standard in 40 CFR 63.1506(b) are intact and legible.

(d) Pursuant to 40 CFR 63.1510(d), the Permittee shall inspect each capture/collection and closed vent system at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in 40 CFR 63.1506(c) and record the results of each inspection.

(e) Pursuant to 40 CFR 63.1510(h), the Permittee shall calibrate, maintain and operate a device to continuously monitor and record the temperature of the fabric filter inlet gases consistent with the requirements for continuous monitoring systems in 40 CFR 63, Subpart A. The temperature monitoring device must meet each of the following performance and equipment specifications.

(1) The monitoring system must record the temperature in 15-minute block averages and calculate and record the average temperature for each 3-hour block period.

(2) The recorder response range must include zero and 1.5 times the average temperature established according to the requirements in 40 CFR 63.1512(a).

(3) The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple – potentiometer system or alternate reference, subject to approval by the Commissioner.

(f) Pursuant to 40 CFR 63.1510(i), the Permittee shall verify that the lime (or other alkaline agent) is always free-flowing by operating and maintaining a flow indicator system that confirms that lime (or other alkaline agent) is free-flowing during the time fluxing operations are being performed. If lime (or other alkaline agent) is found to not be free-flowing, the Permittee shall promptly initiate and complete corrective action.

(g) Pursuant to 40 CFR 63.1510(j)(5), the Permittee shall record the weight of the reactive flux charged into the furnace at the beginning of the batch cycle, the charge time, the material type, and the weight of any additional flux material added to the batch during the batch cycle.

This alternative monitoring plan was approved by EPA on December 3, 2004* and makes the provisions of 40 CFR 63.1510(j)(3) not applicable.

*Note: This alternative monitoring plan was approved by Mr. George Czerniak of EPA, Region 5, Air Enforcement and Compliance Assurance Branch is a letter to Mr. B. Nichols dated December 3, 2004. A copy of this letter is included in Appendix B.

***Compliance Determination Requirements***

(a) Pursuant to 40 CFR 63.1510(t), the Permittee shall calculate and record the 3-day, 24-hour rolling average emissions of D/F for each furnace on a daily basis. To calculate the 3-day, 24-hour rolling average, the Permittee shall:

(1) Calculate and record the total weight of material charged to each furnace for each 24-hour day of operation using the feed/charge weight data;

(2) Multiply the total feed/charge weight to the furnace for the 24-hour period by the emission rate (in lb/ton of feed/charge) for the furnace; and

(3) Calculate and record the 3-day, 24-day rolling average for each pollutant each day by summing the daily emission rate over the three (3) most recent consecutive days and dividing by 3.

(b) Pursuant to 40 CFR 63.1510(u) and as an alternative to the procedures in paragraphs (a) of this condition, the Permittee may demonstrate compliance with the D/F TEQ limit through performance tests on each emission unit.

***Reports***

(a) Pursuant to 40 CFR 63.1516(a), the Permittee shall keep records of each malfunction and record and report if an action taken during startup, shutdown, or malfunction is not consistent with the procedures in the Startup, Shutdown, and Malfunction (SSM) Plan. The plan shall include:

(1) The procedures to determine and record the cause of a malfunction and the time the malfunction began and ended; and

(2) Corrective actions to be taken in the event of a malfunction of a process or control device, including the actions taken to correct the malfunction or minimize emissions.

(b) Pursuant to 40 CFR 63.1516(b), the Permittee shall submit a semi-annual report within 60 days after the end of each six (6) month period detailing all deviations from the Operation, Maintenance, and Monitoring Plan. When no deviations have

occurred, the Permittee shall submit a report stating that no excess emissions occurred during the reporting period. A report shall be submitted if any following conditions occur:

(1) An excursion of a compliant process or operating parameter value or range occurred.

(2) An action taken during a startup, shutdown, or malfunction was not consistent with the procedures in the SSM Plan.

(3) A furnace was not operated according to the requirements of 40 CFR 63, Subpart RRR.

(4) A deviation from the 3-day, 24-hour rolling average emission limit for a secondary aluminum processing unit.

(c) The Permittee shall submit an Annual Compliance Certification certifying compliance based upon, but not limited to, the following conditions:

(1) Any period of excess emissions that occurred during the year were reported as required by 40 CFR 63, Subpart RRR; and

(2) All monitoring, recordkeeping, and reporting requirements were met during the year.

***Records***

The Permittee shall maintain files of all information, including reports and notifications, required by 40 CFR 63.10 and 40 CFR 63.1517. The Permittee shall retain each record for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent two (2) years of records shall be retained at the source. The remaining three (3) years of records may be retained off-site. The Permittee may retain records on microfilm, computer disks, magnetic tape or microfiche. The Permittee shall maintain the following:

(a) Records of 15-minute block average inlet temperatures for each lime-injected fabric filter, including any period when 3-hour block average temperature exceeds the compliant operating parameter value +25 degrees Fahrenheit, with a brief explanation of the cause of the excursion and the corrective action taken.

(b) Records of all monitor or sensor output including any event where blockage was found, with a brief explanation of the cause of the blockage and the corrective action taken.

(c) Records of 15-minute block average weights of gaseous or liquid reactive flux injection, total reactive flux injection rate and calculations (including records of the identity, composition, and weight of each addition of gaseous, liquid, or solid reactive flux), including records of any period the rate exceeds the compliant operating parameter value and corrective action taken, as approved in accordance with 40 CFR 63.1510(w).

(d) Records of monthly inspections for proper unit labeling for each affected source and emission unit subject to labeling requirements.

(e) Records of annual inspections of emission capture/collection and closed vent systems.

(f) A current copy of all required plans, including any revisions, with records documenting conformance with the applicable plan.

**State Rule Applicability - Entire Source**

326 IAC 2-2 (Prevention of Significant Deterioration)

This source was initially constructed prior to 1977 and was a major source under Prevention of Significant Deterioration (PSD). As a secondary metal processing plant, this source is in one of the 28 listed source categories. The potential to emit (PTE) of sulfur oxides, nitrogen oxides, PM and $PM_{10}$ before controls were greater than 100 tons per year. The Permittee used baghouses on all its furnaces and on the aluminum shredder to control emissions of PM and $PM_{10}$; therefore, after controls, the PM and $PM_{10}$ emissions were less than 100 tons per year. In 1977, the PTE for sulfur dioxide and nitrogen oxides exceeded the 100 ton per year PSD threshold because the furnaces used at the plant in the late 1970s were allowed to burn either reclaimed oil or natural gas. New gas-fired furnaces were added to the plant in 1981, 1988, and 1995. All but two of the existing furnaces have been decommissioned and the remaining furnaces now burn only natural gas or coal gas. The switch to gas, combined with the requirements in previous operating permits to operate baghouses to control the particulate matter emissions, would have maintained emissions below the 100 ton per year PSD major source thresholds.

In 1996, the Permittee was issued a FESOP that included limitations for PM and $PM_{10}$ emissions from the furnaces and the shredder. Although the $PM_{10}$ emissions in the FESOP were limited to less than 100 tons per year, the limited PM emissions exceeded the 100 ton per year threshold. Although the PM emissions were not limited to less than 100 tons per year, the potential PM emissions after controls is less than the 100 ton per year threshold. Hence, the controls used to meet the $PM_{10}$ limitations will also keep the PM emissions below 100 tons per year. Therefore, this draft FESOP includes PSD limits for both PM and $PM_{10}$, which make the source minor for PSD. Note that no modifications to the source occurred between December 1996 and the date of this review.

The limits included in the draft FESOP are outlined below:

(a) The PM and $PM_{10}$ emissions from the rotary furnaces shall not exceed 1.6 pounds per ton of aluminum processed. This limit combined with the aluminum throughput limit in (b) is equivalent to 88.3 tons of PM and $PM_{10}$ per year.

(b) The amount of aluminum processed in the rotary furnaces shall not exceed 110,400 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(c) The PM and PM10 emissions from the aluminum shredder shall not exceed 0.11 pounds per ton of aluminum processed. When operating at the maximum throughput capacity of 4.0 tons of aluminum per hour, this limit is equivalent to 1.9 tons of PM and PM10 per year.

(d) PM and PM10 emissions from the pouring and casting process shall not exceed 0.2 pounds per hour. When operating at the maximum throughput capacity of 10.1 tons per hour, this limit is equivalent to 0.66 tons of PM and PM10 per year.

(e) PM emissions from the dross and salt cake handling shall not exceed 0.22 pounds per ton of material processed. PM10 emissions from the dross and salt cake handling shall not exceed 0.20 pounds per ton of material processed. When operating at a maximum capacity of 5.0 tons per hour, this limit is equivalent to 4.82 tons of PM and 4.38 tons of PM10 per year.

Since all furnaces at the plant now burn natural gas or coal gas, the potential to emit of $NO_x$ and $SO_2$ are less than 100 tons per year. Therefore, no limits on $NO_x$ and $SO_2$ emissions are included in the FESOP renewal.

In an application submitted on April 22, 2005, Scepter requested permission to modify the existing control device on the furnaces. Although this modification will result in an increase in PM/PM10 emissions, this modification does not trigger PSD review. Scepter will continue to comply with the existing emission limits for PM and PM10, thereby maintaining the source's status as a minor source for any future modifications.

326 IAC 2-8 (FESOP Limitations)

The potential to emit $PM_{10}$ and HCl exceed the Title V thresholds of 100 tons per year and 10 tons per year, respectively. Scepter elected to limit the emissions of these pollutants from their furnaces in their current permit (FESOP 083-6099-00015, issued December 12, 1996). Scepter has agreed to continue limiting the emissions of $PM_{10}$ and HCl from the furnaces, shredder, pouring/casting and dross/cake handling, such that the potential to emit $PM_{10}$ and HCl for the entire source will be below the Title V thresholds. However, the limits included in the current permit have been revised as requested by the source (see Page 2 for a discussion of revisions). The following conditions have been included in the permit:

(a) The amount of aluminum processed in the rotary furnaces shall not exceed 110,400 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(b) The HCl emissions from the rotary furnaces shall not exceed 0.18 pounds per ton of aluminum processed. This limit combined with the aluminum throughput limit in (a) is equivalent to 9.9 tons of HCl per year, which ensures that HCl emissions from the entire source are less than ten (10) tons per year. Compliance with this limit and the limit in (a) makes 326 IAC 2-7 (Part 70 Permit Program) not applicable.

(c) The $PM_{10}$ emissions shall be limited as follows:

(1) The $PM_{10}$ emissions from the rotary furnaces shall not exceed 1.6 pounds per ton of aluminum processed. This limit combined with the aluminum throughput limit in (a) is equivalent to 88.3 tons of $PM_{10}$ per year.

(2) The $PM_{10}$ emissions from the aluminum shredder shall not exceed 0.11 pounds per ton of aluminum processed. When operating at the maximum shredding capacity of 4.0 tons of aluminum per hour, this limit is equivalent to 1.9 tons of $PM_{10}$ per year.

(3) $PM_{10}$ emissions from the pouring and casting process shall not exceed 0.2 pounds per hour. When operating at the maximum throughput capacity of 10.1 tons per hour, this limit is equivalent to 0.66 tons of PM10 per year.

(4) $PM_{10}$ emissions from the dross and salt cake handling shall not exceed 0.20 pounds per ton of material processed. When operating at a maximum capacity of 5.0 tons per hour, this limit is equivalent to 4.38 tons of PM10 per year.

Compliance with these emission limits and the aluminum throughput limit in (a) makes 326 IAC 2-7 (Part 70 Permit Program) and 326 IAC 2-2 (PSD) not applicable.

[Note: Scepter will comply with these limitations using an ammonia injection system combined with baghouses to control HCl and particulate matter emissions.]

326 IAC 2-6 (Emission Reporting)

This source is located in Knox County and is not required to operate under a Part 70 permit. Therefore, 326 IAC 2-6 does not apply.

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

326 IAC 2-4.1 does not apply to this source because the source was constructed prior to July 27, 1997 and no reconstructions have occurred since that date. The source is now subject to the requirements of 40 CFR 63, Subpart RRR.

**State Rule Applicability - Rotary Furnaces**

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

The allowable particulate emission rates from the rotary furnaces shall not exceed the following pounds per hour emission rate:

| Process/Unit | Process Weight (tons /hour) | Particulate Emission Limit (lbs/hour) |
|---|---|---|
| EU-1A | 1.75 | 6.0 |
| EU-1B | 1.75 | 6.0 |
| EU-2 | 3.5 | 9.5 |
| EU-3 | 3.5 | 9.5 |
| EU-4 | 3.5 | 9.5 |

These limitations were calculated using the following equation:

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

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

The baghouses shall be in operation at all times the rotary furnaces are in operation, in order to comply with this limit. Compliance with the PM limits under 326 IAC 2-2 ensures compliance with these limits.

[Note: The rates provided are not limits, only the basis for calculating maximum emission rates.]

**State Rule Applicability - Aluminum Shredder, Dross Handling, Salt Cake Handling, Casting and Pouring**

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rates from the aluminum shredder, dross handling, salt cake handling, and casting and pouring operations shall not exceed the following pounds per hour emission rates:

| Process/Unit | Process Weight (tons /hour) | Particulate Emission Limit (lbs/hour) |
|---|---|---|
| Material Handling | 5 | 12.1 |
| Pouring and Casting operations | 10.1 | 19.3 |
| Shredder | 4.0 | 10.4 |

These emission limits were calculated using the following equation:

Interpolation of the data for the process weight rate up to sixteen thousand (16,000) 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

Compliance with the PM emission limitation under 326 IAC 2-2 ensures compliance with these limits.

[Note: The rates provided are not limits, only the basis for calculating maximum emission rates.]

**State Rule Applicability - Degreasing Operations**

326 IAC 8-3 (Organic Solvent Degreasing Operations)

The provisions of 326 IAC 8-3-2 (Cold Cleaner Degreasing Operations) and 326 IAC 8-3-5(a) and (b) (Cold Cleaner Operation and Control) are applicable to the degreasing operations because the degreaser was constructed after July 1, 1990 and is not equipped with a remote solvent reservoir.

**State Rule Applicability - Heaters**

There are no specific state rules applicable to the heaters.

**State Rule Applicability - Two Diesel Storage Tanks**

326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)

The diesel storage tanks are not subject to the requirements of 326 IAC 8-9, because this rule applies only to storage tanks located in Clark, Floyd, Lake, and Porter Counties.

326 IAC 12 (New Source Performance Standards)

The two diesel storage tanks are not subject to 326 IAC 12 because the storage capacity is less than 40 cubic meters (10,500 gallons)

**Testing Requirements**

In order to demonstrate compliance with the FESOP Limitations contained in the draft permit, the source is required to conduct performance testing for PM, PM10, and HCl emissions from a representative natural gas-fired furnace. The PM and PM10 stack tests shall be performed no later than five years after the last valid compliance demonstration. The PM10 emission test shall include filterable and condensable PM10. In the consent decree signed on February 11, 2003, the source was required to perform stack tests for HCl emissions by September 30, 2003. These tests have been successfully completed. The Permittee will be required to repeat these tests once every five (5) years.

These testing requirements are necessary because the furnaces account for the majority of the PM, $PM_{10}$, and HCl emissions before controls. The source is also required to conduct the performance tests required by 40 CFR 63, Subpart RRR. The requirements for the performance testing are outlined in Condition D.1.7 and in the Federal Rule Applicability section of this document.

**Compliance Requirements**

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

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

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

(a) The rotary furnaces (EU-1A, EU-1B, EU-2, EU-3, and EU-4) have applicable compliance monitoring conditions as specified below:

(1) Visible emission notations of the shredder 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. 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. 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. 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. If abnormal emissions are observed at any baghouse exhaust, the Permittee shall take response steps in accordance with Section C – Response to Excursions and Exceedances. Observations of abnormal emissions that do not violate 326 IAC 6-4 (Fugitive Dust Emissions) or an applicable opacity limit is considered a deviation from this permit.

(2) The Permittee shall record the pressure drop across the baghouse used in conjunction with the process, at least once per day when the process is in operation, when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions and 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 and 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.

(3) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emission unit. 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). Bag failure can be indicated by a significant drop in the baghouse's pressure reading, with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

(4) The Permittee will continuously monitor and record the pH of the incoming city water, the variable pH set-point, the pH of the gas stream; and the ammonia feed rate. The ammonia feed valve shall be opened when the gas stream pH measurement drops below the variable pH set point plus 0.5 pH units. The minimum feed rate shall be 50 scfh when fluxing operations are performed.

These monitoring conditions are necessary because the control system must operate properly to ensure compliance with 326 IAC 6-3 (Particulate Emission Limitations from Manufacturing Processes), 326 IAC 2-8 (FESOP), and 326 IAC 2-2 (PSD Limitations).

(b) The shredder has applicable compliance monitoring conditions as specified below:

(1) Visible emission notations of the shredder 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. 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. 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. 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. If abnormal emissions are observed at any baghouse exhaust, the Permittee shall take response steps in accordance with Section C – Response to Excursions and Exceedances. Observations of abnormal emissions that do not violate 326 IAC 6-4 (Fugitive Dust Emissions) or an applicable opacity limit is considered a deviation from this permit.

* - Visible emission notations are required only when venting outside the building.

(2) The Permittee shall record the pressure drop across the baghouse used in conjunction with the process, at least once per day when the process is in operation, when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions and 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 and 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.

(3) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emission unit. 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). Bag failure can be indicated by a significant drop in the baghouse's pressure reading, with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

These monitoring conditions are necessary because the baghouse used to control particulate emissions from the shredder must operate properly to ensure compliance with 326 IAC 6-3 (Particulate Emission Limitations from Manufacturing Processes), 326 IAC 2-8 (FESOP Limitations), and 326 IAC 2-2 (PSD Limitations).

**Conclusion**

The operation of this secondary aluminum smelting plant shall be subject to the conditions of the attached FESOP renewal No.: F083-12850-00015.

**Appendix A: Emissions Calculations**
**Summary**
**Company Name: Scepter, Inc.**
**Address City IN Zip: 6467 N. Scepter Road, Bicknell, Indiana 47512**
**FESOP: 083-12850**
**Plt ID: 083-00015**
**Reviewer: ERG/AAB**
**Date: 1/1/2006**

| | PTE (tons/year) Before Controls | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Emission Unit** | **PM** | **PM10** | **SO2** | **NOx** | **VOC** | **CO** | **Total HAP*** | **Single HAP*** |
| Furnaces EU-1A and EU-1B | 59.3 | 35.9 | 22.7 | 16.4 | 3.1 | 13.8 | 2.61 | 2.61 |
| Furnace EU-2 | 59.3 | 35.9 | 22.7 | 16.4 | 3.1 | 13.8 | 2.61 | 2.61 |
| Furnace EU-3 | 59.3 | 35.9 | 22.7 | 16.4 | 3.1 | 13.8 | 2.61 | 2.61 |
| Furnace EU-4 | 59.3 | 35.9 | 22.7 | 16.4 | 3.1 | 13.8 | 2.61 | 2.61 |
| Dross/Salt Cake Handling | 4.82 | 4.38 | 0 | 0 | 0 | 0 | 0 | 0 |
| Alluminum Shredder | 112.6 | 112.6 | 0 | 0 | 0 | 0 | 0 | 0 |
| Insignificant Degreasing | 0 | 0 | 0 | 0 | 0.5 | 0 | 0 | 0 |
| Pouring and Casting | 0.66 | 0.66 | 0.88 | 0.44 | 6.13 | 0 | 0 | 0 |
| Insignificant Combustion Sources | 0.67 | 0.67 | 0.05 | 8.76 | 0.48 | 7.36 | Negligible | Negligible |
| Totals | 356 | 262 | 91.7 | 74.8 | 19.51 | 62.56 | 10.44 | 10.44 |

* - HAP values are based on stack test performed after the control devices.

| | PTE (tons/year) After Controls | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Emission Unit** | **PM** | **PM10** | **SO2** | **NOx** | **VOC** | **CO** | **Total HAP*** | **Single HAP*** |
| Furnaces EU-1A and EU-1B | 64.6 | 64.6 | 22.7 | 16.4 | 3.1 | 13.8 | less than 9.9 | less than 25 |
| Furnace EU-2 | | | 22.7 | 16.4 | 3.1 | 13.8 | | |
| Furnace EU-3 | | | 22.7 | 16.4 | 3.1 | 13.8 | | |
| Furnace EU-4 | | | 22.7 | 16.4 | 3.1 | 13.8 | | |
| Dross/Salt Cake Handling | 4.82 | 4.38 | 0 | 0 | 0 | 0 | 0 | 0 |
| Alluminum Shredder | 5.6 | 5.6 | 0 | 0 | 0 | 0 | 0 | 0 |
| Insignificant Degreasing | 0 | 0 | 0 | 0 | 0.5 | 0 | 0 | 0 |
| Pouring and Casting | 0.66 | 0.66 | 0.88 | 0.44 | 6.13 | 0 | 0 | 0 |
| Insignificant Combustion Sources | 0.67 | 0.67 | 0.05 | 8.76 | 0.48 | 7.36 | Negligible | Negligible |
| Totals | 76.4 | 75.9 | 91.7 | 74.8 | 19.51 | 62.56 | less than 9.9 | less than 25 |

**Appendix A: Emissions Calculations**
**Secondary Aluminum Production**
**Rotary Furnaces EU-1A and EU-1B**
**Company Name: Scepter, Inc.**
**Address City IN Zip: 6467 N. Scepter Road, Bicknell, Indiana 47512**
**FESOP: 083-12850**
**Plt ID: 083-00015**
**Reviewer: ERG/AAB**
**Date: 1/1/2006**

SCC #3-04-001-03
Smelting Furnace/Rotary

| TYPE OF MATERIAL | | Throughput LBS/HR | 1 TON/ 2000lbs | TON/HR | Heat Capacity MMBtu/hr | Throughput MMCF/yr | | |
|---|---|---|---|---|---|---|---|---|
| **Aluminum** | | 6300 | 2000 | 3.15 | 25.0 | 219 | | |
| | **PM [1]** | **PM10 [1]** | **SOx [2]** | **NOx [3]** | **VOC [1]** | **CO [3]** | **HCl [5]** | **Dioxins/Furans [4]** |
| | **lbs/ton Produced** | **lbs/ton** | **lbs/ton** | **lbs/MMCF** | **lbs/ton** | **lbs/MMCF** | **lbs/ton** | **lbs/ton** |
| | 4.3 | 2.6 | 1.48 | 150 | 0.2 | 126 | 0.17 | 3.00E-08 |
| Potential Emissions lbs/hr | 13.5 | 8.19 | 4.66 | 3.75 | 0.63 | 3.15 | 0.54 | 9.45E-08 |
| Potential Emissions lbs/day | 325.1 | 196.6 | 111.9 | 90.0 | 15.1 | 75.6 | 12.9 | 2.27E-06 |
| Potential Emissions tons/yr | 59.3 | 35.9 | 20.4 | 16.4 | 2.8 | 13.8 | 2.35 | 4.14E-07 |

**Notes:**
1 - Emission factor is from FIRE version 6.24 (SCC 3-04-001-03).
2 - Emission factor is from January 2002 stack test data (Test data x safety factor of 2)
3 - Emission factor is from AP-42, 5th Ed., 7/98 (A safety factor of 1.5 was used at the request of the permittee).
4 - Emission factor based MACT TEQ limits from 40 CFR 63, Subpart RRR.
5 - Emission factor is from January 2002 stack test data (Test data x safety factor of 2). Value is after controls.
Note: PM and PM10 emission estimates represent the PTE before controls. For after control values, see page 12 of this appendix.
**Methodology:**
PTE (tons/yr) = throughput (tons/hr) * emission factor (lbs/ton) * 8760hrs/yr * (1ton/2000lbs)
PTE (tons/yr) = throughput (MMCF/yr) * emission factor (lbs/MMCF) * (1ton/2000lbs)

**Appendix A: Emissions Calculations**
**Secondary Aluminum Production**
**Rotory Furnace EU-2**
**Company Name: Scepter, Inc.**
**Address City IN Zip: 6467 N. Scepter Road, Bicknell, Indiana 47512**
**FESOP: 083-12850**
**Plt ID: 083-00015**
**Reviewer: ERG/AAB**
**Date: 1/1/2006**

SCC #3-04-001-03
Smelting Furnace/Rotory

| TYPE OF MATERIAL | | Throughput LBS/HR | 1 TON/ 2000lbs | TON/HR | Heat Capacity MMBtu/hr | Throughput MMCF/yr | | |
|---|---|---|---|---|---|---|---|---|
| **Aluminum** | | 6300 | 2000 | 3.15 | 25.0 | 219 | | |
| | **PM [1]** | **PM10 [1]** | **SOx [2]** | **NOx [3]** | **VOC [1]** | **CO [3]** | **HCl [5]** | **Dioxins/Furans [4]** |
| | **lbs/ton Produced** | **lbs/ton** | **lbs/ton** | **lbs/MMCF** | **lbs/ton** | **lbs/MMCF** | **lbs/ton** | **lbs/ton** |
| | 4.3 | 2.6 | 1.48 | 150 | 0.2 | 126 | 0.17 | 3.00E-08 |
| Potential Emissions lbs/hr | 13.5 | 8.2 | 4.7 | 3.8 | 0.6 | 3.15 | 0.5 | 9.45E-08 |
| Potential Emissions lbs/day | 325.1 | 196.6 | 111.9 | 90.0 | 15.1 | 75.6 | 12.9 | 2.27E-06 |
| Potential Emissions tons/yr | 59.3 | 35.9 | 20.4 | 16.4 | 2.8 | 13.8 | 2.3 | 4.14E-07 |

**Notes:**

1 - Emission factor is from FIRE version 6.24 (SCC 3-04-001-03).

2 - Emission factor is from January 2002 stack test data (Test data x safety factor of 2)

3 - Emission factor is from AP-42, 5th Ed., 7/98 (A safety factor of 2 was used at the request of the permittee).

4 - Emission factor based MACT TEQ limits from 40 CFR 63, Subpart RRR.

5 - Emission factor is from January 2002 stack test data (Test data x safety factor of 2). Value is after controls.

**Methodology:**

PTE (tons/yr) = throughput (tons/hr) * emission factor (lbs/ton) * 8760hrs/yr * (1ton/2000lbs)

PTE (tons/yr) = throughput (MMCF/yr) * emission factor (lbs/MMCF) * (1ton/2000lbs)

**Appendix A: Emissions Calculations**
**Secondary Aluminum Production**
**Rotory Furnace EU-3**
**Company Name: Scepter, Inc.**
**Address City IN Zip: 6467 N. Scepter Road, Bicknell, Indiana 47512**
**FESOP: 083-12850**
**Plt ID: 083-00015**
**Reviewer: ERG/AAB**
**Date: 1/1/2006**

SCC #3-04-001-03
Smelting Furnace/Rotory

| TYPE OF MATERIAL | | Throughput LBS/HR | 1 TON/ 2000lbs | TON/HR | Heat Capacity MMBtu/hr | Throughput MMCF/yr | | |
|---|---|---|---|---|---|---|---|---|
| **Aluminum** | | 6300 | 2000 | 3.15 | 25.0 | 219 | | |
| | **PM [1]** | **PM10 [1]** | **SOx [2]** | **NOx [3]** | **VOC [1]** | **CO [3]** | **HCl [5]** | **Dioxins/Furans[4]** |
| | **lbs/ton Produced** | **lbs/ton** | **lbs/ton** | **lbs/MMCF** | **lbs/ton** | **lbs/MMCF** | **lbs/ton** | **lbs/ton** |
| | 4.3 | 2.6 | 1.48 | 150 | 0.2 | 126 | 0.17 | 3.00E-08 |
| Potential Emissions lbs/hr | 13.5 | 8.2 | 4.7 | 3.8 | 0.6 | 3.15 | 0.5 | 9.45E-08 |
| Potential Emissions lbs/day | 325.1 | 196.6 | 111.9 | 90.0 | 15.1 | 75.6 | 12.9 | 2.27E-06 |
| Potential Emissions tons/yr | 59.3 | 35.9 | 20.4 | 16.4 | 2.8 | 13.8 | 2.3 | 4.14E-07 |

**Notes:**

1 - Emission factor is from FIRE version 6.24 (SCC 3-04-001-03).

2 - Emission factor is from January 2002 stack test data (Test data x safety factor of 2)

3 - Emission factor is from AP-42, 5th Ed., 7/98 (A safety factor of 2 was used at the request of the permittee).

4 - Emission factor based MACT TEQ limits from 40 CFR 63, Subpart RRR.

5 - Emission factor is from January 2002 stack test data (Test data x safety factor of 2). Value is after controls.

Note: PM and PM10 emission estimates represent the PTE before controls. For after control values, see page 12 of this appendix.

**Methodology:**

PTE (tons/yr) = throughput (tons/hr) * emission factor (lbs/ton) * 8760hrs/yr * (1ton/2000lbs)

PTE (tons/yr) = throughput (MMCF/yr) * emission factor (lbs/MMCF) * (1ton/2000lbs)

**Appendix A: Emissions Calculations**
**Secondary Aluminum Production**
**Rotory Furnace EU-4**
**Company Name: Scepter, Inc.**
**Address City IN Zip: 6467 N. Scepter Road, Bicknell, Indiana 47512**
**FESOP: 083-12850**
**Plt ID: 083-00015**
**Reviewer: ERG/AAB**
**Date: 1/1/2006**

SCC #3-04-001-03
Smelting Furnace/Rotory

| TYPE OF MATERIAL | | Throughput LBS/HR | 1 TON/ 2000lbs | TON/HR | Heat Capacity MMBtu/hr | Throughput MMCF/yr | | |
|---|---|---|---|---|---|---|---|---|
| **Aluminum** | | 6300 | 2000 | 3.15 | 25.0 | 219 | | |
| | **PM [1]** | **PM10 [1]** | **SOx [2]** | **NOx [3]** | **VOC [1]** | **CO [3]** | **HCl [5]** | **Dioxins/Furans[4]** |
| | **lbs/ton Produced** | **lbs/ton** | **lbs/ton** | **lbs/MMCF** | **lbs/ton** | **lbs/MMCF** | **lbs/ton** | **lbs/ton** |
| | 4.3 | 2.6 | 1.48 | 150 | 0.2 | 126 | 0.17 | 3.00E-08 |
| Potential Emissions lbs/hr | 13.5 | 8.2 | 4.7 | 3.8 | 0.6 | 3.15 | 0.5 | 9.45E-08 |
| Potential Emissions lbs/day | 325.1 | 196.6 | 111.9 | 90.0 | 15.1 | 75.6 | 12.9 | 2.27E-06 |
| Potential Emissions tons/yr | 59.3 | 35.9 | 20.4 | 16.4 | 2.8 | 13.8 | 2.3 | 4.14E-07 |

**Notes:**

1 - Emission factor is from FIRE version 6.24 (SCC 3-04-001-03).

2 - Emission factor is from January 2002 stack test data (Test data x safety factor of 2)

3 - Emission factor is from AP-42, 5th Ed., 7/98 (A safety factor of 2 was used at the request of the permittee).

4 - Emission factor based MACT TEQ limits from 40 CFR 63, Subpart RRR.

5 - Emission factor is from January 2002 stack test data (Test data x safety factor of 2). Value is after controls.

Note: PM and PM10 emission estimates represent the PTE before controls. For after control values, see page 12 of this appendix.

**Methodology:**

PTE (tons/yr) = throughput (tons/hr) * emission factor (lbs/ton) * 8760hrs/yr * (1ton/2000lbs)

PTE (tons/yr) = throughput (MMCF/yr) * emission factor (lbs/MMCF) * (1ton/2000lbs)

**Appendix A: Emissions Calculations**
**Dross and Salt Cake Handling**

**Company Name:** Scepter, Inc.
**Address City IN Zip:** 6467 N. Scepter Road, Bicknell, Indiana 47512
**FESOP:** 083-12850
**Plt ID:** 083-00015
**Reviewer:** ERG/AAB
**Date:** 1/1/2006

| Throughput lbs/hr | | 1 Ton/2000 lbs | | Tons/hr |
|---|---|---|---|---|
| 10000 | | 2000 | | 5 |
| | PM lbs/ton | | PM10 lbs/ton | |
| | 0.22 | | 0.2 | |
| Potential Emissions lbs/hr | 1.1 | | 1.0 | |
| Potential Emissions lbs/day | 26.4 | | 24.0 | |
| Potential Emissions tons/year | 4.82 | | 4.38 | |

**Methodolgy:**
Potential Emissions (tons/year) = Amount of throughput (lbs/hour) * Emission Factor (lbs/ton) * (8760hrs/y) * (1ton/2000lbs)
Emission factors from F083-6099-00015, issued December 12, 1996 were used to calculate PTE since no other emission factors or stack test data were available.

**Appendix A: Emissions Calculations**
**Secondary Aluminum Production**
**Aluminum Shredder**
**Company Name: Scepter, Inc.**
**Address City IN Zip: 6467 N. Scepter Road, Bicknell, Indiana 47512**
**FESOP: 083-12850**
**Plt ID: 083-00015**
**Reviewer: ERG/AAB**
**Date: 1/1/2006**

## Aluminum Shredding

### Baghouse Specifications:

| | | |
|---|---|---|
| Air Flow Rate = | 15,000 | acfm |
| Outlet Grain Loading = | 0.01 | gr/acf |

### Calculations:

| | | | |
|---|---|---|---|
| PM/PM10 PTE after control (lbs/hour) = | (0.01 gr/acf) * (15,000 acfm) * (60 mins/hr) * (1lb/7000gr) = | 1.29 | lbs/hour |
| PM/PM10 PTE after control (tons/yr) = | 1.29 lbs/hr * 8760 hour/year * 1ton/2000lbs = | 5.6 | tons/year |
| PM/PM10 PTE before controls (tons/yr) = | 5.6 tons/year / (1- Baghouse Efficiency*) = | 112.6 | tons per year |

* Assumes all PM is PM10.
** Control Efficiency is assumed to be a minimum of 95%.

**Appendix A: Emissions Calculations**
**Secondary Metal Production**
**Pouring and Casting**
**Company Name: Scepter, Inc.**
**Address City IN Zip: 6467 N. Scepter Road, Bicknell, Indiana 47512**
**FESOP: 083-12850**
**Plt ID: 083-00015**
**Reviewer: ERG/AAB**
**Date: 1/1/2006**

SCC #3-04-001-14

| Pouring/Casting | Total Aluminum from all Furnaces | | | | | |
|---|---|---|---|---|---|---|
| TYPE OF MATERIAL | | Throughput LBS/HR | 1 TON/ 2000lbs | TON/HR | | |
| **Aluminum** | | 20000 | 2000 | 10 | | |
| | **PM [3]** | **PM10 [3]** | **SOx [1]** | **NOx [1]** | **VOC[2]** | **CO** |
| | **lbs/ton metal charged** | **lbs/ton metal charged** | **lbs/ton metal charged** | **lbs/ton metal charged** | **lbs/ton metal charged** | **lbs/ton metal charged** |
| | 0.015 | 0.015 | 0.02 | 0.01 | 0.14 | - |
| Potential Emissions lbs/hr | 0.2 | 0.2 | 0.2 | 0.1 | 1.4 | - |
| Potential Emissions lbs/day | 3.6 | 3.6 | 4.8 | 2.4 | 33.6 | - |
| Potential Emissions tons/yr | 0.657 | 0.657 | 0.876 | 0.438 | 6.132 | 0.000 |

**1 - Note: Emission factor is from FIRE version 6.24.**
**2 - The AP-42 emission factor for (0.14 lbs per ton of aluminum) overestimates the VOC PTE for this operation because no VOC containing release agents or combustion fuels are used in this process. The source estimates the VOC emission rate as 0.01 lbs/ton of aluminum processed however, IDEM, OAQ has used the EPA emission factor because this results in a more conservative PTE.**
**3 - Emission factor from F083-6099-00015, issued December 12, 1996. No emission factor was found in FIRE or AP-42.**

**Methodology:**
PTE (tons/yr) = throughput (tons/hr) * emission factor (lbs/ton) * 8760hrs/yr * (1ton/2000lbs)

**Appendix A: Emissions Calculations**
**Insignificant Degreasing Operations**

**Company Name:** Scepter, Inc.
**Address City IN Zip:** 6467 N. Scepter Road, Bicknell, Indiana 47512
**FESOP:** 083-12850
**Plt ID:** 083-00015
**Reviewer:** ERG/AAB
**Date:** 1/1/2006

| Degreasing Agent | Max. Solvent Usage (gal/yr) | Solvent Density (lbs/gal) | VOC PTE (lbs/yr) | VOC PTE (tons/yr) |
|---|---|---|---|---|
| Mineral Spirits | 145 | 6.8 | 986 | 0.49 |

**Methodology:**

VOC PTE (tons/yr) = Max. Usage (gal/yr) * Solvent Density (lbs/gal) * (1ton/2000lbs)

**Appendix A: Emissions Calculations**
**Natural Gas Combustion in Insignificant Natural Gas-Fired Heaters**

**Company Name:** **Scepter, Inc.**
**Address City IN Zip:** **6467 N. Scepter Road, Bicknell, Indiana 47512**
**FESOP:** **083-12850**
**Plt ID:** **083-00015**
**Reviewer:** **ERG/AAB**
**Date:** **1/1/2006**

| Heat Input Capacity MMBtu/hr | Potential Throughput MMCF/yr |
|---|---|
| 20.0 | 175.2 |

(Total for all heaters)

| | Pollutant | | | | | |
|---|---|---|---|---|---|---|
| | PM* | PM10* | SO2 | $NO_x$ | VOC | CO |
| Emission Factor in lb/MMCF | 7.6 | 7.6 | 0.6 | 100.0 **see below | 5.5 | 84.0 |
| Potential Emission in tons/yr | 0.67 | 0.67 | 0.05 | 8.76 | 0.48 | 7.36 |

*PM and PM10 emission factors are filterable and condensable PM and PM10.
**Emission Factors for $NO_x$: Uncontrolled = 100, Low $NO_x$ Burner = 50, Low $NO_x$ 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 from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (AP-42 Supplement D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
See next page for HAPs emissions calculations.

**Appendix A: Emission Calculations**
**Natural Gas Combustion in Insignificant Natural Gas-Fired Heaters**

**Company Name:** **Scepter, Inc.**
**Address City IN Zip:** **6467 N. Scepter Road, Bicknell, Indiana 47512**
**FESOP:** **083-12850**
**Plt ID:** **083-00015**
**Reviewer:** **ERG/AAB**
**Date:** **5/20/2003**

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 | 1.840E-04 | 1.051E-04 | 6.570E-03 | 1.577E-01 | 2.978E-04 |

HAPs - Metals

| | Lead | Cadmuim | 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 | 4.380E-05 | 9.636E-05 | 1.226E-04 | 3.329E-05 | 1.840E-04 |

Total HAPs in tons/yr 1.653E-01
Methodology is the same as previous page.

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**
**Secondary Aluminum Production**
**Rotory Furnaces EU-1A, EU-1B, EU-2, EU-3, and EU-4**
**Company Name: Scepter, Inc.**
**Address City IN Zip: 6467 N. Scepter Road, Bicknell, Indiana 47512**
**FESOP: 083-12850**
**Plt ID: 083-00015**
**Reviewer: ERG/AAB**
**Date: 1/1/2006**

Note: Each furnace is controlled by an ammonia injection system that converts acid gases into ammonia salts, which are collected in a baghouse. Since the control system generates PM and PM10 emissions, the particulate emissions after controls have been calculated using the baghouse specifications.

**Baghouse Specifications:**

Air Flow Rate = 43,000 acfm
Outlet Grain Loading = 0.01 gr/acf

**Calculations:**

PM/PM10* PTE for one 7000lb/hour Furnace = (0.01 gr/acf) * (43,000 acfm) * (60 mins/hr) * (1lb/7000gr) = 3.69 lbs/hour

PM/PM10 PTE for one 7000lb/hour Furnace = 3.69 lbs/hr * 8760 hour/year * 1ton/2000lbs = 16.1 tons/year

For all Furnaces:

PM/PM10 PTE after controls = 4 * 16.1 tons/year = 64.6 tons per year

* Assumed all PM is PM10.

# Appendix B

# Alternative Monitoring Approval for 40 CFR 63, Subpart RRR

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

DEC 0 9 2004

REPLY TO THE ATTENTION OF:
AE-17J

Billy R. Nichols
Sr. Department Head
Air Services
URS Corporation
1000 Corporate Centre Drive
One Corporate Centre, Suite 250
Franklin, Tennessee 37067

Re: Request for Alternate Monitoring; Secondary Aluminum MACT, Scepter, Inc., Bicknell, Indiana

Dear Mr. Nichols:

On November 1, 2004, URS Corporation submitted to United States Environmental Protection Agency (U.S. EPA) an alternative monitoring method request on behalf of Scepter, Inc. (Scepter) under 40 C.F.R. Part 63, Subpart RRR, National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum for Scepter's facility located in Bicknell, Indiana. Scepter requested that U.S. EPA approve an alternative reactive flux injection monitoring method to the method required by 40 C.F.R. § 63.1510(j)(3). Specifically, Scepter requested to monitor and record the weight of the reactive flux charged into the furnace at the beginning of the batch cycle, the charge time, the material type, and weight of additional flux material, if required.

On November 29, 2004, URS Corporation submitted a summary of the performance test results for each furnace system to U.S. EPA. The test data provide assurance that the affected source will meet the relevant emission standards on a continuous basis provided that the flux rate for the entire batch cycle is below that established during the performance tests. The following table shows the flux rate limits set for each of the four aluminum rotary furnaces at Scepter.

| Furnace | Date of performance test | Chlorine Flux Rate Limit |
|---|---|---|
| No. 1 & 2 | 1/28/2003 | 25.8% |
| No. 3 | 10/31/2002 | 27.1% |
| No. 4 | 10/28/2002 | 26.8% |
| No. 5 | 10/30/2002 | 26.0% |

Therefore, U.S. EPA approves the alternative method for monitoring and recording the total reactive flux addition rate requested by Scepter. If you have any questions or concerns regarding this response, please contact Bonnie Weinbach of my staff at (312) 886-0258.

Sincerely yours,

George T. Czerniak, Chief
Air Enforcement and Compliance Assurance Branch

cc: Phil Perry, Chief
Air Compliance Branch
Indiana Department of Environmental Management