

## PART 70 OPERATING PERMIT

### INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY and CITY OF INDIANAPOLIS OFFICE OF ENVIRONMENTAL SERVICES

**Quemetco, Inc.  
7870 West Morris Street  
Indianapolis, Indiana 46231**

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

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17 and the Code of Indianapolis and Marion County, Chapter 511. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-7-10.5, applicable to those conditions.

Operation Permit No.: T097-6201-00079	
Issued by:  Original signed by: Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: June 30, 2004
Original signed by: John B. Chavez, Administrator Office of Environmental Services	Expiration Date: June 30, 2009

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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) and the City of Indianapolis Office of Environmental Services (OES). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

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

The Permittee owns and operates a stationary secondary lead smelting and refining operation under a Standard Industrial Classification (SIC) Code of 3341 (Secondary Smelting and Refining of Nonferrous Metals).

Responsible Official:	Vice President, Indiana Operations
Source Address:	7870 West Morris Street, Indianapolis, Indiana 46231
Mailing Address:	7870 West Morris Street, Indianapolis, Indiana 46231
General Phone Number:	Robert Kelsey, (317) 247-1303, extension 12
SIC Code:	3341
County Location:	Marion
Source Location Status:	Nonattainment for ozone under the 8-hour standard Attainment for all other criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD Rule and Emission Offset Rules and Nonattainment NSR; Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

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

The stationary source consists of the following permitted emission units and pollution control devices with the vents and pick-up points set out in Table 1 in Appendix A:

- (a) One (1) Reverberatory Furnace, identified as Emission Unit 3.1, used in the smelting of lead from lead acid batteries and scrap lead. The reverberatory furnace receives charge material from the Rotary Dryer in a continuous process. The furnace is heated by an oxygen enriched 32 million Btu per hour natural gas fired burner system. Molten lead is tapped directly into refining kettles or into molds for subsequent placement/refining in the refining kettles. Lead containing slag is tapped for further lead recovery in one of two electric arc furnaces. Process flue gas emissions are controlled by Baghouse #035 and Scrubber #046. The controlled emissions exhaust to one stack identified as Stack/Vent S-111. Stack/Vent S-111 is equipped with a Continuous Emissions Monitor (CEM) for sulfur dioxide (SO<sub>2</sub>) emissions. The maximum charge capacity for the Reverberatory Furnace is 828 tons per day. This emission unit was installed in 1972.
- (b) One (1) 2500 kVA Electric Arc Slag Reduction Furnace (SRF), identified as Emission Unit 3.3, that concurrently processes hot slag from the Reverberatory Furnace and cold slag in a continuous process. Cold slag is taken from storage and is placed in a hopper. Hot slag is conveyed from the Reverberatory Furnace to the SRF. Molten lead is tapped into molds for subsequent placement/refining in the refining kettles. Slag is tapped and stored awaiting proper disposal or reprocessing if the lead content is high enough. Emissions are controlled by Baghouse #037 and Scrubber #046 which exhaust to one stack identified as Stack/Vent S-111. Stack/Vent S-111 is equipped with a Continuous Emissions Monitor (CEM) for sulfur dioxide (SO<sub>2</sub>) emissions. The maximum charge capacity for the Slag Reduction Furnace is 132 tons per day. This emission unit was installed in 1995.
- (c) Process Fugitive Emissions from one (1) Reverberatory Furnace, identified as Emission Unit 3.1, used in the smelting of lead from lead acid batteries and scrap lead. Emissions from lead charging are controlled by Baghouses #038 and #041, respectively, and exhaust to one

stack identified as Stack/Vent S-100. General furnace emissions are controlled by Baghouse #041 and exhaust to one stack identified as Stack/Vent S-100. Emissions from lead tapping are controlled by Baghouse #039 or Baghouse #040 which exhaust to one stack identified as Stack/Vent S-100. Stack/Vent S-100 is equipped with a Continuous Emissions Monitor (CEM) for sulfur dioxide (SO<sub>2</sub>) emissions. The maximum charge capacity for the Reverberatory Furnace is 828 tons per day. This emission unit was installed in 1972.

- (d) Eight (8) refining kettles, identified as Emission Unit Kettle #1 through Kettle #8, which are used to refine the lead alloy. The refining kettles receive molten lead, solid lead or scrap lead. Reagents and alloying metals are added to the Kettle(s) and mixed into molten lead. A natural gas fired burner system indirectly heats the lead. The combined heat input capacity for the natural gas fired burners is 32 million Btu per hour. Impurities are removed as dross from the surface of the molten lead. Process emissions are controlled by Baghouse #039 or Baghouse #040 which exhaust to one stack identified as Stack/Vent S-100. Stack/Vent S-100 is equipped with a Continuous Emissions Monitor (CEM) for sulfur dioxide (SO<sub>2</sub>) emissions. Combustion emissions from the natural gas burners are vented to separate stacks. Combustion emissions from Kettle #1 are vented to Stack/Vent S-117. Combustion emissions from Kettle #2 are vented to Stack/Vent S-114. Kettle #3 and Kettle #4 are vented to Stack/Vent S-116. Combustion emissions from Kettle #5 and Kettle #6 are vented to Stack/Vent S-115. Combustion emissions from Kettle #7 are vented to Stack/Vent S-113. Combustion emissions from Kettle #8 are vented to Stack/Vent S-112. Kettles #1 through #6 were installed in 1972. Kettles #7 and #8 were installed in 1988 and 1992 respectively. The refining operation is not a time based operation therefore there is no maximum throughput capacity identified. However, an average based on 24 hours of operation and full kettles is 46.3 tons per hour.
- (e) Refining Kettle #9, identified as Emission Unit Kettle #9. Kettle #9 has a capacity of 2.14 tons of lead per hour (180 ton capacity with two batches per week) and is heated by a 4.25 million Btu natural gas burner. The kettle is used to refine lead. Emissions from Kettle #9 are controlled by Baghouse #041, which exhaust to one stack identified as Stack/Vent S-100. Stack/Vent S-100 is equipped with a Continuous Emissions Monitor (CEM) for sulfur dioxide (SO<sub>2</sub>) emissions. Burner emissions are vented through a combustion flue, Stack/Vent S-118, with no controls. Kettle # 9 was installed in 2002.
- (f) One (1) Casting Machine, identified as Emission Unit 7 which receives refined and alloyed lead metal pumped from the refining kettles and casts the molten lead into lead ingots. The casting machine is equipped with a 0.3 million Btu per hour natural gas burner. Emissions from the casting machine are controlled by Baghouse #040 or Baghouse #039 which exhausts to one stack identified as Stack/Vent S-100. Stack/Vent S-100 is equipped with a Continuous Emissions Monitor (CEM) for sulfur dioxide (SO<sub>2</sub>) emissions. The maximum process capacity is limited by the refining kettles. This emission unit was installed prior to 1978.
- (g) One (1) Electric Arc Furnace (EAF), identified as Emission Unit 3.2, used to recover lead from Reverberatory Furnace slag. The EAF is charged with lead containing materials, and flux, reagents and additives in a continuous process. The charge is heated and melted by passing an electric current through the charge. Molten lead is tapped into molds for subsequent placement/refining in the refining kettles. Slag is tapped and sent to storage to await proper disposal or reprocessing if the lead content is high enough. Process flue gas emissions within the furnace are controlled by Baghouse #036 which exhausts to one stack identified as Stack/Vent S-100. Emissions from lead tapping and slag tapping are controlled by Baghouse #036 which exhausts to one stack identified as Stack/Vent S-100. Process emissions not captured by furnace hoods are controlled by Baghouse #041 which exhausts to one stack identified as Stack/Vent S-100. Stack/Vent S-100 is equipped with a Continuous Emissions Monitor (CEM) for sulfur dioxide (SO<sub>2</sub>) emissions. The maximum charge capacity is 6.5 tons per hour. This emission unit was installed in 1984.
- (h) One (1) Rotary Dryer, identified as Emission Unit 8, used to dry Reverberatory Furnace feed material. Raw material is dumped into a feed hopper which feeds the Rotary Dryer with lead

bearing material and furnace additives from lead acid batteries and factory scrap in a continuous process. The Rotary Dryer is heated by an oxygen enriched 14 million Btu per hour natural gas fired burner system. The emissions generated from charging raw material to the feed hopper are controlled by Baghouse #041, which exhausts to one stack identified as Stack/Vent S-100. Process emissions are controlled by Baghouse #041, which exhausts to one stack identified as Stack/Vent S-100. The process fugitive emissions are controlled by Baghouse #038 and by Baghouse #041, which exhaust to one stack identified as Stack/Vent S-100. Stack/Vent S-100 is equipped with a Continuous Emissions Monitor (CEM) for sulfur dioxide (SO<sub>2</sub>) emissions. The maximum process capacity for the Rotary Dryer is limited by the reverberatory furnace. This emission unit was installed prior to 1978.

- (i) General Building Ventilation of the bin 10 feed storage area, identified as GV101. Portions of process fugitive emissions generated by operations conducted in this area are controlled by Roof Vent Baghouse RV #1 and exhausting to Stack/Vent S-101. These operations potentially generate fugitive emissions from storage and handling of reverberatory charge materials and general emissions generated by traffic and housekeeping activities. Roof Vent Baghouse RV #1 was installed in 1991.
- (j) General Building Ventilation of the cold charge electric arc furnace building west, identified as GV102. Portions of process fugitive emissions generated by operations conducted in this area are controlled by Roof Vent Baghouse RV #2 and exhausting to Stack/Vent S-102. These operations potentially generating fugitive emissions include the Electric Arc Furnace, slag and lead tapping, furnace charging, feed hopper, feed conveyor, charge make-up, slag handling (shaking), and general emissions generated by traffic and housekeeping activities. Roof Vent Baghouse RV #2 was installed in 1991.
- (k) General Building Ventilation of the cold charge electric arc furnace building east, identified as GV103. Portions of process fugitive emissions generated by operations conducted in this area are controlled by Roof Vent Baghouse RV #3 and exhausting to Stack/Vent S-103. These operations potentially generating fugitive emissions include the electric arc furnace, slag and lead tapping, furnace charging, feed hopper, feed conveyor, charge make-up, slag handling (shaking), and general emissions generated by traffic and housekeeping activities. Roof Vent Baghouse RV #3 was installed in 1991.
- (l) General Ventilation for the reverb charge room, identified as GV104. Portions of process fugitive emissions generated by operations conducted in this area are controlled by Roof Vent Baghouse RV #4 and exhausting to Stack/Vent S-104. These operations potentially generating fugitive emissions include make up of reverberatory charge materials and general emissions generated by traffic and housekeeping activities. Roof Vent Baghouse RV #4 was installed in 1991.
- (m) General Ventilation for the cold charge electric arc furnace slag room, identified as GV105. Portions of process fugitive emissions generated by operations conducted in this area are controlled by roof vent Baghouse RV #5 and exhausting to Stack/Vent S-105. These operations potentially generating fugitive emissions include general handling and storage of charge materials such as slag, iron, limestone and coke, and general emissions generated by traffic and housekeeping activities. Roof Vent Baghouse RV #5 was installed in 1991.
- (n) General Ventilation for the reverb furnace and slag reduction furnace (SRF), identified as GV106. Portions of process fugitive emissions generated by operations conducted in this area are controlled by Roof Vent Baghouse RV #6 and exhausting to Stack/Vent S-106. These operations potentially generating fugitive emissions include the Reverberatory/Slag Reduction Furnaces - lead and slag tapping, furnace charging, feed conveyor, slag handling, and general emissions generated by traffic and housekeeping activities. Roof Vent Baghouse RV #6 was installed in 1991.
- (o) General Ventilation of the north refinery area, identified as GV107. Portions of process fugitive emissions generated by operations conducted in this area are controlled by Roof Vent Baghouse RV #7 and exhausting to Stack/Vent S-107. The operations potentially generating

fugitive emissions include the 8 refining kettles, kettle charging, dross skimming, casting, natural gas fired trimmer burners rated at 1.8 million Btu in the casting machine area and general emissions generated by traffic and housekeeping activities. Roof Vent Baghouse RV #7 was installed in 1991.

- (p) General Ventilation of the slag reduction furnace area, identified as GV108. Portions of process fugitive emissions generated by operations conducted in this area are controlled by Roof Vent Baghouse RV #8 and exhausting to Stack/Vent S-108. These operations potentially generating fugitive emissions include the slag reduction/ reverberatory furnace - lead and slag tapping, furnace charging, feed conveyor, slag handling and general emissions generated by traffic and housekeeping activities. Roof Vent Baghouse RV #8 was installed in 1992.
- (q) General Ventilation of the south refinery area, identified as GV109. Portions of process fugitive emissions generated by operations conducted in this area are controlled by Roof Vent Baghouse RV #9 and exhausting to Stack/Vent S-109. These operations potentially generating fugitive emissions include 8 refining kettles, kettle charging, dross skimming, casting and general emissions generated by traffic and housekeeping activities. Roof Vent Baghouse RV #9 was installed in 1995.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)]  
[326 IAC 2-7-5(15)]

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

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour. [326 IAC 6-1-2]
  - (1) Maintenance Office HVAC system for natural gas heating at 70,000 Btu per hour.
- (b) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4][326 IAC 20-13][40 CFR 63.541, Subpart X]
- (c) Emergency Gasoline generators not exceeding 110 horsepower. [326 IAC 6-1-2]
- (d) Emergency Diesel generators not exceeding 1600 horsepower. [326 IAC 6-1-2]
- (e) Battery Wrecker [326 IAC 6-1-2][326 IAC 20-13][40 CFR 63.541, Subpart X]
- (f) Roadway Surface Fugitive Emissions [326 IAC 6-4][326 IAC 20-13][40 CFR 63.541, Subpart X]
- (g) Outside Storage Bins: Coke Storage Bin, Iron Storage Bin and Limestone Storage Bin [326 IAC 6-1-2][326 IAC 20-13][40 CFR 63.541, Subpart X]
- (h) General Parts Washing. Installation date of prior to January 1, 1980. [326 IAC 8-3-5]
- (i) Five (5) Soda Ash Silos equipped with baghouse filters. [326 IAC 6-1-2]
- (j) Water Quality Department wet scrubber identified as Unit W W Sly. [326 IAC 6-1-2]

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

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

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 Applicability).

## **SECTION B GENERAL CONDITIONS**

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

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

### **B.2 Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5]**

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.

### **B.3 Enforceability [326 IAC 2-7-7]**

(a) 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 and OES, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

(b) The Indianapolis Air Pollution Control Board (IAPCB) has adopted by reference State rules listed in Appendix B of this permit. The version adopted by reference includes all amendments, additions and repeals filed with the Secretary of State through August 10, 1997 and published in the Indiana Register September 1, 1997, unless otherwise indicated in the adoption by reference. For the purposes of this permit, all state rules adopted by reference by the IAPCB are enforceable by OES using local enforcement procedures. Unless otherwise stated, all terms and conditions in this permit that are local requirements, including any provisions designed to limit the source's potential to emit, are enforceable by OES.

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

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

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

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

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

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

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

(a) The Permittee shall furnish to IDEM, OAQ, and OES within a reasonable time, any information that IDEM, OAQ, and OES may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ, and OES copies of records required to be kept by this permit.

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

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

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

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

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than April 15 of each year to:

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

and

Office of Environmental Services  
Air Quality Management Section  
2700 South Belmont Avenue  
Indianapolis, Indiana 46221

and

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

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and OES on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
  - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent;
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

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

The submittal by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

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

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

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

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

and

Office of Environmental Services  
Air Quality Management Section  
2700 South Belmont Avenue  
Indianapolis, Indiana 46221

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

- (b) The Permittee shall implement the PMPs, including any required record keeping, as necessary to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, and OES upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ, and OES. IDEM, OAQ, and OES 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 PMP does not require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).
- (d) To the extent the Permittee is required to by 40 CFR 63 to have an approved Standard Operating Procedures (SOP) Manual for a unit, such plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

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

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action

brought for noncompliance with a federal or state health-based emission limitation.

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

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, and OES 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's phone and facsimile numbers:

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality,  
Compliance Section), or

Telephone Number: 317-233-5674 (ask for Compliance Section)

Facsimile Number: 317-233-5967

OES's phone and facsimile numbers:

Telephone Number: 317/327-2234

Facsimile Number: 317/327-2274

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

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

and

Office of Environmental Services  
Air Quality Management Section  
2700 South Belmont Avenue  
Indianapolis, Indiana 46221

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

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

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

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ, and OES may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, and OES by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report

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

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

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

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, or OES shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:

- (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
  - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
  - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
  - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, or OES has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, or OES has issued the modification. [326 IAC 2-7-12(b)(8)]

**B.13** 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.

**B.14** Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

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

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

and

Office of Environmental Services  
Air Quality Management Section  
2700 South Belmont Avenue  
Indianapolis, Indiana 46221

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

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

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

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

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- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, or OES determines any of the following:
  - (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ, or OES to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, or OES at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, or OES may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

**B.16 Permit Renewal** [326 IAC 2-7-4]

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- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and OES and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

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

and

Office of Environmental Services  
Air Quality Management Section  
2700 South Belmont Avenue  
Indianapolis, Indiana 46221

- (b) Timely Submittal of Permit Renewal [326 IAC 2-7-4(a)(1)(D)]
  - (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, and OES on or before the date it is due.
  - (2) If IDEM, OAQ, and OES, 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, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.
- (c) Right to Operate After Application for Renewal [326 IAC 2-7-3]

If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ, and OES, 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, and OES, any additional information identified as being needed to process the application.
- (d) United States Environmental Protection Agency Authority [326 IAC 2-7-8(e)]

If IDEM, OAQ, and OES fails to act in a timely way on a Part 70 permit renewal, the U.S. EPA may invoke its authority under Section 505(e) of the Clean Air Act to terminate or revoke and reissue a Part 70 permit.

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

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

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

and

Office of Environmental Services  
Air Quality Management Section  
2700 South Belmont Avenue  
Indianapolis, Indiana 46221

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

- (d) No permit amendment or modification is required for the addition, operation, or removal of a nonroad engine, as defined in 40 CFR 89.2.

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

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- (a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.
- (b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

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

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

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
- (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

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

and

Office of Environmental Services  
Air Quality Management Section  
2700 South Belmont Avenue  
Indianapolis, Indiana 46221

and

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

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

- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-7-20(b), (c), or (e) and makes such records available, upon reasonable request, for public

review.

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

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:
- (1) A brief description of the change within the source;
  - (2) The date on which the change will occur;
  - (3) Any change in emissions; and
  - (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) Emission Trades [326 IAC 2-7-20(c)]  
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

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

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

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

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

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any

photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

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

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

and

Office of Environmental Services  
Air Quality Management Section  
2700 South Belmont Avenue  
Indianapolis, Indiana 46221

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

- (a) The Permittee shall pay annual fees to IDEM, OAQ, and OES 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, or OES the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

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

Notwithstanding the Conditions of this Permit that state specific methods that may be used to demonstrate compliance with, or a violation of, applicable requirements, any person (including the Permittee) may also use other credible evidence to demonstrate compliance with, or a violation of, any term or Condition of this Permit.

## SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

#### C.1 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 thirty percent (30%) 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.2 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.3 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

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

#### C.4 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.5 Standard Operating Procedures to Control Fugitive Dust [40 CFR Part 63.545(a),(b),(c), & (d)][326 IAC 20-13]

Pursuant to 40 CFR Part 63.545 Subpart X (National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting) and 326 IAC 20-13 (Hazardous Air Pollutants: Secondary Lead Smelters), the Permittee shall at all times operate according to the Standard Operating Procedures Manual dated July 18, 2001 that describes in detail the measures that will be put in place to control fugitive dust emission sources within the areas of the secondary lead smelter listed below.

- (a) Plant roadways;
- (b) Battery breaking area;
- (c) Furnace area;
- (d) Refining and casting areas; and
- (e) Material storage and handling areas.

The Standard Operating Procedures Manual shall include, at a minimum, the requirements of 40 CFR Part 63.545(b),(c) and (d).

#### C.6 Standards for Process Fugitive Sources [40 CFR 63.544(a),(b) & (c)][326 IAC 20-13]

Pursuant to 40 CFR 63.544(a) Subpart X (National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting) and 326 IAC 20-13 (Hazardous Air Pollutants: Secondary Lead Smelters), the Permittee shall control the process fugitive emission sources listed below in

accordance with the operational standards of 40 CFR 63.544(b) and (c).

- (a) Smelting furnace and dryer charging hoppers, chutes, and skip hoists;
- (b) Smelting furnace lead taps and molds during tapping;
- (c) Smelting furnace slag taps and molds during tapping;
- (d) Refining kettles;
- (e) Dryer transition pieces.

C.7 Operation of Equipment [326 IAC 2-7-6(6)]

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

C.8 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.9 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:
    - (A) Asbestos removal or demolition start date;
    - (B) Removal or demolition contractor; or
    - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

and

Office of Environmental Services  
Air Quality Management Section  
2700 South Belmont Avenue  
Indianapolis, Indiana 46221

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

- (e) **Procedures for Asbestos Emission Control**  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and renovation**  
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Accredited Asbestos Inspector**  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

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

#### **C.10 Performance Testing [326 IAC 3-6]**

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- (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, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

and

Office of Environmental Services  
Air Quality Management Section  
2700 South Belmont Avenue  
Indianapolis, Indiana 46221

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require

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

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

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

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

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

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

#### **C.12 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]**

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

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

and

Office of Environmental Services  
Air Quality Management Section  
2700 South Belmont Avenue  
Indianapolis, Indiana 46221

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

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

**C.13 Maintenance of Continuous Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]**

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- (a) The Permittee shall install, calibrate, maintain, and operate all necessary continuous emission monitoring systems (CEM) and related equipment.
- (b) In the event that a breakdown of a continuous emission monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.
- (c) Whenever a continuous emission monitor is malfunctioning or will be down for calibration, maintenance, or repairs for a period of four (4) hours or more, a calibrated backup CEM shall be brought online within four (4) hours of shutdown of the primary CEM, and shall be operated until such time as the primary CEM is back in operation.
- (d) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system for sulfur dioxide (SO<sub>2</sub>) emissions for Stack/Vent S-100 pursuant to Construction Permit 960079-03 Condition 7(e) issued May 13, 1996 and for Stack/Vent S-111 pursuant to Construction Permit 970079-04 Condition 6(d) issued April 30, 1996.

**C.14 Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]**

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

**C.15 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]**

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- (a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.
- (b) Whenever a condition in this permit requires the measurement of a flow rate or pH level, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.
- (c) The Preventive Maintenance Plan for the pH meter shall include calibration using known standards. The frequency of calibration shall be adjusted such that the typical error found at calibration is less than one pH point.
- (d) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

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

**C.16 Emergency Reduction Plans [326 IAC 1-5-2][326 IAC 1-5-3]**

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Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on September 20, 1988 and a revised ERP in May 1998.
- (b) Upon direct notification by IDEM, OAQ, and OES, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level.

[326 IAC 1-5-3]

C.17 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

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

C.18 Compliance Response Plan - Preparation, Implementation, Records and Reports [326 IAC 2-7-5] [326 IAC 2-7-6]

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(a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. If a permittee is required to have a Standard Operating Procedures (SOP) Manual or a Start-up, Shutdown and Malfunction Plan (SSM) under 40 CFR Part 63, such plan shall be deemed to satisfy the requirements for a CRP for those compliance monitoring conditions. A CRP shall be submitted to IDEM, OAQ and OES upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:

- (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected time frame for taking reasonable response steps.
- (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan or Standard Operating Procedures (SOP) Manual or Start-up, Shutdown and Malfunction Plan (SSM) and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan or Standard Operating Procedures (SOP) Manual or Start-up, Shutdown and Malfunction Plan (SSM) to include such response steps taken.

The Standard Operating Procedures (SOP) Manual for Baghouse Leak Detection and Corrective Action and the Standard Operating Procedures Manual (SOP) for Fugitive Lead Dust Sources have been submitted within the time frames specified by the applicable 40 CFR Part 63 requirement.

(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:

- (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan or Standard Operating Procedures (SOP) Manual or Start-up, Shutdown and Malfunction Plan (SSM); or
- (2) If none of the reasonable response steps listed in the Compliance Response Plan or Standard Operating Procedures (SOP) Manual or Start-up, Shutdown and Malfunction Plan (SSM) is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
- (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, and it will be ten days or more until the unit or device will be shut down, then the Permittee shall promptly notify the IDEM, OAQ of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.
- (4) Failure to take reasonable response steps shall be considered deviation from the

permit.

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

C.19 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5]  
[326 IAC 2-7-6]

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

The response action documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

### **C.20 Emission Statement [326 IAC 2-6]**

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- (a) The Permittee shall submit an emission statement certified pursuant to the requirements of 326 IAC 2-6. This statement must be received in accordance with the compliance schedule specified in 326 IAC 2-6-3 and must comply with the minimum requirements specified in 326 IAC 2-6-4. The emission statement shall meet the following requirements:
- (1) Indicate estimated actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);
  - (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(32) ("Regulated pollutant which is used only for purposes of Section 19 of this rule") from the source, for purposes of fee assessment.

This statement must be submitted to:

Indiana Department of Environmental Management  
Technical Support and Modeling Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

and

Office of Environmental Services  
Air Quality Management Section, Data Compliance  
2700 South Belmont Avenue  
Indianapolis, Indiana 46221

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-1.1-1(1).

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

### **C.21 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]**

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- (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 or the OES Administrator makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or the OES Administrator 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.22 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]**

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- (a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation

and Compliance Monitoring Report shall include the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

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

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

and

Office of Environmental Services  
Air Quality Management Section  
2700 South Belmont Avenue  
Indianapolis, Indiana 46221

- (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, and OES on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).
- (e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

### **Stratospheric Ozone Protection**

#### **C.23 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.

### **Total Enclosure Requirements [40 CFR Part 63] [326 IAC 20-13-7]**

#### **C.24 Total Enclosure Compliance Requirements**

In addition to the requirements of 40 CFR 63.8, 40 CFR 63.10 and 40 CFR 63.547(e), a secondary lead smelter using a total enclosure shall do the following:

- (a) Pursuant to 40 CFR 63.547(e), the Permittee shall determine compliance with the doorway in draft requirement of 40 CFR 63.544(b) for enclosed buildings by:
- (1) The Permittee shall use a propeller anemometer or equivalent pressure gauge.
  - (2) The pressure gauge shall be certified by the manufacturer to be capable of

measuring pressure differential in a range of 0.02 to 0.2 mm Hg.

- (3) Both the inside and outside taps shall be shielded to reduce the effect of wind.
  - (4) The Permittee shall demonstrate the inside of the building is maintained at a negative pressure as compared to the outside of the building of no less than two hundredths (0.02) mm Hg when all doors are in the position they are in during normal operation.
- (b) Pursuant to 326 IAC 20-13-7, submit a plan describing the installation and operation of a continuous monitoring system that meets the requirements of 40 CFR 63.547(e)(2) within ninety (90) days following Permit issuance.
- (1) The Permittee shall operate a continuous monitoring system to measure and record pressure differential. The continuous monitoring system shall consist of the following;
    - (A) A differential pressure sensor capable of measuring pressure within a range of two hundredths (0.02) to two tenths (0.2) millimeter of mercury (one hundredth (0.01) to one tenth (0.1) inch of water).
    - (B) A processor.
    - (C) An alarm.
    - (D) A continuous recording device.

The pressure differential sensor that is located on the east wall of the Bin #10 storage area meets the requirements of section (b)(1) above. Any changes to the location or operation of the system shall require prior written approval by IDEM, OAQ and/or OES.
  - (2) Initiate corrective actions within thirty (30) minutes of a monitoring system alarm.
  - (3) Request, if desired, to cease monitoring pressure differential under this subsection twelve (12) months from the commencement date of approved monitoring or the effective date of this rule, whichever is later.
  - (4) Notify IDEM, OAQ and/or OES of any physical changes including, but not limited to, ventilation capacity and building size. If the IDEM, OAQ and/or OES determines the net effect of any such changes may potentially affect air pressure readings of the building, then the Permittee shall resume monitoring for an additional twelve (12) months. Monitoring may be discontinued in accordance with the procedures under subdivision (4).
  - (5) Maintain the following on site for a period of three (3) years and have available for an additional two (2) years:
    - (A) Records of the pressure differential.
    - (B) Logs of monitoring system alarms, including date and time.
    - (C) Logs of corrective actions, including date and time.

## SECTION D.1 FACILITY OPERATION CONDITIONS

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

- (a) One (1) Reverberatory Furnace, identified as Emission Unit 3.1, used in the smelting of lead from lead acid batteries and scrap lead. The reverberatory furnace receives charge material from the Rotary Dryer in a continuous process. The furnace is heated by an oxygen enriched 32 million Btu per hour natural gas fired burner system. Molten lead is tapped directly into refining kettles or into molds for subsequent placement/refining in the refining kettles. Lead containing slag is tapped for further lead recovery in one of two electric arc furnaces. Process flue gas emissions are controlled by Baghouse #035 and Scrubber #046. The controlled emissions exhaust to one stack identified as Stack/Vent S-111. Stack/Vent S-111 is equipped with a Continuous Emissions Monitor (CEM) for sulfur dioxide (SO<sub>2</sub>) emissions. The maximum charge capacity for the Reverberatory Furnace is 828 tons per day. This emission unit was installed in 1972.
- (b) One (1) 2500 kVA Electric Arc Slag Reduction Furnace (SRF), identified as Emission Unit 3.3, that concurrently processes hot slag from the Reverberatory Furnace and cold slag in a continuous process. Cold slag is taken from storage and is placed in a hopper. Hot slag is conveyed from the Reverberatory Furnace to the SRF. Molten lead is tapped into molds for subsequent placement/refining in the refining kettles. Slag is tapped and stored awaiting proper disposal or reprocessing if the lead content is high enough. Emissions are controlled by Baghouse #037 and Scrubber #046 which exhaust to one stack identified as Stack/Vent S-111. Stack/Vent S-111 is equipped with a Continuous Emissions Monitor (CEM) for sulfur dioxide (SO<sub>2</sub>) emissions. The maximum charge capacity for the Slag Reduction Furnace is 132 tons per day. This emission unit was installed in 1995.

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

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

#### D.1.1 General Provisions Relating to HAPs [40 CFR 63, Subpart A][326 IAC 20-1-1]

The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1 (Hazardous Air Pollutants), apply to the facilities described in this Section except when otherwise specified in 40 CFR Part 63, Subpart X (National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting).

#### D.1.2 Lead Emissions Limitation [326 IAC 20-13][326 IAC 20-13-2][40 CFR 63.543(a)]

- (a) Pursuant to 40 CFR 63.543(a) (National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting), the process emissions of lead compounds from the Reverberatory Furnace (Emission Unit ID 3.1) and the Electric Arc Slag Reduction Furnace (SRF) (Emission Unit ID 3.3), which exhaust to Stack/Vent S-111, shall not exceed two (2.0) milligrams of lead per dry standard cubic meter of exhaust (0.00087 grains per dry standard cubic foot of exhaust).
- (b) Pursuant to 326 IAC 20-13-2 (Hazardous Air Pollutants: Secondary Lead Smelters Emission Limitations; Lead Standards for Quemetco, Incorporated), Lead emissions from Stack/Vent S-111 shall not exceed one (1.0) milligram per dry standard cubic meter (0.00044 grains per dry standard cubic feet of exhaust air).

#### D.1.3 PSD Minor Lead Limit [326 IAC 2-2][Construction Permit 960079-04]

Pursuant to Construction Permit 960079-04, Lead emissions from the Slag Reduction Furnace (SRF) shall be limited to seven ten thousandths (0.0007) grains per dry standard cubic foot of exhaust and one hundred thirty six thousandths (0.136) pounds per hour. This emissions limitation is equivalent to less than six tenths (0.6) tons of Lead per twelve (12) consecutive month period with compliance determined at the end of each month. Compliance with these emissions limitations makes 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements) not applicable.

D.1.4 Particulate (PM) Limit [326 IAC 6-1-12]

Pursuant to 326 IAC 6-1-12, Particulate emissions from the Reverberatory Furnace shall not exceed sixteen thousandths (0.016) grains per dry standard cubic foot of exhaust and five and eight tenths (5.8) tons per twelve (12) consecutive month period with compliance determined at the end of each month.

D.1.5 PSD Minor PM-10 Limit [326 IAC 2-2] [Construction Permit 960079-04]

Pursuant to Construction Permit 960079-04, filterable and condensible PM-10 emissions from the Slag Reduction Furnace (SRF) shall be limited to one hundred seventy two ten thousandths (0.0172) grains per dry standard cubic foot of exhaust and three and four tenths (3.4) pounds per hour. This emissions limitation is equivalent to less than fifteen (15) tons of PM-10 per twelve consecutive month period with compliance determined at the end of each month. Therefore, these conditions limit the potential to emit filterable and condensible PM-10 to less than the applicable emission limit pursuant to Construction Permit 960079-04. Compliance with this emission limitation makes 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements) not applicable.

D.1.6 Sulfur Dioxide (SO<sub>2</sub>) Emissions Limit [326 IAC 7-4-2][Construction Permit Amendment A0970079]

- (a) Pursuant to 325 IAC 7-4-2, SO<sub>2</sub> emissions from the Reverberatory Furnace shall not exceed 24.6 pounds per ton material charged.
- (b) Pursuant to Construction Permit Amendment A0970079, SO<sub>2</sub> emissions from Stack/Vent S-111 exhaust are limited to fifty (50.0) pounds per hour and two hundred nineteen (219.0) tons per twelve (12) consecutive month period with compliance determined at the end of each month. Therefore, these conditions limit the potential to emit SO<sub>2</sub> to less than the applicable limits pursuant to Construction Permit Amendment A0970079. Compliance with this emissions limitation satisfies the requirement of 326 IAC 7-4-2 (Marion County Sulfur Dioxide Emission Limitations).

D.1.7 Emission Offset Minor Sulfur Dioxide (SO<sub>2</sub>) Limit [326 IAC 2-3][Construction Permit 960079-04]

Pursuant to Construction Permit 960079-04, SO<sub>2</sub> emissions from the Slag Reduction Furnace (SRF) shall not exceed five and seven tenths (5.7) pounds per hour. This emissions limitation is equivalent to less than twenty five (25) tons of SO<sub>2</sub> per twelve (12) consecutive month period with compliance determined at the end of each month. Therefore, these conditions limit the potential to emit SO<sub>2</sub> to less than the applicable limits pursuant to Construction Permit Amendment A0970079. Compliance with this emissions limitation makes 326 IAC 2-3 (Emission Offset) not applicable.

D.1.8 Opacity Limitation [326 IAC 20-13-7][Construction Permit 960079-04]

Pursuant to 326 IAC 20-13-7;

- (a) Stack/Vent S-111 exhaust shall not exceed five percent (5.0%) opacity as determined by 40 CFR Part 60 Appendix A Method 9 or an acceptable alternative method as defined in Method 9. Compliance with this opacity limitation demonstrates compliance with the Construction Permit 960079-04 opacity limitation of ten percent (10%) as determined by 40 CFR Part 60 Appendix A Method 9 or an acceptable alternative method as defined in Method 9.
- (b) Exterior dust handling systems of dry collectors of Lead emitting processes (augers, hoppers, transfer points) shall not discharge to the atmosphere visible emissions in excess of five percent (5.0%) of an observation period consisting of three (3) twenty (20) minute periods, as determined by 40 CFR 60, Appendix A, Reference Method 22. The provisions under this subdivision for dust handling systems shall not apply during maintenance and repair of the dust handling systems. During maintenance and repair of the dust handling systems, the Permittee shall take reasonable measures to prevent or minimize fugitive dust emissions.
- (c) The opacity limitations shall only apply to particulate matter emissions.

D.1.9 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the Reverberatory Furnace, Slag Reduction Furnace and any control devices.

## **Compliance Determination Requirements**

### **D.1.10 Particulate Control**

In order to comply with Condition D.1.2, D.1.3, D.1.4 and D.1.5, the Baghouses identified as #035 and #037 for particulate control shall be in operation and control emissions from the Reverberatory Furnace, identified as Emission Unit 3.1, and the Electric Arc Slag Reduction Furnace (SRF), identified as Emission Unit 3.3 at all times that Emission Unit 3.1 and 3.3 are in operation.

### **D.1.11 Sulfur Dioxide (SO<sub>2</sub>) Control**

In order to comply with Condition D.1.6 and D.1.7, the Scrubber identified as #046 for Sulfur Dioxide (SO<sub>2</sub>) emissions control shall be in operation and control emissions from the Reverberatory Furnace, identified as Emission Unit 3.1, and the Electric Arc Slag Reduction Furnace (SRF), identified as Emission Unit 3.3, at all times that Emission Unit 3.1 and 3.3 are in operation.

### **D.1.12 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [326 IAC 20-13] [40 CFR 63.543]**

- (a) Pursuant to 326 IAC 20-13-6, the Permittee shall conduct a compliance test for Lead compounds from Stack Vent S-111 on an annual basis, no later than twelve (12) calendar months following the previous compliance test. If a compliance test demonstrates a source emitted Lead compounds from Stack/Vent S-111 less than or equal to fifty percent (50.0%) of the applicable limit under this rule during the compliance test, the Permittee shall be allowed up to twenty four (24) calendar months from the previous compliance test to conduct the next compliance test for Lead compounds. Pursuant to 326 IAC 20-13-6, retesting for Lead compounds from Stack/Vent S-111 shall be conducted no later than April 10, 2004. The test shall be conducted utilizing Methods specified in 40 CFR Part 63.547(a). In addition to these requirements, IDEM, OAQ and/or OES may require compliance testing at any time when it is deemed necessary to determine compliance with Condition D.1.2.
- (b) No later than one hundred and eighty days after issuance of this Part 70 Permit, in order to demonstrate compliance with Condition D.1.5, the Permittee shall perform PM-10 testing for the Electric Arc Slag Reduction Furnace (SRF), identified as Emission Unit 3.3, utilizing methods approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensable PM-10. Testing shall be conducted in accordance with Section C - Performance Testing.

### **D.1.13 Monitoring Requirements [326 IAC 20-13][40 CFR 63.548]**

- (a) Pursuant to 40 CFR 63.548(a) and (b) and 326 IAC 20-13-5, the Permittee shall operate at all times in accordance with the Standard Operating Procedures Manual approved by IDEM, OAQ and/or OES dated May 24, 2001 that describes in detail procedures for inspection, maintenance and bag leak detection and corrective action plans for baghouses #035 and #037. The Standard Operating Procedures Manual shall, at a minimum, include the following requirements of 40 CFR 63.548(c)(d)(e) and (f):
  - (1) Daily monitoring of pressure drop across each baghouse cell.
  - (2) Weekly confirmation that dust is being removed from hoppers through visual inspection or equivalent means of ensuring proper functioning of removal mechanism.
  - (3) For Baghouse #037, a daily check of compressed air supply.
  - (4) An appropriate methodology for monitoring cleaning cycles to ensure proper operation.
  - (5) Monthly check of bag cleaning mechanisms for proper functioning through visual inspection or equivalent means.
  - (6) For Baghouse #035, a monthly check of bag tension. Such checks are not required for shaker type baghouses using self tensioning (spring load) devices.

- (7) Quarterly confirmation of the physical integrity of the baghouse through visual inspection of the baghouse interior for air leaks.
  - (8) Quarterly inspection of fan for wear, material buildup, and corrosion.
  - (9) Continuous operation of a bag leak detection system for baghouse # 035 and # 037 that meets the following specifications and requirements:
    - (A) The baghouse leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions concentrations of ten (10) milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.
    - (B) The baghouse leak detection system sensor must provide output of relative particulate matter loadings.
    - (C) The baghouse leak detection system must be equipped with an alarm system that will alarm when an increase in relative particulate loading is detected over a preset level.
    - (D) The bag leak detection system shall be installed and operated in a manner consistent with available written guidance from the U.S. E.P.A. or in the absence of such written guidance, the manufacturer's written specifications and recommendations for installation, operation, and adjustment of the system.
    - (E) The initial adjustments of the system shall, at a minimum, consist of establishing a baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points and the alarm delay time.
    - (F) Following the initial adjustment, the Permittee shall not adjust the sensitivity or range, averaging period, alarm set points, and alarm delay time only as detailed in the SOP.
    - (G) Whenever the alarm on a bag leak detector is set off, Quemetco, Inc. personnel will implement the procedures outlined in its current SOP Manual.
  - (10) The procedures specified in the Standard Operating Procedures manual for maintenance shall, at a minimum, include a preventative maintenance schedule that is consistent with the baghouse manufacturer's instructions for routine and long-term maintenance.
  - (11) The Standard Operating Procedures Manual shall include a corrective action plan that specifies the procedures to be followed in the case of a bag leak detection system alarm. The corrective action plan shall include, at a minimum, the procedures used to determine and record the time and cause of the alarm as well as the corrective actions taken to correct the control device malfunction or minimize emissions as specified below:
    - (A) The procedures used to determine the cause of the alarm must be initiated within thirty (30) minutes of the alarm.
    - (B) The cause of the alarm must be alleviated by taking the necessary corrective action(s) which may include but not be limited to:
      - (i) Inspecting the baghouse for air leaks, torn or broken filter elements, or any other malfunction that may cause an increase in emissions.
      - (ii) Sealing off defective bags or filter media, or otherwise
      - (iii) Replacing defective bags or filter media, or otherwise repairing the control device.
      - (iv) Sealing off a defective baghouse compartment.
      - (v) Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system.
      - (vi) Shutting down the process producing the particulate emissions.
- (b) Pursuant to 326 IAC 20-13-8, the Permittee shall meet the following requirements for a

continuous baghouse leak detection system:

- (1) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of ten (10) milligrams per actual cubic meter (forty-four ten thousandths (0.0044) grains per actual cubic foot) or less.
- (2) The bag leak detection system sensor must provide output of relative particulate matter loadings, and the Permittee must continuously record the output from the bag leak detection system.
- (3) The bag leak detection system must be equipped with an alarm system that will alert appropriate plant personnel when an increase in relative particulate loadings is detected over a preset level. The alarm must be located where it can be heard by the appropriate plant personnel.
- (4) Each bag leak detection system that works based on the triboelectric effect must be installed, calibrated, operated, and maintained consistent with the U.S. Environmental Protection Agency guidance document "Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015, September 1997). Other bag leak detection systems must be installed, calibrated, and maintained consistent with the manufacturer's written specifications and recommendations.
- (5) The initial adjustment of the system must, at a minimum, consist of establishing:
  - (A) the baseline output by adjusting the sensitivity (range);
  - (B) the averaging period of the device;
  - (C) the alarm set points; and
  - (D) the alarm delay time.
- (6) Following initial adjustment, the Permittee must not adjust the:
  - (A) sensitivity or range;
  - (B) averaging period;
  - (C) alarm set points; or
  - (D) alarm delay time;

except as detailed in the maintenance plan required under 40 CFR 63.548(a). In no event must the sensitivity be increased by more than one hundred percent (100%) or decreased more than fifty percent (50%) over a three hundred sixty-five (365) day period unless a responsible official certifies the baghouse has been inspected and found to be in good operating condition.
- (7) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.
- (8) For Baghouse #035 and Baghouse #037, the bag leak detector must be installed downstream of the baghouse and upstream of the wet acid gas scrubber, Scrubber #046.

**D.1.14 Continuous Emissions Monitoring [Construction Permit 960079-04][326 IAC 3-5]**

Pursuant to Construction Permit 960079-04, the Permittee shall have a certified Continuous Emissions Monitoring system (CEM) for SO<sub>2</sub> emissions on Stack/Vent S-111 installed, calibrated, operated and maintained in compliance with 326 IAC 3-5-2, 326 IAC 3-5-3, 326 IAC 3-5-4 and 326 IAC 3-5-5.

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

**D.1.15 Visible Emissions Notations**

- (a) Whenever the baghouse leak detection system is malfunctioning or down for repairs or adjustments for a period of four (4) hours or more, visible emission notations of Stack/Vent S-111 stack exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere until the baghouse leak detection system is repaired or replaced. 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) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

#### D.1.16 Parametric Monitoring

Whenever the baghouse leak detection system is malfunctioning or down for repairs or adjustments for a period of four (4) hours or more, the Permittee shall record the total static pressure drop across Baghouse #035 and #037 at least once per shift when in operation when venting to the atmosphere until the baghouse leak detection system is repaired or replaced. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records and Reports shall be considered a deviation from this permit.

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

#### D.1.17 Scrubber Operation

- (a) An inspection of the scrubber shall be performed at least once every two years, in accordance with the Preventive Maintenance Plan prepared in accordance with Section B - Preventive Maintenance Plan. Defective parts shall be replaced. A record shall be kept of the results of the inspection and the part(s) replaced.
- (b) Inspections shall be made whenever there is an outage of any nature lasting more than three (3) days unless such measurements have been taken within the past twelve (12) months.
- (c) Reasonable response steps shall be taken in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports for any improper or abnormal conditions found during an inspection. Discovery of an abnormal or improper condition is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

#### D.1.18 SO<sub>2</sub> Monitor Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(1)]

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Whenever the SO<sub>2</sub> Continuous Emission Monitor (CEM) is malfunctioning or will be down for repairs or adjustments for a period of four (4) hours or more, one of the following methods shall be used to provide information related to SO<sub>2</sub> emissions:

- (a) A calibrated backup CEM for Stack/Vent S-111 shall be brought online within four (4) hours of shutdown of the primary CEM, or
- (b) The Permittee shall monitor and record the water flow rate and the pH of Scrubber #046 water at least once every hour when exhausting to Stack/Vent S-111. The Scrubber #046 water flow rate shall be maintained at a flow rate of greater than 90 gallons per minute and shall maintain a pH of 6 to 9. The Permittee shall monitor and record the water flow rate and the pH at least once every hour until the CEM for Stack/Vent S-111 is returned to operation.

These monitoring conditions are necessary because the facilities and associated control devices must function properly to ensure compliance with SO<sub>2</sub> limits under 326 IAC 7-4-2 (Sulfur Dioxide Emission Limitations: Marion County), 326 IAC 2-3 (Emissions Offset) and Construction Permit Amendment A0970079.

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

### **D.1.19 Record Keeping Requirements**

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- (a) Pursuant to 40 CFR Part 63.550 and 326 IAC 20-13, the Permittee shall maintain records for bag leak detection systems on site for a period of three (3) years and be available for an additional two (2) years and shall include the following information:
  - (1) Records of bag leak detection system output.
  - (2) Identification of the date and time of all bag leak detection system alarms.
  - (3) The time that procedures to determine the cause of the alarm were initiated.
  - (4) The cause of the alarm.
  - (5) An explanation of the actions taken.
  - (6) The date and time the alarm was corrected.
  - (7) Records of total operating time of an affected source during smelting operations for each six (6) month period.
  - (8) Any record keeping required as part of the practices described in the Standard Operating Procedures Manual for baghouses required under 40 CFR 63.548(a).
- (b) The Permittee shall keep records on the continuous SO<sub>2</sub> emissions monitoring systems in accordance with 326 IAC 3-5-6.
- (c) To document compliance with Condition D.1.15, the Permittee shall maintain records of visible emission notations of the stack exhaust from Stack/Vent S-111 once per shift.
- (d) To document compliance with Condition D.1.16, the Permittee shall maintain records of once per shift total static pressure drop checks during normal operation when venting to the atmosphere.
- (e) To document compliance with Condition D.1.18, the Permittee shall maintain records of the once per hour pH checks of Scrubber #046.
- (f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

### **D.1.20 Reporting Requirements**

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- (a) Pursuant to 40 CFR 63.550, the Permittee shall comply with all of the reporting requirements under 40 CFR 63.10 of the General Provisions. The submittal of reports shall be no less frequent than specified under 40 CFR 63.10(e)(3) of the General Provisions. Once a source reports a violation of the standard or excess emissions, the source shall follow the reporting

format required under 40 CFR 63.10(e)(3) until a request to reduce reporting frequency is approved. The reports shall include the information specified in (1) through (4) of this Condition.

- (1) The report shall include records of all alarms from the bag leak detection system specified in 40 CFR 63.548(e).
  - (2) The report shall include a description of the procedures taken following each bag leak detection system alarm pursuant to 40 CFR 63.548(f)(1) and (2).
  - (3) The reports shall contain a summary of the records maintained as part of the practices described in the standard operating procedures manual for Baghouse #035 and Baghouse #037 as required under 40 CFR 63.548(a) including an explanation of the periods when the procedures were not followed and the corrective actions taken.
  - (4) The reports shall contain a summary of the records maintained as part of the practices described in the Standard Operating Procedures Manual for Baghouse #035 and #037 required under 40 CFR 63.548(a), including an explanation of the periods when the procedures outlined in the Standard Operating Procedures Manual were not followed and the corrective actions taken.
- (b) Pursuant to 326 IAC 20-13-8, the Permittee shall submit a report within thirty (30) days after the end of each preceding six (6) month period ending June 30 and December 31 of each year that includes the following:
- (1) A description of the actions taken following each bag leak detection system alarm
  - (2) Calculations of the percentage of time the alarm on the bag leak detection system was activated during the reporting period.
- (c) Pursuant to 326 IAC 3-5-7, the Permittee shall submit a quarterly excess emissions report for SO<sub>2</sub> emissions. This report shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, within thirty (30) days after the end of the calendar quarter being reported.

**SECTION D.2**

**FACILITY OPERATION CONDITIONS**

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

- (c) Process Fugitive Emissions from one (1) Reverberatory Furnace, identified as Emission Unit 3.1, used in the smelting of lead from lead acid batteries and scrap lead. Emissions from lead charging are controlled by Baghouses #038 and #041, respectively, and exhaust to one stack identified as Stack/Vent S-100. General furnace emissions are controlled by Baghouse #041 and exhaust to one stack identified as Stack/Vent S-100. Emissions from lead tapping are controlled by Baghouse #039 or Baghouse #040 which exhaust to one stack identified as Stack/Vent S-100. Stack/Vent S-100 is equipped with a Continuous Emissions Monitor (CEM) for sulfur dioxide (SO<sub>2</sub>) emissions. The maximum charge capacity for the Reverberatory Furnace is 828 tons per day. This emission unit was installed in 1972.
- (d) Eight (8) refining kettles, identified as Emission Unit Kettle #1 through Kettle #8, which are used to refine the lead alloy. The refining kettles receive molten lead, solid lead or scrap lead. Reagents and alloying metals are added to the Kettle(s) and mixed into molten lead. A natural gas fired burner system indirectly heats the lead. The combined heat input capacity for the natural gas fired burners is 32 million Btu per hour. Impurities are removed as dross from the surface of the molten lead. Process emissions are controlled by Baghouse #039 or Baghouse #040 which exhaust to one stack identified as Stack/Vent S-100. Stack/Vent S-100 is equipped with a Continuous Emissions Monitor (CEM) for sulfur dioxide (SO<sub>2</sub>) emissions. Combustion emissions from the natural gas burners are vented to separate stacks. Combustion emissions from Kettle #1 are vented to Stack/Vent S-117. Combustion emissions from Kettle #2 are vented to Stack/Vent S-114. Kettle #3 and Kettle #4 are vented to Stack/Vent S-116. Combustion emissions from Kettle #5 and Kettle #6 are vented to Stack/Vent S-115. Combustion emissions from Kettle #7 are vented to Stack/Vent S-113. Combustion emissions from Kettle #8 are vented to Stack/Vent S-112. Kettles #1 through #6 were installed in 1972. Kettles #7 and #8 were installed in 1988 and 1992 respectively. The refining operation is not a time based operation therefore there is no maximum throughput capacity identified. However, an average based on 24 hours of operation and full kettles is 46.3 tons per hour.
- (e) Refining Kettle #9, identified as Emission Unit Kettle #9. Kettle #9 has a capacity of 2.14 tons of lead per hour (180 ton capacity with two batches per week) and is heated by a 4.25 million Btu natural gas burner. The kettle is used to refine lead. Emissions from Kettle #9 are controlled by Baghouse #041, which exhaust to one stack identified as Stack/Vent S-100. Stack/Vent S-100 is equipped with a Continuous Emissions Monitor (CEM) for sulfur dioxide (SO<sub>2</sub>) emissions. Burner emissions are vented through a combustion flue, Stack/Vent S-118, with no controls. Kettle # 9 was installed in 2002.
- (f) One (1) Casting Machine, identified as Emission Unit 7 which receives refined and alloyed lead metal pumped from the refining kettles and casts the molten lead into lead ingots. The casting machine is equipped with a 0.3 million Btu per hour natural gas burner. Emissions from the casting machine are controlled by Baghouse #040 or Baghouse #039 which exhausts to one stack identified as Stack/Vent S-100. Stack/Vent S-100 is equipped with a Continuous Emissions Monitor (CEM) for sulfur dioxide (SO<sub>2</sub>) emissions. The maximum process capacity is limited by the refining kettles. This emission unit was installed prior to 1978.

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

## SECTION D.2 FACILITY OPERATION CONDITIONS

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

- (g) One (1) Electric Arc Furnace (EAF), identified as Emission Unit 3.2, used to recover lead from Reverberatory Furnace slag. The EAF is charged with lead containing materials, and flux, reagents and additives in a continuous process. The charge is heated and melted by passing an electric current through the charge. Molten lead is tapped into molds for subsequent placement/refining in the refining kettles. Slag is tapped and sent to storage to await proper disposal or reprocessing if the lead content is high enough. Process flue gas emissions within the furnace are controlled by Baghouse #036 which exhausts to one stack identified as Stack/Vent S-100. Emissions from lead tapping and slag tapping are controlled by Baghouse #036 which exhausts to one stack identified as Stack/Vent S-100. Process emissions not captured by furnace hoods are controlled by Baghouse #041 which exhausts to one stack identified as Stack/Vent S-100. Stack/Vent S-100 is equipped with a Continuous Emissions Monitor (CEM) for sulfur dioxide (SO<sub>2</sub>) emissions. The maximum charge capacity is 6.5 tons per hour. This emission unit was installed in 1984.
- (h) One (1) Rotary Dryer, identified as Emission Unit 8, used to dry Reverberatory Furnace feed material. Raw material is dumped into a feed hopper which feeds the Rotary Dryer with lead bearing material and furnace additives from lead acid batteries and factory scrap in a continuous process. The Rotary Dryer is heated by an oxygen enriched 14 million Btu per hour natural gas fired burner system. The emissions generated from charging raw material to the feed hopper are controlled by Baghouse #041, which exhausts to one stack identified as Stack/Vent S-100. Process emissions are controlled by Baghouse #041, which exhausts to one stack identified as Stack/Vent S-100. The process fugitive emissions are controlled by Baghouse #038 and by Baghouse #041, which exhaust to one stack identified as Stack/Vent S-100. Stack/Vent S-100 is equipped with a Continuous Emissions Monitor (CEM) for sulfur dioxide (SO<sub>2</sub>) emissions. The maximum process capacity for the Rotary Dryer is limited by the reverberatory furnace. This emission unit was installed prior to 1978.

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

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

#### D.2.1 General Provisions Relating to HAPs [326 IAC 20-1-1][40 CFR 63, Subpart A]

The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facilities described in this Section except when otherwise specified in 40 CFR Part 63, Subpart X (National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting).

#### D.2.2 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to Kettle #7, Kettle #8 and Kettle #9 described in this Section except when otherwise specified in 40 CFR Part 60, Subpart L Standards of Performance for Secondary Lead Smelters).

#### D.2.3 Process Fugitive Emissions [326 IAC 20-13][40 CFR 63.544]

- (a) Pursuant to 40 CFR 63.544, the Permittee shall control process fugitive emission sources as follows:
- (1) Process fugitive emission sources shall be equipped with an enclosure hood meeting the requirements of 40 CFR 63.544(b)(1), (b)(2) and (b)(3) or be located in a total enclosure subject to general ventilation that maintains the building at a lower than ambient pressure to ensure in-draft through any doorway opening.

- (2) Ventilation air from all enclosure hoods and total enclosures shall be conveyed to a control device. Gases discharged to the air from these control devices shall not contain Lead compounds in excess of two (2.0) milligrams of Lead per dry standard cubic meter of exhaust (0.00087 grains per dry standard cubic foot of exhaust).
  - (3) All dryer emission vents shall be ventilated to a control device that shall not discharge to the atmosphere any gases that contain Lead compounds in excess of two (2.0) milligrams of Lead per dry standard cubic meter (0.00087 grains per dry standard cubic foot of exhaust).
- (b) Pursuant to 326 IAC 20-13-7(f), ventilation air from the following shall be conveyed or ventilated to a control device:
- (1) All enclosure hoods and total enclosures.
  - (2) All dryer emission vents.

#### D.2.4 Lead Emissions Limitation [326 IAC 20-13][326 IAC 20-13-2][40 CFR 63.543(a)]

- (a) Pursuant to 40 CFR 63.543(a) (National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting), the process emissions of lead compounds from the Electric Arc Furnace, identified as Emission Unit ID 3.2, and the Rotary Dryer, identified as Emission Unit ID 8, which exhaust to Stack/Vent S-100, shall not exceed two (2.0) milligrams of lead per dry standard cubic meter of exhaust (0.00087 grains per dry standard cubic foot of exhaust).
- (b) Pursuant to 326 IAC 20-13-2 (Hazardous Air Pollutants: Secondary Lead Smelters Emission Limitations; Lead Standards for Quemetco, Incorporated), Lead emissions from Stack/Vent S-100 shall not exceed one (1.0) milligram per dry standard cubic meter (0.00044 grains per dry standard cubic feet of exhaust air).

#### D.2.5 PSD Minor Lead Limit [326 IAC 2-2][Installation Permit 11005]

In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements) not applicable, Lead emissions from the Electric Arc Furnace (EAF) shall be limited to five ten thousandths (0.0005) grains per dry standard cubic foot of exhaust and one hundred thirty four thousandths (0.134) pounds per hour. This emissions limitation is equivalent to less than six tenths (0.6) tons of Lead per twelve (12) consecutive month period with compliance determined at the end of each month. Compliance with these emissions limitations makes 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements) not applicable.

#### D.2.6 Particulate (PM) Limit [326 IAC 6-1-2(a)]

- (a) Pursuant to 326 IAC 6-1-2(a), Particulate emissions from Stack/Vent S-100 shall not exceed three hundredths (0.03) grains per dry standard cubic foot of exhaust air.
- (b) Pursuant to 326 IAC 6-1-2(a), Particulate emissions from Stack/Vent S-112, S-113, S-114, S-115, S-116, S-117 and S-118 each shall not exceed three hundredths (0.03) grains per dry standard cubic foot of exhaust air.

#### D.2.7 PSD Minor PM-10 Limit [326 IAC 2-2][Installation Permit 11005]

In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements) not applicable, filterable and condensable PM-10 emissions from the Electric Arc Furnace (EAF) shall be limited to twenty three thousandths (0.023) grains per dry standard cubic foot of exhaust and three and four tenths (3.4) pounds per hour. This emissions limitation is equivalent to less than fifteen (15) tons of PM-10 per twelve consecutive month period with compliance determined at the end of each month. Compliance with this emission limitation makes 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements) not applicable.

#### D.2.8 Sulfur Dioxide (SO<sub>2</sub>) Emissions Limit [Construction Permit Amendment A0970079]

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Pursuant to Construction Permit Amendment A0970079, SO<sub>2</sub> emissions from Stack/Vent S-100 are limited to three hundred sixty six (366.0) pounds per hour.

D.2.9 PSD Minor Sulfur Dioxide (SO<sub>2</sub>) Limit [326 IAC 2-2][Installation Permit 11005]

In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements) not applicable, SO<sub>2</sub> emissions from the Electric Arc Furnace (EAF) shall not exceed nine and one tenths (9.1) pounds per hour. This emissions limitation is equivalent to less than forty (40) tons of SO<sub>2</sub> per twelve (12) consecutive month period with compliance determined at the end of each month. Compliance with this emissions limitation makes 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements) not applicable.

D.2.10 Opacity Limitation [326 IAC 20-13-7][Construction Permit 960079-03][40 CFR 60.120]

Pursuant to 326 IAC 20-13-7;

- (a) Stack/Vent S-100 exhaust shall not exceed five percent (5.0%) opacity as determined by 40 CFR Part 60 Appendix A Method 9 or an acceptable alternative method as defined in Method 9. Compliance with this opacity limitation demonstrates compliance with the Construction Permit 960079-03 opacity limitation of ten percent (10%) as determined by 40 CFR Part 60 Appendix A Method 9 or an acceptable alternative method as defined in Method 9. Compliance with this opacity limitation demonstrates compliance with the 40 CFR 60.120 opacity limitation of ten percent (10%) for Kettle #7, Kettle #8 and Kettle #9 as determined by 40 CFR Part 60 Appendix A Method 9 or an acceptable alternative method as defined in Method 9.
- (b) Exterior dust handling systems of dry collectors of Lead emitting processes (augers, hoppers, transfer points) shall not discharge to the atmosphere visible emissions in excess of five percent (5.0%) of an observation period consisting of three (3) twenty (20) minute periods, as determined by 40 CFR 60, Appendix A, Reference Method 22. The provisions under this subdivision for dust handling systems shall not apply during maintenance and repair of the dust handling systems. During maintenance and repair of the dust handling systems, the Permittee shall take reasonable measures to prevent or minimize fugitive dust emissions.
- (c) The opacity limitations shall only apply to particulate matter emissions.

D.2.11 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for Emission Unit 3.1, 3.2, 7, 8 and Kettles #1 through #9 exhausting at Stack/Vent S-100 and any control devices.

## **Compliance Determination Requirements**

D.2.12 Particulate Control

In order to comply with Condition D.2.3 through D.2.7, the Baghouses identified as #036, #038, #039, #040 and #041 for particulate control shall be in operation and control emissions from Emission Unit 3.1, 3.2, 7, 8 and Kettles #1 through #9 at all times that Emission Unit 3.1, 3.2, 7, 8 and Kettles #1 through #9 are in operation.

D.2.13 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11][326 IAC 20-13][40 CFR 63.543][40 CFR 63.544]

- (a) Pursuant to 326 IAC 20-13-6, the Permittee shall conduct a compliance test for Lead compounds from Stack Vent S-100 on an annual basis, no later than twelve (12) calendar months following the previous compliance test. If a compliance test demonstrates a source emitted Lead compounds from Stack/Vent S-100 less than or equal to fifty percent (50.0%) of the applicable limit under this rule during the compliance test, the Permittee shall be allowed up to twenty four (24) calendar months from the previous compliance test to conduct the next compliance test for Lead compounds. Pursuant to 326 IAC 20-13-6, retesting for Lead compounds from Stack/Vent S-100 shall be conducted no later than March 27, 2004.

The test shall be conducted utilizing Methods specified in 40 CFR Part 63.547(a). In addition to these requirements, IDEM, OAQ and/or OES may require compliance testing at any time when it is deemed necessary to determine compliance with condition D.2.4.

- (b) Within one hundred and eighty days of restarting the EAF and, in order to demonstrate compliance with Condition D.2.7, the Permittee shall perform PM-10 testing for the Electric Arc Furnace (EAF), identified as Emission Unit 3.2, utilizing methods approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensable PM-10. Testing shall be conducted in accordance with Section C - Performance Testing.

#### D.2.14 Monitoring Requirements [326 IAC 20-13][40 CFR 63.548]

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- (a) Pursuant to 40 CFR 63.548(a) and (b) and 326 IAC 20-13-5, the Permittee shall operate at all times in accordance with the Standard Operating Procedures Manual approved by IDEM, OAQ and/or OES dated May 24, 2001 that describes in detail procedures for inspection, maintenance and bag leak detection and corrective action plans for baghouses #036, #038, #039, #040 and #041. The Standard Operating Procedures Manual shall, at a minimum, include the following requirements of 40 CFR 63.548(c)(d)(e) and (f):
- (1) Daily monitoring of pressure drop across each baghouse cell.
  - (2) Weekly confirmation that dust is being removed from hoppers through visual inspection or equivalent means of ensuring proper functioning of removal mechanism.
  - (3) For Baghouse #036 and Baghouse #041, a daily check of compressed air supply.
  - (4) An appropriate methodology for monitoring cleaning cycles to ensure proper operation.
  - (5) Monthly check of bag cleaning mechanisms for proper functioning through visual inspection or equivalent means.
  - (6) For Baghouse #038, Baghouse #039 and Baghouse #040, a monthly check of bag tension. Such checks are not required for shaker type baghouses using self tensioning (spring load) devices.
  - (7) Quarterly confirmation of the physical integrity of the baghouse through visual inspection of the baghouse interior for air leaks.
  - (8) Quarterly inspection of fan for wear, material buildup, and corrosion.
  - (9) Continuous operation of a bag leak detection system for baghouse # 035 and # 037 that meets the following specifications and requirements:
    - (A) The baghouse leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.
    - (B) The baghouse leak detection system sensor must provide output of relative particulate matter loadings.
    - (C) The baghouse leak detection system must be equipped with an alarm system that will alarm when an increase in relative particulate loading is detected over a preset level.
    - (D) The bag leak detection system shall be installed and operated in a manner consistent with available written guidance from the U.S. E.P.A. or in the absence of such written guidance, the manufacturer's written specifications and recommendations for installation, operation, and adjustment of the system.
    - (E) The initial adjustments of the system shall, at a minimum, consist of establishing a baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points and the alarm delay time.
    - (F) Following the initial adjustment, the Permittee shall not adjust the sensitivity or range, averaging period, alarm set points, and alarm delay time only as detailed in the SOP.

- (G) Whenever the alarm on a bag leak detector is set off, Quemetco, Inc. personnel will implement the procedures outlined in its current SOP Manual.
- (10) The procedures specified in the Standard Operating Procedures manual for maintenance shall, at a minimum, include a preventative maintenance schedule that is consistent with the baghouse manufacturer's instructions for routine and long-term maintenance.
- (11) The Standard Operating Procedures Manual shall include a corrective action plan that specifies the procedures to be followed in the case of a bag leak detection system alarm. The corrective action plan shall include, at a minimum, the procedures used to determine and record the time and cause of the alarm as well as the corrective actions taken to correct the control device malfunction or minimize emissions as specified below:
  - (A) The procedures used to determine the cause of the alarm must be initiated within thirty (30) minutes of the alarm.
  - (B) The cause of the alarm must be alleviated by taking the necessary corrective action(s) which may include but not be limited to:
    - (i) Inspecting the baghouse for air leaks, torn or broken filter elements, or any other malfunction that may cause an increase in emissions.
    - (ii) Sealing off defective bags or filter media, or otherwise
    - (iii) Replacing defective bags or filter media, or otherwise repairing the control device.
    - (iv) Sealing off a defective baghouse compartment.
    - (v) Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system.
    - (vi) Shutting down the process producing the particulate emissions.
- (b) Pursuant to 326 IAC 20-13-8, the Permittee shall meet the following requirements for a continuous baghouse leak detection system:
  - (1) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of ten (10) milligrams per actual cubic meter (forty-four ten thousandths (0.0044) grains per actual cubic foot) or less.
  - (2) The bag leak detection system sensor must provide output of relative particulate matter loadings, and the Permittee must continuously record the output from the bag leak detection system.
  - (3) The bag leak detection system must be equipped with an alarm system that will alert appropriate plant personnel when an increase in relative particulate loadings is detected over a preset level. The alarm must be located where it can be heard by the appropriate plant personnel.
  - (4) Each bag leak detection system that works based on the triboelectric effect must be installed, calibrated, operated, and maintained consistent with the U.S. Environmental Protection Agency guidance document "Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015, September 1997). Other bag leak detection systems must be installed, calibrated, and maintained consistent with the manufacturer's written specifications and recommendations.
  - (5) The initial adjustment of the system must, at a minimum, consist of establishing:
    - (A) the baseline output by adjusting the sensitivity (range);
    - (B) the averaging period of the device;

- (C) the alarm set points; and
  - (D) the alarm delay time.
- (6) Following initial adjustment, the Permittee must not adjust the:
- (A) sensitivity or range;
  - (B) averaging period;
  - (C) alarm set points; or
  - (D) alarm delay time;

except as detailed in the maintenance plan required under 40 CFR 63.548(a). In no event must the sensitivity be increased by more than one hundred percent (100%) or decreased more than fifty percent (50%) over a three hundred sixty-five (365) day period unless a responsible official certifies the baghouse has been inspected and found to be in good operating condition.

- (7) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.
- (8) For Baghouse #036, #038, #039, #040 and #041, the bag leak detector must be installed downstream of the baghouse.

#### D.2.15 Continuous Emissions Monitoring [Construction Permit 960079-03][326 IAC 3-5]

Pursuant to Construction Permit 960079-03, the Permittee shall have a certified Continuous Emissions Monitoring system (CEM) for SO<sub>2</sub> emissions on Stack/Vent S-100 installed, calibrated, operated and maintained in compliance with 326 IAC 3-5-2, 326 IAC 3-5-3, 326 IAC 3-5-4 and 326 IAC 3-5-5.

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

#### D.2.16 Visible Emissions Notations

- (a) Whenever the baghouse leak detection system is malfunctioning or down for repairs or adjustments for a period of four (4) hours or more, visible emission notations of Stack/Vent S-100 stack exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere until the baghouse leak detection system is repaired or replaced. 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) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

#### D.2.17 Parametric Monitoring

Whenever the baghouse leak detection system is malfunctioning or down for repairs or adjustments for a period of four (4) hours or more, the Permittee shall record the total static pressure drop across Baghouse #036, #038, #039, #040 and #041 at least once per shift when the associated units are in operation when venting to the atmosphere until the baghouse leak detection system is repaired

or replaced. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records and Reports shall be considered a deviation from this permit.

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

**D.2.18 SO<sub>2</sub> Monitor Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(1)]**

Whenever the SO<sub>2</sub> Continuous Emission Monitor (CEM) is malfunctioning or will be down for repairs or adjustments for a period of four (4) hours or more, a calibrated backup CEM for Stack/Vent S-100 shall be brought online within four (4) hours of shutdown of the primary CEM.

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

**D.2.19 Record Keeping Requirements**

- (a) Pursuant to 40 CFR Part 63.550 and 326 IAC 20-13, the Permittee shall maintain records for bag leak detection systems on site for a period of three (3) years and be available for an additional two (2) years and shall include the following information:
- (1) Records of bag leak detection system output.
  - (2) Identification of the date and time of all bag leak detection system alarms.
  - (3) The time that procedures to determine the cause of the alarm were initiated.
  - (4) The cause of the alarm.
  - (5) An explanation of the actions taken.
  - (6) The date and time the alarm was corrected.
  - (7) Records of total operating time of an affected source during smelting operations for each six (6) month period.
  - (8) Any record keeping required as part of the practices described in the Standard Operating Procedures Manual for baghouses required under 40 CFR 63.548(a).
- (b) The Permittee shall keep records on the continuous SO<sub>2</sub> emissions monitoring systems in accordance with 326 IAC 3-5-6.
- (c) To document compliance with Condition D.2.16, the Permittee shall maintain records of visible emission notations of the stack exhaust from Stack/Vent S-100 once per shift.
- (d) To document compliance with Condition D.2.17, the Permittee shall maintain records of once per shift total static pressure drop checks during normal operation when venting to the atmosphere.
- (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**D.2.20 Reporting Requirements**

- (a) Pursuant to 40 CFR 63.550, the Permittee shall comply with all of the reporting requirements under 40 CFR 63.10 of the General Provisions. The submittal of reports shall be no less frequent than specified under 40 CFR 63.10(e)(3) of the General Provisions. Once a source reports a violation of the standard or excess emissions, the source shall follow the reporting format required under 40 CFR 63.10(e)(3) until a request to reduce reporting frequency is approved. The reports shall include the information specified in (1) through (4) of this Condition.

- (1) The report shall include records of all alarms from the bag leak detection system specified in 40 CFR 63.548(e).
  - (2) The report shall include a description of the procedures taken following each bag leak detection system alarm pursuant to 40 CFR 63.548(f)(1) and (2).
  - (3) The reports shall contain a summary of the records maintained as part of the practices described in the standard operating procedures manual for baghouses required under 40 CFR 63.548(a) including an explanation of the periods when the procedures were not followed and the corrective actions taken.
  - (4) The reports shall contain a summary of the records maintained as part of the practices described in the Standard Operating Procedures Manual for Baghouse #036, #038, #039, #040 and #041 required under 40 CFR 63.548(a), including an explanation of the periods when the procedures outlined in the Standard Operating Procedures Manual were not followed and the corrective actions taken.
- (b) Pursuant to 326 IAC 20-13-8, the Permittee shall submit a report within thirty (30) days after the end of each preceding six (6) month period ending June 30 and December 31 of each year that includes the following:
- (1) A description of the actions taken following each bag leak detection system alarm
  - (2) Calculations of the percentage of time the alarm on the bag leak detection system was activated during the reporting period.
- (c) Pursuant to 326 IAC 3-5-7, the Permittee shall submit a quarterly excess emissions report for SO<sub>2</sub> emissions. This report shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, within thirty (30) days after the end of the calendar quarter being reported.

**SECTION D.3**

**FACILITY OPERATION CONDITIONS**

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

- (i) General Building Ventilation of the bin 10 feed storage area, identified as GV101. Portions of process fugitive emissions generated by operations conducted in this area are controlled by Roof Vent Baghouse RV #1 and exhausting to Stack/Vent S-101. These operations potentially generate fugitive emissions from storage and handling of reverberatory charge materials and general emissions generated by traffic and housekeeping activities. Roof Vent Baghouse RV #1 was installed in 1991.
- (j) General Building Ventilation of the cold charge electric arc furnace building west, identified as GV102. Portions of process fugitive emissions generated by operations conducted in this area are controlled by Roof Vent Baghouse RV #2 and exhausting to Stack/Vent S-102. These operations potentially generating fugitive emissions include the Electric Arc Furnace, slag and lead tapping, furnace charging, feed hopper, feed conveyor, charge make-up, slag handling (shaking), and general emissions generated by traffic and housekeeping activities. Roof Vent Baghouse RV #2 was installed in 1991.
- (k) General Building Ventilation of the cold charge electric arc furnace building east, identified as GV103. Portions of process fugitive emissions generated by operations conducted in this area are controlled by Roof Vent Baghouse RV #3 and exhausting to Stack/Vent S-103. These operations potentially generating fugitive emissions include the electric arc furnace, slag and lead tapping, furnace charging, feed hopper, feed conveyor, charge make-up, slag handling (shaking), and general emissions generated by traffic and housekeeping activities. Roof Vent Baghouse RV #3 was installed in 1991.
- (l) General Ventilation for the reverb charge room, identified as GV104. Portions of process fugitive emissions generated by operations conducted in this area are controlled by Roof Vent Baghouse RV #4 and exhausting to Stack/Vent S-104. These operations potentially generating fugitive emissions include make up of reverberatory charge materials and general emissions generated by traffic and housekeeping activities. Roof Vent Baghouse RV #4 was installed in 1991.
- (m) General Ventilation for the cold charge electric arc furnace slag room, identified as GV105. Portions of process fugitive emissions generated by operations conducted in this area are controlled by roof vent Baghouse RV #5 and exhausting to Stack/Vent S-105. These operations potentially generating fugitive emissions include general handling and storage of charge materials such as slag, iron, limestone and coke, and general emissions generated by traffic and housekeeping activities. Roof Vent Baghouse RV #5 was installed in 1991.
- (n) General Ventilation for the reverb furnace and slag reduction furnace (SRF), identified as GV106. Portions of process fugitive emissions generated by operations conducted in this area are controlled by Roof Vent Baghouse RV #6 and exhausting to Stack/Vent S-106. These operations potentially generating fugitive emissions include the Reverberatory/Slag Reduction Furnaces - lead and slag tapping, furnace charging, feed conveyor, slag handling, and general emissions generated by traffic and housekeeping activities. Roof Vent Baghouse RV #6 was installed in 1991.

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

## SECTION D.3 FACILITY OPERATION CONDITIONS

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

- (o) General Ventilation of the north refinery area, identified as GV107. Portions of process fugitive emissions generated by operations conducted in this area are controlled by Roof Vent Baghouse RV #7 and exhausting to Stack/Vent S-107. The operations potentially generating fugitive emissions include the 8 refining kettles, kettle charging, dross skimming, casting, natural gas fired trimmer burners rated at 1.8 million Btu in the casting machine area and general emissions generated by traffic and housekeeping activities. Roof Vent Baghouse RV #7 was installed in 1991.
- (p) General Ventilation of the slag reduction furnace area, identified as GV108. Portions of process fugitive emissions generated by operations conducted in this area are controlled by Roof Vent Baghouse RV #8 and exhausting to Stack/Vent S-108. These operations potentially generating fugitive emissions include the slag reduction/ reverberatory furnace - lead and slag tapping, furnace charging, feed conveyor, slag handling and general emissions generated by traffic and housekeeping activities. Roof Vent Baghouse RV #8 was installed in 1992.
- (q) General Ventilation of the south refinery area, identified as GV109. Portions of process fugitive emissions generated by operations conducted in this area are controlled by Roof Vent Baghouse RV #9 and exhausting to Stack/Vent S-109. These operations potentially generating fugitive emissions include 8 refining kettles, kettle charging, dross skimming, casting and general emissions generated by traffic and housekeeping activities. Roof Vent Baghouse RV #9 was installed in 1995.

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

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

#### D.3.1 General Provisions Relating to HAPs [326 IAC 20-1-1][40 CFR 63, Subpart A]

The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facilities described in this Section except when otherwise specified in 40 CFR Part 63, Subpart X (National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting).

#### D.3.2 Process Fugitive Emissions [326 IAC 20-13][40 CFR 63.544]

- (a) Pursuant to 40 CFR 63.544, the Permittee shall control process fugitive emission sources as follows:
  - (1) Process fugitive emission sources shall be equipped with an enclosure hood meeting the requirements of 40 CFR 63.544(b)(1), (b)(2) and (b)(3) or be located in a total enclosure subject to general ventilation that maintains the building at a lower than ambient pressure to ensure in-draft through any doorway opening.
  - (2) Ventilation air from all enclosure hoods and total enclosures shall be conveyed to a control device. Gases discharged to the air from these control devices shall not contain Lead compounds in excess of two (2.0) milligrams of Lead per dry standard cubic meter of exhaust (0.00087 grains per dry standard cubic foot of exhaust).
  - (3) All dryer emission vents shall be ventilated to a control device that shall not discharge to the atmosphere any gases that contain Lead compounds in excess of two (2.0) milligrams of Lead per dry standard cubic meter (0.00087 grains per dry standard cubic foot of exhaust).
- (b) Pursuant to 326 IAC 20-13-7(f), ventilation air from the following shall be conveyed or

ventilated to a control device:

- (1) All enclosure hoods and total enclosures.
- (2) All dryer emission vents.

**D.3.3 Lead Emissions Limitation [326 IAC 20-13][326 IAC 20-13-2][40 CFR Part 63.544(c)][40 CFR 63.545(e)]**

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- (a) Pursuant to 40 CFR 63.545(e) (National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting), the fugitive emissions of lead compounds from Roof Vent Baghouse RV #1, RV #2, RV #3, RV# 4 and RV #5, which exhaust to Stack/Vent S-101, S-102, S-103, S-104 and S-105, respectively, each shall not exceed two (2.0) milligrams of lead per dry standard cubic meter of exhaust (0.00087 grains per dry standard cubic foot of exhaust).
- (b) Pursuant to 326 IAC 20-13-2 (Hazardous Air Pollutants: Secondary Lead Smelters Emission Limitations; Lead Standards for Quemetco, Incorporated), Lead emissions from Stack/Vent S-101, S-102, S-103, S-104, S-105, S-106, S-107, S-108 and S-109 each shall not exceed five tenths (0.5) milligram per dry standard cubic meter of exhaust (0.00022 grains per dry standard cubic feet of exhaust air).

**D.3.4 Particulate (PM) Limit [326 IAC 6-1-2(a)]**

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Pursuant to 326 IAC 6-1-2(a), Particulate emissions from Stack/Vent S-101, S-102, S-103, S-104, S-105, S-106, S-107, S-108 and S-109 each shall not exceed three hundredths (0.03) grains per dry standard cubic foot of exhaust air.

**D.3.5 Opacity Limitation [326 IAC 20-13]**

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Pursuant to 326 IAC 20-13-7;

- (a) Stack/Vent S-101, S-102, S-103, S-104, S-105, S-106, S-107, S-108 and S-109 each shall not exceed five percent (5.0%) opacity as determined by 40 CFR Part 60 Appendix A Method 9 or an acceptable alternative method as defined in Method 9.
- (b) Exterior dust handling systems of dry collectors of Lead emitting processes (augers, hoppers, transfer points) shall not discharge to the atmosphere visible emissions in excess of five percent (5.0%) of an observation period consisting of three (3) twenty (20) minute periods, as determined by 40 CFR 60, Appendix A, Reference Method 22. The provisions under this subdivision for dust handling systems shall not apply during maintenance and repair of the dust handling systems. During maintenance and repair of the dust handling systems, the Permittee shall take reasonable measures to prevent or minimize fugitive dust emissions.

**D.3.6 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**

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A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for Roof Vent Baghouses RV# 1 through RV #9.

**Compliance Determination Requirements**

**D.3.7 Particulate Control**

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In order to comply with Condition D.3.2, D.3.3 and D.3.4, the Baghouses identified as RV #1, RV #2, RV #3, RV #4, RV #5, RV #6, RV #7, RV #8 and RV #9 for particulate control shall be in operation and control emissions at all times that process fugitive and fugitive emission sources are in operation.

D.3.8 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11][326 IAC 20-13][40 CFR 63.544][40 CFR 63.545]

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- (a) Pursuant to 326 IAC 20-13-6, the Permittee shall conduct testing for Lead compounds from Stack/Vent S-106, S-107, S-108 and S-109 on a biennial basis, no later than twenty four (24) calendar months following the previous compliance test to determine compliance with Condition D.3.3. Compliance with this testing schedule demonstrates compliance with the testing and retesting schedule pursuant to 40 CFR Part 63.544(e) for process fugitive emission sources. The Permittee shall conduct testing on Stack/Vent S-106, S-107, S-108 and S-109 for Lead compounds no later than March 25, 2005. The test shall be conducted utilizing Methods specified in 40 CFR Part 63.547(a). In addition to these requirements, IDEM, OAQ and/or OES may require compliance testing at any time when it is deemed necessary to determine compliance with condition D.3.3.
- (b) The Permittee shall conduct testing for Lead compounds on Stack/Vents S-101 S-102, S-103, S-104, and S-105 to determine compliance with Condition D.3.3 within thirty six (36) months after permit issuance. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. The test shall be conducted utilizing Methods specified in 40 CFR Part 63.547(a). In addition to these requirements, IDEM, OAQ and/or OES may require compliance testing at any time when it is deemed necessary to determine compliance with condition D.3.3.

D.3.9 Operating Procedures [326 IAC 20-13][40 CFR 63.548(a),(b),(c),(d) and (g)]

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- (a) Pursuant to 40 CFR 63.548(a) and (b) the Permittee shall operate at all times in accordance with the Standard Operating Procedures Manual approved by IDEM, OAQ and OES dated May 24, 2001 that describes in detail procedures for inspection, maintenance and corrective action plans for Roof Vent baghouses RV #1, RV #2, RV #3, RV #4, RV #5, RV #6, RV #7, RV #8 and RV #9. The Standard Operating Procedures manual shall, at a minimum, include the following requirements of 40 CFR Part 63.548(c)(1) through (8), and (d):
  - (1) Daily monitoring of pressure drop across each baghouse cell.
  - (2) Weekly confirmation that dust is being removed from hoppers through visual inspection or equivalent means of ensuring proper functioning of removal mechanism.
  - (3) Daily check of compressed air supply.
  - (4) An appropriate methodology for monitoring cleaning cycles to ensure proper operation.
  - (5) Monthly check of bag cleaning mechanisms for proper functioning through visual inspection or equivalent means.
  - (6) Quarterly confirmation of the physical integrity of the baghouse through visual inspection of the baghouse interior for air leaks.
  - (7) Quarterly inspection of fan for wear, material buildup, and corrosion.
  - (8) The procedures specified in the Standard Operating Procedures manual for maintenance shall, at a minimum, include a preventative maintenance schedule that is consistent with the baghouse manufacturer's instructions for routine and long-term maintenance.
- (b) Pursuant to 40 CFR 63.548(g), Roof Vent Baghouses RV #1, RV #2, RV #3, RV #4, RV #5, RV #6, RV #7, RV #8 and RV #9 which are each equipped with HEPA filters as a secondary filter to control process fugitive, or fugitive emissions are exempt from the requirement in 40 CFR 63.548(c)(9) to be equipped with a bag leak detector. For each affected source equipped with a HEPA filter, the Permittee shall monitor and record the pressure drop across the HEPA filter system daily. If the pressure drop is outside the limit(s) specified by the filter manufacturer, the Permittee must take appropriate corrective measures, which may include but not limited to the following:
  - (1) Inspecting the filter and filter housing for air leaks and torn or broken filters.

- (2) Replacing defective filter media, or otherwise repairing the control device.
- (3) Sealing off a defective control device by routing air to other control devices.
- (4) Shutting down the process producing the particulate emissions.

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

#### **D.3.10 Visible Emissions Notations**

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- (a) Visible emission notations of Stack/Vent S-101 through S-109 stack exhaust shall be performed once per shift 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) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

#### **D.3.11 Parametric Monitoring**

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The Permittee shall record the total static pressure drop across Roof Vent Baghouses RV #1 through RV #9 at least once per shift when 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 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records and Reports shall be considered a deviation from this permit.

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

#### **D.3.12 Broken or Failed Bag Detection**

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In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be 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.

- (b) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

#### **D.3.13 Record Keeping Requirements**

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- (a) The Permittee shall maintain purchasing records and manufacturer's specifications of HEPA filters installed on all process fugitive and fugitive dust stacks demonstrating the filters have been certified by the manufacturer to meet the definition of HEPA filters in 40 CFR 63.542. The records and manufacturer's specifications shall be maintained on site for three (3) years and shall be available for an additional two (2) years.
- (b) Any recordkeeping required as part of the practices described in the standard operating procedures manual for baghouses required under 40 CFR 63.548(a).
- (c) To document compliance with Condition D.3.10, the Permittee shall maintain records of visible emission notations of the stack exhaust from Stack/Vent S-101 through S-109 once per shift.
- (d) To document compliance with Condition D.3.11, the Permittee shall maintain records of once per shift total static pressure drop checks during normal operation when venting to the atmosphere.
- (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### **D.3.14 Reporting Requirements**

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The Permittee shall comply with all of the reporting requirements under 40 CFR 63.10 of the General Provisions. The submittal of reports shall be no less frequent than specified under 40 CFR 63.10(e)(3) of the General Provisions. Once a source reports a violation of the standard or excess emissions, the source shall follow the reporting format required under 40 CFR 63.10(e)(3) until a request to reduce reporting frequency is approved. The reports shall contain a summary of the records maintained as part of the practices described in the standard operating procedures manual for baghouses required under 40 CFR 63.548(a) including an explanation of the periods when the procedures were not followed and the corrective actions taken.

## SECTION D.4

## FACILITY OPERATION CONDITIONS

### Insignificant Emitting Activities

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

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour. [326 IAC 6-1-2]
  - (1) Maintenance Office HVAC system for natural gas heating at 70,000 Btu per hour.
- (b) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4][326 IAC 20-13][40 CFR 63.541, Subpart X]
- (c) Emergency Gasoline generators not exceeding 110 horsepower. [326 IAC 6-1-2]
- (d) Emergency Diesel generators not exceeding 1600 horsepower. [326 IAC 6-1-2]
- (e) Battery Wrecker [326 IAC 6-1-2][326 IAC 20-13][40 CFR 63.541, Subpart X]
- (f) Roadway Surface Fugitive Emissions [326 IAC 6-4][326 IAC 20-13][40 CFR 63.541, Subpart X]
- (g) Outside Storage Bins: Coke Storage Bin, Iron Storage Bin and Limestone Storage Bin [326 IAC 6-1-2][326 IAC 20-13][40 CFR 63.541, Subpart X]
- (h) General Parts Washing. Installation date of prior to January 1, 1980. [326 IAC 8-3-5]
- (i) Five (5) Soda Ash Silos equipped with baghouse filters. [326 IAC 6-1-2]
- (j) Water Quality Department wet scrubber identified as Unit W W Sly. [326 IAC 6-1-2]

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

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

##### D.4.1 Particulate (PM) Limit [326 IAC 6-1-2(a)]

Pursuant to 326 IAC 6-1-2(a), Particulate emissions from the Maintenance Office HVAC system, Emergency Gasoline Generators, Emergency Diesel Generators, Battery Wrecker, Outside Storage Bins, the five (5) Soda Ash Silos and the Water Quality Department wet scrubber each shall not exceed three hundredths (0.03) grains per dry standard cubic foot of exhaust air.

##### D.4.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), 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°C) (one hundred degrees Fahrenheit (100°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°C) (one hundred degrees Fahrenheit (100°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°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
    - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
    - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
    - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or 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  
and  
INDIANAPOLIS OFFICE of ENVIRONMENTAL SERVICES  
AIR QUALITY MANAGEMENT SECTION  
DATA COMPLIANCE  
PART 70 OPERATING PERMIT  
CERTIFICATION**

Source Name: Quemetco Inc.  
Source Address: 7870 West Morris Street, Indianapolis, Indiana 46231  
Mailing Address: 7870 West Morris Street, Indianapolis, Indiana 46231  
Part 70 Permit No.: T097-6201-00079

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

Please check what document is being certified:

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

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

Signature:

Printed Name:

Title/Position:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH  
P.O. Box 6015  
100 North Senate Avenue  
Indianapolis, Indiana 46206-6015  
Phone: 317-233-5674  
Fax: 317-233-5967  
and  
INDIANAPOLIS Office of Environmental Services  
AIR QUALITY MANAGEMENT SECTION  
DATA COMPLIANCE  
2700 South Belmont Ave.  
Indianapolis Indiana 46221  
Phone: 317-327-2234  
Fax: 317-327-2274**

**PART 70 OPERATING PERMIT  
EMERGENCY OCCURRENCE REPORT**

Source Name: Quemetco Inc.  
Source Address: 7870 West Morris Street, Indianapolis, Indiana 46231  
Mailing Address: 7870 West Morris Street, Indianapolis, Indiana 46231  
Part 70 Permit No.: T097-6201-00079

**This form consists of 2 pages**

**Page 1 of 2**

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

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

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

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

**Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency?    Y    N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , 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  
and  
INDIANAPOLIS OFFICE of ENVIRONMENTAL SERVICES  
AIR QUALITY MANAGEMENT SECTION  
DATA COMPLIANCE  
PART 70 OPERATING PERMIT  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Quemetco Inc.  
Source Address: 7870 West Morris Street, Indianapolis, Indiana 46231  
Mailing Address: 7870 West Morris Street, Indianapolis, Indiana 46231  
Part 70 Permit No.: T097-6201-00079

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 "No deviations occurred this reporting period".

NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

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

Form Completed By: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

# Appendix A

## Listing of Vents/Pick-Up Points per Emission Unit

**Table 1**

Stack/Vent ID	Control Equipment/ID	Control Equipment/ID	Hood/Pickup Point ID	Emission Unit ID
S-111 (SO <sub>2</sub> CEM)	Scrubber # 046	Baghouse # 035 Reverb Process	035-1 Reverb Furnace Flue	3.1 Reverb Furnace Process Emissions
		Baghouse # 037 Slag Reduction Furnace	037-1 SRF Feed Hopper Draft 037-3 SRF Lead Well Draft 037-2 SRF Slag Caster Draft 037-5 SRF Slag Launder Draft 037-4 SRF Furnace Flue 037-6 SRF Slag Caster Draft	3.3 Slag Reduction Furnace (SRF)
S-100 (SO <sub>2</sub> CEM)	----	Baghouse # 038 Reverb Sanitary	038-3 Reverb Feed Chute Stoker Draft 038-1 Rotary Dryer Draft East End 038-2 Rotary Dryer Draft/Belt 1 West End	3.1 Reverb Furnace Process Fugitive Emissions + Emission Unit 8 (Rotary Dryer)
		Baghouse # 036	036-1 Reverb Slag Tap 036-2 SRF Slag Tap 036-3 Kettle 8 Hood Draft 036-4 D Bin/Dross Dumper Hoods 036-5 Slag Tap 036-6 Slag Launder 036-7 Slag Shakers 036-8 Slag Cooling Bin	3.2 Electric Arc Furnace
		Baghouse # 041 Sanitary	041-9 Reverb General Hooding, 041-10 Reverb Feed Chute General, 041-1 Cold Charge Slag Loading Area, 041-2 Cold Charge Hot Slag Bin 041-3 Cold Charge Building West, 041-4 Cold Charge Building East, 041-5 SRF Hot Slag Area 041-6 Cold Charge Feed Hopper, 041-7 Charge Room (Reverb Furnace), 041-8 Reverb Feed Hopper, 041-11 Belt # 1 General, 041-12 West Rotary Dryer Hood General, 041-13 East Rotary Dryer Hood General, 041-14 SRF Hot Slag Drop Out Bin, R-11 Casting Machine, 041-15 Steel Case Cutting Station, 041-16 Refinery Dross Dump Bin, 041-17 Reverb Slag Caster Hood, 041-18 Kettle #9 Draft	3.1 Reverb Furnace Process Emissions + 3.2 Electric Arc Furnace (fugitives) + Emission Unit 8 (Rotary Dryer) + Emission Unit 7 Casting Machine + Kettle #9

**Table 1**

Stack/Vent ID	Control Equipment/ID	Control Equipment/ID	Hood/Pickup Point ID	Emission Unit ID
S-100 (SO <sub>2</sub> CEM)	----	Baghouse # 039 Refinery Sanitary Baghouse # 040 Refinery Sanitary (parallel, not in series)	R-9 Reverb Lead Well Draft R-10 Reverb Slag Launder Draft R-1 through R -8 Refinery Kettle(s) #1 through#8 Draft(s)	3.1 Reverb Furnace Process Fugitive Emissions + Kettle(s) #1 - #8
S-114	----	----	----	Natural Gas firing for Kettle #2
S-116	----	----	----	Natural Gas firing for Kettle(s) #3 and #4
S-115	----	----	----	Natural Gas firing for Kettle(s) #5 and #6
S-113	----	----	----	Natural Gas firing for Kettle #7
S-112	----	----	----	Natural Gas firing for Kettle #8
S-117	----	---	---	Natural Gas firing for Kettle #1
S-118	---	---	---	Natural Gas firing for Kettle #9
S-101	---	Roof Vent Baghouse RV #1	45-1 Bin 10 Feed Storage General	GV101 (Bin 10 Feed Storage Area)
S-102	----	Roof Vent Baghouse RV#2	45-2 CC EAF Building General West	GV102 (CC EAF Building West)
S-103	----	Roof Vent Baghouse RV#3	45-3 CC EAF Building General East	GV103 (EAF Building East + 3.2 Electric Arc Furnace (fugitives))
S-104	----	Roof Vent Baghouse RV#4	45-4 Reverb Charge Room General	GV104 (Reverb Charge Room)
S-105	----	Roof Vent Baghouse RV#5	45-5 CC EAF Slag Room General	GV105 (CC EAF Slag Room)
S-106	----	Roof Vent Baghouse RV#6	45-6 Reverb/Slag Reduction Furnace General	GV106 (Reverb/Slag Reduction Furnace)
S-107	----	Roof Vent Baghouse RV#7	45-7 Refinery General North	GV107 (North Refinery Area)
S-108	----	Roof Vent Baghouse RV#8	45-8 SRF General	GV108 (SRF Area)
S-109	----	Roof Vent Baghouse RV#9	45-9 Refinery General South	GV109 (South Refinery Area)

## Appendix B

The following state rule have been adopted by reference by the Indianapolis Air Pollutant Control Board and are enforceable by Indianapolis Office of Environmental Services (OES) using local enforcement procedures.

- (1) 326 IAC 1-1-1 through 1-1-3 and 1-1-5;
- (2) 326 IAC 1-2-1 through 1-2-91 (In addition, the IAPCB has adopted several local definitions);
- (3) 326 IAC 1-3-1 through 1-3-4;
- (4) 326 IAC 1-4-1 (The IAPCB added to the adoption by reference a citation to 61 FR 58482 (November 15, 1996));
- (5) 326 IAC 1-5-1 through 1-5-5;
- (6) 326 IAC 1-6-1 through 1-6-6;
- (7) 326 IAC 1-7-1 through 1-7-5
- (8) 326 IAC 2-3-1 through 2-3-5;
- (9) 326 IAC 2-4-1 through 2-4-6;
- (10) 326 IAC 2-6-1 through 2-6-4;
- (11) 326 IAC 2-7-1 through 2-7-18, 2-7-20 through 2-7-25;
- (12) 326 IAC 2-8-1 through 2-8-15, 2-8-17 through 2-8-10;
- (13) 326 IAC 2-9-1 through 2-9-14;
- (14) 326 IAC 2-10-1 through 2-10-5 (The IAPCB adoption adds the language "state or local" immediately after the word "federal" in 326 IAC 2-10-1);
- (15) 326 IAC 2-11-1, 2-11-3 and 2-11-4 (The IAPCB adoption adds the language "federal, state or local" immediately after the word "by" in 326 IAC 2-11-1);
- (16) 326 IAC 3-1.1-1 through 3-1.1-5;
- (17) 326 IAC 3-2.1-1 through 3-2.1-5;
- (18) 326 IAC 3-3-1 through 3-3-5;
- (19) 326 IAC 4-2-1 through 4-2-2;
- (20) 326 IAC 5-1-1 (a), (b) and c) (5), 5-1-2 (1), (2)(A), (2)c) (4), 5-1-3 through 5-1-5, 5-1-7;
- (21) 326 IAC 7-1.1-1 and 7-1.1-2;
- (22) 326 IAC 7-2-1;
- (23) 326 IAC 7-3-1 and 7-3-2;
- (24) 326 IAC 7-4-2(28) through (31) (Instead of adopting by reference 7-4-2(1) through (27), the IAPCB regulation substitutes the same requirements listed in a format in which the companies are alphabetized and emission points known to no longer exist have been deleted);
- (25) 326 IAC 8-1-0.5 except (b), 8-1-1 through 8-1-2, 8-1-3 except c), (g) and (i), 8-1-5 through 8-1-12;
- (26) 326 IAC 8-2-1 through 8-2-12 (The IAPCB adoption by reference of 8-2- 5 adds additional language specific to Zimmer Paper Products, Incorporated as subpart c);
- (27) 326 IAC 8-3-1 through 8-3-7;
- (28) 326 IAC 8-4-1 through 8-4-5, 8-4-6 (a)(6), (a)(8) and (a)(14) and 8-4-6(b)(1), (b)(3) and 8-4-6c) (In place of 8-4-6(b)(2), which was not adopted, the IAPCB adopted language requiring a pressure relief valve set to release at no less than four and eight-tenths (4.8) Kilo Pascals (seven-tenths (0.7) pounds per square inch)), 8-4-7 except (e), 8-4-8 and 8-4-9;
- (29) 326 IAC 8-5-1 through 8-5-4, 8-5-5 except (a)(3) and (d)(3);
- (30) 326 IAC 8-6-1 and 8-6-2;
- (31) 326 IAC 9-1-1 and 9-1-2;
- (32) 326 IAC 11-1-1 through 11-1-2;
- (33) 326 IAC 11-2-1 through 11-2-3;
- (34) 326 IAC 11-3-1 through 11-3-6;
- (35) 326 IAC 14-1-1 through 14-1-4;

Appendix B continued

- (36) 326 IAC 14-2-1 except 40 CFR 61.145;
- (37) 326 IAC 14-3-1;
- (38) 326 IAC 14-4-1;
- (39) 326 IAC 14-5-1;
- (40) 326 IAC 14-6-1;
- (41) 326 IAC 14-7-1;
- (42) 326 IAC 14-8-1 through 14-8-5;
- (43) 326 IAC 15-1-1, 15-1-2(a)(1), (a)(2) and (a)(8), 15-1-3 and 15-1-4;
- (44) 326 IAC 20-1-1 through 20-1-4 (In 20-1-3(b)(2) the adoption states that "permitting authority" means the commissioner of IDEM or the administrator of OES, whichever is applicable);
- (45) 326 IAC 20-2-1;
- (46) 326 IAC 20-3-1;
- (47) 326 IAC 20-4-1;
- (48) 326 IAC 20-5-1;
- (49) 326 IAC 20-6-1;
- (50) 326 IAC 20-7-1;
- (51) 326 IAC 20-8-1;
- (52) 326 IAC 20-9-1;
- (53) 326 IAC 20-14-1;
- (54) 326 IAC 20-15-1;
- (55) 326 IAC 20-16-1;
- (56) 326 IAC 20-17-1;
- (57) 326 IAC 20-18-1;
- (58) 326 IAC 20-19-1;
- (59) 326 IAC 20-20-1;
- (60) 326 IAC 20-21-1;
- (61) 326 IAC 21-1-1 (The adoption states that "or the administrator of OES" is added in (b));
- (62) 326 IAC 22-1-1 (The adoption states that "or the administrator of OES" is added in (b)).

**Indiana Department of Environmental Management**  
**Office of Air Quality**  
and  
**City of Indianapolis**  
**Office of Environmental Services**

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

**Source Name:** Quemetco, Inc.  
**Source Location:** 7870 West Morris Street, Indianapolis Indiana 46231  
**County:** Marion  
**SIC Code:** 3341  
**Operation Permit No.:** T097-6201-00079  
**Permit Reviewer:** M. Caraher

On December 31, 2003, the Indiana Department of Environmental Management, Office of Air Quality (OAQ) and the City of Indianapolis, Office of Environmental Services (OES) had a notice published in the Indianapolis Star, Indianapolis, Indiana, stating that Quemetco, Inc. had applied for a Part 70 Operating Permit for a stationary secondary lead smelting and refining operation under a Standard Industrial Classification (SIC) Code of 3341 (Secondary Smelting and Refining of Nonferrous Metals). The notice also stated that OAQ and OES 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 sixty (60) days to provide comments on whether or not this permit should be issued as proposed.

On January 8, 2004, the United States Environmental Protection Agency (EPA) Region V submitted comments to IDEM, OAQ and OES.

On January 27, 2004, Quemetco and OES held a source meeting to discuss the public noticed Part 70 Operating Permit. One written comment was received from Quemetco at that time in regards to 1997 stack testing of General Building Ventilation units GV101 through GV105, GV107 and GV109.

On February 18, 2004 OES held a public meeting on the public noticed Part 70 Operating Permit for Quemetco, Inc. in conjunction with the Southwest Community Awareness Association public meeting. IDEM, OAQ and OES received no written comments from this public meeting.

On February 27, 2004, the West Parkview Neighborhood Association submitted written comments to OES.

On March 2, 2004, IDEM, OAQ and OES received written comments from Quemetco, Inc. The received comments were postmarked February 27, 2004 which was within the sixty (60) day public notice comment period.

In addition, IDEM, OAQ and OES have modified the Part 70 Permit condition C.20 - Emission Statement during the sixty (60) day comment period.

The following changes to the proposed Part 70 Operating Permit will be made. The Technical Support Document (TSD) will remain as it originally appeared when published. OAQ and OES prefer that the TSD reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the permit has been published are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision. The Permit Table of Contents has been updated to

reflect changes where necessary without being included in the response to comments and formatting changes have been made that do not change the meaning, intent or language of the permit. The summary of the changes made by IDEM and OES, public comments, and responses to comments follows with ~~strikeout~~ showing deleted text and **bold** showing new text.

The following changes are made to Condition C.20 - Emission Statement based on changes to the Part 70 Operating Permit model language during the public notice period. OAQ and OES are aware that rule making revisions to 326 IAC 2-6 Emission Reporting have been in progress. The Indiana Air Pollution Control Board recently approved revisions at the December 2003 Board meeting. The rule revisions became effective March 27, 2004. The condition is revised so that the Permittee is required to follow the requirements of the rule instead of requiring in the condition that the emission statement be submitted on April 15<sup>th</sup>.

Based on Condition C.20 Emission Statement language changes during the public notice period, the following changes are made to Condition C.20:

C.20 Emission Statement ~~{326 IAC 2-7-5(3)(C)(iii)}~~ ~~{326 IAC 2-7-5(7)}~~ ~~{326 IAC 2-7-19(c)}~~  
~~[326 IAC 2-6]~~

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(a) The Permittee shall submit an ~~annual~~ emission statement certified pursuant to the requirements of 326 IAC 2-6. ~~, that must be received by annual April 15<sup>th</sup> of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission~~ **This statement must be received in accordance with the compliance schedule specified in 326 IAC 2-6-3 and must comply with the minimum requirements specified in 326 IAC 2-6-4.** The emission statement shall meet the following requirements:

- (1) Indicate estimated actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);
- (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(32) ("Regulated pollutant which is used only for purposes of Section 19 of this rule") from the source, for purposes of ~~Part 70~~ fee assessment.

~~(b) The annual emission statement covers the twelve (12) consecutive month time period starting December 1 and ending November 30. The annual emission statement must be submitted to:~~

Indiana Department of Environmental Management  
Technical Support and Modeling Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

and

Office of Environmental Services  
Air Quality Management Section, Data Compliance  
2700 South Belmont Avenue  
Indianapolis, Indiana 46221

The emission statement does require the certification by the "responsible official" as defined by **326 IAC 2-1.1-1(1)**. ~~326 IAC 2-7-1(34)~~.

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

The following three (3) comments were received from United States Environmental Protection Agency (EPA) Region V:

**Comment # 1**

In Sections D.1 and D.2, can you explain why the Stacks S-111 and S-100 have not been subject to NSR rules (i.e. have no applicable emission limits or monitoring requirements) for NO<sub>x</sub> and CO given that the potential to emit for these two pollutants is currently near 250 tons per year.

**Response to Comment # 1**

Pursuant to 326 IAC 2-2(p)(1), Quemetco, Inc. is a major PSD source because the source has the potential to emit a regulated pollutant (PM-10, SO<sub>2</sub>, CO, and NO<sub>x</sub>) in excess of one hundred (100) tons per year and is on the list of 28 source categories (specifically, secondary metal production plants) as identified in 326 IAC 2-2(p)(1). As a result, the PSD major source threshold for Nitrogen Oxides (NO<sub>x</sub>) emissions and Carbon Monoxide (CO) emissions is each one hundred (100) tons per year and would not be two hundred and fifty (250) tons per year.

Pursuant to 326 IAC 2-2, a major modification at an existing major PSD source, means any physical change in, or change in the method of operation of, a major stationary source that would result in a significant net emissions increase of any pollutant that is being regulated under the Clean Air Act. Pursuant to 326 IAC 2-2, a significant net emissions increase for NO<sub>x</sub> emissions is forty (40) tons per year and a significant net emissions increase for CO emissions is one hundred (100) tons per year.

This existing major PSD source, in existence since July 1972, has not had any new construction, reconstruction or modifications that were deemed major modifications under 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements) (see an additional discussion in the public noticed TSD under **State Rule Applicability - Individual Facilities**) at the time of construction, reconstruction or modification.

However, operations at Quemetco, Inc. do include emission units that commenced construction either prior to or after August 7, 1977, the applicability date of the Federal PSD program. These operations also include emission units that commenced construction either prior to or after June 11, 1973, the applicability date of 40 CFR 60.120 Subpart L (Standards of Performance for Secondary Lead Smelters).

Construction Permit No. 950079-01, issued by the City of Indianapolis OES on May 9, 1995 allowed the construction of one (1) 2500 kVA Electric Arc Slag Reduction Furnace (SRF), identified as Emission Unit 3.3, and allowed the construction of a new stack, Stack/Vent S-111. AP-42 Chapter 12.11 (Secondary Lead Processing) contains no emission factors for NO<sub>x</sub> or CO emissions from electric arc or electric arc slag reduction furnaces. As a result, the application filed by Quemetco utilized the NO<sub>x</sub> emission factor for electric arc furnaces in the steel production industry of 0.1 pounds of NO<sub>x</sub> emissions per ton produced (SCC 3-03-009-04). Quemetco, Inc. doubled this emission factor to provide a more conservative estimate of NO<sub>x</sub> emissions at the source, thereby utilizing 0.2 pounds of NO<sub>x</sub> emissions per ton produced. Quemetco, Inc. utilized the October 1988 stack test data for CO emissions from the existing Electric Arc Furnace (EAF), identified as Emission Unit 3.2. At a stack testing process rate of 6.5 tons per hour for the EAF, CO emissions were determined to be 2.5 pounds of CO emissions per hour. The resultant derived site specific emission factor for CO is 0.4 pounds of CO per ton processed (2.5 pounds CO per hour / 6.5 tons per hour processed = 0.4 pounds of CO per ton processed). Pursuant to 40 CFR 60.120 Subpart L (Standards of Performance for Secondary Lead Smelters), there are no applicable provisions for electric arc furnaces.

A summary of the potential to emit increase of NO<sub>x</sub> and CO at the source from the installation of Emission Unit 3.3 (SRF) is as follows:

	Emission Factor (pounds per ton)	Max process rate (tons per hour)	Potential to Emit (tons per year)	Major Modification Threshold (tons per year)
NO <sub>x</sub>	0.2	8.0	7.0	40.0
CO	0.4	8.0	14.0	100.0

Because the increase in the potential to emit from the installation of the one (1) 2500 kVA Electric Arc Slag Reduction Furnace (SRF), identified as Emission Unit 3.3, did not increase the potential to emit NO<sub>x</sub> emissions by forty (40) tons per year or more and did not increase the potential to emit CO by one hundred (100) tons per year or more, the installation of the SRF was not a major modification pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements) for NO<sub>x</sub> emissions or CO emissions. Therefore, the Part 70 Operating Permit contains no emission limitations or provisions to specifically limit NO<sub>x</sub> emissions or CO emissions such that 326 IAC 2-2 does not apply.

The existing Electric Arc Furnace (EAF), identified as Emission Unit 3.2, was installed in 1984. Installation Permit 11005, issued by the City of Indianapolis on March 12, 1984, did not specifically list emission limitations in the Installation Permit. For the purposes of this Part 70 Operating Permit review and issuance, the emission factors for NO<sub>x</sub> and CO that were utilized for the SRF are being utilized for the EAF. Pursuant to 40 CFR 60.120 Subpart L (Standards of Performance for Secondary Lead Smelters), there are no applicable provisions for electric arc furnaces.

A summary of the potential to emit increase of NO<sub>x</sub> and CO at the source from the installation of Emission Unit 3.2 (EAF) is as follows:

	Emission Factor (pounds per ton)	Max process rate (tons per hour)	Potential to Emit (tons per year)	Major Modification Threshold (tons per year)
NO <sub>x</sub>	0.2	6.5	5.7	40.0
CO	0.4	6.5	11.4	100.0

Because the increase in the potential to emit from the installation of the one (1) Electric Arc Furnace (EAF), identified as Emission Unit 3.2, did not increase the potential to emit NO<sub>x</sub> emissions by forty (40) tons per year or more and did not increase the potential to emit CO emissions by one hundred (100) tons per year or more, the installation of the EAF was not a major modification pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements) for NO<sub>x</sub> emissions or CO emissions. Therefore, the Part 70 Operating Permit contains no emission limitations or provisions to specifically limit NO<sub>x</sub> emissions or CO emissions such that 326 IAC 2-2 does not apply.

The Reverberatory Furnace, identified as Emission Unit 3.1, was installed in 1972. Therefore, this existing Reverberatory Furnace was not subject to 40 CFR 60.120 Subpart L (Standards of Performance for Secondary Lead Smelters). Process emissions and process fugitive emissions from the Reverberatory Furnace were directed to the existing main stack, Stack/Vent S-100. Construction Permit No. 960079-02 issued by the City of Indianapolis OES on April 9, 1996 allowed the redirection of process emissions to the new stack, Stack/Vent S-111. The redirection of process emissions to Stack/Vent S-111 was not considered a major modification of the Reverberatory Furnace, under 326 IAC 2-2, because there was not a significant net emissions increase for NO<sub>x</sub> or CO from the redirection of existing process emissions from the Reverberatory Furnace. Therefore, the redirection of process emissions from the Reverberatory Furnace to the new stack, Stack/Vent S-111, were not subject to the provisions of 326 IAC 2-2 because there was no significant net emissions increase in the potential to emit NO<sub>x</sub> or CO. The construction of Stack/Vent S-111 was not considered reconstruction, under 40 CFR 60.15 (Standards of Performance for New Stationary Sources), because the fixed capital cost of the new component, Stack/Vent S-111, did not exceed fifty percent (50%) of the fixed capital cost that would be required to construct a comparable entirely new facility. Therefore, the redirection of process emissions from the Reverberatory Furnace to the new stack, Stack/Vent

S-111, were not subject to the provisions of 40 CFR 60.120 Subpart L (Standards of Performance for Secondary Lead Smelters). Process fugitive emissions from the Reverberatory Furnace continue to be directed to the existing main stack, Stack/Vent S-100.

In regard to the nine (9) refining kettles that have been installed and in operation at Quemetco, Inc., Kettles # 1 through # 6 were installed in 1972. These six (6) refining kettles were installed prior to June 11, 1973, the applicability date of 40 CFR 60.120 Subpart L (Standards of Performance for Secondary Lead Smelters) and were installed prior to August 7, 1977. Therefore, neither 40 CFR 60.120 Subpart L or 326 IAC 2-2 apply to Kettles # 1 through # 6. Refining Kettle # 7 was installed in 1988 and Kettle # 8 was installed in 1992. Refining Kettle # 9 was installed in 2002. Therefore, each of these refining kettles are subject to 40 CFR 60.120 Subpart L (Standards of Performance for Secondary Lead Smelters) (see public notice Part 70 Operating Permit Section D.2 and TSD page 12 of 46). There are no AP-42 Table 12.11 (Secondary Lead Processing) emission factors NO<sub>x</sub> emissions or CO emissions from refining kettles. The SCC emission factor of 3-04-004-06 lists NO<sub>x</sub> emissions in terms of natural gas firing to heat the kettles and is 140 pounds per million cubic feet of natural gas burned. The AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, (Supplement D 7/98) emission factor for CO emissions is 84.0 pounds per million cubic feet burned. In examining total potential to emit NO<sub>x</sub> and CO from all refining kettles, based on the total combined heat input of 36.25 million Btu per hour (36.25 million Btu per hour x 8760 hours per year x 1million cubic feet per 1000 million Btu = 317.6 million cubic feet per year), neither NO<sub>x</sub> emissions or CO emissions exceed the PSD significance levels as seen in the table below and in TSD Appendix A page 2 of 4.

	Emission Factor (pounds per million cubic feet)	Max process rate (million cubic feet per hour)	Potential to Emit (tons per year)	Major Modification Threshold (tons per year)
NO <sub>x</sub>	140.0	317.6	22.2	40.0
CO	84.0	317.6	13.3	100.0

The Casting Machine, identified as Emission Unit 7, and the Rotary Dryer, identified as Emission Unit 8, each were installed prior to August 7, 1977 and are therefore, not subject to 326 IAC 2-2. These emission units were installed after June 11, 1973. However, there are no applicable provisions under 40 CFR 60.120 Subpart L (Standards of Performance for Secondary Lead Smelters) for the Casting Machine, or the Rotary Dryer.

General Building Ventilation, identified as Emission Unit GV101 through GV109, each were installed after August 8, 1977. However, these emission units are in place to keep the building under negative pressure and do not have appreciable NO<sub>x</sub> emissions or CO emissions. Therefore, 326 IAC 2-2 does not apply to NO<sub>x</sub> emissions or CO emissions from Emission Unit GV101 through GV109. There are no applicable provisions of CFR 60.120 Subpart L (Standards of Performance for Secondary Lead Smelters) for general building exhaust(s).

**Comment # 2**

In Conditions D.1.13(a)(3), D.1.13(a)(6), D.1.13(b)(8), D.1.22(a), D.2.14(a)(3), D.2.14(a)(6), D.2.14(b)(8), D.3.9(b): It is suggested that these permit conditions be stated as facility-specific enforceable permit conditions (i.e. please only include applicable site specific language). As an example, if only a pulse jet baghouse is installed, then the shaker type requirements should be excluded from the permit.

**Response to Comment # 2**

Section D.1 of the Part 70 Operating Permit pertains to all emission units that vent to Stack/Vent S-111. The Reverberatory Furnace process emissions are controlled by Baghouse #035, which is a shaker cleaning cycle type baghouse, and by Scrubber #046. After control emissions are then directed to Stack/Vent S-111. The Electric Arc Slag Reduction Furnace (SRF) process emissions are controlled by Baghouse #037,

which is a pulse jet cleaning cycle type baghouse, and by Scrubber #046. After control emissions are then directed to Stack/Vent S-111. Pursuant to 40 CFR 63.548 and 326 IAC 20-13, Condition D.1.13(a) states applicable monitoring requirements for Baghouse #035 and Baghouse #037. Because each baghouse is classified differently based on the type of operation or cleaning cycle mechanism, the applicable requirements of 40 CFR 63.548 and 326 IAC 20-13 for each Baghouse should be stated in Condition D.1.13(a). However, additional clarification can be made as to what specific provisions of 40 CFR 63.548 and/or 326 IAC 20-13 applies to each baghouse. Therefore, the following changes are made to Condition D.1.13(a)(3):

D.1.13 Monitoring Requirements [326 IAC 20-13][40 CFR 63.548]

- (a) Pursuant to 40 CFR 63.548(a) and (b) and 326 IAC 20-13-5, the Permittee shall operate at all times in accordance with the Standard Operating Procedures Manual approved by IDEM, OAQ and/or OES and dated September 28, 1998 that describes in detail procedures for inspection, maintenance and bag leak detection and corrective action plans for baghouses #035 and #037. The Standard Operating Procedures Manual shall, at a minimum, include the following requirements of 40 CFR 63.548(c)(d)(e) and (f):
- (1) Daily monitoring of pressure drop across each baghouse cell.
  - (2) Weekly confirmation that dust is being removed from hoppers through visual inspection or equivalent means of ensuring proper functioning of removal mechanism.
  - (3) **For Baghouse #037, a daily** Daily check of compressed air supply. ~~for pulse-jet baghouses.~~
  - (4) An appropriate methodology for monitoring cleaning cycles to ensure proper operation.
  - (5) Monthly check of bag cleaning mechanisms for proper functioning through visual inspection or equivalent means.
  - (6) **For Baghouse #035, a monthly** Monthly check of bag tension ~~on reverse air and shaker type baghouses.~~ Such checks are not required for shaker type baghouses using self tensioning (spring load) devices.
  - (7) Quarterly confirmation of the physical integrity of the baghouse through visual inspection of the baghouse interior for air leaks.
  - (8) Quarterly inspection of fan for wear, material buildup, and corrosion.
  - (9) Continuous operation of a bag leak detection system for baghouse # 035 and # 037 that meets the following specifications and requirements:

All baghouses are either of the type of a negative pressure induced air baghouse or a positive pressure baghouse. Condition D.1.13(b) references the same downstream location of the bag leak detector whether the baghouse is under negative pressure or positive pressure. For clarification, the following change was made to D.1.13(b)(8):

**For Baghouse #035 and Baghouse #037, negative pressure, induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detector must be installed downstream of the baghouse and upstream of the any wet acid gas scrubber, Scrubber #046.**

Additional clarification in Condition D.1.22(a), now renumbered D.1.20, is now being provided in the Part 70 Operating Permit with the following change:

D.1.20~~2~~ Reporting Requirements

- (a) Pursuant to 40 CFR 63.550, the Permittee shall comply with all of the reporting requirements under 40 CFR 63.10 of the General Provisions. The submittal of reports shall be no less frequent than specified under 40 CFR 63.10(e)(3) of the General Provisions. Once a source reports a violation of the standard or excess emissions, the source shall follow the reporting format required under 40 CFR 63.10(e)(3) until a request to reduce reporting frequency is

approved. The reports shall include the information specified in (1) through (4) of this Condition.

- (1) The report shall include records of all alarms from the bag leak detection system specified in 40 CFR 63.548(e).
- (2) The report shall include a description of the procedures taken following each bag leak detection system alarm pursuant to 40 CFR 63.548(f)(1) and (2).
- (3) The reports shall contain a summary of the records maintained as part of the practices described in the standard operating procedures manual for **Baghouse #035 and Baghouse #037 as baghouses** required under 40 CFR 63.548(a) including an explanation of the periods when the procedures were not followed and the corrective actions taken.
- (4) The reports shall contain a summary of the records maintained as part of the practices described in the Standard Operating Procedures Manual for Baghouse #035 and #037 required under 40 CFR 63.548(a), including an explanation of the periods when the procedures outlined in the Standard Operating Procedures Manual were not followed and the corrective actions taken.

Section D.2 of the Part 70 Operating Permit pertains to all emission units that vent process emissions and process fugitive emissions to Stack/Vent S-100. The baghouses that have after control emissions directed to Stack/Vent S-100 are Baghouse #036 (pulse jet), Baghouse #038 (shaker), Baghouse #039 (shaker), Baghouse #040 (shaker) and Baghouse #041 (pulse jet). Section D.3 of the Part 70 Operating Permit pertains to all general building roof vents, GV101 through GV109. These roof vents are controlled by nine (9) pulse jet baghouses each equipped with HEPA filters. Therefore, based on EPA comments, the following changes are made to D.2.14(a)(3), D.2.14(a)(6), D.2.14(b)(8) and D.3.9(b):

D.2.14 Monitoring Requirements [326 IAC 20-13][40 CFR 63.548]

- (a) Pursuant to 40 CFR 63.548(a) and (b) and 326 IAC 20-13-5, the Permittee shall operate at all times in accordance with the Standard Operating Procedures Manual approved by IDEM, OAQ and/or OES and dated September 28, 1998 that describes in detail procedures for inspection, maintenance and bag leak detection and corrective action plans for baghouses #036, #038, #039, #040 and #041. The Standard Operating Procedures Manual shall, at a minimum, include the following requirements of 40 CFR 63.548(c)(d)(e) and (f):
  - (1) Daily monitoring of pressure drop across each baghouse cell.
  - (2) Weekly confirmation that dust is being removed from hoppers through visual inspection or equivalent means of ensuring proper functioning of removal mechanism.
  - (3) **For Baghouse #036 and Baghouse #041, a daily Daily** check of compressed air supply for ~~pulse-jet baghouses~~.
  - (4) An appropriate methodology for monitoring cleaning cycles to ensure proper operation.
  - (5) Monthly check of bag cleaning mechanisms for proper functioning through visual inspection or equivalent means.
  - (6) **For Baghouse #038, Baghouse #039 and Baghouse #040, a monthly Monthly** check of bag tension on reverse air and shaker type baghouses. Such checks are not required for shaker type baghouses using self tensioning (spring load) devices.
  - (7) Quarterly confirmation of the physical integrity of the baghouse through visual inspection of the baghouse interior for air leaks.
  - (8) Quarterly inspection of fan for wear, material buildup, and corrosion.
  - (9) Continuous operation of a bag leak detection system for baghouse # 035 and # 037 that meets the following specifications and requirements:

The D.2.14(b)(8) change is:

- (8) For **Baghouse #036, #038, #039, #040 and #041** ~~negative pressure, induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack,~~ the bag leak detector must be installed downstream of the baghouse ~~and upstream of any wet acid gas scrubber.~~

D.3.9(a) must be changed because these have only pulse jet baghouses. The D.3.9(b) has also been changed as shown below:

D.3.9 Operating Procedures [326 IAC 20-13][40 CFR 63.548(a),(b),(c),(d) and (g)]

- (a) Pursuant to 40 CFR 63.548(a) and (b) the Permittee shall operate in accordance with the Standard Operating Procedures Manual dated September 28, 1998 approved by IDEM, OAQ and/or OES that describes in detail procedures for inspection, maintenance and corrective action plans for Roof Vent baghouses RV #1, RV #2, RV #3, RV #4, RV #5, RV #6, RV #7, RV #8 and RV #9. The Standard Operating Procedures manual shall, at a minimum, include the following requirements of 40 CFR Part 63.548(c)(1) through ~~(9)~~ **(8)**, and (d):

- (1) Daily monitoring of pressure drop across each baghouse cell.
- (2) Weekly confirmation that dust is being removed from hoppers through visual inspection or equivalent means of ensuring proper functioning of removal mechanism.
- (3) Daily check of compressed air supply ~~for pulse-jet baghouses.~~
- (4) An appropriate methodology for monitoring cleaning cycles to ensure proper operation.
- (5) Monthly check of bag cleaning mechanisms for proper functioning through visual inspection or equivalent means.
- ~~(6) Monthly check of bag tension on reverse air and shaker type baghouses. Such checks are not required for shaker type baghouses using self tensioning (spring load) devices.~~
- (6)(7)** Quarterly confirmation of the physical integrity of the baghouse through visual inspection of the baghouse interior for air leaks.
- (7)(8)** Quarterly inspection of fan for wear, material buildup, and corrosion.
- (8)(9)** The procedures specified in the Standard Operating Procedures manual for maintenance shall, at a minimum, include a preventative maintenance schedule that is consistent with the baghouse manufacturer's instructions for routine and long-term maintenance.

- (b) Pursuant to 40 CFR 63.548(g), ~~baghouses~~ **Roof Vent Baghouses RV #1, RV #2, RV #3, RV #4, RV #5, RV #6, RV #7, RV #8 and RV #9** which are each equipped with HEPA filters as a secondary filter ~~used~~ to control process fugitive, or fugitive emissions are exempt from the requirement in 40 CFR 63.548(c)(9) to be equipped with a bag leak detector. For each affected source equipped with a HEPA filter, the Permittee shall monitor and record the pressure drop across the HEPA filter system daily. If the pressure drop is outside the limit(s) specified by the filter manufacturer, the Permittee must take appropriate corrective measures, which may include but not limited to the following:

### **Comment # 3**

Condition D.2.5, D.2.7, D.2.9: Please cite the applicable minor PSD other permit from which these conditions/emission limits were taken from, unless these conditions are new emission limits under 326 IAC 2-2 (i.e. NSR).

### **Response to Comment # 3**

These Conditions pertain to the existing Electric Arc Furnace (EAF), identified as Emission Unit 3.2, which was installed in 1984. Installation Permit 11005, issued by the City of Indianapolis on March 12, 1984, did not specifically state emission limitations in the Installation Permit. As discussed in Comment # 1, the EAF is not subject to 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements) based on NO<sub>x</sub> emissions or CO emissions. However, Lead emissions, PM-10 emissions and SO<sub>2</sub> emissions from the installation of the EAF are limited to less than the major modification threshold for each of these regulated pollutants such that compliance with 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements) is demonstrated (see public notice Part 70 Operating Permit Section D.1 and TSD page 31 through 34 of 46). Installation Permit 11005 allowed the construction of the EAF and, even though emission limitations were not specifically stated in the permit, the issuance was contingent on Quemetco, Inc. demonstrating compliance with all applicable emission limitations and regulation requirements. Therefore, Conditions D.2.5, D.2.7 and D.2.9, are amended as follows:

#### **D.2.5 PSD Minor Lead Limit [326 IAC 2-2] [Installation Permit 11005]**

**In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements) not applicable** Pursuant to ~~326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements)~~, Lead emissions from the Electric Arc Furnace (EAF) shall be limited to five ten thousandths (0.0005) grains per dry standard cubic foot of exhaust and one hundred thirty four thousandths (0.134) pounds per hour. This emissions limitation is equivalent to less than six tenths (0.6) tons of Lead per twelve (12) consecutive month period with compliance determined at the end of each month. Compliance with these emissions limitations makes 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements) not applicable.

#### **D.2.7 PSD Minor PM-10 Limit [326 IAC 2-2][Installation Permit 11005]**

**In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements) not applicable** Pursuant to ~~326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements)~~, filterable and condensable PM-10 emissions from the Electric Arc Furnace (EAF) shall be limited to twenty three thousandths (0.023) grains per dry standard cubic foot of exhaust and three and four tenths (3.4) pounds per hour. This emissions limitation is equivalent to less than fifteen (15) tons of PM-10 per twelve consecutive month period with compliance determined at the end of each month. Compliance with this emission limitation makes 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements) not applicable.

#### **D.2.9 PSD Minor Sulfur Dioxide (SO<sub>2</sub>) Limit [326 IAC 2-2][Installation Permit 11005]**

**In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements) not applicable** Pursuant to ~~326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements)~~, SO<sub>2</sub> emissions from the Electric Arc Furnace (EAF) shall not exceed nine and one tenths (9.1) pounds per hour. This emissions limitation is equivalent to less than forty (40) tons of SO<sub>2</sub> per twelve (12) consecutive month period with compliance determined at the end of each month. Compliance with this emissions limitation makes **326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements)** ~~326 IAC 2-3 (Emission Offset)~~ not applicable.

The following comments are from Quemetco, Inc. received on January 27, 2004 and on March 2, 2004.

**Comment # 1**

Source summaries can be abbreviated by listing each facility by its emission unit number instead of the full text description. This will preclude having to request a modification when simple changes are made to the names of equipment.

**Response to Comment # 1**

The information describing the source contained in Conditions A.2, A.3 and the Facility Description box that prefaces each Section D, is descriptive information that does not constitute enforceable conditions. This information was obtained from the Part 70 Operating Permit application and was used to establish the actual permit conditions that follow in each section D. Descriptions are necessary to clearly identify the emission unit and to list or establish a baseline set of physical or operational information about the emission unit. These descriptions are not considered to be directly enforceable. The descriptions of the equipment would only be considered enforceable if explicitly stated in a permit condition. The descriptions should be considered very carefully because changes can affect compliance with existing applicable requirements or trigger new applicable requirements. New requirements may include the need to obtain a revision to this permit prior to affecting the change. However, if simple changes can qualify as an Administrative Amendment, then, pursuant to 326 IAC 2-7-11 (Part 70 Permit Program: Administrative Permit Amendments), the changes can be implemented immediately upon submittal of a written request to revise the permit. In order to avoid confusion on this issue, existing language in each Facility Description box states "(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions)."

As a result, there is no change to equipment descriptions in Condition A.2, A.3 or the Facility Description box that prefaces each D Section.

**Comment # 2**

For Condition B.10 (Preventive Maintenance Plan) and associated sections in Section D - remove the requirement for PMP or state that the existing SOPs satisfy this requirement. This requirement constitutes an additional requirement not specified in either federal or state regulations. For Condition D.1.9 (Preventive Maintenance Plan) - we believe that the PMP places new requirements on Quemetco which is not the purpose of the Title V permit process. This condition regarding a PMP should be removed from the permit. For Condition D.2.11 (Preventive Maintenance Plan) - this requires a submission of a PMP for the Kettles, Casting Machine, Kiln, EAF and process fugitive emissions from the Reverberatory Furnace. This requirement constitutes an additional requirement not specified in either federal or state regulations. Please remove this requirement from the permit. For Condition D.3.6 (Preventive Maintenance Plan), this condition needs to be either removed from the permit or allow Quemetco to follow recommended manufacturer recommendations or plant SOPs to satisfy this requirement since there is no regulatory basis for this new requirement.

**Response to Comment # 2**

The Preventive Maintenance Plan requirement must be in every applicable Part 70 Operating Permit pursuant to 326 IAC 2-7-5(13). This rule refers back to the existing Preventive Maintenance requirement for existing sources as described in 326 IAC 1-6-3 (Malfunctions: Preventive Maintenance Plans). This Preventive Maintenance Plan rule sets out the requirements for:

- (a) Identification of the individuals responsible for inspecting, maintaining and repairing the emission control equipment (326 IAC 1-6-3)(a)(1)).
- (b) The description of the items or conditions in the facility that will be inspected and the

inspection schedule for said items or conditions (326 IAC 1-6-3(a)(2)), and

- (c) The identification and quantification of the replacement parts for the facility which the Permittee will maintain in inventory for quick replacement (326 IAC 1-6-3(a)(2)).

It is clear from the structure of the wording in 326 IAC 1-6-3 that the PMP requirement affects the entirety of the applicable facilities. Only 326 IAC 1-6-3(a)(1) is limited, in that it requires identification of the personnel in charge of only the emission control equipment, and not any other facility equipment. The Commissioner may require changes in the maintenance plan to reduce excessive malfunctions in any control device or combustion or process equipment under 326 IAC 1-6-5.

Many types of facilities require maintenance in order to prevent excess emissions. If equipment is not maintained, then increased emissions will eventually result.

Condition B.10(d) states, "To the extent the Permittee is required to by 40 CFR 63 to have an approved Standard Operating Procedures (SOP) Manual for a unit, such plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit."

Therefore, Conditions B.10, D.1.9, D.2.11 and D.3.6 will remain unchanged.

### **Comment # 3**

For Condition C.5 (Standard Operating Procedures to Control Fugitive Dust), remove the wording "dated September 28, 1998." This is not accurate and replace it with "according to the most current Standard Operating Procedures Manual." This will preclude the requirement to modify the permit when changes are needed in any of the SOP Manuals. This comment additionally pertains to Condition D.1.13(a) (Monitoring Requirements), Condition D.2.14 (Monitoring Requirements) and D.3.9 (Operating Procedures). For Condition D.3.9 (Operating Procedures), please remove the wording, "dated September 28, 1998" since this is not accurate or appropriate.

Specify that the existing SOP plans (e.g. NESHAPs Startup/Shutdown/Malfunction Plan, Fugitive Lead Dust Plan and Bag Leak Detection Plan) have been previously approved. Also, establish clear and streamlined procedures for re-approval.

### **Response to Comment # 3**

The OES Inspector for Quemetco has verified that the most recent revisions to current plans that have been documented are dated May 24, 2001 for the Baghouse Leak Detection and Correction Action SOP and July 18, 2001 for the Fugitive Lead Dust Sources SOP. Therefore, based upon OES Inspector review of the submitted SOP's, these existing SOP's have been approved by IDEM, OAQ and OES. The most recent revision to the Startup Shutdown and Malfunction plan is dated September 2002. Pursuant to 40 CFR 63.6, the Startup, Shutdown and Malfunction plan does not require that the plan, or any subsequent revision, be submitted for approval or re-approval.

IDEM, OAQ and OES recognize that frequent amendments to these SOP's may need to occur over time to keep the plans up to date with facility operational conditions or with new, revised or improved corrective measures. However, Quemetco should consult with and submit to IDEM, OAQ and/or OES any revision to an existing approved SOP as a permit amendment or modification in order to establish clear and streamlined procedures for re-approval of the revision(s).

As a result, the following changes are made to Condition C.5 (Standard Operating Procedures to Control Fugitive Dust), Condition D.1.13(a) (Monitoring Requirements), Condition D.2.14 (Monitoring Requirements) and Condition D.3.9 (Operating Procedures):

C.5 Standard Operating Procedures to Control Fugitive Dust [40 CFR Part 63.545(a),(b),(c), & (d)][326 IAC 20-13]

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Pursuant to 40 CFR Part 63.545 Subpart X (National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting) and 326 IAC 20-13 (Hazardous Air Pollutants: Secondary Lead Smelters), the Permittee shall at all times operate according to the Standard Operating Procedures Manual dated **July 18, 2001** ~~September 28, 1998~~ that describes in detail the measures that will be put in place to control fugitive dust emission sources within the areas of the secondary lead smelter listed in below.

D.1.13 Monitoring Requirements [326 IAC 20-13][40 CFR 63.548]

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- (a) Pursuant to 40 CFR 63.548(a) and (b) and 326 IAC 20-13-5, the Permittee shall operate at all times in accordance with the Standard Operating Procedures Manual approved by IDEM, OAQ and/or OES and dated **May 24, 2001** ~~September 28, 1998~~ that describes in detail procedures for inspection, maintenance and bag leak detection and corrective action plans for baghouses #035 and #037. The Standard Operating Procedures Manual shall, at a minimum, include the following requirements of 40 CFR 63.548(c)(d)(e) and (f):

D.2.14 Monitoring Requirements [326 IAC 20-13][40 CFR 63.548]

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- (a) Pursuant to 40 CFR 63.548(a) and (b) and 326 IAC 20-13-5, the Permittee shall operate at all times in accordance with the Standard Operating Procedures Manual approved by IDEM, OAQ and/or OES and dated **May 24, 2001** ~~September 28, 1998~~ that describes in detail procedures for inspection, maintenance and bag leak detection and corrective action plans for baghouses #036, #038, #039, #040 and #041. The Standard Operating Procedures Manual shall, at a minimum, include the following requirements of 40 CFR 63.548(c)(d)(e) and (f):

D.3.9 Operating Procedures [326 IAC 20-13][40 CFR 63.548(a),(b),(c),(d) and (g)]

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- (a) Pursuant to 40 CFR 63.548(a) and (b), the Permittee shall operate **at all times** in accordance with the Standard Operating Procedures Manual ~~dated September 28, 1998~~ approved by IDEM, OAQ and/or OES **dated May 24, 2001** that describes in detail procedures for inspection, maintenance and corrective action plans for Roof Vent baghouses RV #1, RV #2, RV #3, RV #4, RV #5, RV #6, RV #7, RV #8 and RV #9. The Standard Operating Procedures manual shall, at a minimum, include the following requirements of 40 CFR Part 63.548(c)(1) through (8), and (d):

**Comment # 4**

Allow 180 days to implement new monitoring requirements and new reporting requirements if new preventive maintenance and compliance response plans are needed.

**Response to Comment # 4**

In regards to the ninety (90) day PMP preparation requirement in Condition B.10 (Preventive Maintenance Plan), Condition B.10 states, if, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies IDEM, OAQ and OES. Pursuant to 326 IAC 1-6-3 (Malfunctions: Preventive Maintenance Plans), existing sources with an emission unit having the potential to emit a regulated air pollutant in excess of twenty five (25) tons per year should have already prepared a preventive maintenance plan for that emission unit. Therefore, there is no change to Condition B.10.

In regard to Condition C.12 (Compliance Monitoring), ninety (90) days is believed to be generally adequate to install any required monitoring equipment that is not already present. Note that this refers only

to monitoring equipment, such as a pressure gauge, not to control equipment. The condition also contains a provision that, if due to circumstances beyond its control, this schedule cannot be met, the Permittee may extend the compliance schedule an additional ninety (90) days by notifying IDEM, OAQ in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date. Therefore, there is no change to Condition C.12.

Pursuant to Condition C.18 Compliance Response Plan - Preparation, Implementation, Records and Reports, Quemetco is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. Since Quemetco is already required to have a Standard Operating Procedures (SOP) Manual under 40 CFR Part 63, such plan shall be deemed to satisfy the requirements for a CRP for those 40 CFR Part 63 compliance monitoring conditions. Therefore, most elements of a CRP should have already been prepared. Therefore, there is no change to Condition C.18.

#### **Comment # 5**

For Condition C.13(a) (Maintenance of Continuous Emission Monitoring Equipment), remove the word "install" from the wording in this sentence since it has nothing to do with equipment maintenance.

For Condition C.13(c) (Maintenance of Continuous Emission Monitoring Equipment), it states whenever a CEM unit is down for more than four hours, the facility must have a back up CEM unit. We do not believe there is a regulatory basis for this new requirement. Also, since there is no requirement in the permit to have an opacity monitor, the first sentence should read, "Whenever an SO<sub>2</sub> continuous emission monitor is malfunctioning..."

#### **Response to Comment # 5**

The intent of Condition C.13(a) (Maintenance of Continuous Emission Monitoring Equipment) is to state if an emission unit is required to have a continuous emission monitoring system (CEM), then it shall be installed, calibrated, maintained, and operated in compliance with all applicable provisions for CEM installation, calibration, maintenance and operation. If Quemetco needs to replace a CEM, then the CEM replacement shall be installed, calibrated, maintained, and operated in compliance with all applicable provisions for CEM installation, calibration, maintenance and operation. Therefore, there is no change to Condition C.13(a).

Pursuant to 326 IAC 2-7-5 (c)(3) (Part 70 Permit Program: Permit Content), each Part 70 Operating Permit shall contain, "Monitoring and related record keeping and reporting requirements, which assure that all reasonable information is provided to evaluate continuous compliance with the applicable requirements. Such monitoring requirements shall assure use of terms, test methods, units, averaging periods, and other statistical conventions consistent with the applicable requirement." Pursuant to past Construction Permitting for Stack/Vent S-111 and Stack/Vent S-100, these stacks were required to each be equipped with an SO<sub>2</sub> CEM. Should the CEM malfunction or be in operable for the time period stated in Condition C.13(c), an alternative compliance monitoring provision should be employed that is representative of the averaging periods that Quemetco utilizes to be able to evaluate continuous compliance with the applicable requirement. Therefore, Condition D.1.18 (SO<sub>2</sub> Monitor Downtime) contains the requirement to either employ a backup CEM or hourly monitor the scrubber water flow rate and pH until the CEM is returned to operation. Because Stack/Vent S-100 does not have a backup CEM or a scrubber for SO<sub>2</sub> emissions control, OES had asked Quemetco to provide an alternative monitoring scenario should the CEM malfunction or become inoperable. On November 10, 2003, prior to the public notice period commencing, Quemetco provided only CEM monitoring for SO<sub>2</sub> on Stack/Vent S-100. During the January 27, 2004 source meeting with Quemetco, OES had stated that an alternative monitoring scenario for Stack/Vent S-100 SO<sub>2</sub> emissions should be proposed by Quemetco for times when the CEM is not be in operation. As a result, the only change to Condition C.13(c) is in regards to the removal of the COM language as shown below:

**C.13 Maintenance of Continuous Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]**

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- (a) The Permittee shall install, calibrate, maintain, and operate all necessary continuous emission monitoring systems (CEM) and related equipment.
- (b) In the event that a breakdown of a continuous emission monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.
- (c) Whenever a continuous emission monitor ~~other than an opacity monitor~~ is malfunctioning or will be down for calibration, maintenance, or repairs for a period of four (4) hours or more, a calibrated backup CEM shall be brought online within four (4) hours of shutdown of the primary CEM, and shall be operated until such time as the primary CEM is back in operation.

**Comment # 6**

For Condition C.15(a) (Pressure Gauge and Other Instrument Specifications), we do not believe a one-size fits all approach to pressure gauges and pH recording equipment is appropriate. Instead this constitutes a new requirement. In many cases, the facility utilized manufacturer recommendations and in some cases revised them due to a particular application. Due to numerous controls in place (e.g. bag leak detection on process baghouses, SO<sub>2</sub> CEM, equipment alarms, equipment shutdowns) to prevent releases to the environment, no additional environmental protection is gained by this new requirement.

**Response to Comment # 6**

Condition C.15 also enables the source to request that an alternative instrument specification be approved for Compliance Monitoring provisions in each Section D. The source must show that the alternative specification will adequately ensure that the instrument being used is appropriate and accurate. OES and Quemetco discussed alternative specifications in the source meeting on January 27, 2004. As a result of the meeting, Quemetco was to supply alternative specifications for pressure drop gauges and pH recording equipment, but these were not included in the March 2, 2004 written comments received from Quemetco.

Pursuant to 40 CFR Part 63.548(a) and (b), the SOP shall, at a minimum, require daily monitoring of pressure drop across each baghouse cell. Therefore, baghouse cell pressure drop monitoring is not a new requirement and the gauge(s) currently employed should already provide the desired level of accuracy. Condition C.15 ensures that specifications for the gauges employed for Compliance Monitoring provisions in Section D must adequately ensure that the instrument being used is appropriate and accurate. Therefore, there is no change to Condition C.15.

**Comment # 7**

For Condition C.18(a) Compliance Response Plan - Preparation, Implementation, Records and Reports), the NESHAP SOP plans adequately address instances where a response is needed to address an upset or malfunction of air pollution control equipment. Additionally, this requirement constitutes an additional requirement not specified in the regulations. Our suggested wording is, "The Permittee's SOP manuals previously submitted have been approved within the time frames specified by the applicable 40 CFR Part 63 requirement."

Allow the previously approved SOP manuals (the SOP plans) to substitute for the new 1) preventive maintenance plan and 2) compliance response plans since they have the same monitoring and corrective action focus. Also, the Title V Permit is not the place to add requirements that are not already in place.

### **Response to Comment # 7**

Pursuant to 326 IAC 2-7-5(13), the Preventive Maintenance Plan requirement must be in every Part 70 Operating Permit.

Pursuant to 40 CFR 63.546, Quemetco shall achieve compliance with the requirements of 40 CFR 63.541 Subpart X no later than December 23, 1997. Quemetco submitted for approval, prior to the December 23, 1997 compliance date, the Standard Operating Procedures Manual for Baghouse Leak Detection and Corrective Action and the Standard Operating Procedures Manual for Fugitive Lead Dust Sources. Therefore, Quemetco's SOP's have been submitted within the time frames specified by the applicable 40 CFR Part 63 requirement.

In addition, IDEM, OAQ and OES recognize that some provisions of current plans required by 40 CFR 63 Subpart A and Subpart X may satisfy the requirements for a CRP for those specific compliance monitoring provisions. The public notice version Condition C.18(a) had specific reference to an SOP satisfying the CRP if the SOP already contained the Section D Compliance Monitoring provisions. However, additional clarification to include the Startup, Shutdown and Malfunction Plan (SSM) and to recognize the submittal of SOP's within the time frames specified by the applicable 40 CFR Part 63 requirement are made to Condition C.18 as follows:

C.18 Compliance Response Plan - Preparation, Implementation, Records and Reports [326 IAC 2-7-5]  
[326 IAC 2-7-6]

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- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. If a permittee is required to have a Standard Operating Procedures (SOP) Manual **or a Start-up, Shutdown and Malfunction Plan (SSM)** under 40 CFR Part 63, such plan shall be deemed to satisfy the requirements for a CRP for those compliance monitoring conditions. A CRP shall be submitted to IDEM, OAQ and OES upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:
- (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected time frame for taking reasonable response steps.
  - (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan or Standard Operating Procedures (SOP) Manual **or Start-up, Shutdown and Malfunction Plan (SSM)** and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan or Standard Operating Procedures (SOP) Manual **or Start-up, Shutdown and Malfunction Plan (SSM)** to include such response steps taken.

The Standard Operating Procedures (SOP) Manual **for Baghouse Leak Detection and Corrective Action and the Standard Operating Procedures (SOP) Manual for Fugitive Lead Dust Sources** shall have been submitted within the time frames specified by the applicable 40 CFR Part 63 requirement.

- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
- (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan or Standard Operating Procedures (SOP) Manual **or Start-up, Shutdown and Malfunction Plan (SSM)**; or

- (2) If none of the reasonable response steps listed in the Compliance Response Plan or Standard Operating Procedures (SOP) Manual or **Start-up, Shutdown and Malfunction Plan (SSM)** is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.

### **Comment # 8**

For Condition C.18(c)(3) (Compliance Response Plan - Preparation, Implementation, Records and Reports), replace the word "until" with "that."

### **Response to Comment # 8**

Condition C.18(c)(3) does not contain the word "until." Condition C.18(b)(3) does contain the word "until." The intent of the Condition C.18(b)(3) requirement is that if additional response steps determine that the emissions unit or control device should be shut down, and it will be ten days or more until the unit or device will be shut down, then the Permittee shall promptly notify the IDEM, OAQ of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification. Therefore, the requested wording change to Condition C.18(b)(3) is not being made.

### **Comment # 9**

For Condition C.24(b) (Total Enclosure Requirements) - the last paragraph under section (1) should be changed to read, "The pressure differential sensor that is located on the east wall of the Bin #10 storage area meets the requirements of section (b)(1)." Item (4) - insert the word, "significant" in the first sentence after the word "any."

### **Response to Comment # 9**

326 IAC 20-13-7(c)(2) (Secondary Lead Smelters: Compliance Requirements) states "Any changes to the location or operation of the system (continuous monitoring system) shall require prior written approval by the department (IDEM, OAQ)." Therefore, the requested change to replace the word "any" with the word "significant" in Condition C.24(b)(4) cannot be made. However, additional clarification can be made to Condition C.24(b) using the suggested language as shown below.

### **C.24 Total Enclosure Compliance Requirements**

In addition to the requirements of 40 CFR 63.8, 40 CFR 63.10 and 40 CFR 63.547(e), a secondary lead smelter using a total enclosure shall do the following:

- (a) Pursuant to 40 CFR 63.547(e), the Permittee shall determine compliance with the doorway in draft requirement of 40 CFR 63.544(b) for enclosed buildings by:
- (1) The Permittee shall use a propeller anemometer or equivalent pressure gauge.
  - (2) The pressure gauge shall be certified by the manufacturer to be capable of measuring pressure differential in a range of 0.02 to 0.2 mm Hg.
  - (3) Both the inside and outside taps shall be shielded to reduce the effect of wind.
  - (4) The Permittee shall demonstrate the inside of the building is maintained at a negative pressure as compared to the outside of the building of no less than two hundredths (0.02) mm Hg when all doors are in the position they are in during normal operation.
- (b) Pursuant to 326 IAC 20-13-7, submit a plan describing the installation and operation of a continuous monitoring system that meets the requirements of 40 CFR 63.547(e)(2) within

ninety (90) days following Permit issuance.

- (1) The Permittee shall operate a continuous monitoring system to measure and record pressure differential. The continuous monitoring system shall consist of the following;
  - (A) differential pressure sensor capable of measuring pressure within a range of two hundredths (0.02) to two tenths (0.2) millimeter of mercury (one hundredth (0.01) to one tenth (0.1) inch of water).
  - (B) A processor.
  - (C) An alarm.
  - (D) A continuous recording device.

The pressure differential sensor **that** is located on the east wall of the Bin #10 storage area **meets the requirements of section (b)(1) above**. Any changes to the location or operation of the system shall require prior written approval by IDEM, OAQ and/or OES.

#### **Comment # 10**

Reference regulations instead of including full text. The concern is that numerous modifications may be needed in the future when regulatory wording changes occur with no real change in substance.

#### **Response to Comment # 10**

If IDEM, OAQ and OES were to reference regulations in the Part 70 Operating Permit instead of including the text of applicable requirements, uncertainty would exist in terms of not readily knowing what specific provisions of a regulation has been determined to be an applicable requirement for Quemetco. A purpose of the Part 70 Operating Permit Program is to include all applicable requirements of the Clean Air Act and State and local air pollution control regulations in to one Part 70 Operating Permit document that clearly specifies the applicable requirements and regulatory expectations of the source in order to maintain and report continuous compliance. Therefore, applicable requirements, provisions to determine compliance, compliance monitoring and record keeping and reporting must be clearly stated. The Part 70 Operating Permit is a compliance tool for the source, IDEM, OAQ and OES and the general public. Therefore, only referencing the regulations does not eliminate uncertainty for the general public or for Quemetco as to what the applicable requirements and regulatory expectations are for the source. Modifications or Amendments may be needed in the future when regulatory wording changes occur. Therefore, there will be no summarized listing or referencing of regulations in the Part 70 Operating Permit as applicable requirements must be and have been clearly stated and are enforceable as a practical matter.

#### **Comment # 11**

Streamline the permit by removing old limits on individual pieces of equipment that have been satisfied previously and only require performance testing on combined source stacks.

Also, there is no environmental benefit to test the SRF for PM-10 within 180 days of permit issuance since this facility or unit has already demonstrated compliance with the emission limits at startup. We would recommend that the permit language regarding performing PM-10 testing on the EAF within 180 days and every five years after should read, "within 180 days of startup."

There is no regulatory justification for requiring that the SRF be PM-10 tested every five years. The requirement to have the SRF and the EAF emissions tested every five years constitutes an additional requirement not specified in either state or federal regulations. Please remove these requirements from the permit.

### **Response to Comment # 11**

Old limits that are no longer applicable requirements, such as 326 IAC 15 (Lead Rules), have not been included in the Part 70 Operating Permit (see TSD Appendix B (Requirements of Previous Permit Approvals not Incorporated)). However, existing applicable requirements cannot be omitted from the Part 70 Operating Permit. The 2500 kVA Electric Arc Slag Reduction Furnace (SRF), identified as Emission Unit 3.3, and the Electric Arc Furnace (EAF), identified as Emission Unit 3.2, each commenced construction after August 7, 1977 and each emission unit has unrestricted potential to emit Lead, PM-10 and SO<sub>2</sub> in excess of their respective regulated pollutant major modification threshold. Therefore, the SRF and the EAF must retain existing individual emission limitations for Lead, PM-10 and SO<sub>2</sub> such that 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Rules) would not otherwise apply. The SRF was stack tested for Lead, PM and SO<sub>2</sub> in March 1996 but was not stack tested for PM-10. The EAF has not been stack tested for PM-10. Therefore, the Part 70 Operating Permit will require that the SRF be stack tested for PM-10 emissions no later than one hundred and eighty days after issuance of this Part 70 Operating Permit. Because the EAF has not operated since 1998, Condition D.2.13(b) will be revised to test the EAF for PM-10 within 180 days of startup as shown below.

Stack/Vent S-100 and Stack/Vent S-111, each exhausting combined emission units exhaust streams, shall continue to have stack testing conducted according to the schedule(s) as stated in 326 IAC 20-13-6 (Secondary Lead Smelters: Compliance Testing). Stack testing pursuant to the stack testing schedule stated in 326 IAC 20-13-6 demonstrates compliance with the stack testing schedule pursuant to 40 CFR Part 63.543(h).

#### **D.2.13 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11][326 IAC 20-13][40 CFR 63.543][40 CFR 63.544]**

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- (a) Pursuant to 326 IAC 20-13-6, the Permittee shall conduct a compliance test for Lead compounds from Stack Vent S-100 on an annual basis, no later than twelve (12) calendar months following the previous compliance test. If a compliance test demonstrates a source emitted Lead compounds from Stack/Vent S-100 less than or equal to fifty percent (50.0%) of the applicable limit under this rule during the compliance test, the Permittee shall be allowed up to twenty four (24) calendar months from the previous compliance test to conduct the next compliance test for Lead compounds. Pursuant to 326 IAC 20-13-6, retesting for Lead compounds from Stack/Vent S-100 shall be conducted no later than March 27, 2004. The test shall be conducted utilizing Methods specified in 40 CFR Part 63.547(a). In addition to these requirements, IDEM, OAQ and/or OES may require compliance testing at any time when it is deemed necessary to determine compliance with condition D.2.4.
- (b) ~~No later than~~ **Within** one hundred and eighty days ~~of restarting the EAF and after issuance of this Part 70 Permit,~~ in order to demonstrate compliance with Condition D.2.7, the Permittee shall perform PM10 testing for the Electric Arc Furnace (EAF), identified as Emission Unit 3.2, utilizing methods approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM10 includes filterable and condensable PM10. Testing shall be conducted in accordance with Section C - Performance Testing.

### **Comment # 12**

For Conditions D.2.5 (PSD Minor Lead Limit), D.2.7 (PSD Minor PM-10 Limit) and D.2.9 (PSD Minor Sulfur Dioxide (SO<sub>2</sub>) Limit) - insert the wording, "compliance is determined when the EAF is in operation."

### **Response to Comment # 12**

OES Inspection reports have confirmed that the EAF, identified as Emission Unit 3.2, has not operated since 1998. However, no changes need to be made to these conditions to acknowledge that compliance shall be determined when the EAF is in operation. Therefore, no changes are made to Conditions

D.2.5, D.2.7 and D.2.9.

### **Comment # 13**

Specify that performance testing requirements in the permit will follow Federal and State secondary Lead rules. Performance testing dates should be corrected in Condition D.1.12 and Condition D.2.13(a). Performance stack testing of Stack/Vent S-111 by April 2005, should read April 2004; testing Stack/Vent S-100 by March 2004 should read April. Stack/Vent S-100/S-111 testing should read in accordance with Federal/State NESHAP requirements, based upon prior testing results or by the end of March 2004 unless otherwise approved.

Condition D.3.8(b) (Testing Requirements) states that Stack/Vent S-101 through S-105 must be tested within 36 months from the permit issuance date and every five years thereafter. Under the federal and state NESHAP rules, there are no requirements to conduct performance testing beyond the initial performance testing. Also, during the meeting with OES staff on January 27, 2004, Quemetco was told that the latter part of this condition was due to the fact that there was no record of any testing being conducted. This information is available from testing conducted in 1997 and has been provided to the OES by comment as a result of the January 27, 2004 meeting.

### **Response to Comment # 13**

Pursuant to 326 IAC 20-13-6, stack testing requirements for Lead emissions from Stack/Vent S-111, Stack Vent/S-100, Stack/Vent S-106, Stack/Vent S-107, Stack/Vent S-108 and Stack/Vent S-109 will follow Federal and State secondary Lead rules as stated in the public notice version TSD. However, the biennial retesting date(s) that appeared in the public notice version TSD for Stack/Vent S-111 was not in accordance with the biennial retesting schedule established based on the most recent stack testing date that showed compliance with the Lead emission limits on April 10, 2002 for Stack/Vent S-111. The most recent stack test that showed compliance with the Lead emission limitations for Stack/Vent S-100 occurred on March 27, 2002 for Stack/Vent S-100. Therefore, there will be no change in the biennial retest date stated in Condition D.2.13(a). However, the biennial retesting date for Stack/Vent S-111 in the Part 70 Operating Permit will be revised as shown below to state April 10, 2004.

Based on the January 27, 2004, Quemetco provided information that Stack/Vent S-101 through S-105, controlling "fugitive" emission sources was stack tested for PM and Lead October 20-23, 1997. IDEM, OAQ and OES are requiring stack testing of these emission units not because it was stated that there was no record of any previous testing being conducted but because, pursuant to 326 IAC 20-13-2 and 40 CFR 63.545(e), these units are subject to a NESHAP Lead emission standard. Therefore, there is no change to Condition D.3.8(b).

Condition D.1.12 is revised as shown below.

#### **D.1.12 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [326 IAC 20-13] [40 CFR 63.543]**

- (a) Pursuant to 326 IAC 20-13-6, the Permittee shall conduct a compliance test for Lead compounds from Stack Vent S-111 on an annual basis, no later than twelve (12) calendar months following the previous compliance test. If a compliance test demonstrates a source emitted Lead compounds from Stack/Vent S-111 less than or equal to fifty percent (50.0%) of the applicable limit under this rule during the compliance test, the Permittee shall be allowed up to twenty four (24) calendar months from the previous compliance test to conduct the next compliance test for Lead compounds. Pursuant to 326 IAC 20-13-6, retesting for Lead compounds from Stack/Vent S-111 shall be conducted no later than April 10, ~~2005~~ **2004**. The test shall be conducted utilizing Methods specified in 40 CFR Part 63.547(a). In addition to these requirements, IDEM, OAQ and/or OES may require compliance testing at any time when it is deemed necessary to determine compliance with condition D.1.2.

#### **Comment # 14**

Specify that certain rules no longer apply or modify the rules, including the following:

- (a) The five percent (5%) opacity limit on the wet scrubber stack, Stack/Vent S-111. Opacity can not accurately be determined on a plume that contains thirteen percent (13%) moisture.
- (b) The 5.8 ton per year particulate limit and 0.016 grains per dscf particulate limit for the Reverberatory Furnace because that emission unit vents through a combined stack having a combined limit with the SRF. This was done with agency approval in order to more easily show compliance.
- (c) The SO<sub>2</sub> limits for Marion County since SO<sub>2</sub> limits are addressed by the permitted emission point source limits.

#### **Response to Comment # 14**

- (a) Pursuant to 326 IAC 20-13-7, stacks exhausting process, process fugitive or fugitive dust emissions shall not exceed five percent (5%) opacity as determined by 40 CFR Part 60 Appendix A Method 9 or an acceptable alternative method as defined in Method 9 Stack/Vent. There is no provision in 326 IAC 20-13-7 that an opacity limitation shall not apply if the process, process fugitive or fugitive emission source exhaust is additionally controlled by a wet scrubber. Process emissions from the Reverberatory Furnace, Emission Unit 3.1, and process emissions from the SRF, Emission Unit 3.3, are directed to Stack/Vent S-111. Therefore, Stack/Vent S-111 shall not exceed five percent (5.0%) opacity. Compliance with this opacity limitation demonstrates compliance with the Construction Permit 960079-04 opacity limitation of ten percent (10%) as determined by 40 CFR Part 60 Appendix A Method 9 or an acceptable alternative method as defined in Method 9. Therefore, there is no change to Condition D.1.8(a).
- (b) Pursuant to 326 IAC 6-1-12, particulate emissions from the Reverberatory Furnace shall not exceed sixteen thousandths (0.016) grains per dry standard cubic foot of exhaust air and five and eight tenths (5.8) tons per twelve (12) consecutive month period with compliance determined at the end of each month. This existing applicable requirement, as stated in 326 IAC 6-1-12 for the Reverberatory Furnace, is incorporated in to the Indiana State Implementation Plan (SIP) and is specific to Reverberatory Furnace emissions, not to Stack/Vent S-111, specifically. Quemetco has not sought a revision to the SIP particulate emission limitation of sixteen thousandths (0.016) grains per dry standard cubic foot of exhaust and five and eight tenths (5.8) tons per twelve (12) consecutive month period with compliance determined at the end of each month. Therefore, the particulate limitation is an existing applicable requirement for the Reverberatory Furnace and cannot be stated as no longer being applicable. Therefore, there is no change to Condition D.1.4.

The Construction Permit 960079-02 issued by the City of Indianapolis OES on April 9, 1996, established a PM-10 emission limitation of 0.0172 grains per dry standard cubic foot of exhaust and 14.9 tons per year for the SRF, specifically. Construction Permit 960079-04, issued by the City of Indianapolis OES on April 30, 1996 in replacement of 960079-02, established a separate individual PM-10 emission limitation of 0.0172 grains per dry standard cubic foot of exhaust air for the Reverberatory Furnace. However, the Reverberatory Furnace PM-10 emission limitation of 0.0172 grains per dry standard cubic feet of exhaust air set by Construction Permit 960079-04 is not being carried over to the Part 70 Operating Permit because there appears to be no technical foundation that such a limit on the Reverberatory Furnace would also limit PM emissions such that 326 IAC 6-1-12 would be demonstrated (see TSD Appendix B). In addition, the Reverberatory Furnace was constructed in 1972 and has not been modified or reconstructed. Therefore, the Reverberatory Furnace does not have a PM-10 emission limit. Therefore, there is no

change to Condition D.1.4 and D.1.5.

- (c) Pursuant to 326 IAC 7-4-2, SO<sub>2</sub> emissions from the Reverberatory Furnace shall not exceed 24.6 pounds per ton material charged and 617.0 pounds per hour. This existing applicable requirement, as stated in 326 IAC 7-4-2 for the Reverberatory Furnace, is incorporated in to the Indiana State Implementation Plan (SIP) and is specific to the Reverberatory Furnace, not to Stack/Vent S-111, specifically. Quemetco has not sought a revision to the SIP SO<sub>2</sub> emission limitation of 24.6 pounds per ton material charged and 617.0 pounds per hour. Therefore, the SO<sub>2</sub> limitation is an existing applicable requirement for the Reverberatory Furnace and cannot be stated as no longer being applicable. Therefore, there is no change to Condition D.1.6. However, pursuant to Construction Permit Amendment A0970079, SO<sub>2</sub> emissions from Stack/Vent S-111 exhaust are limited to fifty (50.0) pounds per hour and two hundred nineteen (219.0) tons per twelve (12) consecutive month period with compliance determined at the end of each month. Therefore, these conditions limit the potential to emit SO<sub>2</sub> to less than the applicable limits pursuant to Construction Permit Amendment A0970079. Compliance with this emissions limitation satisfies the requirement of 326 IAC 7-4-2 (Marion County Sulfur Dioxide Emission Limitations). Therefore, there is no change to Condition D.1.6.

#### **Comment # 15**

Allow a combined SO<sub>2</sub> limit for Stacks S-100 and S-111 instead of separate limits for each stack. The permit should state that as long as the 3 hour block average for the 2 stacks combined does not exceed 416 pounds per hour, the facility is in compliance with its limits. A combined limit would provide Quemetco with greater operational flexibility without the likelihood of having a minor exceedance on one stack while the other stack has excess allowables.

#### **Response to Comment # 15**

Pursuant to 326 IAC 7-4-2, SO<sub>2</sub> emissions from the Reverberatory Furnace shall not exceed 24.6 pounds per ton material charged and 617.0 pounds per hour. This existing applicable requirement, as stated in 326 IAC 7-4-2 for the Reverberatory Furnace, is incorporated in to the Indiana State Implementation Plan (SIP) and is specific to the Reverberatory Furnace, not to Stack/Vent S-100 or Stack/Vent S-111, specifically. Quemetco has not sought a revision to the SO<sub>2</sub> SIP emission limitation for the Reverberatory Furnace or to incorporate the current exhaust stack configuration of the source in to the SO<sub>2</sub> SIP. Quemetco has sought to comply with the applicable requirement for the Reverberatory Furnace by establishing an hourly sulfur dioxide limit for Stack/Vent S-100 in Construction Permit 960079-03 and an hourly sulfur dioxide limit for Stack/Vent S-111 in Construction Permit 960079-02, and subsequent Amendments, that reflects SO<sub>2</sub> emissions after Scrubber #046 emission control for Stack/Vent S-111. In addition, Quemetco submitted the October 4, 1995 report entitled, "Dispersion Modeling Analysis of Potential Modifications to the Quemetco, Inc. Indianapolis Plant" as support and documentation that the redirection of Reverberatory Furnace SO<sub>2</sub> emissions to Stack/Vent S-111 would not violate the NAAQS for SO<sub>2</sub>. In that modeling analysis, a maximum of 150 pounds per hour was modeled as the exhaust gas emission rate from Stack/Vent S-111. Therefore, it has not been demonstrated that a potential increase in the SO<sub>2</sub> emission rate from 150 pounds per hour to a potential 416 pounds per hour for Stack/Vent S-111 would not violate the NAAQS for SO<sub>2</sub>. Therefore, there is no change to Condition D.1.6 or Condition D.2.8.

### **Comment # 16**

In their January 22, 2004 published final rule, USEPA clarified that Title V Permits are to contain the compliance monitoring required in existing applicable federal and state regulations, and only where a rule lacks "periodic" monitoring are additional compliance monitoring requirements to be included.

### **Response to Comment # 16**

While the IDEM, OAQ and OES recognize the significance of the January 22<sup>nd</sup> rule making, the promulgation and interpretation of the rule does not affect the IDEM, OAQ's ability or authority to require compliance monitoring in Title V permits. Indiana's Title V (326 IAC 2-7-5) rules concerning compliance monitoring are somewhat different than the corresponding federal counterpart (40 CFR 70.6). 40 CFR 70.6(c)(1) states that all Title V permits shall contain sufficient compliance monitoring to demonstrate compliance. The provisions of 326 IAC 2-7-5(3) state that the Part 70 permits must include: "Monitoring and related record keeping and reporting requirements which assure that all reasonable information is provided to evaluate continuous compliance with the applicable requirements." The need to ensure continuous compliance in 326 IAC 2-7-5(3) gives IDEM broader authority than what is specified in 40 CFR 70.6(a)(3) and 40 CFR 70.6(c)(1). In addition, the language of 326 IAC 2-7-5(3) clearly suggests that existing federal monitoring requirements are considered only as minimum permit requirements. Therefore, the difference between the corresponding state and federal rules results in IDEM's warranted and legal ability to institute additional and more stringent compliance monitoring.

### **Comment # 17**

For Condition D.1.16 (Parametric Monitoring), D.1.17 (Baghouse Inspections), D.1.18 (Broken of Failed Bag Detection), D.1.19 (Scrubber Operation) and D.1.20 (SO<sub>2</sub> Monitor Downtime), these requirements constitute an additional requirement not specified in either federal or state regulations. The language in these sections should refer to the facility's approved SOP manuals or be removed. In regard to Condition D.1.19 (Scrubber Operation), the reference should be made to the NESHAP SOP's and ask that they be used in place of these new conditions that have no regulatory justification. For Condition D.1.20(b), Quemetco proposes to operate the scrubber tray pump at greater than 90 gallons per minute and will check the pH daily. Also, Quemetco currently does not have a way to monitor the flow rate for this pump.

In regards to Condition D.1.21(Record Keeping Requirements), there is no regulatory basis for sections (c) through (f). These sections need to be removed from the permit.

For Condition D.2.17 (Parametric Monitoring), this condition needs to be either removed from the permit or allow Quemetco to follow either recommended manufacturers recommendations or existing plant SOPs to satisfy this requirement since there is no regulatory basis for this new requirement. For Condition D.2.20 (SO<sub>2</sub> Monitor Downtime), this requirement constitutes an additional requirement not specified in either federal, state or local regulations. Please remove this requirement from the permit.

There is no regulatory basis for adding the new requirements for visible emissions (VE) stack readings every shift. These are not required by either the Secondary Lead Smelters NESHAP or 326 IAC 20-13. This comment additionally pertains to Condition D.1.15 (Visible Emission Notations) and to Condition D.2.16 (Visible Emission Notations). Please remove these conditions from the permit.

### **Response to Comment # 17**

Quemetco operates a Bag Leak Detection System (BLDS) on all baghouses that exhaust to Stack/Vent S-111 and Stack/Vent S-100. Pursuant to 40 CFR 63.548(a) and (b) and 326 IAC 20-13-5, the Permittee shall operate at all times in accordance with the Standard Operating Procedures Manual approved by IDEM, OAQ that describes in detail procedures for inspection, maintenance and bag leak detection and corrective action plans for all baghouses that exhaust to Stack/Vent S-111 and Stack/Vent S-100. Condition D.1.13 (Monitoring Requirements) and Condition D.2.14 (Monitoring Requirements) each state these minimum requirements that the SOP should contain. The approved Standard Operating Procedures Manual

includes the minimum requirements for baghouse inspections and broken or failed bag detection for compliance monitoring of baghouses in Indiana's Part 70 Operating Permit Program. Therefore, Condition D.1.17 (Baghouse Inspections), D.1.18 (Broken or Failed Bag Detection), D.2.18 (Baghouse Inspections) and D.2.19 (Broken or Failed Bag Detection) are each now removed from the Part 70 Operating Permit. Condition D.1.16 (Parametric Monitoring) and D.2.17 (Parametric Monitoring) already had acknowledged that a BLDS is operational for each of these baghouses providing continuous monitoring of these baghouses. However, Condition D.1.16 and Condition D.2.17 have been changed to state, "Whenever the baghouse leak detection system is malfunctioning or down for repairs or adjustments for a period of four (4) hours or more, the Permittee shall record the total static pressure drop across each baghouse at least once per shift when the associated units are in operation when venting to the atmosphere." This statement has been added to Condition D.1.15 (Visible Emissions Notations) and Condition D.2.16 (Visible Emission Notations) as shown below "with the addition of "until the baghouse leak detection system is repaired or replaced." The statement "until the baghouse leak detection system is repaired or replaced" has also been added to Condition D.1.16 (Parametric Monitoring) and Condition D.2.17 (Parametric Monitoring). Quemetco has stated that the manufacturer's recommended optimal water flow rate should be greater than 90 gallons per minute and this is the normal operation of Scrubber # 046. The renumbered Condition D.1.18(b) (SO<sub>2</sub> Monitor Downtime), will be revised to state that (should the SO<sub>2</sub> CEM malfunction or be down for a period of four hours or more) the scrubber tray pump shall maintain a flow rate of greater than 90 gallons per minute. The renumbered Condition D.1.19 (c), (d) and (e) (f) (Record Keeping Requirements) and Condition D.2.19 (c) and (d) (Record Keeping Requirements) record keeping provisions need to be retained should the BLDS malfunction or be down for repair or a backup CEM is not brought on line. However, the former Condition D.1.19(e) and Condition D.2.19(e) are now deleted from the Part 70 Operating Permit because the baghouse inspection and broken or failed bag detection conditions have been deleted.

#### D.1.15 Visible Emissions Notations

- (a) **Whenever the baghouse leak detection system is malfunctioning or down for repairs or adjustments for a period of four (4) hours or more, ~~Visible~~ visible emission notations of Stack/Vent S-111 stack exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere **until the baghouse leak detection system is repaired or replaced.** A trained employee shall record whether emissions are normal or abnormal.**

#### D.1.16 Parametric Monitoring

**Whenever the baghouse leak detection system is malfunctioning or down for repairs or adjustments for a period of four (4) hours or more, "Should the baghouse leak detection system become inoperable or experience a failure, the Permittee shall record the total static pressure drop across Baghouse #035 and #037 at least once per shift when in operation when venting to the atmosphere **until the baghouse leak detection system is repaired or replaced.** When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records and Reports shall be considered a deviation from this permit.**

#### D.1.17 Baghouse Inspections

~~An inspection shall be performed each calendar quarter of all bags for Baghouse #035 and #037 when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections required by this condition shall not be performed in consecutive months. Inspections are optional when venting to the indoors. All defective bags shall be replaced.~~

#### D.1.18 Broken or Failed Bag Detection

~~In the event that bag failure has been observed:~~

- ~~(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C- Compliance Response Plan- Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be 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.~~
- ~~(b) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B- Emergency Provisions).~~

D.1.1820 SO<sub>2</sub> Monitor Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(1)]

Whenever the SO<sub>2</sub> Continuous Emission Monitor (CEM) is malfunctioning or will be down for repairs or adjustments for a period of four (4) hours or more, one of the following methods shall be used to provide information related to SO<sub>2</sub> emissions:

- (a) A calibrated backup CEM for Stack/Vent S-111 shall be brought online within four (4) hours of shutdown of the primary CEM, or
- (b) The Permittee shall monitor and record the water flow rate and the pH of Scrubber #046 water at least once every hour when exhausting to Stack/Vent S-111. The Scrubber #046 water flow rate shall be maintained at a flow rate of **greater than 90 to 100** gallons per minute and shall maintain a pH of 6 to 9. The Permittee shall monitor and record the water flow rate and the pH at least once every hour until the CEM for Stack/Vent S-111 is returned to operation.

D.1.1924 Record Keeping Requirements

- (a) Pursuant to 40 CFR Part 63.550 and 326 IAC 20-13, the Permittee shall maintain records for bag leak detection systems on site for a period of three (3) years and be available for an additional two (2) years and shall include the following information:
- (1) Records of bag leak detection system output.
  - (2) Identification of the date and time of all bag leak detection system alarms.
  - (3) The time that procedures to determine the cause of the alarm were initiated.
  - (4) The cause of the alarm.
  - (5) An explanation of the actions taken.
  - (6) The date and time the alarm was corrected.
  - (7) Records of total operating time of an affected source during smelting operations for each six (6) month period.
  - (8) Any record keeping required as part of the practices described in the Standard Operating Procedures Manual for baghouses required under 40 CFR 63.548(a).

- (b) The Permittee shall keep records on the continuous SO<sub>2</sub> emissions monitoring systems in accordance with 326 IAC 3-5-6.
- (c) To document compliance with Condition D.1.15, the Permittee shall maintain records of visible emission notations of the stack exhaust from Stack/Vent S-111 once per shift.
- (d) To document compliance with Condition D.1.16, the Permittee shall maintain records of once per shift total static pressure drop checks during normal operation when venting to the atmosphere.
- ~~(e) To document compliance with Condition D.1.17, the Permittee shall maintain records of the results of the inspections required under Condition D.1.17 and the dates the vents are redirected.~~
- (e)(f) To document compliance with Condition D.1.1820, the Permittee shall maintain records of the once per hour pH checks of Scrubber #046.
- (f) ~~(g)~~ All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.2.16 Visible Emissions Notations

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- (a) **Whenever the baghouse leak detection system is malfunctioning or down for repairs or adjustments for a period of four (4) hours or more, visible visible** emission notations of Stack/Vent S-100 stack exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere **until the baghouse leak detection system is repaired or replaced.** A trained employee shall record whether emissions are normal or abnormal.

#### D.2.17 Parametric Monitoring

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**Whenever the baghouse leak detection system is malfunctioning or down for repairs or adjustments for a period of four (4) hours or more,** Should the baghouse leak detection system become inoperable or experience a failure, the Permittee shall record the total static pressure drop across Baghouse #036, #038, #039, #040 and #041 at least once per shift when the associated units are in operation when venting to the atmosphere **until the baghouse leak detection system is repaired or replaced.** When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records and Reports shall be considered a deviation from this permit.

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

#### D.2.18 Baghouse Inspections

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~~An inspection shall be performed each calendar quarter of all bags for Baghouse #036, #038, #039, #040 and #041 when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.~~

#### D.2.19 Broken or Failed Bag Detection

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~~In the event that bag failure has been observed:~~

- ~~(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be 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.~~
- ~~(b) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).~~

**D.2.1924** Record Keeping Requirements

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- (a) Pursuant to 40 CFR Part 63.550 and 326 IAC 20-13, the Permittee shall maintain records for bag leak detection systems on site for a period of three (3) years and be available for an additional two (2) years and shall include the following information:
- (1) Records of bag leak detection system output.
  - (2) Identification of the date and time of all bag leak detection system alarms.
  - (3) The time that procedures to determine the cause of the alarm were initiated.
  - (4) The cause of the alarm.
  - (5) An explanation of the actions taken.
  - (6) The date and time the alarm was corrected.
  - (7) Records of total operating time of an affected source during smelting operations for each six (6) month period.
  - (8) Any record keeping required as part of the practices described in the Standard Operating Procedures Manual for baghouses required under 40 CFR 63.548(a).
- (b) The Permittee shall keep records on the continuous SO<sub>2</sub> emissions monitoring systems in accordance with 326 IAC 3-5-6.
- (c) To document compliance with Condition D.2.16, the Permittee shall maintain records of visible emission notations of the stack exhaust from Stack/Vent S-100 once per shift.
- (d) To document compliance with Condition D.2.17, the Permittee shall maintain records of once per shift total static pressure drop checks during normal operation when venting to the atmosphere.
- ~~(e) To document compliance with Condition D.2.18, the Permittee shall maintain records of the results of the inspections required under Condition D.2.18 and the dates the vents are redirected.~~
- (e) (f) All records shall be maintained in accordance with Section C - General Record Keeping

Requirements, of this permit.

### **Comment # 18**

For Condition D.3.11 (Parametric Monitoring), there is no regulatory justification for this new requirement to record pressure drops for baghouses exhausting at Stack/Vent S-101 through S-109 once per shift. Please remove this condition from the permit. For Condition D.3.12 (Baghouse Inspections), Quemetco performs inspections of the roof vent baghouses as appropriate. This requirement constitutes an additional requirement not specified in either federal or state regulations. Please remove this condition from the permit. For Condition D.3.13 (Broken or Failed Bag Detection), Quemetco requests that the procedures described in the bag leak detection SOP be referenced in lieu of this new requirement having no regulatory justification.

For Condition D.3.10 (a) through (e) (Visible Emission Notations), there is no regulatory justification for requiring VE notations for Stack/Vent S-101 through S-109 once per shift. Also, there is no problematic reason for having this requirement. Please remove this condition from the permit.

For Condition D.3.14 (c) through (e) (Record Keeping Requirements), Quemetco requests that these conditions be removed from the permit because this new requirement has no regulatory justification.

### **Response to Comment # 18**

Pursuant to 40 CFR 63.548(a) and (b) the Permittee shall operate at all times in accordance with the Standard Operating Procedures Manual approved by IDEM, OAQ and OES that describes in detail procedures for inspection, maintenance and corrective action plans for Roof Vent baghouses RV #1, RV #2, RV #3, RV #4, RV #5, RV #6, RV #7, RV #8 and RV #9. Condition D.3.9 (Operating Procedures) states the minimum requirements that the SOP should contain. Condition D.3.9 (Operating Procedures) and the Standard Operating Procedures Manual each include the minimum requirements for baghouse inspections for compliance monitoring of baghouses in Indiana's Part 70 Operating Permit Program. Therefore, Condition D.3.12 (Baghouse Inspections) is now removed from the Part 70 Operating Permit. However, Condition D.3.9 (Operating Procedures) does not specifically state the minimum requirements in the Part 70 Operating Permit should a broken or failed bag be observed during an inspection required pursuant to 40 CFR 63.548(a) and (b). Therefore, the renumbered Condition D.3.12 (Broken or Failed Bag Detection) is not deleted from Section D.3. Because these baghouses are each not equipped with a BLDS to provide continuous monitoring of baghouse operation and performance, Condition D.3.10 (Visible Emission Notations) and Condition D.3.11 (Parametric Monitoring) will not be removed from the Part 70 Operating Permit.

Condition D.3.13 (c), (d) and (f) (Record Keeping Requirements) record keeping provisions need to be retained because compliance monitoring for these units must be performed to demonstrate continuous compliance with applicable requirements. However, Condition D.3.13(e) is now deleted from the Part 70 Operating Permit because the baghouse inspection condition has been deleted.

#### **D.3.12 Baghouse Inspections**

~~An inspection shall be performed each calendar quarter of all bags for Roof Vent Baghouses RV #1 through RV #9 when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.~~

#### **D.3.1314 Record Keeping Requirements**

- (a) The Permittee shall maintain purchasing records and manufacturer's specifications of HEPA filters installed on all process fugitive and fugitive dust stacks demonstrating the filters have been certified by the manufacturer to meet the definition of HEPA filters in 40 CFR 63.542. The records and manufacturer's specifications shall be maintained on site for three (3) years and shall be available for an additional two (2) years.

- (b) Any record keeping required as part of the practices described in the standard operating procedures manual for baghouses required under 40 CFR 63.548(a).
- (c) To document compliance with Condition D.3.10, the Permittee shall maintain records of visible emission notations of the stack exhaust from Stack/Vent S-101 through S-109 once per shift.
- (d) To document compliance with Condition D.3.11, the Permittee shall maintain records of once per shift total static pressure drop checks during normal operation when venting to the atmosphere.
- ~~(e) To document compliance with Condition D.3.12, the Permittee shall maintain records of the results of the inspections required under Condition D.3.12 and the dates the vents are redirected.~~
- (e)(f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### **Comment # 19**

For Condition D.3.2 (Process Fugitive Emissions), remove “agglomerating furnace emission vents” wording from this section and other sections of the permit since it does not apply to Quemetco.

#### **Response to Comment # 19**

Since there are no agglomerating furnace emission vents at Quemetco, Inc. the following change is made to Condition C.6, Condition D.2.3 and Condition D.3.2:

#### **C.6 Standards for Process Fugitive Sources [40 CFR 63.544(a),(b) & (c)][326 IAC 20-13]**

Pursuant to 40 CFR 63.544(a) Subpart X (National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting) and 326 IAC 20-13 (Hazardous Air Pollutants: Secondary Lead Smelters), the Permittee shall control the process fugitive emission sources listed below in accordance with the operational standards of 40 CFR 63.544(b) and (c).

- (a) Smelting furnace and dryer charging hoppers, chutes, and skip hoists;
- (b) Smelting furnace lead taps and molds during tapping;
- (c) Smelting furnace slag taps and molds during tapping;
- (d) Refining kettles;
- (e) Dryer transition pieces. ~~;~~ and
- ~~(f) Agglomerating furnace product taps.~~

#### **D.2.3 Process Fugitive Emissions [326 IAC 20-13][40 CFR 63.544]**

- (a) Pursuant to 40 CFR 63.544, the Permittee shall control process fugitive emission sources as follows:
  - (1) Process fugitive emission sources shall be equipped with an enclosure hood meeting the requirements of 40 CFR 63.544(b)(1), (b)(2) and (b)(3) or be located in a total enclosure subject to general ventilation that maintains the building at a lower than ambient pressure to ensure in-draft through any doorway opening.

- (2) Ventilation air from all enclosure hoods and total enclosures shall be conveyed to a control device. Gases discharged to the air from these control devices shall not contain Lead compounds in excess of two (2.0) milligrams of Lead per dry standard cubic meter of exhaust (0.00087 grains per dry standard cubic foot of exhaust).
  - (3) All dryer emission vents ~~and agglomerating furnace emission vents~~ shall be ventilated to a control device that shall not discharge to the atmosphere any gases that contain Lead compounds in excess of two (2.0) milligrams of Lead per dry standard cubic meter (0.00087 grains per dry standard cubic foot of exhaust).
- (b) Pursuant to 326 IAC 20-13-7(f), ventilation air from the following shall be conveyed or ventilated to a control device:
- (1) All enclosure hoods and total enclosures.
  - (2) All dryer emission vents.
  - ~~(3) Agglomerating furnace emission vents.~~

**D.3.2 Process Fugitive Emissions [326 IAC 20-13][40 CFR 63.544]**

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- (a) Pursuant to 40 CFR 63.544, the Permittee shall control process fugitive emission sources as follows:
- (1) Process fugitive emission sources shall be equipped with an enclosure hood meeting the requirements of 40 CFR 63.544(b)(1), (b)(2) and (b)(3) or be located in a total enclosure subject to general ventilation that maintains the building at a lower than ambient pressure to ensure in-draft through any doorway opening.
  - (2) Ventilation air from all enclosure hoods and total enclosures shall be conveyed to a control device. Gases discharged to the air from these control devices shall not contain Lead compounds in excess of two (2.0) milligrams of Lead per dry standard cubic meter of exhaust (0.00087 grains per dry standard cubic foot of exhaust).
  - (3) All dryer emission vents ~~and agglomerating furnace emission vents~~ shall be ventilated to a control device that shall not discharge to the atmosphere any gases that contain Lead compounds in excess of two (2.0) milligrams of Lead per dry standard cubic meter (0.00087 grains per dry standard cubic foot of exhaust).
- (b) Pursuant to 326 IAC 20-13-7(f), ventilation air from the following shall be conveyed or ventilated to a control device:
- (1) All enclosure hoods and total enclosures.
  - (2) All dryer emission vents.
  - ~~(3) Agglomerating furnace emission vents.~~

**Comment # 20**

For Condition D.3.7 (Particulate Control), insert wording to allow downtime for periodic maintenance.

**Response to Comment # 20**

A Compliance Determination requirement for Condition D.3.2, D.3.3 and D.3.4, is that the Baghouses identified as RV #1, RV #2, RV #3, RV #4, RV #5, RV #6, RV #7, RV #8 and RV #9 for particulate control

shall be in operation and control emissions at all times that process fugitive and fugitive emission sources are in operation. A statement allowing control equipment to not be in operation while an emission unit exhausting to it is in operation cannot be stated in the Part 70 Operating Permit. Therefore, there is no change to Condition D.3.7.

### **Comment # 21**

Agree to limit reporting requirements to current reports only, which include the following:

- (a) Quarterly SO<sub>2</sub> CEM reports (using Certification cover letter and Quarterly Deviation Form);
- (b) Semi-annual NESHAPs reports (using Certification cover letter and Quarterly Deviation Form);
- (c) Stack Testing Protocols/Notification (submit protocols/notice);
- (d) Annual testing for RATAs and process stacks (Pb/PM) alternating between main process stacks and roof vents (using Certification cover letter and Quarterly Deviation Form);
- (e) Annual air emissions reporting (using Certification cover letter along with the report);
- (f) Reporting malfunctions within four daytime business hours (using Quarterly Deviation Form);
- (g) Reporting excess emissions unrelated to malfunctions (using Certification cover letter and Quarterly Deviation Form).

### **Response to Comment # 21**

All required reporting is stated in the Part 70 Operating Permit pursuant to 326 IAC 2-7-5(c)(3) (Permit content), 326 IAC 2-6 (Emission Reporting), pursuant to applicable reporting requirements under 326 IAC 3 (Monitoring Requirements), pursuant to 326 IAC 20-13 (Hazardous Air Pollutants: Secondary Lead Smelters), pursuant to 40 CFR Part 60 and pursuant to 40 CFR Part 63.

### **Comment # 22**

Modify the Permit to specify that the OES and EPA are the enforcers, and that all reports and notices should only go the OES, and if necessary, USEPA, but not IDEM. Double and triple copies is inefficient, wasteful and would not be considered streamlining the permit process.

### **Response to Comment # 22**

The requirements of the Federal Part 70 Operating Permit Program, mandated by the Federal Clean Air Act Amendments of 1990, are in effect in Indiana for major stationary sources of regulated air pollutants. Authorizing State legislation has been adopted (IC 13-17-3-11 and IC 13-17-8) and implementing rules have been promulgated in 326 IAC 2-7 (Part 70 Permit Program). Therefore, the State of Indiana, through the IDEM, OAQ, has the only Federally approved Part 70 Operating Permit Program in Indiana. Pursuant to 326 IAC 2-7-21 (Part 70 Permit Program: Local agencies), "if specified in a written agreement with the Commissioner, a local air pollution control agency may perform some or all of the functions of the Part 70 permit program. The Commissioner and such a local air agency shall enter into an enforceable written agreement documenting the local air agency's and the Department's relative Part 70 permit program roles and responsibilities." The written agreement states that all Part 70 Operating Permit reporting required for Marion County sources shall be reported to IDEM, OAQ and the City of Indianapolis OES. Therefore, IDEM, OAQ and the City of Indianapolis shall each receive required Part 70 Operating Permit reports. Where it is specifically stated in the Part 70 Operating Permit, USEPA has specifically stated and asked that these reports be sent to them. Therefore, there is no change in reporting requirements.

### **Comment # 23**

For the Emergency Occurrence Report Form, change the wording to require the written report to OES only instead of IDEM, OAQ and change the wording that the report must be submitted within 2 days to 5 days in accordance with Indianapolis Air Pollution Control Board Regulation VII and Construction Permit requirements.

### **Response to Comment # 23**

On December 11, 1997, the Indianapolis Air Pollution Control Board adopted, by reference, 326 IAC 2-7-16 (Emergency Provisions). Therefore, Indianapolis Air Pollution Control Board Regulation VII (Malfunctions and Scheduled Maintenance) are no longer in effect. Pursuant to 326 IAC 2-7-16 (Emergency Provisions), all emergencies shall be reported, to the Office of Air Quality (OAQ) and OES within four (4) business hours and the Permittee must submit a notice to the Office of Air Quality (OAQ) and OES in writing or by facsimile within two (2) working days and follow the other requirements of 326 IAC 2-7-16.

Therefore, there is no change to the Emergency Occurrence Report Form.

The following comments were submitted to OES by the West Parkview Neighborhood Association on February 27, 2004.

### **Comment # 1**

We would like to be informed and contacted for future additional information about air permits and other issues of our community environmental and health concerns that affect this area. Please add us to your mailing list. These are some of the concerns that we have:

- (a) We would like to be informed of the levels of hazardous air pollutants emitted by manufacturers and industries. Also, results of testing and monitoring.
- (b) Asthma, cancer, burning eyes and other medical problems have plagued our families. Also, lack of energy and weakness. One resident stated that they grew up in the West Parkview neighborhood but moved away for a period of time. When growing up in the neighborhood, they had no chronic respiratory disorders. After returning to the area with their family in 1987, a family member began to experience respiratory problems such as shortness of breath, coughing and wheezing. They were medically diagnosed with asthma. Since that time their condition has progressively worsened and the family member must take medications year round as well as utilizing an in home nebulizer. The oldest son of the family who was a young child at the time they moved to the West Parkview area in 1987, developed asthma and severe allergies. As an adult, he is still plagued with these conditions even though he has since moved away from the neighborhood.
- (c) Strong odors are often present. It is stronger after dark. Difficult breathing problems present more during nighttime hours. The strong smells that are emitted into the air basically blanket the neighborhood with an extremely foul smelling odor. They are most evident between the hours of 2:00 AM and 6:00 PM. We are convinced the odors are from Quemetco and have caused an unhealthy living environment for the residents of the West Parkview community.
- (d) Trees, lawns and cars, etc. at times have soot and sediment visible.

### **Response to Comment # 1**

The West Parkview Neighborhood Association can be registered as a Registered Community Organization for public notice purposes with the City of Indianapolis Department of Metropolitan Development at [www.indygov.org/dmdplan/cod.html](http://www.indygov.org/dmdplan/cod.html). Becoming a Registered Community Organization with the City of

Indianapolis will more readily allow your neighborhood organization to become aware of pending or final decisions involving community affairs issues.

Because the West Parkview Neighborhood Association submitted public notice comments on the proposed Part 70 Operating Permit, the West Parkview Neighborhood Association is an interested party in this decision and will be informed of and provided a copy of the notice of decision and Part 70 Operating Permit for Quemetco.

Pending and issued stationary source Clean Air Act and State and Local air pollution Permits for Marion County can be found on line at [www.IN.idem/air/permits/Air-Permits-Online](http://www.IN.idem/air/permits/Air-Permits-Online). They can also be located at [www.epa.gov/region5/air/permits/inonline.html](http://www.epa.gov/region5/air/permits/inonline.html). Marion County permit decisions can also be reviewed in person at the City of Indianapolis Office of Environmental Services (OES), 2700 South Belmont, Indianapolis, Indiana 46221. Marion County permit decisions can also be reviewed in person at the IDEM public file room on the 12<sup>th</sup> floor of the Indiana Government Center North, 100 N. Senate, Indianapolis, Indiana.

The website [www.epa.gov/air/data](http://www.epa.gov/air/data) contains information on ambient air monitoring results for criteria pollutants. Marion County data through 2003 for all criteria pollutants as well as the monitoring network site locations can be found at this website. This information is also available at the City of Indianapolis OES' offices.

Page 30 of 46 of the public noticed TSD contained the following statement in regards to Lead monitoring near Quemetco, "The City of Indianapolis OES installed an ambient air monitoring site near Quemetco, Inc. for Lead in January 1984. This monitoring site, Site 26 (AIRS # 18-097-0063), is located at 7601 Rockville Road. Quemetco, Inc. installed an additional ambient air monitoring site for Lead in May 1991. This second site, Site 36 (AIRS # 18-097-0076), is located at 230 South Girls School Road. This ambient air monitoring network of two (2) Lead monitoring sites has been operational since May 1991 with all ambient air monitoring performed by the City of Indianapolis OES, an authorized air pollution control agency having jurisdiction to operate the network. No violations of the primary and/or secondary National Ambient Air Quality Standard of 1.5 ug/m<sup>3</sup> of Lead per calendar quarter have been monitored at either site.

The Part 70 Operating Permit requires that Quemetco test biennially for Lead emissions from all process and process fugitive emissions points. The most recent results for Lead testing as well as other criteria pollutant (NO<sub>x</sub>, SO<sub>2</sub>, PM-10 and CO) test results were stated in the public notice version TSD Appendix C page 4 of 4.

Toxic release information (TRI) data for Marion County sources can be found at [www.state.in.us/idem/oppta/tri/search.html](http://www.state.in.us/idem/oppta/tri/search.html).

A direct causal link between long term human exposure to industrial emissions and physical illness can be difficult to establish or directly link to the industrial emission source. The operational and equipment standards mandated by applicable Clean Air Act requirements for Quemetco are set to establish that emission releases will not violate the National Ambient Air Quality Standards (NAAQS) for criteria pollutants including Lead. Violations of the NAAQS have not been monitored near Quemetco.

The City of Indianapolis has in the past and will continue to monitor and staff a complaint line during normal business hours at (317) 327 -2234. After hours and on weekends, please contact the Mayor's Action Center at (317) 327-4MAC should an area resident have an air pollution complaint. OES has not received historical complaints from neighbors concerning Quemetco. In checking with OES staff about odors near Quemetco, OES staff occasionally smell a sulfuric acid odor. The most prevalent odors in the area are a burnt oil and acrid odor and an ammonia odor. Investigation of these odors has not determined that any violation of the Clean Air Act or State or Local air pollution control regulations has occurred. The City of Indianapolis does not have an odor regulation; however, OES is interested in determining if odors present are indicative of proper operation of the facility. If odors or potential violations of applicable requirements are observed, please notify OES at the complaint telephone line number(s) as soon as possible in order to mitigate any potential air pollution problem associated with ambient air quality in the neighborhood. In addition, if notified, the City of Indianapolis OES can take samples of deposited soot or sediment to possibly

identify what the substance is and what its potential origin may be.

In accordance with the credible evidence rule (62 Fed. Reg. 8314, Feb 24, 1997); Section 113(a) of the Clean Air Act, 42 U.S.C. 7413 (a); and a letter from the United States Environmental Protection Agency (USEPA) to IDEM, OAQ dated May 18, 2004, all permits must address the use of credible evidence; otherwise, USEPA will object to the permit. The following language will be incorporated into the Permit to address credible evidence:

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

**Notwithstanding the Conditions of this Permit that state specific methods that may be used to demonstrate compliance with, or a violation of, applicable requirements, any person (including the Permittee) may also use other credible evidence to demonstrate compliance with, or a violation of, any term or Condition of this Permit.**

On April 15, 2004, the United States Environmental Protection Agency (U.S. EPA) named 23 Indiana counties and one partial county nonattainment for the new 8-hour ozone standard. The designations became effective on June 15, 2004. Marion County has been designated as nonattainment for the 8-hour ozone standard. The following has been added to A.1 General Information:

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

The Permittee owns and operates a stationary secondary lead smelting and refining operation under a Standard Industrial Classification (SIC) Code of 3341 (Secondary Smelting and Refining of Nonferrous Metals).

Responsible Official:	Vice President, Indiana Operations
Source Address:	7870 West Morris Street, Indianapolis, Indiana 46231
Mailing Address:	7870 West Morris Street, Indianapolis, Indiana 46231
General Phone Number:	Robert Kelsey, (317) 247-1303, extension 12
SIC Code:	3341
County Location:	Marion
Source Location Status:	<b>Nonattainment for ozone under the 8-hour standard</b> Attainment for all <b>other</b> criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD Rule <b>and Emission Offset Rules and Nonattainment NSR</b> ; Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

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

The source is located in Marion County.

Pollutant	Status
PM-10	unclassifiable
SO <sub>2</sub>	maintenance attainment
NO <sub>2</sub>	attainment
<b>1-hour Ozone</b>	maintenance attainment
<b>8-hour Ozone</b>	<b>basic nonattainment</b>
CO	attainment
Lead	unclassifiable

- ~~(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Marion County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.~~
- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NO<sub>x</sub>) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to the ozone standards. Marion County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for nonattainment new source review.

When Condition B.14(a) - Deviations from Permit Requirements was updated in December 2001, the third sentence of the on the Quarterly Deviation and Compliance Monitoring Report Form should have been revised to be consistent with the Condition. Therefore, it is not clear on the Report Form that the deviations that are not required to be reported on that Form are those that are deviations required to be reported pursuant to an applicable requirement that exists independent of the Permit. Therefore, the statement in the Quarterly Deviation and Compliance Monitoring Report Form is revised to state:

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.** Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

**Indiana Department of Environmental Management  
Office of Air Quality  
and  
City of Indianapolis  
Office of Environmental Services**

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

**Source Background and Description**

**Source Name:** Quemetco, Inc.  
**Source Location:** 7870 West Morris Street, Indianapolis Indiana 46231  
**County:** Marion  
**SIC Code:** 3341  
**Operation Permit No.:** T097-6201-00079  
**Permit Reviewer:** M. Caraher

The Indiana Department of Environmental Management, Office of Air Quality (IDEM, OAQ) and the City of Indianapolis Office of Environmental Services (OES) have reviewed a Part 70 Operating Permit application received from Quemetco, Inc. relating to the operation of a stationary secondary lead smelting and refining operation under a Standard Industrial Classification (SIC) Code of 3341 (Secondary Smelting and Refining of Nonferrous Metals).

**Permitted Emission Units and Pollution Control Equipment**

The stationary source consists of the following permitted emission units and pollution control devices with the vents and pick-up points set out in Table 1 in Appendix A:

- (a) One (1) Reverberatory Furnace, identified as Emission Unit 3.1, used in the smelting of lead from lead acid batteries and scrap lead. The reverberatory furnace receives charge material from the Rotary Dryer in a continuous process. The furnace is heated by an oxygen enriched 32 million Btu per hour natural gas fired burner system. Molten lead is tapped directly into refining kettles or into molds for subsequent placement/refining in the refining kettles. Lead containing slag is tapped for further lead recovery in one of two electric arc furnaces. Process flue gas emissions are controlled by Baghouse #035 and Scrubber #046. The controlled emissions exhaust to one stack identified as Stack/Vent S-111. Stack/Vent S-111 is equipped with a Continuous Emissions Monitor (CEMS) for sulfur dioxide (SO<sub>2</sub>) emissions. The maximum charge capacity for the Reverberatory Furnace is 828 tons per day. This emission unit was installed in 1972.
- (b) One (1) 2500 kVA Electric Arc Slag Reduction Furnace (SRF), identified as Emission Unit 3.3, that concurrently processes hot slag from the Reverberatory Furnace and cold slag in a continuous process. Cold slag is taken from storage and is placed in a hopper. Hot slag is conveyed from the Reverberatory Furnace to the SRF. Molten lead is tapped into molds for subsequent placement/refining in the refining kettles. Slag is tapped and stored awaiting proper disposal or reprocessing if the lead content is high enough. Emissions are controlled by Baghouse #037 and Scrubber #046 which exhaust to one stack identified as Stack/Vent S-111. Stack/Vent S-111 is equipped with a Continuous Emissions Monitor (CEMS) for sulfur dioxide (SO<sub>2</sub>) emissions. The maximum charge capacity for the Slag Reduction Furnace is 132 tons per day. This emission unit was installed in 1995.
- (c) Process Fugitive Emissions from one (1) Reverberatory Furnace, identified as Emission Unit 3.1, used in the smelting of lead from lead acid batteries and scrap lead. Emissions from lead charging are controlled by Baghouses #038 and #041, respectively, and exhaust to one stack identified as Stack/Vent S-100. General furnace emissions are controlled by Baghouse

#041 and exhaust to one stack identified as Stack/Vent S-100. Emissions from lead tapping are controlled by Baghouse #039 or Baghouse #040 which exhaust to one stack identified as Stack/Vent S-100. Stack/Vent S-100 is equipped with a Continuous Emissions Monitor (CEMS) for sulfur dioxide (SO<sub>2</sub>) emissions. The maximum charge capacity for the Reverberatory Furnace is 828 tons per day. This emission unit was installed in 1972.

- (d) Eight (8) refining kettles, identified as Emission Unit Kettle #1 through Kettle #8, which are used to refine the lead alloy. The refining kettles receive molten lead, solid lead or scrap lead. Reagents and alloying metals are added to the Kettle(s) and mixed into molten lead. A natural gas fired burner system indirectly heats the lead. The combined heat input capacity for the natural gas fired burners is 32 million Btu per hour. Impurities are removed as dross from the surface of the molten lead. Process emissions are controlled by Baghouse #039 or Baghouse #040 which exhaust to one stack identified as Stack/Vent S-100. Stack/Vent S-100 is equipped with a Continuous Emissions Monitor (CEMS) for sulfur dioxide (SO<sub>2</sub>) emissions. Combustion emissions from the natural gas burners are vented to separate stacks. Combustion emissions from Kettle #1 are vented to Stack/Vent S-117. Combustion emissions from Kettle #2 are vented to Stack/Vent S-114. Kettle #3 and Kettle #4 are vented to Stack/Vent S-116. Combustion emissions from Kettle #5 and Kettle #6 are vented to Stack/Vent S-115. Combustion emissions from Kettle #7 are vented to Stack/Vent S-113. Combustion emissions from Kettle #8 are vented to Stack/Vent S-112. Kettles #1 through #6 were installed in 1972. Kettles #7 and #8 were installed in 1988 and 1992 respectively. The refining operation is not a time based operation therefore there is no maximum throughput capacity identified. However, an average based on 24 hours of operation and full kettles is 46.3 tons per hour.
- (e) Refining Kettle #9, identified as Emission Unit Kettle #9. Kettle #9 has a capacity of 2.14 tons of lead per hour (180 ton capacity with two batches per week) and is heated by a 4.25 million Btu natural gas burner. The kettle is used to refine lead. Emissions from Kettle #9 are controlled by Baghouse #041, which exhaust to one stack identified as Stack/Vent S-100. Stack/Vent S-100 is equipped with a Continuous Emissions Monitor (CEMS) for sulfur dioxide (SO<sub>2</sub>) emissions. Burner emissions are vented through a combustion flue, Stack/Vent S-118, with no controls. Kettle # 9 was installed in 2002.
- (f) One (1) Casting Machine, identified as Emission Unit 7 which receives refined and alloyed lead metal pumped from the refining kettles and casts the molten lead into lead ingots. The casting machine is equipped with a 0.3 million Btu per hour natural gas burner. Emissions from the casting machine are controlled by Baghouse #040 or Baghouse #039 which exhausts to one stack identified as Stack/Vent S-100. Stack/Vent S-100 is equipped with a Continuous Emissions Monitor (CEMS) for sulfur dioxide (SO<sub>2</sub>) emissions. The maximum process capacity is limited by the refining kettles. This emission unit was installed prior to 1978.
- (g) One (1) Electric Arc Furnace (EAF), identified as Emission Unit 3.2, used to recover lead from Reverberatory Furnace slag. The EAF is charged with lead containing materials, and flux, reagents and additives in a continuous process. The charge is heated and melted by passing an electric current through the charge. Molten lead is tapped into molds for subsequent placement/refining in the refining kettles. Slag is tapped and sent to storage to await proper disposal or reprocessing if the lead content is high enough. Process flue gas emissions within the furnace are controlled by Baghouse #036 which exhausts to one stack identified as Stack/Vent S-100. Emissions from lead tapping and slag tapping are controlled by Baghouse #036 which exhausts to one stack identified as Stack/Vent S-100. Process emissions not captured by furnace hoods are controlled by Baghouse #041 which exhausts to one stack identified as Stack/Vent S-100. Stack/Vent S-100 is equipped with a Continuous Emissions Monitor (CEMS) for sulfur dioxide (SO<sub>2</sub>) emissions. The maximum charge capacity is 6.5 tons per hour. This emission unit was installed in 1984.

- (h) One (1) Rotary Dryer, identified as Emission Unit 8, used to dry Reverberatory Furnace feed material. Raw material is dumped into a feed hopper which feeds the Rotary Dryer with lead bearing material and furnace additives from lead acid batteries and factory scrap in a continuous process. The Rotary Dryer is heated by an oxygen enriched 14 million Btu per hour natural gas fired burner system. The emissions generated from charging raw material to the feed hopper are controlled by Baghouse #041, which exhausts to one stack identified as Stack/Vent S-100. Process emissions are controlled by Baghouse #041, which exhausts to one stack identified as Stack/Vent S-100. The process fugitive emissions are controlled by Baghouse #038 and by Baghouse #041, which exhaust to one stack identified as Stack/Vent S-100. Stack/Vent S-100 is equipped with a Continuous Emissions Monitor (CEMS) for sulfur dioxide (SO<sub>2</sub>) emissions. The maximum process capacity for the Rotary Dryer is limited by the reverberatory furnace. This emission unit was installed prior to 1978.
- (i) General Building Ventilation of the bin 10 feed storage area, identified as GV101. Portions of process fugitive emissions generated by operations conducted in this area are controlled by Roof Vent Baghouse RV #1 and exhausting to Stack/Vent S-101. These operations potentially generate fugitive emissions from storage and handling of reverberatory charge materials and general emissions generated by traffic and housekeeping activities. Roof Vent Baghouse RV #1 was installed in 1991.
- (j) General Building Ventilation of the cold charge electric arc furnace building west, identified as GV102. Portions of process fugitive emissions generated by operations conducted in this area are controlled by Roof Vent Baghouse RV #2 and exhausting to Stack/Vent S-102. These operations potentially generating fugitive emissions include the Electric Arc Furnace, slag and lead tapping, furnace charging, feed hopper, feed conveyor, charge make-up, slag handling (shaking), and general emissions generated by traffic and housekeeping activities. Roof Vent Baghouse RV #2 was installed in 1991.
- (k) General Building Ventilation of the cold charge electric arc furnace building east, identified as GV103. Portions of process fugitive emissions generated by operations conducted in this area are controlled by Roof Vent Baghouse RV #3 and exhausting to Stack/Vent S-103. These operations potentially generating fugitive emissions include the electric arc furnace, slag and lead tapping, furnace charging, feed hopper, feed conveyor, charge make-up, slag handling (shaking), and general emissions generated by traffic and housekeeping activities. Roof Vent Baghouse RV #3 was installed in 1991.
- (l) General Ventilation for the reverb charge room, identified as GV104. Portions of process fugitive emissions generated by operations conducted in this area are controlled by Roof Vent Baghouse RV #4 and exhausting to Stack/Vent S-104. These operations potentially generating fugitive emissions include make up of reverberatory charge materials and general emissions generated by traffic and housekeeping activities. Roof Vent Baghouse RV #4 was installed in 1991.
- (m) General Ventilation for the cold charge electric arc furnace slag room, identified as GV105. Portions of process fugitive emissions generated by operations conducted in this area are controlled by roof vent Baghouse RV #5 and exhausting to Stack/Vent S-105. These operations potentially generating fugitive emissions include general handling and storage of charge materials such as slag, iron, limestone and coke, and general emissions generated by traffic and housekeeping activities. Roof Vent Baghouse RV #5 was installed in 1991.
- (n) General Ventilation for the reverb furnace and slag reduction furnace (SRF), identified as GV106. Portions of process fugitive emissions generated by operations conducted in this area are controlled by Roof Vent Baghouse RV #6 and exhausting to Stack/Vent S-106. These operations potentially generating fugitive emissions include the Reverberatory/Slag Reduction Furnaces - lead and slag tapping, furnace charging, feed conveyor, slag handling, and general emissions generated by traffic and housekeeping activities. Roof Vent Baghouse

RV #6 was installed in 1991.

- (o) General Ventilation of the north refinery area, identified as GV107. Portions of process fugitive emissions generated by operations conducted in this area are controlled by Roof Vent Baghouse RV #7 and exhausting to Stack/Vent S-107. The operations potentially generating fugitive emissions include the 8 refining kettles, kettle charging, dross skimming, casting, natural gas fired trimmer burners rated at 1.8 million Btu in the casting machine area and general emissions generated by traffic and housekeeping activities. Roof Vent Baghouse RV #7 was installed in 1991.
- (p) General Ventilation of the slag reduction furnace area, identified as GV108. Portions of process fugitive emissions generated by operations conducted in this area are controlled by Roof Vent Baghouse RV #8 and exhausting to Stack/Vent S-108. These operations potentially generating fugitive emissions include the slag reduction/ reverberatory furnace - lead and slag tapping, furnace charging, feed conveyor, slag handling and general emissions generated by traffic and housekeeping activities. Roof Vent Baghouse RV #8 was installed in 1992.
- (q) General Ventilation of the south refinery area, identified as GV109. Portions of process fugitive emissions generated by operations conducted in this area are controlled by Roof Vent Baghouse RV #9 and exhausting to Stack/Vent S-109. These operations potentially generating fugitive emissions include 8 refining kettles, kettle charging, dross skimming, casting and general emissions generated by traffic and housekeeping activities. Roof Vent Baghouse RV #9 was installed in 1995.

#### **Unpermitted Emission Units and Pollution Control Equipment**

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

#### **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 with heat input equal to or less than ten million (10,000,000) Btu per hour. [326 IAC 6-1-2]
  - (1) Maintenance Office HVAC system for natural gas heating at 70,000 Btu per hour.
- (b) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.
- (c) A petroleum fuel dispensing facility, other than gasoline, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.
- (d) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (e) Refractory storage not requiring air pollution control equipment.
- (f) Solvent recycling systems with batch capacity less than or equal to 100 gallons.
- (g) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.
- (h) Forced and induced draft cooling tower system not regulated under a NESHAP.

- (i) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (j) Stockpiled soils from soil remediation activities that are covered and waiting transport for disposal.
- (k) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4][326 IAC 20-13][40 CFR 63.541, Subpart X]
- (l) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (m) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (n) Emergency Gasoline generators not exceeding 110 horsepower [326 IAC 6-1-2]
- (o) Emergency Diesel generators not exceeding 1600 horsepower. [326 IAC 6-1-2]
- (p) Other activities or categories not previously identified with emissions equal to or less than the Insignificant Activity threshold(s) pursuant to 326 IAC 2-7-1:
  - (1) Battery Wrecker [326 IAC 6-1-2][326 IAC 20-13][40 CFR 63.541, Subpart X]
  - (2) Roadway Surface Fugitive Emissions [326 IAC 6-4][326 IAC 20-13][40 CFR 63.541, Subpart X]
  - (3) Outside Storage Bins: Coke Storage Bin, Iron Storage Bin and Limestone Storage Bin [326 IAC 6-1-2][326 IAC 20-13][40 CFR 63.541, Subpart X]
  - (4) General Parts Washing. Installation date of prior to January 1, 1980. [326 IAC 8-3-5]
  - (5) Five (5) Soda Ash Silos equipped with baghouse filters [326 IAC 6-1-2]
  - (6) Water Quality department wet scrubber identified as Unit W W Sly [326 IAC 6-1-2]

### Existing Approvals

- (a) Installation Permit(s) 10353, 10354, 10355 and 10356 issued by the City of Indianapolis in July 1972 for a lead smelting and refining operation and related equipment. This approval did not specify or list applicable requirements.
- (b) Installation Permit 11005 issued by the City of Indianapolis in March 1984 for an Electric Arc Furnace and Furnace Feed System. This approval did not specify or list applicable requirements.
- (c) Installation Permit(s) 11021 and 11022 issued by the City of Indianapolis in August 1984 for a Fume Scrubber on acid storage tanks on the wastewater treatment facility and one (1) 2.5 ton Lead Melting Kettle with a baghouse collector. This approval did not specify or list applicable requirements.
- (d) Certificate(s) of Operation No(s). 08236, 08284, 08285, 08286, 08287, 08288, 08289, 08290 and 08291 issued by the City of Indianapolis in November 1984 for a lead smelting and refining operation and related equipment. This approval did not specify or list applicable requirements.
- (e) Certificate of Operation No. 08466 issued by the City of Indianapolis in May 1985 for Fume Scrubber on acid storage tanks on the wastewater treatment facility.

- (f) Certificate of Operation No. 0079-11 issued by the City of Indianapolis May 29, 1987 Fume Scrubber on acid storage tanks on the wastewater treatment facility.
- (g) Exemption letter of May 23, 1988 issued by the City of Indianapolis for Kettle # 7 installation and operation. This approval did not specify or list applicable requirements.
- (h) Exemption letter of January 4, 1991 for a CO<sub>2</sub> control system.
- (i) Installation Permit(s) 90079-01 through 90079-07 issued by the City of Indianapolis December 24, 1990 for six (6) Roof Vent baghouses for general ventilation and one (1) American Air Filter baghouse for building ventilation.
- (j) Installation Permit 910079-01 issued by the City of Indianapolis April 1, 1991 for one (1) Roof Vent Baghouse # 7 controlling emissions from existing baghouses # 039 and # 040.
- (k) Installation Permit 91079-02 issued by the City of Indianapolis August 23, 1991 for Kettle # 8, # 9 and # 10.
- (l) Construction Permit No(s). 930079-01 through 930079-03 issued by the City of Indianapolis May 11, 1993 for an Electric Arc Furnace Slag Casting and a Reverberatory Furnace Slag Casting Scrubber and Roof Vent Baghouse # 8 venting emissions from the charge room area.
- (m) Construction Permit No. 950079-01 issued by the City of Indianapolis May 9, 1995 for one (1) 2500 kVa Electric Arc Slag Reduction Furnace and the addition of Roof Vent Baghouse # 9 exhausting the existing refinery area.
- (n) Construction Permit No. 960079-02 issued by the City of Indianapolis April 9, 1996 in replacement of Construction Permit 950079-01.
- (o) Construction Permit No. 960079-03 issued by the City of Indianapolis May 13, 1996 for Stack/Vent S-100 venting emissions associated with existing baghouses # 036, 038, 039, 040 and 041.
- (p) Construction Permit No 960079-04 issued by the City of Indianapolis April 30, 1996 in replacement of CP No. 960079-02.
- (q) Construction Permit Amendment A0970079 to CP 960079-03 and 960079-04 issued by the City of Indianapolis December 23, 1997 to transfer SO<sub>2</sub> emissions from Stack/Vent S-111 back to Stack/Vent S-100.
- (r) Construction Permit Amendment A0980079 to CP 960079-04 issued by the City of Indianapolis April 15, 1998 to delete reference to hot and cold slag processing rates to be run during performance stack testing.
- (s) Exemption 097-15607-00079 issued May 17, 2002 for Kettle # 9 installation and operation. Emissions from the kettle are vented into the current ventilation system through baghouse #041, which discharges via Stack/Vent S-100. Burner emissions are vented through a combustion flue, Stack/Vent S-118, with no controls.
- (t) A change in ownership of this source on or after December 1, 2002 to Eco-Bat Indiana, LLC was recognized by OES as a Notice Only Change to Construction Permit 960079-04 with the issuance of 097-16739-00079 on November 20, 2002. The change in ownership did not effect the operating source name of Quemetco, Incorporated.

This Part 70 Permit contains provisions intended to satisfy the requirements of the construction permit

rules. All terms and conditions of previous permits issued pursuant to permitting programs approved into the State Implementation Plan have either been incorporated as originally stated, revised, or deleted by this Permit. All previous registrations and permits are superseded by this Permit. See Appendix B for a list of all permit approvals issued to Quemetco and the conditions in these approvals which are not being incorporated in to the Part 70 Operating Permit.

### Enforcement Issue

There are no enforcement actions pending.

### Recommendation

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

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

An administratively complete Part 70 permit application for the purposes of this review was received on June 28, 1996. No letter of administrative completeness was sent to Quemetco, Inc.

Additional information was received from the source as follows:

- (a) On June 3, 1997 as a request to delete the allowable PM limit of 0.04 pounds per hour and 0.18 tons per year for Roof Vent Baghouses RV #1 through RV #8 from Installation Permit(s) 90079-01 through 90079-07, 91079-01 and 930079-01. The letter requested that the PM limit be changed to the applicable PM limit from 326 IAC 6-1-2(a) (Particulate Rules) of three hundredths (0.03) grains per dry standard cubic foot of exhaust (see discussion in this TSD under **State Rule Applicability - Individual Facilities** for Stack/Vent S-101 through S-109 (Nine Roof Vent Baghouses RV #1 through RV #9)).
- (b) On September 29, 1997 as a request to modify Construction Permits 960079-03 and 04. Specifically, Stack/Vent S-111 and Stack/Vent S-110, when combined, have a total SO<sub>2</sub> emission rate of 416 pounds per hour. The modification request was to transfer 100 pounds of SO<sub>2</sub> from Stack/Vent S-111 to Stack/Vent S-100. The modification request also involved discussion of maximum feed rate determinations and requests to modify or delete Conditions 3(C), 6(a) and 6(f). The transfer of 100 pounds of SO<sub>2</sub> from Stack/Vent S-111 to Stack/Vent S-100 was processed as Construction Permit Amendment A0970079-01 issued by the City of Indianapolis OES on December 23, 1997 (see discussion in this TSD under **State Rule Applicability - Individual Facilities** for Stack/Vent S-100 and Stack/Vent S-111).
- (c) On October 20, 1998 to clarify that the existing CO<sub>2</sub> control system in the Water Quality department is an Insignificant Activity and to update the Insignificant Activity list to include the Maintenance Office HVAC system. The Maintenance Office HVAC system is included as an Insignificant Activity that is specifically regulated under the category "Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour. "[326 IAC 6-1-2]
- (d) On October 22, 1998 to state that the Off-Site Waste Recovery NESHAP is not applicable to Quemetco, Inc. because controlled actual HAP emissions are less than the major source threshold (see discussion in this TSD under **Federal Rule Applicability**).
- (e) On December 8, 1998 to submit comments on the draft Title V Permit the Permittee had reviewed and to request that the requirement to operate a Continuous Opacity Monitor (COM) on Stack/Vent S-100 be removed as an applicable requirement from the draft Title V Permit (see discussion in this TSD under **State Rule Applicability - Entire Source** for 326 IAC

15 (Lead Rules) applicability).

- (f) On December 23, 1998 to notify OES of the end of a 120 day trial/testing period for identifying the cold slag feed rate limit on the HCEAF. Quemetco brought the trial period to a close following stack testing for Lead and PM emissions from Stack/Vent S-111 in conjunction with NESHAPs stack testing for Lead and PM emissions from Stack/Vent S-100 on December 10 and 11, 1998.
- (g) On February 11, 1999 to request an adjustment to the Slag Reduction Furnace cold slag feed rate and the Reverberatory Furnace feed rate to a maximum feed rate of 132.0 tons per day and 828 tons per day, respectively. The request was made based upon conclusions drawn from operational adjustments during a testing period to determine maximum short term feed rates. The request included stack test results for Lead and PM on Stack/Vent S-111 and Stack/Vent S-100 performed on December 10 and 11<sup>th</sup>, 1998 as justification for the adjustment of maximum feed rates.
- (h) On June 25, 1999 a request to increase the Kettle #1 natural gas fired burner from 3.0 million Btu per hour to 4.0 million Btu per hour. The Permittee submitted potential to emit emission rates stating that this increase in the natural gas firing rates did not trigger minimum permitting thresholds. As a result, the description for this Emission Unit incorporates the requested change.
- (i) On December 5, 2000 the Permittee stated that the Rotary Dryer burner was increased from 9 million Btu per hour natural gas firing to 14 million Btu per hour. In addition, the 1 million Btu per hour natural gas fired afterburner for this Unit was taken out. The Permittee submitted potential to emit emission rates stating that this increase in the natural gas firing rates did not trigger minimum permitting thresholds. As a result, the description for this Emission Unit incorporates the requested changes.
- (j) On April 24, 2001 the Permittee stated that Kettle's #1 and #2 natural gas firing exhaust flues which had been vented to a common stack, S-114, were now redirected to separate stacks, S-117 and S-114, respectively. The description for this Emission Unit incorporates the requested changes.
- (k) On February 5, 2002 the Permittee submitted an application to install and operate a new Kettle, Emission Unit Kettle #9. On May 17, 2002, OES issued the Exemption 097-15607-00079 for Kettle #9's installation and operation which is incorporated into this review and issuance.
- (l) On April 25, 2002 a request to install 1.8 million Btu natural gas fired trimmer burners in the refinery department casting machine area and vented to Roof Vent Baghouse #7 and Stack/Vent 107. IDEM, OAQ and OES have identified this Exemption request as 097-15548-00079 and have incorporated the request in the proposed Title V Permit for this source.
- (m) On May 14, 2002 the Permittee stated that Quemetco, Inc. was not subject to Section 112(j) of the 1990 Clean Air Act Amendments because none of the listed MACT categories yet to be promulgated were applicable to this source.
- (n) On August 14, 2002 the Permittee submitted source comments on the draft Title V Operating Permit 097-6201-00079.
- (o) On October 29, 2002 a request to notify OES of a change in ownership of the source was submitted. The change in ownership of the source was processed as a Notice Only Change to Construction Permit 960079-04 with the issuance of 097-16739-00079 on November 20, 2002. The change in ownership did not effect the operating source name of Quemetco,

Incorporated.

### Emission Calculations

See Appendix C of this document for detailed emissions calculations (pages 1 through 4 of 4).

### Potential to Emit

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

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential to Emit (tons/year)
PM	greater than 100
PM-10	greater than 100
SO <sub>2</sub>	greater than 100
VOC	less than 100
CO	greater than 100
NO <sub>x</sub>	greater than 100
Lead	greater than 5

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

HAP's	Potential Emissions (tons/year)
Hexane	less than 1
Lead Compounds	greater than 10
Combination of HAPs	greater than 25

- (a) The potential to emit (as defined in 326 IAC 1-2-55) of PM-10, SO<sub>2</sub>, CO and NO<sub>x</sub> are equal to or greater than 100 tons per year. The potential to emit Lead or Lead compounds measured as elemental lead is equal to or greater than 5 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 1-2-55) of any single HAP is equal to or greater than ten (10) tons per year and the potential emissions (as defined in 326 IAC 1-2-55) of a combination HAPs is greater than or equal to twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (c) Fugitive Emissions  
 Since this type of operation is one of the twenty-eight (28) listed source categories under 326 IAC 2-2 (specifically, secondary metal production plants), the fugitive particulate matter emissions are counted toward determination of Prevention of Significant Deterioration (PSD) applicability.

### Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2002 IDEM, OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	not reported
PM-10	6.7
SO <sub>2</sub>	194.3
VOC	4.3
CO	187.8
NO <sub>x</sub>	194.3
HAP (Lead Compounds)	0.6

**Potential to Emit After Issuance**

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units. The control equipment is considered federally enforceable only after issuance of this Part 70 operating permit.

Process/facility	Potential to Emit (tons/year)						
	PM	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Stack S-111 Reverb Furnace SRF	5.8 <sup>(a)</sup>	15 <sup>(b)</sup>	219 <sup>(e)</sup> (50 lbs/hr) 25 <sup>(b)</sup>	0.8 (f)	30.2 (f)	277.7 (f)	Pb- 0.18 <sup>(c)</sup> Pb- 0.6 <sup>(b)</sup>
Stack S-100 EAF Reverb Proc. Fug. Slag Red. Proc. Fug. Casting Machine Rotary Kiln Kettle 1 Kettle 2 Kettle 3 Kettle 4 Kettle 5 Kettle 6 Kettle 7 Kettle 8 Kettle 9	<sup>(d)</sup> 25 <sup>(b)</sup>	15 <sup>(b)</sup>	1603.1 (366 lbs/hr); <sup>(e)</sup>	1.2 (f)	246.3 (f)	61.0 (f)	Pb - 1.11 <sup>(c)</sup> Pb - 0.6 <sup>(b)</sup>
S-101 (GV101) Roof Vent Baghouse # 1	<sup>(d)</sup> 0.58 (f)	0.58 (f)	---	---	---	---	Pb - 0.04 <sup>(g)</sup>
S-102 (GV102) Roof Vent Baghouse # 2	<sup>(d)</sup> 0.58 (f)	0.58 (f)	---	---	---	---	Pb - 0.04 <sup>(g)</sup>
S-103 (GV103) Roof Vent Baghouse # 3	<sup>(d)</sup> 0.58 (f)	0.58 (f)	---	---	---	---	Pb - 0.04 <sup>(c)</sup>
S-104 (GV104) Roof Vent Baghouse # 4	<sup>(d)</sup> 0.58 (f)	0.58 (f)	---	---	---	---	Pb - 0.04 <sup>(g)</sup>
S-105 (GV105) Roof Vent Baghouse # 5	<sup>(d)</sup> 0.58 (f)	0.58 (f)	---	---	---	---	Pb - 0.04 <sup>(g)</sup>
S-106 (GV106) Roof Vent Baghouse # 6	<sup>(d)</sup> 0.58 (f)	0.58 (f)	---	---	---	---	Pb - 0.04 <sup>(g)</sup>
S-107 (GV107) Roof Vent Baghouse # 7	<sup>(d)</sup> 0.58 (f)	0.58 (f)	---	---	---	---	Pb - 0.04 <sup>(g)</sup>
S-108 (GV108) Roof Vent Baghouse # 8	<sup>(d)</sup> 0.58 (f)	0.58 (f)	---	---	---	---	Pb - 0.04 <sup>(g)</sup>

Process/facility	Potential to Emit (tons/year)						
	PM	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
S-109 (GV109) Roof Vent Baghouse # 9	<sup>(d)</sup> 0.58 (f)	0.58 (f)	---	---	---	—	Pb - 0.04 <sup>(g)</sup>
Stack/Vent(s) S-112, S-113, S-114, S-115, S-116, S-117, S-118	<sup>(d)</sup> 1.2	1.2	0.1	0.9	13.3	15.9	Hexane - 0.3
Total Emissions	37.22	36.4	1,822.2	2.9	289.8	354.6	Pb - 2.07 Hexane 0.3 / 2.37

- (a) The Potential To Emit Particulate Matter is based on the Marion County Particulate Matter Limitations 326 IAC 6-1-12 (a).
- (b) The Potential To Emit are based on limitations taken to avoid the Prevention of Significant Deterioration (PSD) Rule 326 IAC 2-2.
- (c) The Potential To Emit is based on the extrapolation of the allowable short term lead compound emission rates established pursuant to 326 IAC 20-13 to reflect continuous hours of operation.
- (d) The Potential To Emit PM emissions is limited to 0.03 gr/dscf pursuant to 326 IAC 6-1-2(a).
- (e) The Potential to Emit SO<sub>2</sub> emissions are based on Construction Permit 960079-03 & 960079-04 and the amendment issued on December 23, 1997. These limitations satisfy the requirements of the Marion County SO<sub>2</sub> Limitation 326 IAC 7-4-2.
- (f) Based on extrapolation of stack testing data with the addition of fuel combustion emissions
- (g) Based on extrapolation of stack testing data

**County Attainment Status**

The source is located in Marion County.

Pollutant	Status
PM-10	Unclassifiable
SO <sub>2</sub>	Maintenance Attainment
NO <sub>2</sub>	Attainment
Ozone	Maintenance Attainment
CO	Attainment
Lead	Unclassifiable

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Marion County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) Marion County has been classified as attainment or unclassifiable for PM-10, NO<sub>x</sub>, SO<sub>2</sub>, CO and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (c) Fugitive Emissions  
 Since this type of operation is one of the twenty-eight (28) listed source categories (specifically, secondary metal production plants) under 326 IAC 2-2, the fugitive emissions are counted toward determination of PSD applicability.

**Part 70 Permit Conditions**

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

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

### **Federal Rule Applicability**

40 CFR 60 (New Source Performance Standards) and 326 IAC 12 (New Source Performance Standards)

- (a) The New Source Performance Standard, 40 CFR 60.120 Subpart L (Standards of Performance for Secondary Lead Smelters) and 326 IAC 12 (New Source Performance Standards) applies to refining (pot furnaces) Kettle #7, Kettle #8 and Kettle #9. This regulation applies because each of these three (3) refining kettles were constructed after June 11, 1973 and each individual kettle has a charge capacity of greater than 550 pounds.

Pursuant to 40 CFR Part 60.122(b), opacity from each of these three refining kettles is limited to ten percent (10%). Each of these refining kettles process' exhausts are directed/vented to Stack/Vent S-100. Therefore, Stack/Vent S-100 is limited to ten percent (10%) opacity (see an additional discussion in this TSD under **State Rule Applicability - Entire Source**).

The New Source Performance Standard, 40 CFR 60.120 Subpart L (Standards of Performance for Secondary Lead Smelters) and 326 IAC 12 (New Source Performance Standards) does not apply to the Reverberatory Furnace, identified as Emission Unit ID 3.1, because this unit was constructed prior to the applicability date of June 11, 1973. Construction Permit 960079-04 issued April 30, 1996, which allowed the redirection of Reverberatory Furnace process exhaust from Stack/Vent S-100 to Stack/Vent S-111, Condition No. 4 limited Stack/Vent S-111 opacity to no greater than ten percent (10%) opacity (see an additional discussion in this TSD under **State Rule Applicability - Entire Source**). In addition, 326 IAC 6-1-12(a) (Nonattainment Area Limitations: Marion County) limits PM emissions from the Reverberatory Furnace to 0.016 gr/dscf. These existing PM emission limitations for the Reverberatory Furnace are more stringent than 40 CFR 60.122(a), whereby, if Subpart L had been applicable, PM emissions from the Reverberatory Furnace would be limited to 0.022 gr/dscf and twenty percent (20%) opacity. Subpart L does not apply to any of the other emission units at this source due to the date of construction or the type of furnace.

- (b) The New Source Performance Standard, 40 CFR 60.180 Subpart R (Standards of Performance for Primary Lead Smelters) and 326 IAC 12 (New Source Performance Standards) do not apply to this source because the source does not engage in the production of lead from lead sulfide ore through the use of pyrometallurgical techniques. This source is a stationary secondary lead smelting operation whereby lead is recovered by smelting the lead from lead acid batteries and other sources of scrap lead. Therefore, 40 CFR 60.180 Subpart R (Standards of Performance for Primary Lead Smelters) does not apply to this source.
- (c) The New Source Performance Standard, 40 CFR 60.370 Subpart KK (Standards of Performance for Lead-Acid Battery Manufacturing Plants) and 326 IAC 12 (New Source Performance Standards) do not apply to this source because the source does not produce a storage battery using lead or lead compounds. This source is a stationary secondary lead smelting operation whereby lead is recovered by smelting the lead from lead acid batteries and other sources of scrap lead. Therefore, 40 CFR 60.370 Subpart KK (Standards of Performance for Lead-Acid Battery Manufacturing Plants) does not apply to this source.

- (d) The New Source Performance Standard, 40 CFR 60.380 Subpart LL (Standards of Performance for Metallic Mineral Processing Plants) and 326 IAC 12 (New Source Performance Standards) do not apply to this source because the source does not produce metallic mineral concentrates from ore nor is the source located adjacent to a metallic mineral processing plant as defined in 40 CFR 60.381. Therefore, 40 CFR 60.380 Subpart LL (Standards of Performance for Metallic Mineral Processing Plants) does not apply to this source.

40 CFR 61 (National Emission Standards for Hazardous Air Pollutants) and 326 IAC 14 (Emission Standards for Hazardous Air Pollutants)

This source is not subject to 40 CFR 61 (National Emission Standards for Hazardous Air Pollutants) or 326 IAC 14 (Emission Standards for Hazardous Air Pollutants) because neither the source nor any specific emission unit performs any activity specifically regulated by 40 CFR 61 or 326 IAC 14. There are no applicable provisions pursuant to 40 CFR 61 or 326 IAC 14. Therefore, 40 CFR 61 (National Emission Standards for Hazardous Air Pollutants) and 326 IAC 14 (Emission Standards for Hazardous Air Pollutants) do not apply to this source.

40 CFR 63 (National Emission Standards for Hazardous Air Pollutants) and 326 IAC 20 (Hazardous Air Pollutants)

- (a) This source is subject to the National Emission Standards for Hazardous Air Pollutants, 40 CFR 63.541 Subpart X (National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting) and 326 IAC 20-13 (Hazardous Air Pollutants: Secondary Lead Smelters) because the source is a secondary lead smelter. The provisions of this Subpart apply to the following affected sources at all secondary lead smelters: blast, reverberatory, rotary and electric smelting furnaces; refining kettles; agglomerating furnaces; dryers; process fugitive sources; and fugitive dust sources. Quemetco, Inc. does not have a blast furnace. Therefore, this source does not consist of a blast furnace collocated with a reverberatory furnace.

Pursuant to 40 CFR 63.541(c) Subpart X (National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting), the Permittee must obtain a Title V Permit under 40 CFR Part 70 or 71 unless the source is not a major source or has not been deferred by the Title V permitting authority (State of Indiana). This source is a major HAP source and this source category has not been deferred by the State of Indiana.

As defined in 40 CFR 63.541 Subpart X (National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting), there are three categories of emissions at a secondary lead smelter. These are "process" emissions, "process fugitive" emissions and "fugitive dust source" emissions. Process emissions are the primary exhaust stream from a smelting furnace and are not a fugitive dust source. Process fugitive emissions means emissions at a secondary lead smelter that is associated with lead smelting or refining but is not the primary exhaust stream and is not a fugitive dust source. Process fugitive sources include, but are not limited to, smelting furnace charging points, smelting furnace lead and slag taps, refining kettles, agglomerating furnaces, and drying kiln transition pieces. A fugitive dust source at a secondary lead smelter means emissions that are not associated with a specific process or process fugitive vent or stack. Fugitive dust sources include, but are not limited to, roadways, storage piles, material handling transfer points, materials transport areas, storage areas, process areas and buildings.

**Standards for process sources**

Pursuant to 40 CFR 63.543(a), the process emissions of lead compounds from the Reverberatory Furnace (Emission Unit ID 3.1) and the Electric Arc Slag Reduction Furnace (SRF) (Emission Unit ID 3.3), which exhaust to Stack/Vent S-111, are limited to two (2.0)

milligrams of lead per dry standard cubic meter of exhaust (0.00087 grains per dry standard cubic foot of exhaust).

Pursuant to 40 CFR 63.543(a), the process emissions of lead compounds from the Electric Arc Furnace (Emission Unit ID 3.2) and Rotary Dryer (Emission Unit ID 8), which exhaust to Stack/Vent S-100, are limited to two (2.0) milligrams of lead per dry standard cubic meter of exhaust (0.00087 grains per dry standard cubic foot of exhaust).

The previously established Lead rules for Quemetco, Inc. codified in 326 IAC 15-1-2(a)(8) (Lead Rules) no longer apply as the promulgation date of December 1, 2000, completed Indiana rule making procedures that took Quemetco, Inc. out of 326 IAC 15 (Lead Rules) and incorporated and promulgated rules for Quemetco, Inc. in 326 IAC 20-13 (Hazardous Air Pollutants: Secondary Lead Smelters). Therefore, 326 IAC 15 (Lead Rules) no longer applies to Quemetco, Inc. (see an additional discussion in this TSD under **State Rule Applicability - Entire Source**).

Pursuant to 326 IAC 20-13 (Hazardous Air Pollutants: Secondary Lead Smelters), Stack/Vent S-100 Lead emissions are limited to one (1.0) milligram of lead per dry standard cubic meter of exhaust (0.00044 grains per dry standard cubic foot of exhaust). This Lead emissions limitation is more stringent than the limit for process sources in 40 CFR 63.543(a) and compliance with 326 IAC 20-13 (Hazardous Air Pollutants: Secondary Lead Smelters) for Stack/Vent S-100 demonstrates compliance with 40 CFR 63.543(a).

In addition, 326 IAC 15 (Lead Rules) did not contain Lead emissions limitations for Stack/Vent S-111. Indiana rule making procedures that took Quemetco, Inc. out of 326 IAC 15 (Lead Rules) and incorporated and promulgated rules for Quemetco, Inc. in 326 IAC 20-13 (Hazardous Air Pollutants: Secondary Lead Smelters) established a Lead emissions limitation of one (1.0) milligram of lead per dry standard cubic meter (0.00044 grains per dry standard cubic foot of exhaust) for Stack/Vent S-111. This Lead emissions limitation is more stringent than the limit for process sources in 40 CFR 63.543(a) and compliance with 326 IAC 20-13 (Hazardous Air Pollutants: Secondary Lead Smelters) for Stack/Vent S-111 demonstrates compliance with 40 CFR 63.543(a).

Pursuant to 40 CFR Part 63.543(h), the Permittee is required to conduct stack testing on Stack/Vent S-100 and Stack/Vent S-111 to demonstrate compliance with the Lead compound emissions limitation once every twelve (12) calendar month period. Pursuant to 40 CFR Part 63.543(i), if a compliance test demonstrates a source emitted Lead compounds at one (1.0) milligram per dry standard cubic meter (0.00044 grains per dry standard cubic foot of exhaust) or less during the test, the Permittee shall be allowed up to twenty four (24) calendar months from the previous compliance test to conduct the next annual compliance test for Lead compounds (see an additional discussion in this TSD under **State Rule Applicability - Entire Source**).

#### **Standards for process fugitive sources**

Pursuant to 40 CFR Part 63.544(a), Quemetco, Inc. shall control the process fugitive emission sources, specified in (1) through (6) below, in accordance with the equipment and operational standards presented in 40 CFR 63.544(b) and (c).

- (1) Smelting furnaces and dryer charging hoppers, chutes, and skip hoists;
- (2) Smelting furnace slag taps and molds;
- (3) Smelting furnace lead taps and molds;
- (4) Refining kettles;
- (5) Dryer transition pieces; and
- (6) Agglomeration furnace product taps.

Process fugitive emission sources shall be equipped with an enclosure hood meeting the requirements of 40 CFR 63.544(b)(1), (b)(2) and (b)(3) or be located in a total enclosure subject to general ventilation that maintains the building at a lower than ambient pressure to ensure in-draft through any doorway opening. Process fugitive emission sources at Quemetco, Inc. incorporate enclosure hoods that are controlled by baghouses #036, #038, #039, #040 and #041 which exhaust at Stack/Vent S-100. Process fugitive emission sources are additionally located within a total enclosure. Process fugitive emissions sources are also controlled by Roof Vent Baghouse RV #6, RV #7, RV #8 and RV #9 which exhaust to Stack/Vent S-106, S-107, S-108 and S-109. Roof Vent Baghouse RV #1, RV #2, RV #3, RV #4 and RV #5 do not exhaust areas which meet the criteria for being classified as process fugitive sources and are therefore not required to conduct annual stack testing pursuant to 40 CFR Part 63.544(e).

Pursuant to 40 CFR 63.544(b):

- (1) all process fugitive enclosure hoods, except those specified for refining kettles and dryer transition pieces, shall be ventilated to maintain a face velocity of at least ninety (90) meters per minute (300 feet per minute) at all hood openings;
- (2) process fugitive enclosure hoods required for refining kettles shall be ventilated to maintain a face velocity of at least seventy five (75) meters per minute (250 feet per minute);
- (3) process fugitive enclosure hoods required over dryer transition pieces shall be ventilated to maintain a face velocity of at least one hundred ten (110) meters per minute (350 feet per minute).

Pursuant to 40 CFR 63.547(e), the Permittee shall determine compliance with the doorway indraft requirement of 40 CFR 63.544(b) for enclosed buildings by using the following procedures:

- (1) The Permittee shall use a propeller anemometer or equivalent pressure gauge.
- (2) The pressure gauge shall be certified by the manufacturer to be capable of measuring pressure differential in a range of 0.02 to 0.2 mm Hg.
- (3) Both the inside and outside taps shall be shielded to reduce the effect of wind.
- (4) The Permittee shall demonstrate the inside of the building is maintained at a negative pressure as compared to the outside of the building of no less than 0.02 mm Hg when all doors are in the position they are in during normal operation

Pursuant to 40 CFR 63.544(c), ventilation air from all enclosure hoods and total enclosure(s) shall be vented to a control device. Gases discharged to the air from these control devices shall not contain Lead compounds in excess of two (2.0) milligrams of Lead per dry standard cubic meter of exhaust (0.00087 grains per dry standard cubic foot of exhaust). Roof Vent baghouses RV #1 through RV #9 exhausting to Stack/Vent S-101 through S-109, respectively, are utilized to exhaust ventilation air from the total enclosure.

Pursuant to 40 CFR 63.544(d), all dryer emission vents and agglomerating furnace emission vents shall be ventilated to a control device that shall not discharge to the atmosphere any gases that contain lead compounds in excess of two (2.0) milligrams of lead per dry standard cubic meter (0.00087 grains per dry standard cubic foot of exhaust). The dryer emissions vents are currently controlled by baghouse #041 which exhausts to Stack/Vent S-100.

The previously established Lead rules for Quemetco, Inc. codified in 326 IAC 15-1-2(a)(8) (Lead Rules) no longer apply as the promulgation date of December 1, 2000, completed Indiana rule making procedures that took Quemetco, Inc. out of 326 IAC 15 (Lead Rules) and incorporated and promulgated rules for Quemetco, Inc. in 326 IAC 20-13 (Hazardous

Air Pollutants: Secondary Lead Smelters). Therefore, 326 IAC 15 (Lead Rules) no longer apply to Quemetco, Inc. (see an additional discussion in this TSD under **State Rule Applicability - Entire Source**).

Pursuant to 326 IAC 20-13 (Hazardous Air Pollutants: Secondary Lead Smelters), Stack/Vent S-100 Lead emissions are limited to one (1.0) milligram of lead per dry standard cubic meter of exhaust (0.00044) grains per dry standard cubic foot of exhaust. This Lead emissions limitation is more stringent than 40 CFR 63.544(d) and compliance with 326 IAC 20-13 (Hazardous Air Pollutants: Secondary Lead Smelters) for Stack/Vent S-100 demonstrates compliance with 40 CFR 63.544 (d) (see an additional discussion in this TSD under **State Rule Applicability - Entire Source**).

Pursuant to 326 IAC 20-13 (Hazardous Air Pollutants: Secondary Lead Smelters), Stack/Vent S-101, S-102, S-103, S-104, S-105, S-106, S-107, S-108 and S-109 Lead emissions are each limited to five tenths (0.5) milligram of lead per dry standard cubic meter of exhaust (0.00022 grains per dry standard cubic foot of exhaust). This Lead emissions limitation is more stringent than 40 CFR 63.544(c) for ventilation air from a total enclosure and compliance with 326 IAC 20-13 (Hazardous Air Pollutants: Secondary Lead Smelters) for Stack/Vent S-101, S-102, S-103, S-104, S-105, S-106, S-107, S-108 and S-109 demonstrates compliance with 40 CFR 63.544(c) (see an additional discussion in this TSD under **State Rule Applicability - Entire Source**).

Pursuant to 40 CFR Part 63.544(e), the Permittee is required to conduct stack testing on Stack/Vent S-100 to demonstrate compliance with the lead compound emissions limitation once every twelve (12) calendar month period. Pursuant to 40 CFR Part 63.544(f), the Permittee may petition to skip a compliance testing cycle if the measured lead emission rate is less than one (1.0) milligram of lead per dry standard cubic meter of exhaust (0.00044 grains per dry standard cubic foot of exhaust) in the pervious test (see an additional discussion in this TSD under **State Rule Applicability - Entire Source**).

#### **Standards for fugitive dust sources**

Pursuant to 40 CFR 63.545, the Permittee shall prepare and at all times operate according to a Standard Operating Procedures manual that describes in detail the measures that will be put in place to control fugitive dust emission sources within that area of the secondary lead smelter listed below:

- (1) Plant roadways;
- (2) Battery breaking area;
- (3) Furnace area;
- (4) Refining casting area; and
- (5) Material storage and handling area.

Pursuant to 40 CFR 63.545(b) and (c), the Standard Operating Procedures manual shall be submitted to the Administrator of delegated authority for review and approval and the controls specified in the Standard Operating Procedures manual shall meet the minimum requirements of 40 CFR 63.545(c)(1) through (c)(5). The Standard Operating Procedures manual for control of fugitive dust dated September 28, 1998 has been approved by the Administrator. This operating manual contains the following requirements in conformance with 40 CFR 63.545(c)(1) through (c)(5):

- (1) All plant roadways subject to vehicle traffic shall be cleaned twice per day, except on days when natural precipitation makes cleaning unnecessary or when sand or a similar material has been spread on plant roadways to provide traction on ice or snow.
- (2) All paved areas of the plant used for vehicular traffic areas which can not be

- cleaned using a mobile sweeper shall be washed down at least daily with water from hoses located throughout the facility.
- (3) The source shall not generate or store outside bulk material containing more than 1% lead by weight of less than 200 mesh size particles. All materials that contain more than 1% by weight of lead of less than 200 mesh size particles shall be transported in closed containers when possible. When necessary to transport open containers these materials shall be wetted to prevent the formation of fugitive lead dust.
  - (4) The source shall wet all materials loaded or unloaded outside which have the potential to generate fugitive lead dust.
  - (5) The source shall maintain a total enclosure around the battery breaking area.
  - (6) The source shall maintain a total enclosure around the furnace area and shall vent the enclosure to a control device.
  - (7) The source shall maintain a total enclosure around the refining casting area and shall vent the enclosure to a control device.
  - (8) The source shall maintain a total enclosure around the material storage and handling area and shall vent the enclosure to a control device. The material storage and handling area means the staging area where slag and/or battery components are stored prior to smelting, refining, further processing, or disposal.
  - (9) The source shall wash all vehicles upon exit of the production building.
  - (10) The source shall keep daily records of all wet suppression, pavement cleaning, and vehicle washing activities will be maintained using the check list sheets in the manual.

Pursuant to 40 CFR 63.545(d), the Standard Operating Procedures manual shall require that daily records be maintained of all wet suppression, pavement cleaning, and vehicle washing activities performed to control fugitive dust emissions.

Pursuant to 40 CFR 63.545(e), the Permittee shall not discharge or cause to be discharged into the atmosphere from any building or enclosure ventilation system any gases that contain Lead compounds in excess of two (2.0) milligrams per dry standard cubic meter (0.00087 grains of Lead per dry standard cubic foot).

#### **Compliance Dates**

Pursuant to 40 CFR 63.546(a), each owner or operator of an existing secondary lead smelter shall achieve compliance with the requirements of this Subpart no later than December 23, 1997. Quemetco, Inc. demonstrated initial compliance with performance stack testing on August 13th and 16th, 1996 (see TSD Appendix C pages 1, 2, 3 and 4 of 4).

Pursuant to 40 CFR 63.546(b), each owner or operator of a secondary lead smelter that commences construction or reconstruction after June 9, 1994 shall achieve compliance with the requirements of this Subpart by June 13, 1997 or upon startup of operations, whichever is later. Following construction of the Electric Arc Slag Reduction Furnace (SRF), identified as Emission Unit 3.3, Quemetco, Inc. demonstrated compliance with performance stack testing on March 18, 1996 (see TSD Appendix C page 4 of 4).

#### **Monitoring requirements for baghouses**

Pursuant to 40 CFR Part 63.548(a) and (b), the Permittee shall operate at all times according to an approved Standard Operating Procedures manual that describes in detail procedures for inspection, maintenance, leak detection and corrective action plans for all baghouses used for process, process fugitive or fugitive dust emissions from any source subject to Lead emissions standards in 40 CFR 63.543, 63.544 and 63.545. The procedures specified in the Standard Operating Procedures manual for baghouses shall at a minimum contain the requirements of 40 CFR 63.548(c),(d),(e),and (f). Pursuant to 40 CFR 63.548(g), baghouses equipped with HEPA filters are not required to have a bag leak detection system. Pursuant to 40 CFR 63.548(g), Quemetco Inc., shall monitor and record on a daily basis the pressure

drop across all baghouses equipped with HEPA filters. The Standard Operating Procedures manual for baghouses dated September 28, 1998 has been approved by the Administrator. Pursuant to 40 CFR 63.548(c),(d),(e),and (f), this operating manual contains the following requirements:

- (1) Daily monitoring of pressure drop across each baghouse cell.
- (2) Weekly confirmation that dust is being removed from hoppers through visual inspection or equivalent means of ensuring proper functioning of removal mechanism.
- (3) Daily check of compressed air supply for pulse-jet baghouses.
- (4) An appropriate methodology for monitoring cleaning cycles to ensure proper operation.
- (5) Monthly check of bag cleaning mechanisms for proper functioning through visual inspection or equivalent means.
- (6) Monthly check of bag tension on reverse air and shaker type baghouses. Such checks are not required for shaker type baghouses using self tensioning (spring load) devices.
- (7) Quarterly confirmation of the physical integrity of the baghouse through visual inspection of the baghouse interior for air leaks.
- (8) Quarterly inspection of fan for wear, material buildup, and corrosion.
- (9) Continuous operation of a bag leak detection system for baghouses # 035, # 036, # 037, # 038, # 039, #040 and # 041.
  - (A) The baghouse leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.
  - (B) The baghouse leak detection system sensor must provide output of relative particulate matter loadings.
  - (C) The baghouse leak detection system must be equipped with an alarm system that will alarm when an increase in relative particulate loading is detected over a preset level.
  - (D) The bag leak detection system shall be installed and operated in a manner consistent with available written guidance from the U.S. E.P.A. or in the absence of such written guidance, the manufacturer's written specifications and recommendations for installation, operation, and adjustment of the system.
  - (E) The initial adjustments of the system shall, at a minimum, consist of establishing a baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points and the alarm delay time.
  - (F) Following the initial adjustment, the Permittee shall not adjust the sensitivity or range, averaging period, alarm set points, and alarm delay time only as detailed in the SOP.
  - (G) Whenever the alarm on a bag leak detector is set off, Quemetco, Inc. personnel will implement the procedures outlined in its current SOP Manual.
- (10) The procedures specified in the Standard Operating Procedures manual for maintenance shall, at a minimum, include a preventative maintenance schedule that is consistent with the baghouse manufacturer's instructions for routine and long-term maintenance.
- (11) The Standard Operating Procedures Manual shall include a corrective action plan that specifies the procedures to be followed in the case of a bag leak detection system alarm. The corrective action plan shall at a minimum the procedures use to determine and record the time and cause of the alarm as well as the corrective

actions taken to correct the control device malfunction or minimize emissions as specified below:

- (A) The procedures used to determine the cause of the alarm must be initiated within thirty (30) minutes of the alarm.
- (B) The cause of the alarm must be alleviated by taking the necessary corrective action(s) which may include but not be limited to:
  - (i) Inspecting the baghouse for air leaks, torn or broken filter elements, or any other malfunction that may cause an increase in emissions.
  - (ii) Sealing off defective bags or filter media, or otherwise
  - (iii) Replacing defective bags or filter media, or otherwise repairing the control device.
  - (iv) Sealing off a defective baghouse compartment.
  - (v) Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system.
  - (vi) Shutting down the process producing the particulate emissions.

Pursuant to 40 CFR 63.550, the Permittee shall comply with all of the reporting requirements under 40 CFR 63.10 of the General Provisions should the continuous operation of a bag leak detection system for baghouses # 035, # 036, # 037, # 038, # 039, #040 and # 041 be suspended. The submittal of reports shall be no less frequent than specified under 40 CFR 63.10(e)(3) of the General Provisions. Once a source reports a violation of the standard or excess emissions, the source shall follow the reporting format required under 40 CFR 63.10(e)(3) until a request to reduce reporting frequency is approved. The reports shall include the following information specified in (1) through (4):

- (1) The report shall include records of all alarms from the bag leak detection system specified in 40 CFR 63.548(e).
- (2) The report shall include a description of the procedures taken following each bag leak detection system alarm pursuant to 40 CFR 63.548(f)(1) and (2).
- (3) The reports shall contain a summary of the records maintained as part of the practices described in the standard operating procedures manual for baghouses required under 40 CFR 63.548(a) including an explanation of the periods when the procedures were not followed and the corrective actions taken.
- (4) The reports shall contain a summary of the records maintained as part of the practices described in the Standard Operating Procedures Manual for Baghouse #-35, #036, #037, #038, #039, #040 and #041 required under 40 CFR 63.548(a), including an explanation of the periods when the procedures outlined in the Standard Operating Procedures Manual were not followed and the corrective actions taken.

Pursuant to 40 CFR 63.548(g), baghouses equipped with HEPA filters as a secondary filter used to control process fugitive, or fugitive emissions are exempt from the requirement in 40 CFR 63.548(c)(9) to be equipped with a bag leak detector. For each affected source equipped with a HEPA filter, the Permittee shall monitor and record the pressure drop across the HEPA filter system daily. If the pressure drop is outside the limit(s) specified by the filter manufacturer, the Permittee must take appropriate corrective measures, which may include but not limited to the following:

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

- (2) Replacing defective filter media, or otherwise repairing the control device.
  - (3) Sealing off a defective control device by routing air to other control devices.
  - (4) Shutting down the process producing the particulate emissions.
- (b) This source is not subject to the National Emission Standards for Hazardous Air Pollutants, 40 CFR 63.680 Subpart DD (National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations) and 326 IAC 20-23 (Hazardous Air Pollutants: Off-Site Waste and Recovery Operations) because the off-site waste material(s) received at the point of delivery for this site, lead acid batteries, do not contain one or more of the hazardous air pollutants (HAP) listed in Table 1 of 40 CFR 63.680 Subpart DD. Quemetco, Inc. is an existing major HAP source for Lead and/or Lead compounds. However, neither Lead or Lead compounds are specifically identified in Table 1. Pursuant to 40 CFR 63.680(a)(2) and (b)(1)(iii), a HAP must be identified in Table 1 to be considered an off-site material for the purposes of this Subpart. Therefore, 40 CFR 63.680 Subpart DD (National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations) and 326 IAC 20-23 (Hazardous Air Pollutants: Off-Site Waste and Recovery Operations) do not apply to this source.

#### 40 CFR 64 (Compliance Assurance Monitoring)

Neither the source nor any emission unit at the source is currently subject to the requirements of 40 CFR Part 64 (Compliance Assurance Monitoring) because:

- (a) An administratively complete Part 70 permit application for the purposes of this review was received on June 28, 1996 which is prior to the applicability date of April 20, 1998; and
- (b) No notice of administrative completeness letter was sent to this source following receipt of the Part 70 permit application on June 28, 1996.

#### 40 CFR 72 through 40 CFR 78 (Acid Rain Permit)

Neither the source nor any emission unit at the source is subject to the requirements of 40 CFR 72 through 40 CFR 78 (Acid Rain Permit) because none of the emission units at the source are listed in 40 CFR 73.10, none of the emission units are identified as utility units serving a generator with a nameplate capacity of greater than twenty five (25) Megawatts nor have any of the emission units at the source been specifically opted in to the Acid Rain Program. Therefore, 40 CFR 72 through 40 CFR 78 (Acid Rain Permit) do not apply to this source.

#### **State Rule Applicability - Entire Source**

##### 326 IAC 1-5-2 (Emergency Reduction Plans)

The source has submitted an Emergency Reduction Plan (ERP) on September 23, 1988. The ERP has been verified to fulfill the requirements of 326 IAC 1-5-2 (Emergency Reduction Plans).

##### 326 IAC 1-6-3 (Preventive Maintenance Plan)

A Preventive Maintenance Plan (PMP) should have been developed for each emission unit with potential emissions in excess of minimum permitting thresholds. A Part 70 application requirement 326 IAC 2-7-4(c)(10) is a confirmation that the source maintains on-site a preventive maintenance plan as described in 326 IAC 1-6-3.

Based on OES's review, a PMP is required for Emission Units controlled by Baghouses #035, #036, #037, #038, #039, #040, #041, Scrubber #046 and their respective control devices and for Roof Vent Baghouses RV #1 through RV #9.

##### 326 IAC 1-7 (Stack Height Provisions)

The source is subject to 326 IAC 1-7 because potential and actual SO<sub>2</sub> emissions exceed 25 tons per year. The source is in compliance with the provisions of 326 IAC 1-7 (Stack Height Provisions).

#### 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements)

Pursuant to 326 IAC 2-2(p)(1), this source is a major PSD source because the source has the potential to emit regulated pollutant(s) in excess of one hundred (100) tons per year and is on the list of 28 source categories (specifically, secondary metal production plants) as identified in 326 IAC 2-2(p)(1). Since this type of operation is one of the twenty-eight (28) listed source categories and the source has the potential to emit a regulated pollutant in excess of one hundred (100) tons per year, fugitive emissions are counted toward determination of PSD applicability.

Since this source has a New Source Performance Standard category that was in effect on August 7, 1980 (40 CFR 60.120 Subpart L Standards of Performance for Secondary Lead Smelters), the fugitive particulate matter emissions are counted toward determination of Prevention of Significant Deterioration (PSD) applicability.

This existing major PSD source, in existence since July 1972, has not had any new construction, reconstruction or modifications that were deemed major modifications under 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements) (see an additional discussion in this TSD under **State Rule Applicability - Individual Facilities**).

#### 326 IAC 2-3 (Emission Offset)

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

At the time of Construction Permit No. 950079-01 issuance (May 9, 1995) for one (1) 2500 kVa Electric Arc Slag Reduction Furnace (SRF), the City of Indianapolis was designated nonattainment for Sulfur Dioxide. As a result, construction permit limitations for sulfur dioxide were established in Construction Permit No. 950079-01 such that 326 IAC 2-3 (Emission Offset) and Indianapolis Air Pollution Control Board (IAPCB) Regulation IV-4 (Sulfur Dioxide Emissions) would not apply. The City of Indianapolis and Marion County were redesignated as maintenance attainment for Sulfur Dioxide by Federal Register notice of November 15, 1996.

#### 326 IAC 2-4.1 (New Source Toxics Control)

This secondary lead smelting source is an existing major HAP source that was constructed in 1972. There have been no modifications to this source on or after July 27, 1997 that have increased the potential to emit any single HAP of greater than one (1) ton per year or any combination of HAP of greater than two and one half (2.5) tons per year. This source is subject to the National Emission Standards for Hazardous Air Pollutants, 40 CFR 63.541 Subpart X (National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting) and 326 IAC 20-13 (Hazardous Air Pollutants: Secondary Lead Smelters) because the source is a secondary lead smelting operation. Therefore, the requirements of 326 IAC 2-4.1 (New Source Toxics Control) are not applicable to this source.

#### 326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of nitrogen oxides (NO<sub>x</sub>) in Marion County. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

#### 326 IAC 2-7 (Part 70 Permit Program)

This source has the potential to emit greater than one hundred (100) tons per year of PM-10, SO<sub>2</sub>, NO<sub>x</sub> and CO and is, therefore, a major source pursuant to 326 IAC 2-7.

Pursuant to 40 CFR 63.541(c) Subpart X (National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting), the Permittee must obtain a Title V Permit under 40 CFR Part 70 or 71 unless the source is not a major source or has not been deferred by the Title V permitting authority (State of Indiana). This source is a major HAP source and this source category has not been deferred by the State of Indiana.

Pursuant to 326 IAC 2-7-2 (Part 70 Permit Program: Applicability), this stationary source is required to have a Part 70 Permit because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22); and
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

Therefore, Quemetco, Inc. is subject to 326 IAC 2-7 (Part 70 Permit Program) and has filed a Part 70 Permit application opting to seek a permit under 326 IAC 2-7.

#### 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 thirty percent (30%) for 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 6-1-2(a) (Particulate Rules)

Sources or facilities located in Marion County which have the potential to emit greater than one hundred (100) tons per year of particulate matter or that have actual emissions greater than ten (10) tons per year and are not otherwise limited by 326 IAC 6-1-2(b), (e), (f) or (g) or 326 IAC 6-1-12 (Particulate Rules: Marion County) shall not exceed three hundredth (0.03) grains per dry standard cubic foot of exhaust air.

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

Pursuant to 326 IAC 6-3-1(c), 326 IAC 6-3 shall not apply if a particulate matter emission limitation is established in 326 IAC 6-1 (Particulate Rules). This source is subject to 326 IAC 6-1 (Particulate Rules) and 326 IAC 6-1-12 (Particulate Rules: Marion County). Therefore, 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) does not apply to this source.

#### 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

Pursuant to 326 IAC 6-5-3, any source of fugitive particulate matter which has potential fugitive particulate matter emissions of twenty five (25) tons per year or more and is located in Wayne Township of Marion County, shall submit a fugitive particulate matter emissions control plan within six (6) months following December 13, 1985. This source does not have potential fugitive particulate matter emissions of twenty five (25) tons per year or more, has not historically submitted, pursuant to 326 IAC 6-5, a fugitive particulate matter emissions control plan and did not certify 326 IAC 6-5 as an applicable requirement in its initial Title V permit application. Therefore, this source is not subject to the provisions of 326 IAC 6-5-3 (Fugitive Particulate Matter Emission Limitations).

#### 326 IAC 8 (Volatile Organic Compound Rules)

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

This existing major source, as of January 1, 1980, has not had a modification or new construction since January 1, 1980 that has the potential to emit twenty five (25) tons or more of VOC per year. Therefore, 326 IAC 8-1-6 (General Provisions Relating to VOC Rules: General Reduction Requirements for New Facilities) does not apply to this source and/or any emission unit at the source.

This source does not have any significant Emission Unit(s) that perform operations for which a VOC subcategory under 326 IAC 8-2 through 326 IAC 8-13 exists.

Therefore, source wide operations are not subject to the provisions of 326 IAC 8 (Volatile Organic Compound Rules).

#### 326 IAC 9 (Carbon Monoxide Emission Rules)

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

#### 326 IAC 10 (Nitrogen Oxide Rules)

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

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

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

#### 326 IAC 12 (New Source Performance Standards)

See discussion under **Federal Rule Applicability** section.

#### 326 IAC 14 (Emission Standards for Hazardous Air Pollutants)

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

#### 326 IAC 15 (Lead Rules)

Quemetco, Inc. previously had been subject to 326 IAC 15-1-2(a)(8) (Lead Rules: Source Specific Provisions) and 326 IAC 15-1-3 (Lead Rules: Control of Fugitive Lead Dust). As of the Federal promulgation date of June 23, 1995 (with amendments published on June 13, 1997), this source additionally had become subject to the National Emission Standards for Hazardous Air Pollutants, 40 CFR 63.541 Subpart X (National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting). Some existing provisions of 326 IAC 15 for Quemetco, Inc. were more stringent than the NESHAP (see discussion under **Federal Rule Applicability** section). Therefore, Indiana rule making revisions were necessary to adopt portions of 40 CFR 63.541 Subpart X in 326 IAC 20 (Hazardous Air Pollutants) by reference and to recognize and codify the more stringent existing emission limitations and standards for Quemetco, Inc. The promulgation date of December 1, 2000, completed Indiana rule making procedures that took Quemetco, Inc. out of 326 IAC 15 (Lead Rules) and incorporated and promulgated rules for Quemetco, Inc. in 326 IAC 20-13 (Hazardous Air Pollutants: Secondary Lead Smelters). Therefore, 326 IAC 15 (Lead Rules) do not

apply to Quemetco, Inc.

In addition, 326 IAC 15-1-2(a)(8)(C) had required Quemetco, Inc. to have a certified continuous opacity monitor (COM) on Stack/Vent S-100 installed and operated in compliance with 326 IAC 3-5-2, 326 IAC 3-5-3, 326 IAC 3-5-4 and 326 IAC 3-5-5. There is no opacity requirement or COM installation and operation requirement in 40 CFR 63.541 Subpart X (National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting). There is no COM installation and operation requirement in 326 IAC 20-13 (Hazardous Air Pollutants: Secondary Lead Smelters) for Quemetco, Inc. There is no COM installation and operation requirement for Stack/Vent S-100 contained in any Construction permitting that Quemetco, Inc. has previously obtained. Therefore, COM installation and operation is no longer an applicable requirement. Quemetco, Inc. is no longer required to have installed and to operate a COM on Stack/Vent S-100 because the promulgation date of December 1, 2000, completed Indiana rule making procedures that took Quemetco, Inc. out of 326 IAC 15 (Lead Rules) and incorporated and promulgated rules for Quemetco, Inc. in 326 IAC 20-13 (Hazardous Air Pollutants: Secondary Lead Smelters). Therefore, 326 IAC 15 (Lead Rules) and the requirement to operate a COM on Stack/Vent S-100 do not apply to Quemetco, Inc.

#### 326 IAC 17 (Public Records; Confidential Information; Confidentiality Agreements)

A Part 70 Operating Permit application was received from this source on June 28, 1996. On April 11, 2003, Quemetco, Inc. stated a claim of confidentiality with its Annual Emission statement (submitted pursuant to 326 IAC 2-6 (Emission Reporting)) for 2002. Quemetco, Inc. included process rates, equipment capacity, emission factors, methods, controls and emissions in its confidentiality request.

IDEM, OAQ and OES review of this information concludes that this information constitutes "emission data" under Indiana Code Section IC 13-14-11-1 and can therefore not be held confidential by IDEM, OAQ or OES. In addition, in the Federal Register notice of February 21, 1991, USEPA states that process rates and air flow rates constitute emission data and are a public record. Because IC 13-14-11-1 consists of a statutory mandate that "emission data" must be considered public records regardless of the trade secret status of the information, IDEM, OAQ and OES are under a statutory duty to release the requested information to the public. Therefore, Quemetco, Inc. confidentiality request was denied in a written letter from IDEM, OAQ sent to the source on April 17, 2003.

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

Pursuant to 326 IAC 20-13-1(a), this rule applies to the following affected sources, as defined in 40 CFR 63.542, at all secondary lead smelters: blast, reverberatory, rotary and electric smelting furnaces; refining kettles; agglomerating furnaces; dryers; process fugitive sources; and fugitive dust sources. Quemetco, Inc. does not have a blast furnace. Therefore, this source does not consist of a blast furnace collocated with a reverberatory furnace.

Pursuant to 326 IAC 20-13-1(c), the Indiana Air Pollution Control Board incorporates by reference the Federal NESHAP, 40 CFR 63.541 Subpart X (National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting), with the exception of the following sections:

- (a) 63.543(a) and 63.543(j) concerning Lead standards for process sources. (Because these Sections have a Lead emissions limitation for process sources of 2.0 mg/dscm which is less stringent than the 326 IAC 20-13 limitation of 1.0 mg/dscm for process sources).
- (b) 63.544(c), 63.544(d), and 63.544(g) concerning Lead standards for process fugitive sources. (Because these Sections have a Lead emissions limitation for process fugitive sources and dryer vents of 2.0 mg/dscm which is less stringent than the 326 IAC 20-13 limitation of 1.0 mg/dscm for process fugitive sources).
- (c) 63.545(e) concerning Lead standards for fugitive dust emissions. (Because this Section has a Lead emissions limitation for fugitive sources of 2.0 mg/dscm which is less stringent than the 326 IAC 20-13 limitation of 0.5 mg/dscm for fugitive sources).
- (d) 63.543(h) and 63.543(i) concerning compliance demonstrations for process sources. (Because these Sections allow annual stack testing to be delayed for up to 2 years if testing

finds Lead emissions for process sources of less than 1.0 mg/dscm which is less stringent than the biennial testing allowed under 326 IAC 20-13 if Lead emissions testing is less than 0.5 mg/dscm for process sources).

- (e) 63.544(e) and 63.544(f) concerning compliance demonstrations for process fugitive sources. (Because these Sections allow annual stack testing to be delayed for up to 2 years if testing finds Lead emissions for process fugitive sources of less than 1.0 mg/dscm which is less stringent than the biennial testing allowed under 326 IAC 20-13 if Lead emissions testing is less than 0.5 mg/dscm for process fugitive sources).
- (f) 63.548(e) concerning bag leak detection system requirements. (Because 326 IAC 20-13 contains additional bag leak detection system requirements).

Pursuant to 326 IAC 20-13-2 (Emission Limitations; Lead Standards for Quemetco, Incorporated):

- (a) Quemetco, Inc. shall comply with the following emission limitations and operating provisions:

Facility Description	Lead Emission Limitation (mg/dscm)
Stack/Vent S-100	1.0
Stack/Vent S-101	0.5
Stack/Vent S-102	0.5
Stack/Vent S-103	0.5
Stack/Vent S-104	0.5
Stack/Vent S-105	0.5
Stack/Vent S-106	0.5
Stack/Vent S-107	0.5
Stack/Vent S-108	0.5
Stack/Vent S-109	0.5
Stack/Vent S-111	1.0

- (b) Process fugitive and fugitive dust emissions from Stack/Vent S-101 through S-109 shall be vented to the atmosphere through high efficiency particulate air (HEPA) filters as defined in 40 CFR 63.542. Roof Vent baghouse(s) RV #1 through RV #9, exhausting at S-101 through S-109 are high efficiency particulate air (HEPA) filters as defined in 40 CFR 63.542.

Pursuant to 326 IAC 20-13-5 (Operational and Work Practice Standards), the Permittee must install and continuously operate a bag leak detection system for all baghouses controlling process and process fugitive sources (baghouses #035, #036, #037, #038, #039, #040 and #041). In accordance with 40 CFR 63.548(g) and 40 CFR 63.548(h), baghouses equipped with HEPA filters or used exclusively for the control of fugitive dust emissions are exempt from this requirement (RV#1 through RV#9). The Permittee must maintain and operate each baghouse controlling process and process fugitive dust sources such that the following conditions are met:

- (a) The alarm on the system does not activate for more than five percent (5.0%) of the total operating time in a six month (6) reporting period.
- (b) Procedures to determine the cause of the alarm are initiated within one (1.0) hour of the alarm according to the Standard Operating Procedures manual for corrective action required

under 40 CFR 63.548.

Pursuant to 326 IAC 20-13-6 (Compliance Testing):

- (a) The Permittee shall conduct a compliance test for Lead compounds from process stacks on an annual basis, no later than twelve (12) calendar months following the previous compliance test.
- (b) If a compliance test demonstrates a source emitted Lead compounds from process stacks less than or equal to fifty percent (50.0%) of the applicable limit under this rule during the compliance test, the Permittee shall be allowed up to twenty four (24) calendar months from the previous compliance test to conduct the next compliance test for Lead compounds.
- (c) The Permittee shall conduct a compliance test for Lead compounds from process fugitive stacks and fugitive dust stacks on the following schedule;
  - (1) Process fugitive stacks shall be tested on a biennial basis, no later than twenty four (24) months following the previous compliance test.
  - (2) Fugitive dust stacks shall conduct an initial compliance test only and shall not be required to conduct testing on an annual or biennial basis.

Nothing in this subsection shall prohibit IDEM, OAQ and/or OES from requesting a compliance test in accordance with 326 IAC 2-1.1-11.

The most recent compliance stack testing for Lead from Stack/Vent S-100 was conducted on March 27, 2002 and found Lead emissions to be 0.0000218 grains per dry standard cubic foot of exhaust air. Therefore, retesting for Lead emissions from Stack/Vent S-100 shall be conducted no later than March 27, 2004.

The most recent compliance stack testing for Lead from Stack/Vent S-111 was conducted on April 10, 2003 and found Lead emissions to be 0.0000182 grains per dry standard cubic foot of exhaust air. Therefore, retesting for Lead emissions from Stack/Vent S-111 shall be conducted no later than April 10, 2005.

Process fugitive emissions sources are also controlled by Roof Vent Baghouse RV #6, RV #7, RV #8 and RV #9 which exhaust to Stack/Vent S-106, S-107, S-108 and S-109. Pursuant to 40 CFR Part 63.544(e), the Permittee is required to conduct stack testing on these process fugitive emission sources to demonstrate compliance with the Lead compound emissions limitation once every twelve (12) calendar month period. Pursuant to 40 CFR Part 63.544(f), the Permittee may petition to skip a compliance testing cycle if the measured Lead emission rate is less than one (1.0) milligram of Lead per dry standard cubic meter of exhaust. 326 IAC 20-13-2 limits these process fugitive emission sources to five tenths (0.5) milligram per dry standard cubic meter. Therefore, pursuant to 326 IAC 20-13-6, Stack/Vent S-106, S-107, S-108 and S-109 shall be tested on a biennial basis, no later than twenty four (24) months following the previous compliance test.

The most recent compliance stack testing for Lead from Roof Vent Baghouse RV #6, RV #7, RV #8 and RV #9 which exhaust to Stack/Vent S-106, S-107, S-108 and S-109 was on March 25 and March 26, 2003 and found Lead emissions to be less than 0.0000108 grains per dry standard cubic foot of exhaust air. Therefore, retesting for Lead emissions from Roof Vent Baghouse RV #6, RV #7, RV #8 and RV #9 which exhaust to Stack/Vent S-106, S-107, S-108 and S-109 shall be conducted no later than March 25, 2005.

Roof Vent Baghouse RV #1, RV #2, RV #3, RV #4 and RV #5 do not exhaust areas which meet the criteria for being classified as process fugitive sources and are, therefore, not

required to conduct annual stack testing pursuant to 40 CFR Part 63.544(e). Fugitive dust stacks shall not be required to conduct testing on an annual or biennial basis. Because these units are subject to Lead emissions limitations pursuant to 40 CFR 63.541 Subpart X (National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting) and 326 IAC 20-13 (Hazardous Air Pollutants: Secondary Lead Smelters), compliance stack testing for Lead emissions from Roof Vent Baghouse RV #1, RV #2, RV #3, RV #4 and RV #5 which exhaust to Stack/Vent S-101, S-102, S-103, S-104 and S-105 shall be conducted within sixty (60) months after permit issuance and shall be repeated at least once every five (5) years from the date of each valid compliance demonstration.

- (d) The following shall apply to tests conducted to demonstrate compliance with the emission limitation under 326 IAC 20-13-2:
- (1) The Permittee shall use the appropriate test methods under 40 CFR 63.547.
  - (2) Test notification and reporting shall comply with 326 IAC 3-6.

Pursuant to 326 IAC 20-13-7 (Compliance Requirements):

- (a) The Permittee shall maintain purchasing records and manufacturer's specifications of HEPA filters installed on all process fugitive and fugitive dust stacks demonstrating the filters have been certified by the manufacturer to meet the definition of HEPA filters in 40 CFR 63.542. The records and manufacturer's specifications shall be maintained on site for three (3) years and shall be available for an additional two (2) years.
- (b) The Permittee shall comply with the following opacity limitations;
- (1) Stacks exhausting process, process fugitive or fugitive dust emissions shall not exceed five percent (5.0%) opacity from particulate matter emissions for any one (1) six (6) minute averaging period as measured by 40 CFR 60, Appendix A, Reference Method 9.
  - (2) Exterior dust handling systems of dry collectors of Lead emitting processes (augers, hoppers, transfer points) shall not discharge to the atmosphere visible emissions in excess of five percent (5.0%) of an observation period consisting of three (3) twenty (20) minute periods, as determined by 40 CFR 60, Appendix A, Reference Method 22. The provisions under this subdivision for dust handling systems shall not apply during maintenance and repair of the dust handling systems. During maintenance and repair of the dust handling systems, the Permittee shall take reasonable measures to prevent or minimize fugitive dust emissions.
  - (3) The opacity limitations shall only apply to particulate matter emissions.

Stack/Vent S-100 through Stack/Vent S-109 and Stack/Vent S-111 exhaust process, process fugitive and/or fugitive dust emissions. Therefore, each of these stacks shall not exceed five percent (5.0%) opacity from particulate matter emissions for any one (1) six (6) minute averaging period as measured by 40 CFR 60, Appendix A, Reference Method 9. The opacity limitations in this subsection shall only apply to particulate matter emissions.

- (c) Quemetco, Inc. utilizes a total enclosure to control process fugitive and fugitive emissions from manufacturing operations. In addition to the requirements of 40 CFR 63.8, 40 CFR 63.10 and 40 CFR 63.547(e), Quemetco Inc., a secondary lead smelter using a total enclosure, shall do the following:
- (1) Submit a plan describing the installation and operation of a continuous monitoring system that meets the requirements of 40 CFR 63.547(e)(2). The plan shall be

postmarked or hand delivered to IDEM, OAQ and/or OES one hundred and twenty (120) days prior to the installation of the continuous monitoring system.

- (2) Within one hundred eighty (180) days after written approval of the monitoring system plan by IDEM, OAQ and/or OES, install and operate a continuous monitoring system to measure and record pressure differential. The continuous monitoring system shall consist of the following:
  - (A) A differential pressure sensor capable of measuring pressure within a range of two hundredths (0.02) to two tenths (0.2) millimeter of mercury (one hundredth (0.01) to one tenth (0.1) inch of water).
  - (B) A processor.
  - (C) An alarm.
  - (D) A continuous recording device.

Any changes to the location or operation of the system shall require prior written approval by IDEM, OAQ and/or OES.

- (3) Initiate corrective actions within thirty (30) minutes of a monitoring system alarm.
- (4) Request, if desired, to cease monitoring pressure differential under this subsection twelve (12) months from the commencement date of approved monitoring or the effective date of this rule, whichever is later.
- (5) Notify IDEM, OAQ and/or OES of any physical changes including, but not limited to, ventilation capacity and building size. If the department determines the net effect of any such changes may potentially affect air pressure readings of the building, then the Permittee shall resume monitoring for an additional twelve (12) months. Monitoring may be discontinued in accordance with the procedures under subdivision (4).
- (6) Maintain the following on site for a period of three (3) years and have available for an additional two (2) years:
  - (A) Records of the pressure differential.
  - (B) Logs of monitoring system alarms, including date and time.
  - (C) Logs of corrective actions, including date and time.

Pursuant to 326 IAC 15, Quemetco, Inc. had already installed and operated a continuous monitoring system to measure and record pressure differential. As of the Federal promulgation date of June 23, 1995 (with amendments published on June 13, 1997), Quemetco, Inc. had already installed and operated a continuous monitoring system to measure and record pressure differential. The location of the pressure differential sensor is on the east wall of the Bin #10 storage area. The Part 70 Permit will require Quemetco, Inc. to submit a plan describing the installation and operation of a continuous monitoring system that meets the requirements of 40 CFR 63.547(e)(2) within ninety (90) days following Permit issuance.

- (d) The Permittee shall demonstrate compliance with the bag leak detection system requirements under section 5 of this rule, if applicable, by submitting reports showing that the alarm on the system does not activate for more than five percent (5.0%) of the total operating time in a six (6) month period or two hundred nineteen (219) hours, if operated for four thousand three hundred eighty (4,380) hours in the six (6) month period, whichever is less. The percentage of total operating time the alarm on the bag leak detection system activates shall be calculated as follows:

- (1) Do not include alarms that occur due solely to a malfunction of the bag leak detection system in the calculation.
  - (2) Do not include alarms that occur during startup, shutdown, and malfunction in the calculation if:
    - (A) the condition is described in the startup, shutdown, and malfunction plan; and
    - (B) the owner or operator follows all the procedures in the plan defined for this condition.
  - (3) Count the actual time it takes the Permittee to identify and correct the cause of the alarm, excluding any time that the process is shut down for repair.
  - (4) Calculate the percentage of time the alarm on the bag leak detection system activates as the ratio of the sum of alarm times to the total operating time multiplied by one hundred (100).
- (e) The Permittee shall install and maintain an ambient air quality monitoring network for Lead as follows:
- (1) Unless the Permittee has received approval prior to the effective date of this rule to operate an ambient air quality monitoring network, the Permittee shall submit a proposed ambient monitoring and quality assurance plan to the department within ninety (90) days after the effective date of this rule. The plan does not need to be submitted by the Permittee if an authorized air pollution control agency operates the monitoring network. The Permittee may submit a plan for an existing monitoring network that predates the effective date of this rule.
  - (2) The ambient monitoring shall be:
    - (A) performed using U.S. EPA-approved methods, procedures, and quality assurance programs, and in accordance with the ambient monitoring and quality assurance plan as approved by the department; or
    - (B) performed by an authorized air pollution control agency having jurisdiction to operate the network.
  - (3) The Permittee shall submit a quarterly report to the department within forty-five (45) days after the end of the quarter in which the data was collected. The report shall include the following:
    - (A) Ambient air quality monitoring network data.
    - (B) If a violation of the quarterly NAAQS for Lead occurred, identification of the cause of the violation and corrective actions taken to address the violation.
  - (4) After twenty-four (24) months from the commencement date of monitoring pursuant to the approved monitoring plan, the Permittee may submit a request to discontinue ambient monitoring. The Commissioner may deny the request if a determination is made that continued monitoring is in the interest of public health and the environment.

The City of Indianapolis OES installed an ambient air monitoring site near Quemetco, Inc. for Lead in January 1984. This monitoring site, Site 26 (AIRS # 18-097-0063), is located at 7601 Rockville Road. Quemetco, Inc. installed an additional ambient air monitoring site for Lead in May 1991. This second site, Site 36 (AIRS # 18-097-0076), is located at 230 South Girls School Road. This ambient air monitoring network of two (2) Lead monitoring sites has

been operational since May 1991 with all ambient air monitoring performed by the City of Indianapolis OES, an authorized air pollution control agency having jurisdiction to operate the network. No violations of the primary and/or secondary National Ambient Air Quality Standard of 1.5 ug/m<sup>3</sup> of Lead per calendar quarter have been monitored at either site.

- (f) Ventilation air from the following shall be conveyed or ventilated to a control device:
- (1) All enclosure hoods and total enclosures.
  - (2) All dryer emission vents.
  - (3) Agglomerating furnace emission vents.

Pursuant to 326 IAC 20-13-8 (Bag Leak Detection System Requirements):

- (a) The bag leak detection system required by 40 CFR 63.548(c)(9) and section 5 of this rule shall meet the following requirements:
- (1) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of ten (10) milligrams per actual cubic meter (forty-four ten thousandths (0.0044) grains per actual cubic foot) or less.
  - (2) The bag leak detection system sensor must provide output of relative particulate matter loadings, and the Permittee must continuously record the output from the bag leak detection system.
  - (3) The bag leak detection system must be equipped with an alarm system that will alert appropriate plant personnel when an increase in relative particulate loadings is detected over a preset level. The alarm must be located where it can be heard by the appropriate plant personnel.
  - (4) Each bag leak detection system that works based on the triboelectric effect must be installed, calibrated, operated, and maintained consistent with the U.S. Environmental Protection Agency guidance document "Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015, September 1997). Other bag leak detection systems must be installed, calibrated, and maintained consistent with the manufacturer's written specifications and recommendations.
  - (5) The initial adjustment of the system must, at a minimum, consist of establishing:
    - (A) the baseline output by adjusting the sensitivity (range);
    - (B) the averaging period of the device;
    - (C) the alarm set points; and
    - (D) the alarm delay time.
  - (6) Following initial adjustment, the Permittee must not adjust the:
    - (A) sensitivity or range;
    - (B) averaging period;
    - (C) alarm set points; or
    - (D) alarm delay time;

except as detailed in the maintenance plan required under 40 CFR 63.548(a). In no event must the sensitivity be increased by more than one hundred percent (100%) or decreased more than fifty percent (50%) over a three hundred sixty-five (365) day period unless a responsible official certifies the baghouse has been inspected and

found to be in good operating condition.

- (7) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.
  - (8) For negative pressure, induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detector must be installed downstream of the baghouse and upstream of any wet acid gas scrubber.
- (b) In addition to the record keeping and reporting requirements under 40 CFR 63.550, the Permittee shall comply with the following:
- (1) Submit a report within thirty (30) days after the end of each preceding six (6) month period ending June 30 and December 31 of each year that includes the following:
    - (A) A description of the actions taken following each bag leak detection system alarm pursuant to 40 CFR 63.548(f)(1) and 40 CFR 63.548(f)(2).
    - (B) Calculations of the percentage of time the alarm on the bag leak detection system was activated during the reporting period.
  - (2) Records for bag leak detection systems shall be maintained on site for a period of three (3) years and be available for an additional two (2) years and shall include the following information:
    - (A) Records of bag leak detection system output.
    - (B) Identification of the date and time of all bag leak detection system alarms.
    - (C) The time that procedures to determine the cause of the alarm were initiated.
    - (D) The cause of the alarm.
    - (E) An explanation of the actions taken.
    - (F) The date and time the alarm was corrected.
    - (G) Records of total operating time of an affected source during smelting operations for each six (6) month period.

#### **State Rule Applicability - Individual Facilities**

#### **Stack/Vent S-100 (Reverberatory Furnace & SRF Process Fugitive Emissions; 9 Refining Kettles; Casting Machine; EAF; Rotary Dryer and Stack/Vent S-111 (Reverberatory Furnace & SRF Process Emissions)**

##### **326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements)**

Pursuant to 326 IAC 2-2(p)(1), this source is a major PSD source because the source has the potential to emit regulated pollutant(s) in excess of one hundred (100) tons per year and is on the list of 28 source categories (specifically, secondary metal production plants) as identified in 326 IAC 2-2(p)(1). Since this type of operation is one of the twenty-eight (28) listed source categories and the source has the potential to emit a regulated pollutant in excess of one hundred (100) tons per year, fugitive emissions are counted toward determination of PSD applicability.

The PSD regulation applies to all new construction or modifications after August 7, 1977 which exceed the significance thresholds established in 326 IAC 2-2-1. This existing major PSD source, in existence since July 1972, has not had any new construction or modifications that were deemed major modifications under 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements) at the time of installation. However, Quemetco, Inc. installed an Electric Arc Furnace (EAF), a Slag Reduction Furnace (SRF) and three (3) refining kettles all exhausting at Stack/Vent S-100 and/or Stack/Vent S-111. Based on a review of existing permits for Quemetco, Inc., the information

contained in the Part 70 application and additional information received from the source, the PSD regulation does not apply to any of the emitting units located at Quemetco, Inc.

- (a) In March 1984, Quemetco was issued Installation Permit No. 11005 for an Electric Arc Furnace (EAF). This approval did not specify or list applicable requirements. The EAF process and process fugitive emissions exhaust at Stack/Vent S-100. The potential emissions from this facility exceed the significance threshold for PM10, SO<sub>2</sub> and Lead. Therefore, OES has limited the potential to emit of these pollutants to less than the PSD significance level such that the PSD regulation shall not apply. The PM10, SO<sub>2</sub> and Lead emissions have been limited as follows:

Pollutant	grains per dry standard cubic foot (gr/dscf)	pounds per hour (lbs/hr)	tons per twelve consecutive month period (tons/yr)
PM10	0.023	3.4	less than 15.0
SO <sub>2</sub>	NA	9.1	less than 40.0
Lead	0.00054	0.134	less than 0.6

PM/PM10 and Lead process emissions from the EAF are controlled by Baghouse #036 which exhausts at Stack/Vent S-100. In October 1988, the EAF was stack tested for SO<sub>2</sub> emissions. The results of this stack test showed an average emission rate of 4.7 pounds of SO<sub>2</sub> per hour. In August of 1995, the EAF was stack tested for PM and Lead emissions. The results of this stack test showed an average emission rate for PM of 0.0018 grains per dry standard cubic foot of exhaust air and 0.44 pounds per hour. Stack testing for Lead showed an average emission rate of 0.0002 grains per dry standard cubic foot of exhaust and 0.04 pounds per hour.

The baghouse for PM10 and Lead emissions control shall be in operation at all times the EAF, identified as Emission Unit 3.2 is in operation in order to comply with the PM10 and Lead emission limits. Pursuant to Construction Permit 960079-03 Condition 7(e) issued May 13, 1996, Quemetco, Inc. is required to have a certified continuous emission monitor (CEM) for sulfur dioxide (SO<sub>2</sub>) emissions installed and operated on Stack/Vent S-100. Therefore, these conditions limit the PTE of PM10, Lead and SO<sub>2</sub> to less than the applicable emission limits pursuant to 326 IAC 6-1-2(a) and 326 IAC 2-2 and demonstrate compliance with applicable limitations.

The EAF, identified as Emission Unit 3.2 has not been in operation since 1998. On August 14, 2002, Quemetco, Inc. requested that the annual stack testing requirement for Lead from this process fugitive emission source, pursuant to 40 CFR 63.544(e) and/or 326 IAC 20-13-6, be waived unless operation of the EAF restarts. Process fugitive emission sources, including the EAF, continue to be directed at Stack/Vent S-100 whether the EAF has been in operation or not. Therefore, annual and/or biennial stack testing for Lead emissions from Stack/Vent S-100, pursuant to 40 CFR 63.544(e) and/or 326 IAC 20-13-6, will not be waived if the EAF is not restarted.

- (b) On May 23, 1988, OES issued an Exemption letter to Quemetco, Inc. for Kettle #7 installation and operation. Emissions from Kettle # 7 are vented into the current ventilation system through baghouse #039 or #040, which discharges via Stack/Vent S-100. Burner emissions are vented through a combustion flue, Stack/Vent S-113, with no controls.

Based on the AP-42 Table 12.11-2 emission factor 0.03 pounds of PM and/or PM10 per ton of metal produced and the estimated maximum throughput capacity of 21,900 tons per year (2.5 tons per hour x 8760 hours per year = 21,900 tons per year), the potential to emit PM (PM10) is 0.32 tons per year (0.03 pounds PM (PM10) per ton metal produced x 21,900 tons

metal produced per year x ton/2000 pounds = 0.32 tons PM (PM10) per year).

Based on the AP-42 Table 12.11-2 emission factor 0.01 pounds of Lead per ton of metal produced and the estimated maximum throughput capacity of 21,900 tons per year (2.5 tons per hour x 8760 hours = 21,900 tons per year), the potential to emit Lead is 0.01 tons per year (0.01 pounds Lead per ton metal produced x 21,900 tons metal produced per year x ton/2000 pounds = 0.01 tons Lead per year).

The potential to emit PM and/or PM10 from Kettle #7 does not exceed fifteen (15) tons per year and the potential to emit Lead from Kettle #7 does not exceed six tenths (0.6) tons per year. Therefore, 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements) does not apply to the addition of Kettle #7.

- (c) On August 23, 1991, OES issued Installation Permit 910079-02 for Kettle #8, Kettle #9 and Kettle #10 installation and operation. Kettle #8 and Kettle #9 were never installed or operated under Installation Permit 910079-02. Emissions from Kettle #8 are vented into the current ventilation system through baghouse #039 or #040, which discharges via Stack/Vent S-100. Burner emissions are vented through a combustion flue, Stack/Vent S-112, with no controls.

Based on the AP-42 Table 12.11-2 emission factor 0.03 pounds of PM and/or PM10 per ton of metal produced and the estimated maximum throughput capacity of 16,640 tons per year (160 tons per batch x 2 batches per week x 52 weeks per year = 16,640 tons per year), the potential to emit PM (PM10) is 0.25 tons per year (0.03 pounds PM (PM10) per ton metal produced x 16,640 tons metal produced per year x ton/2000 pounds = 0.25 tons PM (PM10) per year).

Based on the AP-42 Table 12.11-2 emission factor 0.01 pounds of Lead per ton of metal produced and the estimated maximum throughput capacity of 16,640 tons per year (160 tons per batch x 2 batches per week x 52 weeks per year = 16,640 tons per year), the potential to emit Lead is 0.08 tons per year (0.01 pounds Lead per ton metal produced x 16,640 tons metal produced per year x ton/2000 pounds = 0.08 tons Lead per year).

The potential to emit PM and/or PM10 from Kettle #8 does not exceed fifteen (15) tons per year and the potential to emit Lead from Kettle #8 does not exceed six tenths (0.6) tons per year. Therefore, 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements) does not apply to the addition of Kettle #8.

- (d) On May 9, 1995, Quemetco Inc. was issued Construction Permit 950079-01 to install a Slag Reduction Furnace (SRF). This Construction Permit was revised on April 9, 1996 (Construction Permit 960079-02), April 30, 1996 (Construction Permit 960079-04) and by way of Construction Permit Amendment (A0970079) on December 23, 1997. The potential PM-10, Lead and SO<sub>2</sub> emissions from this furnace exceeded the PSD significance thresholds. Therefore, OES has limited the potential to emit of these pollutants to less than the PSD significance level such that the PSD regulation shall not apply. According to construction permit CP960079-04 the SRF PM-10, SO<sub>2</sub> and Lead emissions have been limited as follows:

Pollutant	grains per dry standard cubic foot (gr/dscf)	pounds per hour (lbs/hr)	tons per twelve consecutive month period (tons/yr)
PM-10	0.0172	3.422	less than 15.0
SO <sub>2</sub>	NA	5.705	less than 25.0
Lead	0.0007	0.136	less than 0.6

PM/PM10 and Lead process emissions from the SRF are controlled by Baghouse #037 and Scrubber #046 which exhaust to Stack/Vent S-111. Process SO<sub>2</sub> emissions are controlled by Scrubber #046 and exhaust to Stack/Vent S-111. On March 18, 1996, the SRF was stack tested for PM-10, SO<sub>2</sub> and Lead emissions. Stack test results for PM/PM10 showed an average emission rate of 0.0092 grains per dry standard cubic foot of exhaust and 2.1 pounds per hour. Stack testing for sulfur dioxide emissions from the SRF showed no detectable amount and stack testing for Lead showed an average emission rate of 0.0004 grains per dry standard cubic foot of exhaust and 0.008 pounds per hour.

The baghouse and scrubber for PM10, Lead and SO<sub>2</sub> emissions control shall be in operation at all times the SRF, identified as Emission Unit 3.3 is in operation in order to comply with the PM10, Lead and SO<sub>2</sub> emission limits. Pursuant to Construction Permit 960079-04 Condition 6(d) issued April 30, 1996, Quemetco, Inc. is required to have a certified continuous emission monitor (CEM) for sulfur dioxide (SO<sub>2</sub>) emissions installed and operated on Stack/Vent S-111. Therefore, these conditions limit the PTE of PM10, Lead and SO<sub>2</sub> to less than the applicable emission limit(s) pursuant to 326 IAC 6-1-2(a) and 326 IAC 2-2 and demonstrate compliance with the applicable limitations.

- (e) On May 17, 2002 OES issued the Exemption letter 097-15607-00079 to Quemetco, Inc. for Kettle # 9 installation and operation. Emissions from Kettle # 9 are vented into the current ventilation system through baghouse #041, which discharges via Stack/Vent S-100. Burner emissions are vented through a combustion flue, Stack/Vent S-118, with no controls.

Based on the AP-42 Table 12.11-2 emission factor 0.03 pounds of PM and/or PM10 per ton of metal produced and the estimated maximum throughput capacity of 18,771 tons per year (180 tons per batch x 2 batches per week x 52 weeks per year = 18,771 tons per year), the potential to emit PM (PM10) is 0.28 tons per year (0.03 pounds PM (PM10) per ton metal produced x 18,771 tons metal produced per year x ton/2000 pounds = 0.28 tons PM (PM10) per year).

Based on the AP-42 Table 12.11-2 emission factor 0.01 pounds of Lead per ton of metal produced and the estimated maximum throughput capacity of 18,771 tons per year (180 tons per batch x 2 batches per week x 52 weeks per year = 18,771 tons per year), the potential to emit Lead is 0.09 tons per year (0.01 pounds Lead per ton metal produced x 18,771 tons metal produced per year x ton/2000 pounds = 0.09 tons Lead per year).

The potential to emit PM and/or PM10 from Kettle # 9 does not exceed fifteen (15) tons per year and the potential to emit Lead from Kettle #9 does not exceed six tenths (0.6) tons per year. Therefore, 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements) does not apply to the addition of Kettle #9.

### 326 IAC 3 (Monitoring Requirements)

Pursuant to Construction Permit 960079-03 Condition 7(e) issued May 13, 1996, Quemetco, Inc. is required to have a certified continuous emission monitor (CEM) for sulfur dioxide (SO<sub>2</sub>) emissions on Stack/Vent S-100 installed and operated in compliance with 326 IAC 3-5-2, 326 IAC 3-5-3, 326 IAC 3-5-4 and 326 IAC 3-5-5. Pursuant to Condition 7(e) and in order to achieve data in units of the applicable emission standard in pounds of SO<sub>2</sub> per hour, Quemetco, Inc. shall also install, calibrate, operate and certify a flow monitor certified pursuant to 40 CFR 60, Appendix B, Performance Specification 6.

Pursuant to Construction Permit 960079-04 Condition 6(d) issued April 30, 1996, Quemetco, Inc. is required to have a certified continuous emission monitor (CEM) for sulfur dioxide (SO<sub>2</sub>) emissions on Stack/Vent S-111 installed and operated in compliance with 326 IAC 3-5-2, 326 IAC 3-5-3, 326 IAC 3-5-4 and 326 IAC 3-5-5. Pursuant to Condition 6(d) and in order to achieve data in units of the applicable emission standard in pounds of SO<sub>2</sub> per hour, Quemetco, Inc. shall also install, calibrate, operate and certify a flow monitor certified pursuant to 40 CFR 60, Appendix B, Performance

#### Specification 6.

Pursuant to 326 IAC 7-2-1(g) (Sulfur Dioxide Rules: Compliance), CEM data collected and reported pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions) may be used as the means for determining compliance with 326 IAC 7-4-2 (Marion County Sulfur Dioxide Rules). Pursuant to 326 IAC 3-5-7(Reporting Requirements), gaseous excess emissions data reports shall be submitted using three (3) hour block periods ending at 03:00, 06:00, 09:00, 12:00, 15:00, 18:00, 21:00 and 24:00 and shall be submitted to IDEM, OAQ and OES quarterly.

#### 326 IAC 6-1-2(a) (Particulate Rules)

Sources or facilities located in Marion County which have the potential to emit greater than one hundred (100) tons per year of particulate matter or that have actual emissions greater than ten (10) tons per year and are not otherwise limited by 326 IAC 6-1-2(b), (e), (f) or (g) or 326 IAC 6-1-12 (Particulate Rules: Marion County) shall not exceed three hundredth (0.03) grains per dry standard cubic foot of exhaust air.

Pursuant to Construction Permit 960079-03 issued May 13, 1996, Stack/Vent S-100 particulate emissions are limited to 0.022 grains per dry standard cubic foot of exhaust air. This limitation was stated as being established pursuant to 40 CFR 60.120 Subpart L (Standards of Performance for Secondary Lead Smelters). However, this emission limitation is applicable only to Reverberatory furnaces and blast furnaces installed or modified after June 11, 1973. Quemetco, Inc. does not have a blast furnace and the existing Reverberatory furnace, identified as Emission Unit 3.1, is not subject to 40 CFR 60.120 Subpart L (Standards of Performance for Secondary Lead Smelters) because this unit was installed prior to the applicability date, was not modified after that date and does not exhaust at Stack/Vent S-100. Therefore, the particulate limit in Construction Permit 960079-03 of 0.022 grains per dry standard cubic foot of exhaust air for Stack/Vent S-100 is no longer applicable. Pursuant to 326 IAC 6-1-2(a) particulate emissions are limited to 0.03 grains per dry standard cubic foot of exhaust air.

The potential to emit PM<sub>10</sub> from the existing EAF exceeds the significance threshold for PM<sub>10</sub> of fifteen (15.0) tons per year. Therefore, OES has limited the potential to emit of PM/PM<sub>10</sub> from the existing EAF process to 0.023 grains per dry standard cubic foot to exhaust air which is equivalent to 3.4 pounds per hour and less than fifteen (15.0) tons per twelve consecutive month period with compliance determined at the end of each month such that the 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements) regulation shall not apply. Compliance with 0.023 grains per dry standard cubic foot of exhaust air ensures compliance with 326 IAC 6-1-2(a) (Particulate Rules) for the existing EAF and Stack/Vent S-100.

The baghouse for PM/PM<sub>10</sub> emissions control shall be in operation at all times emissions are directed to Stack/Vent S-100 in order to comply with the PM/PM<sub>10</sub> emission limit. Therefore, these conditions limit the PTE of PM/PM<sub>10</sub> to less than the applicable emission limit pursuant to 326 IAC 6-1-2(a) and 326 IAC 2-2.

#### 326 IAC 6-1-12(a) (Particulate Rules: Marion County)

Pursuant to 326 IAC 6-1-12, particulate matter (PM) from the Reverberatory Furnace, identified as Emission Unit 3.1, are limited to sixteen hundredths (0.016) grains per dry standard cubic foot of exhaust and 5.8 tons per year. This emission limitation for Quemetco, Inc. has not been revised.

Prior to 1995, the Reverberatory Furnace process emissions exhausted at Stack/Vent S-100. In 1995, Quemetco reconfigured the Reverberatory Furnace such that the process emissions from this unit would now be directed out a newly constructed stack, identified as Stack/Vent S-111. Quemetco, Inc. also added a new Slag Reduction Furnace (SRF), identified as Emission Unit 3.3, with SRF process emissions also exhausting at Stack/Vent S-111.

Because the Reverberatory Furnace process emissions are now exhausted to Stack/Vent S-111,

particulate matter emissions from Stack/Vent S-111 are limited to sixteen hundredths (0.016) grains per dry standard cubic foot of exhaust and 5.8 tons per year.

326 IAC 7-4-2 (Sulfur Dioxide Rules: Marion County Sulfur Dioxide Rules)

Pursuant to 326 IAC 7-4-2 (Sulfur Dioxide Rules: Marion County Sulfur Dioxide Rules), SO<sub>2</sub> emissions from the Reverberatory Furnace, identified as Emission Unit 3.1, are limited to 24.6 pounds per ton of material processed and 617 pounds per hour. This emission limitation for Quemetco, Inc. has not been revised.

Prior to 1995, the Reverberatory Furnace process emissions exhausted at Stack/Vent S-100. In 1995, Quemetco reconfigured the Reverberatory Furnace such that the process emissions from this unit would now be directed out a newly constructed stack, identified as Stack/Vent S-111. Process fugitive emissions from the Reverberatory Furnace would continue to be directed to Stack/Vent S-100. Quemetco, Inc. also added a new Slag Reduction Furnace (SRF), identified as Emission Unit 3.3, with SRF process emissions also exhausting at Stack/Vent S-111.

The Construction Permit 950079-01 issued May 9, 1995 allowed the construction of the new Slag Reduction Furnace (SRF) with SRF process SO<sub>2</sub> emissions limited to 5.2 pounds per hour and 23.04 tons per year such that 326 IAC 2-3 (Emissions Offset) does not apply. The pound per hour allowable SO<sub>2</sub> emission limit of 5.2 pounds per hour was based on 23.04 tons per year divided by 8760 annual hours of operation (23.04 tons per year/8760 hours per year x 2000 pounds/ton = 5.2 pounds per hour). The Construction Permit 950079-01 contained only reference to the redirection of the Reverberatory Furnace process emissions but did not contain reference to existing 326 IAC 7-4-2 (Sulfur Dioxide Rules: Marion County Sulfur Dioxide Rules) emission limitations for the Reverberatory Furnace.

As a result, the Construction Permit 950079-01 was amended and replaced in its entirety by Construction Permit 960079-02 issued April 9, 1996 for SRF process emissions and the redirection of Reverberatory Furnace process emissions to the newly constructed Stack/Vent S-111. Construction Permit 960079-02 contained separate emission limitations for the SRF and the Reverberatory Furnace in order to further limit or incorporate existing 326 IAC 7-4-2 emission limitations for the Reverberatory Furnace and limit SRF SO<sub>2</sub> emissions such that compliance with 326 IAC 2-3 (Emissions Offset) would be demonstrated.

Construction Permit 960079-02 Condition 3.A.ii stated that SO<sub>2</sub> emissions from the SRF are limited to less than twenty five (25.0) tons per year (and 5.7 pounds per hour) such that Indianapolis Air Pollution Control Board (IAPCB) Regulation IV-4 (Sulfur Dioxide Emissions) and 326 IAC 2-3 (Emissions Offset) do not apply. IAPCB Regulation IV-4.C.6 (Sulfur Dioxide Emissions) stated "New facilities (as of December 1, 1986) located in Marion County which have potential sulfur dioxide emissions of 25.0 tons or more per year, which are not otherwise regulated by other provisions of Regulation IV-4, shall reduce sulfur dioxide emissions using Best Available Control Technology (BACT)." As of November 13, 1997, the Indianapolis Air Pollution Control Board (IAPCB) adopted 326 IAC 7 (Sulfur Dioxide Rules) by reference. As a result, Regulation IV-4 (Sulfur Dioxide Emissions) is no longer an applicable requirement for new facilities locating in Marion County.

Construction Permit 960079-02 Condition 3.C stated SO<sub>2</sub> emissions from the Stack/Vent S-111 (SRF + Reverberatory Furnace) are limited to 150 pounds per hour (657.0 tons per year/8760 hours per year x 2000 pounds/ton = 150.0 pounds per hour) and 657 tons per year (150 pounds per hour x 2000 pounds/ton x 8760 hours per year = 657 tons per year) such that 326 IAC 2-3 (Emissions Offset) does not apply to the SRF and compliance with the existing Reverberatory Furnace SO<sub>2</sub> emissions limitation of 617 pounds per hour as established pursuant to 326 IAC 7-4-2 (Sulfur Dioxide Rules: Marion County Sulfur Dioxide Rules) will be demonstrated.

With the addition of the SRF and the reconfiguration of the Reverberatory Furnace exhaust to the new Stack/Vent S-111, the existing Stack/Vent S-100 emissions limitations were not addressed in

Construction Permit 950079-01 or 960079-02. Therefore, the Stack/Vent S-100 SO<sub>2</sub> emissions limitation following the reconfiguration was addressed and revised in construction permitting based on a modeling analysis conducted by Arthur D. Little and Company. Pursuant to Construction Permit CP960079-03 issued May 13, 1996, SO<sub>2</sub> emissions from Stack/Vent S-100 are limited to 266 pounds per hour. This SO<sub>2</sub> emissions limitation for Stack/Vent S-100 was subsequently revised in Construction Permit Amendment A0970079-01 issued December 23, 1997 to transfer 100 pounds of SO<sub>2</sub> per hour from Stack/Vent S-111 back to Stack/Vent S-100. Construction Permit 960079-04 issued April 30, 1996 replaced Construction Permit 960079-02 in its entirety.

A summary of Construction Permit SO<sub>2</sub> emissions limitations for Stack/Vent S-100 and Stack/Vent S-111 following the reconfiguration is listed below.

Applicable Requirement	SO <sub>2</sub> Emissions Limitation					
	Stack/Vent S-100		SRF		Stack/Vent S-111	
	lbs/hr	tons/year	lbs/hr	tons/year	lbs/hr	tons/year
326 IAC 7-4-2	617.0*	---	---	---	---	---
CP950079-01	---	---	5.2	23.04	---	---
CP960079-02	---	---	5.7	24.99	150.0	657.0
CP960079-03	266.0	---	---	---	---	---
CP960079-04	---	---	5.7	24.99	150.0	657.0
Construction Permit Amendment A0970079-01	366.0	---	---	---	50.0 *	219.0

\*Per 326 IAC 7-4-2, SO<sub>2</sub> emissions from the Reverberatory Furnace are also limited to 24.6 pounds per ton of material handled.

As a result of the Construction Permitting for Reverberatory Furnace process emission exhaust redirection, the addition of the Slag Reduction Furnace (SRF) and clarification of resultant Stack/Vent S-100 emissions in Construction Permitting and Amendment, SO<sub>2</sub> emissions are limited as follows:

Slag Reduction Furnace (SRF): 5.7 pounds per hour & 24.99 tons per year.

Stack/Vent S-111: 24.6 pounds per ton of material handled, 50.0 pounds per hour and 219 tons per year.

Stack/Vent S-100: 366 pounds per hour

Compliance with the SO<sub>2</sub> emissions limitations of CP960079-04 and Construction Permit Amendment A0970079-01 demonstrates compliance with 326 IAC 7-4-2.

Performance stack testing for SO<sub>2</sub> emissions from the Slag Reduction Furnace on March 18, 1996 found no detectable amount of SO<sub>2</sub> emissions. Performance stack testing for SO<sub>2</sub> emissions from Stack/Vent S-111 on August 13, 1996 found SO<sub>2</sub> emissions to be 19.1 pounds per hour. At a throughput rate of material through the Reverberatory Furnace of 27.63 tons per hour during the test, SO<sub>2</sub> emissions were found to be 0.7 pounds of SO<sub>2</sub> per ton of material handled.

Pursuant to Construction Permit CP960079-03 and CP960079-04 compliance with the SO<sub>2</sub> emissions limitations shall be demonstrated based on hourly SO<sub>2</sub> Continuous Emission Monitor (CEM) data.

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

Pursuant to 326 IAC 20-13 (Hazardous Air Pollutants: Secondary Lead Smelters), Lead emissions from Stack/Vent S-100 and Stack/Vent S-111 (see an additional discussion in this TSD under **State**

**Rule Applicability - Entire Source);**

- (a) are limited to one (1.0) milligram per dry standard cubic meter of exhaust.
- (b) shall not exceed five percent (5.0%) opacity from particulate matter emissions for any one (1) six (6) minute averaging period as measured by 40 CFR 60, Appendix A, Reference Method 9. The opacity limitations shall only apply to particulate matter emissions.

Pursuant to Construction Permit 960079-04 issued April 30, 1996, Condition 4 limited opacity to ten percent (10%). In an effort to streamline applicable requirements for the Reverberatory Furnace, and SRF, opacity from Stack/Vent S-111 shall not exceed five percent (5.0%) opacity from particulate matter emissions for any one (1) six (6) minute averaging period as measured by 40 CFR 60, Appendix A, Reference Method 9. The opacity limitations shall only apply to particulate matter emissions.

**Stack/Vent S-101 through S-109 (Nine Roof Vent Baghouses RV #1 through RV #9)**

**326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements)**

Pursuant to 326 IAC 2-2(p)(1), this source is a major PSD source because the source has the potential to emit regulated pollutant(s) in excess of one hundred (100) tons per year and is on the list of 28 source categories (specifically, secondary metal production plants) as identified in 326 IAC 2-2(p)(1). Since this type of operation is one of the twenty-eight (28) listed source categories and the source has the potential to emit a regulated pollutant in excess of one hundred (100) tons per year, fugitive emissions are counted toward determination of PSD applicability.

The PSD regulation applies to all new construction or modifications after August 7, 1977 which exceed the significance thresholds established in 326 IAC 2-2-1. This existing major PSD source, in existence since July 1972, has not had any new construction or modifications that were deemed major modifications under 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements) at the time of installation. During and after 1991, Quemetco, Inc. installed nine (9) Roof Vent baghouses, RV #1 through RV #9, for General Building Ventilation to control process fugitive and fugitive dust emissions.

- (a) On December 24, 1990, OES issued Installation Permit 900079 for the installation of Roof Vent Baghouse(s) RV #1 through RV #6, exhausting to, respectively, Stack/Vent S-101 through Stack/Vent S-106.
- (b) On April 1, 1991, OES issued Installation Permit 910079-01 for the installation of Roof Vent Baghouse RV #7 exhausting to Stack/Vent S-107.
- (c) On May 11, 1993, OES issued Installation Permit 930079-03 for the installation of Roof Vent Baghouse RV #8 exhausting to Stack/Vent S-108.
- (d) On May 9, 1995, OES issued Construction Permit 950079-01 for the installation of Roof Vent Baghouse RV #9 exhausting to Stack/Vent S-109. This Construction Permit was replaced in its entirety by Construction Permit 960079-02 issued April 9, 1996 which was then replaced in its entirety by Construction Permit 960079-04 issued April 30, 1996.

Each of these baghouse units had been limited in construction permitting to 0.04 pounds of PM per hour and 0.18 tons per year. These PM limits were established in an attempt to limit Lead emissions, in the absence of a final Lead rule, at that time and has no underlying regulatory requirement. The applicable underlying limit for PM emissions from each of the Roof Vent baghouses, RV#1 through RV#9 is the 326 IAC 6-1-2(a) (Particulate Rules) limit of 0.03 grains per dry standard cubic foot of exhaust air.

Based on a review of existing permits for Quemetco, Inc., the information contained in the Part 70 application and additional information received from the source, the PSD regulation does not apply to any of the Roof Vent baghouses emitting units located at Quemetco, Inc. because each of these units did not have the potential to emit PM<sub>10</sub>, Lead or SO<sub>2</sub> in excess of any significance threshold and each of these units is utilized to put the building under negative pressure to meet the requirement of a total enclosure.

326 IAC 6-1-2(a) (Particulate Rules)

Sources or facilities located in Marion County which have the potential to emit greater than one hundred (100) tons per year of particulate matter or that have actual emissions greater than ten (10) tons per year and are not otherwise limited by 326 IAC 6-1-2(b), (e), (f) or (g) or 326 IAC 6-1-12 (Particulate Rules: Marion County) shall not exceed three hundredth (0.03) grains per dry standard cubic foot of exhaust air.

Pursuant to 326 IAC 6-1-2(a) (Particulate Rules), PM emissions from Roof Vent Baghouse(s) RV #1 through RV #9 shall each not exceed three hundredth (0.03) grains per dry standard cubic foot of exhaust air.

326 IAC 7 (Sulfur Dioxide Rules)

326 IAC 7 applies to emission units with potential to emit greater than ten (10) pounds per hour or twenty five (25) tons per year. These nine (9) Roof Vent baghouses control process fugitive and fugitive emissions and do not have the potential to emit SO<sub>2</sub> greater than ten (10) pounds per hour or twenty five (25) tons per year (see TSD Appendix C page 3 of 4). Therefore, 326 IAC 7 (Sulfur Dioxide Rules) does not apply to Stack/Vent S-101 through Stack/Vent S-109.

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

Pursuant to 326 IAC 20-13 (Hazardous Air Pollutants: Secondary Lead Smelters), Lead emissions from Stack/Vent S-101 through Stack/Vent S-109 (see an additional discussion in this TSD under **State Rule Applicability - Entire Source**);

- (a) are limited to five tenths (0.5) milligram per dry standard cubic meter of exhaust.
- (b) process fugitive and fugitive dust emissions from Stack/Vent S-101 through Stack/Vent S-109 shall each be vented to the atmosphere through high efficiency particulate air (HEPA) filters as defined in 40 CFR 63.542.
- (c) shall not exceed five percent (5.0%) opacity from particulate matter emissions for any one (1) six (6) minute averaging period as measured by 40 CFR 60, Appendix A, Reference Method 9. The opacity limitations shall only apply to particulate matter emissions.

**Stack/Vent S-112 through S-118 (Kettles #1 through #9 Natural Gas Burner Combustion Flues)**

326 IAC 6-1-2(a) (Particulate Rules)

Sources or facilities located in Marion County which have the potential to emit greater than one hundred (100) tons per year of particulate matter or that have actual emissions greater than ten (10) tons per year and are not otherwise limited by 326 IAC 6-1-2(b), (e), (f) or (g) or 326 IAC 6-1-12 (Particulate Rules: Marion County) shall not exceed three hundredth (0.03) grains per dry standard cubic foot of exhaust air.

Kettle(s) #1 through #9 natural gas burner combustion flues are each not specifically listed in 326 IAC 6-1-12 nor is the emission unit performing a specifically regulated source operation as identified in 326 IAC 6-1-2(b) through (g). 326 IAC 6-3 (Process Operations) does not apply to this emission unit as liquid and gaseous fuels and combustion air will not be considered process weight as defined pursuant to 326 IAC 1-2-59 ("Process Weight; Weight Rate" Defined). Pursuant to 326 IAC 6-2-1(e) (Particulate Emission Limitations for Sources of Indirect Heating), if any limitation established by this

rule is inconsistent with applicable limitations contained in 326 IAC 6-1, then the limitations contained in 326 IAC 6-1 prevail.

Pursuant to 326 IAC 6-1-2(a) (Particulate Rules), PM emissions from Kettle(s) #1 through #9 natural gas burner combustion flues each shall not exceed three hundredth (0.03) grains per dry standard cubic foot of exhaust air.

#### 326 IAC 7 (Sulfur Dioxide Rules)

326 IAC 7-1.1-2 applies to emission units with potential to emit greater than ten (10) pounds per hour or twenty five (25) tons per year. Combustion emissions from Kettles #1 through #9 each do not have the potential to emit SO<sub>2</sub> of greater than ten (10) pounds per hour or twenty five (25) tons per year (see TSD Appendix C page 2 of 4). Kettles #1 through #9 are each not specifically identified in 326 IAC 7-4-2 (Sulfur Dioxide Rules: Marion County Sulfur Dioxide Rules). Therefore, 326 IAC 7 (Sulfur Dioxide Rules) does not apply to Kettles #1 through #9 natural gas combustion emissions.

### **State Rule Applicability - Insignificant Activities**

#### **Battery Wrecker, Maintenance Office HVAC System, Emergency Gasoline Generators, Emergency Diesel Generators, Five (5) Soda Ash Silos and Water Quality Department Wet Scrubber**

#### 326 IAC 6-1-2(a) (Particulate Rules)

Pursuant to 326 IAC 6-1-2(a), particulate (PM) emissions from the Battery Wrecker, Maintenance Office HVAC system, Five (5) Soda Ash Silos, Emergency Gasoline Generators, and Emergency Diesel Generators and Water Quality Department wet scrubber each shall not exceed three hundredths (0.03) grains per dry standard cubic foot of exhaust air.

### **General Parts Washing**

#### 326 IAC 8-3-2 (Cold Cleaner Operation)

Pursuant to 326 IAC 8-3-1 (Organic Solvent Degreasing Operations: Applicability), 326 IAC 8-3-2 (Cold Cleaner Operation) does not apply to this source because the cold cleaner degreasing operation at Quemetco, Inc. was an existing facility prior to January 1, 1980 and neither the source or the degreasing operations have the potential to emit of one hundred (100) tons or greater per year of volatile organic compounds (VOC). Therefore, 326 IAC 8-3-2 (Cold Cleaner Operation) does not apply to this source.

#### 326 IAC 8-3-5 (Cold Cleaner Degreasing Operation and Control)

(a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs existing as of July 1, 1990, located in Marion County, the Permittee shall ensure that the following 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°C) (one hundred degrees Fahrenheit (100°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°C) (one hundred degrees Fahrenheit (100°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°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
    - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
    - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
    - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or 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.

### Testing Requirements

Pursuant to 326 IAC 20-13-6, the Permittee shall conduct a compliance test for Lead compounds from Stack Vent S-111 on an annual basis, no later than twelve (12) calendar months following the previous compliance test. If a compliance test demonstrates a source emitted Lead compounds from Stack/Vent S-111 less than or equal to fifty percent (50.0%) of the applicable limit under this rule during the compliance test, the Permittee shall be allowed up to twenty four (24) calendar months from the previous compliance test to conduct the next compliance test for Lead compounds. The most recent compliance stack test for Stack/Vent S-111 that was less than or equal to fifty percent (50.0%) of the applicable limit under this rule was conducted on April 10, 2003. Pursuant to 326 IAC 20-13-6, retesting for Lead compounds from Stack/Vent S-111 shall be conducted no later than April 10, 2005. The test shall be conducted utilizing Methods specified in 40 CFR Part 63.547(a).

No later than one hundred and eighty days after issuance of this Part 70 Permit, in order to demonstrate compliance with the PM10 emission limit, the Permittee shall perform PM10 testing for

the Electric Arc Slag Reduction Furnace (SRF), identified as Emission Unit 3.3, utilizing methods approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM10 includes filterable and condensible PM10. Testing shall be conducted in accordance with Section C - Performance Testing.

Pursuant to 326 IAC 20-13-6, the Permittee shall conduct a compliance test for Lead compounds from Stack Vent S-100 on an annual basis, no later than twelve (12) calendar months following the previous compliance test. If a compliance test demonstrates a source emitted Lead compounds from Stack/Vent S-100 less than or equal to fifty percent (50.0%) of the applicable limit under this rule during the compliance test, the Permittee shall be allowed up to twenty four (24) calendar months from the previous compliance test to conduct the next compliance test for Lead compounds. The most recent compliance stack test for Stack/Vent S-100 that was less than or equal to fifty percent (50.0%) of the applicable limit under this rule was conducted on March 27, 2002. Pursuant to 326 IAC 20-13-6, retesting for Lead compounds from Stack/Vent S-100 shall be conducted no later than March 27, 2004. The test shall be conducted utilizing Methods specified in 40 CFR Part 63.547(a).

No later than one hundred and eighty days after issuance of this Part 70 Permit, in order to demonstrate compliance with the PM10 emission limit, the Permittee shall perform PM and PM10 testing for the Electric Arc Furnace (EAF), identified as Emission Unit 3.2, utilizing methods approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM10 includes filterable and condensible PM10. Testing shall be conducted in accordance with Section C - Performance Testing.

Pursuant to 326 IAC 20-13-6, the Permittee shall conduct testing for Lead compounds from Stack/Vent S-106, S-107, S-108, and S-109 on a biennial basis, no later than twenty four (24) calendar months following the previous compliance test to determine compliance with the applicable limit for process fugitive emission sources. Compliance with this testing schedule demonstrates compliance with the testing and retesting schedule pursuant to 40 CFR Part 63.544(e) for process fugitive emission sources. The test shall be conducted utilizing Methods specified in 40 CFR Part 63.547(a). The most recent compliance test for Stack/Vent S-106, S-107, S-108 and Stack/Vent S-109 was conducted on March 25 and March 26, 2003. Initial compliance testing was conducted in October 1997. Therefore, compliance stack testing for Stack/Vent S-106, S-107, S-108, and S-109 shall be conducted no later than March 25, 2005.

The Permittee shall conduct testing for Lead compounds on Stack/Vents S-101 S-102, S-103, S-104, and S-105 to determine compliance with Condition D.3.2 within thirty six (36) months after permit issuance. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. The test shall be conducted utilizing Methods specified in 40 CFR Part 63.547(a).

## **Compliance Requirements**

Permits issued under 326 IAC 2-7 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 and OES, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. 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.

Compliance monitoring plans for demonstrating compliance are as follows under Rule 326 IAC 2-7-5(3) which requires all permitted sources to demonstrate that all emitting units are in continuous compliance with all "applicable requirements" as defined by 326 IAC 2-7-1(6). Compliance is demonstrated by taking sufficient measurements of emissions or operating parameters or by gathering other data.

- (a) Compliance Monitoring requirements are applicable to Stack/Vent S-100 and Stack/Vent S-111 and Stack/Vent S-101 through S-109 as follows:
- (1) Visible emission notations of stack exhaust shall be performed once per shift during normal daylight operations when in operation. A trained employee shall record whether emissions are normal or abnormal.
  - (2) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
  - (3) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
  - (4) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
  - (5) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records and Reports, shall be considered a deviation from this permit.

IDEM, OAQ and OES are requiring compliance monitoring for Stack/Vent S-100 and Stack/Vent S-111 and Stack/Vent S-101 through S-109 in order to ensure compliance with 326 IAC 2-7-5(3) (Part 70 Permit Program: Permit Content), particulate emissions limitations established in 326 IAC 6-1-12 (Particulate Rules: Marion County) and opacity limitations pursuant to 326 IAC 20-13 (Hazardous Air Pollutants: Secondary Lead Smelters).

- (b) Parametric Monitoring
- Should the baghouse leak detection system become inoperable or experience a failure, the Permittee shall record the total static pressure drop across the baghouse(s) #035, #036, #037, #038, #039, #040 and #041 at least once per shift when in operation and when venting to the atmosphere. The Permittee shall record the total static pressure drop across baghouse RV #1 through RV #9, at least once per shift when in operation and 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 6.0 inches of water or a range established during the latest stack test, the Permittee shall reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records and Reports shall be considered a deviation from this permit.

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

#### Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags in baghouse(s) #035, #036, #037, #038, #039, #040 and #041 and RV #1 through RV #9 when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.

#### Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (1) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit. If operations continue after bag failure is observed and it will be 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.
- (2) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

#### (c) Scrubber Operation

- (1) Except as otherwise provided by statute or rule or in this permit, Scrubber #046 shall be operated at all times to maintain compliance with all SO<sub>2</sub> emission limits.
- (2) An inspection of the scrubber shall be performed at least once every two years, in accordance with the Preventive Maintenance Plan prepared in accordance with Section B - Preventive Maintenance Plan. Defective parts shall be replaced. A record shall be kept of the results of the inspection and the part(s) replaced.
- (3) Inspections shall be made whenever there is an outage of any nature lasting more than three (3) days unless such measurements have been taken within the past twelve (12) months.

- (4) Reasonable response steps shall be taken in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports for any improper or abnormal conditions found during an inspection. Discovery of an abnormal or improper condition is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.
- (d) SO<sub>2</sub> Monitoring Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]  
Whenever the SO<sub>2</sub> continuous emission monitoring (CEM) system on Stack/Vent S-100 and/or Stack/Vent S-111 is malfunctioning or down for repairs or adjustments, one of the following methods shall be used to provide information related to SO<sub>2</sub> emissions:
  - (1) A calibrated backup CEM for Stack/Vent S-100 shall be brought online within four (4) hours of shutdown of the primary CEM.
  - (2) The Permittee shall monitor and record the water flow rate and the pH of Scrubber #046 water at least once every hour when exhausting to Stack/Vent S-111. The Scrubber #046 water flow rate shall be maintained at a flow rate of 90 to 100 gallons per minute and shall maintain a pH of 6 to 9. The Permittee shall monitor and record the water flow rate and the pH at least once every hour until the CEM for Stack/Vent S-111 is returned to operation.

These monitoring conditions are necessary because the facilities and associated control devices must function properly to ensure compliance with SO<sub>2</sub> limits under 326 IAC 7-4-2 (Sulfur Dioxide Emission Limitations: Marion County) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Rules).

The compliance monitoring requirements for Lead emissions under 40 CFR Part 63.548 satisfy the requirements for compliance monitoring for PM, and PM-10 emissions.

## Conclusion

The operation of this stationary secondary lead smelting and refining operation under a Standard Industrial Classification (SIC) Code of 3341 (Secondary Smelting and Refining of Nonferrous Metals) shall be subject to the conditions of the attached proposed Part 70 Permit No. T097-6201-00079.

Appendix A  
Listing of Vents/Pick-Up Points  
per Emission Unit

**Table 1**

Stack/Vent ID	Control Equipment/ID	Control Equipment/ID	Hood/Pickup Point ID	Emission Unit ID
S-111 (SO <sub>2</sub> CEM)	Scrubber # 046	Baghouse # 035 Reverb Process	035-1 Reverb Furnace Flue	3.1 Reverb Furnace Process Emissions
		Baghouse # 037 Slag Reduction Furnace	037-1 SRF Feed Hopper Draft 037-3 SRF Lead Well Draft 037-2 SRF Slag Caster Draft 037-5 SRF Slag Launder Draft 037-4 SRF Furnace Flue 037-6 SRF Slag Caster Draft	3.3 Slag Reduction Furnace (SRF)
S-100 (SO <sub>2</sub> CEM)	----	Baghouse # 038 Reverb Sanitary	038-3 Reverb Feed Chute Stoker Draft 038-1 Rotary Dryer Draft East End 038-2 Rotary Dryer Draft/Belt 1 West End	3.1 Reverb Furnace Process Fugitive Emissions + Emission Unit 8 (Rotary Dryer)
		Baghouse # 036	036-1 Reverb Slag Tap 036-2 SRF Slag Tap 036-3 Kettle 8 Hood Draft 036-4 D Bin/Dross Dumper Hoods 036-5 Slag Tap 036-6 Slag Launder 036-7 Slag Shakers 036-8 Slag Cooling Bin	3.2 Electric Arc Furnace
		Baghouse # 041 Sanitary	041-9 Reverb General Hooding, 041-10 Reverb Feed Chute General, 041-1 Cold Charge Slag Loading Area, 041-2 Cold Charge Hot Slag Bin 041-3 Cold Charge Building West, 041-4 Cold Charge Building East, 041-5 SRF Hot Slag Area 041-6 Cold Charge Feed Hopper, 041-7 Charge Room (Reverb Furnace), 041-8 Reverb Feed Hopper, 041-11 Belt # 1 General, 041-12 West Rotary Dryer Hood General, 041-13 East Rotary Dryer Hood General, 041-14 SRF Hot Slag Drop Out Bin, R-11 Casting Machine, 041-15 Steel Case Cutting Station, 041-16 Refinery Dross Dump Bin, 041-17 Reverb Slag Caster Hood, 041-18 Kettle #9 Draft	3.1 Reverb Furnace Process Emissions + 3.2 Electric Arc Furnace (fugitives) + Emission Unit 8 (Rotary Dryer) + Emission Unit 7 Casting Machine + Kettle #9

**Table 1**

Stack/Vent ID	Control Equipment/ID	Control Equipment/ID	Hood/Pickup Point ID	Emission Unit ID
S-100 (SO <sub>2</sub> CEM)	----	Baghouse # 039 Refinery Sanitary Baghouse # 040 Refinery Sanitary (parallel, not in series)	R-9 Reverb Lead Well Draft R-10 Reverb Slag Launder Draft R-1 through R -8 Refinery Kettle(s) #1 through#8 Draft(s)	3.1 Reverb Furnace Process Fugitive Emissions + Kettle(s) #1 - #8
S-114	----	----	----	Natural Gas firing for Kettle #2
S-116	----	----	----	Natural Gas firing for Kettle(s) #3 and #4
S-115	----	----	----	Natural Gas firing for Kettle(s) #5 and #6
S-113	----	----	----	Natural Gas firing for Kettle #7
S-112	----	----	----	Natural Gas firing for Kettle #8
S-117	----	---	---	Natural Gas firing for Kettle #1
S-118	---	---	---	Natural Gas firing for Kettle #9
S-101	---	Roof Vent Baghouse RV #1	45-1 Bin 10 Feed Storage General	GV101 (Bin 10 Feed Storage Area)
S-102	----	Roof Vent Baghouse RV#2	45-2 CC EAF Building General West	GV102 (CC EAF Building West)
S-103	----	Roof Vent Baghouse RV#3	45-3 CC EAF Building General East	GV103 (EAF Building East + 3.2 Electric Arc Furnace (fugitives))
S-104	----	Roof Vent Baghouse RV#4	45-4 Reverb Charge Room General	GV104 (Reverb Charge Room)
S-105	----	Roof Vent Baghouse RV#5	45-5 CC EAF Slag Room General	GV105 (CC EAF Slag Room)
S-106	----	Roof Vent Baghouse RV#6	45-6 Reverb/Slag Reduction Furnace General	GV106 (Reverb/Slag Reduction Furnace)
S-107	----	Roof Vent Baghouse RV#7	45-7 Refinery General North	GV107 (North Refinery Area)
S-108	----	Roof Vent Baghouse RV#8	45-8 SRF General	GV108 (SRF Area)
S-109	----	Roof Vent Baghouse RV#9	45-9 Refinery General South	GV109 (South Refinery Area)

Appendix B  
Requirements of Previous  
Permit Approvals not Incorporated

Permit (Issue Date)	Condition	Carried over to Part 70 Permit (Y/N)	Reasons why condition was not carried over
960079-03 (as amended on 12/23/97 and 4/15/98)	Condition 3: limits the Particulate Matter emissions from Stack S-100 to 0.022 gr/dscf and 54 lbs/hr pursuant to 40 CFR Part 60 Subpart L.	N	The PM emission were not carried over since the PM in NSPS Subpart L does not apply to any of the units vented to Stack S-100.
	Condition 7(b): requires that the Permittee conduct stack testing on Stack S-100 for NOx and CO every two years.	N	No regulatory justification for such testing.
	Condition 11: requires the Permittee to comply with the reporting requirements of 326 IAC 1-6.	N	The malfunction regulations 326 IAC 1-6 is superceded by the Emergency Provisions 326 IAC 2-7-16.
	The compliance deadline in Conditions 7 (b) and (e) for initial stack testing or the installation of CEMs.	N	The Permittee has conducted the initial stack testing and installation of CEMs required by permit.
	All other conditions	Y	
960079-04 (as amended on 12/23/97 and 4/15/98)	Condition 3(C): limits the PM-10 emissions from Stack S-111 to 0.0172 gr/dscf, 6.844 lbs/hr and 29.97 ton/yr. Condition 3(C): limits the Pb emissions from Stack S-111 to 0.0008 gr/dscf, 0.309 lbs/hr and 1.353 tons/yr.	N	The PM-10 and Pb limits for Stack/Vent S-111 were initially established as limit taken to avoid PSD for the slag reduction furnace. However there appears to be no technical foundation that such a limit on Stack/Vent S-111 would limit the PM-10 or Pb emissions from the slag reduction furnace such that the PSD regulation would not apply.
	Condition 3A : states SO <sub>2</sub> emissions are limited such that the requirements of IAPCB Regulation IV-4 do not apply.	N	Regulation IV-4 is no longer applicable as the IAPCB has adopted 326 IAC 7 by reference.
	Condition 7(c): requires that the Permittee conduct stack testing on Stack/Vent S- 100 for NOx and CO every two years	N	No regulatory justification for such testing.
	Condition 10: requires the Permittee to comply with the reporting requirements of 326 IAC 1-6.	N	The malfunction regulations 326 IAC 1-6 is superceded by the Emergency Provisions 326 IAC 2-7-16.
	The compliance deadline in Condition 6 for initial stack testing or the installation of CEMs.	N	The Permittee has conducted the initial stack testing and installation of CEMs required by permit.
	All other conditions.	Y	
950079-01 (5/9/95)	All conditions	N	Was replaced in its entirety by CP 960079-02 and that again by CP 960079-04 (as amended on 12/23/97 and 4/15/98)



Permit (Issue Date)	Condition	Carried over to Part 70 Permit (Y/N)	Reasons why condition was not carried over
930079-01 thru 930079-03 (5/11/93)	Condition 3: limits the TSP emissions from the reverberatory slag casting scrubber and electric arc slag casting scrubber to 0.02 lbs/hr and 0.08 tons/year.	N	The Sly Scrubber control equipment has been removed. The Scrubber was replaced by Scrubber # 046 with CP 950079-01. These PM limits were established in an attempt to limit the Pb emissions in the absence of a final lead rule at that time and has no underlying regulatory requirement.
	Condition 3: limits the PM emissions from roof vent baghouse #8 to 0.04 lbs/hr and 0.18 tons/year.	N	This PM limit was established in an attempt to limit the Pb emissions in the absence of a final lead rule at that time and has no underlying regulatory requirement. The PM emissions from roof vent baghouse RV #8 in the Part 70 permit is limited to 0.03 gr/dscf pursuant to 326 IAC 6-1-2(a).
	Condition 4 states the Permittee shall comply with 326 IAC 15.	N	326 IAC 15 is no longer applicable as Pb limits are now codified in 326 IAC 20.
910079-01 thru 910079-03 (8/23/91)	Condition 3: limits the PM emissions from Kettles #8, #9 and #10 to 0.14 lbs/hr and 0.61 tons per year each.	N	This PM limit was established in an attempt to limit the Pb emissions in the absence of a final lead rule at that time and has no underlying regulatory requirement. Kettles #8 is vented to Stack/Vent S- 100 which is limited to 0.03 gr/dscf pursuant to 326 IAC 6-1-2(a).
	Condition 4 states the Permittee shall comply with 326 IAC 15.	N	326 IAC 15 is no longer applicable as Pb limits are now codified in 326 IAC 20.
	All Conditions pertaining to Kettle #9 and Kettle # 10.	N	Kettle(s) # 9 and # 10 were not constructed under this permit.
	All Conditions pertaining to Kettle #8	N	960079-03 (as amended on 12/23/97 & 4/15/98) for S-100 vented units replaced all previous permitted S-100 units.
910079-01 (4/01/91)	Condition 3: limits the PM emissions from roof vent baghouse RV #7 to 0.04 lbs/hr and 0.18 tons per year.	N	This PM limit was established in an attempt to limit the Pb emissions in the absence of a final lead rule at that time and has no underlying regulatory requirement. The PM emissions from roof vent baghouse RV #7 in the Part 70 permit is limited to 0.03 gr/dscf pursuant to 326 IAC 6-1-2(a).
	Condition 4 states the Permittee shall comply with 326 IAC 15.	N	326 IAC 15 is no longer applicable as Pb limits are now codified in 326 IAC 20.

Permit (Issue Date)	Condition	Carried over to Part 70 Permit (Y/N)	Reasons why condition was not carried over
900079-01 thru 900079-06 (12/24/90)	Condition 3: limits the PM emissions from roof vent baghouses RV #1 thru RV #6 to 0.04 lbs/hr and 0.18 tons per year each.	N	These PM limits were established in an attempt to limit the Pb emissions in the absence of a final lead rule at that time and has no underlying regulatory requirement. The PM emissions from roof vent baghouse RV #1 thru RV # 6 in the Part 70 permit are limited to 0.03 gr/dscf pursuant to 326 IAC 6-1-2(a).
900079-07 (12/24/90)	Condition 3: limits the PM emissions from sanitary baghouse to 5.69 lbs/hr and 24.92 tons/year.	N	These PM limits have no underlying regulatory requirement. The general sanitary baghouse vents to Stack/Vent S- 100 which is limited to 0.03 gr/dscf pursuant to 326 IAC 6-1-2(a).
	Condition 4 states the Permittee shall comply with 326 IAC 15.	N	326 IAC 15 is no longer applicable as Pb limits are now codified in 326 IAC 20.
IP 11005 (3/12/84)	Long Term Limits for the electric arc furnace of 24.99 tons/yr of PM; 39.99 tons/yr of SO <sub>2</sub> and 0.59 tons/yr of Pb taken to avoid the PSD regulation.	Y	However, 960079-03 (as amended on 12/23/97 & 4/15/98) for S-100 vented units replaced all previous permitted S-100 units.
	Short Term Limits for the electric arc furnace of 0.03 gr/dscf of PM and 31 lbs/hr of SO <sub>2</sub> .	N	The short term PM and SO <sub>2</sub> limits have been revised to reflect compliance with the long term limit taken to avoid PSD based on continuous hours of operation.
Cert 8284 (11/20/84)	SO <sub>2</sub> = 24.6 lbs/ton & 617 lbs/hr for Reverberatory Furnace	Y	However, compliance with CP900079-04 and CP Amendment A0970079 demonstrates compliance with the hourly 326 IAC 7-4-2 emission rate.
OP-0079-11 (5/29/87), Cert 8466 (5/14/85), Cert 08291, 08290, 08289, 08288, 08287, 08286, 08285, 08236  IP 11022, 11021, 10353, 10354, 10356, 10355	These permit approvals contain no written conditions or listing of applicable requirements for the existing equipment covered in the Part 70 Operating Permit.	N	These permit approvals contain no written conditions or listing of applicable requirements for the existing equipment covered in the Part 70 Operating Permit. The Heil Fume Scrubber no longer exists per Quemetco letter of 3/9/93.  960079-03 (as amended on 12/23/97 & 4/15/98) for S-100 vented units replaced all previous permitted S-100 units.

## Appendix C Emission Calculation Pages

## Appendix C Emissions Calculations

Stack S-111

**Company Name:** Quemetco, Inc.  
**Address City IN Zip:** 7870 West Morris St., Indpls., IN 46231  
**CP:**  
**Plt ID:** T097-6201-00079  
**Reviewer:** M. Caraher  
**Date:** 05/19/03

Emissions Unit Descrp	Reverbratory Furnace	Em. Unit Descrp.:	Slag Reduction Furnace
Emission Unit ID	3.1	Emission Unit ID	3.3
Throughput Cap.	34.5 ton/hr	Throughput Cap.	5.5 ton/hr
	828 tons/day		132 tons/day
Fuel	Natural Gas	Fuel	NA
Heat Input Capacity	32 mmBtu/hr	Heat Input Capacity	NA
Collection Hood	035-1	Collection Hood(s)	037-1,2,3,4,5 and 6
Control Device	BH #035 & Scrubber #046	Control Device	BH #037 & Scrubber #046
Flow rate BH #035	30,000 (acfm)	Flow rate BH #037	30,000 (acfm)
Flow rate Stack 111	60,000 (acfm)	Flow rate Stack 111	60,000 (acfm)
Stack Gas Temp.	120 (F)	Stack Gas Temp.	120 (F)
Flow rate Stack 111	47517 (dscfm)	Flow rate Stack 111	47517 (dscfm)

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
32.0	280.3

Emission Factor in lb/MMCF	Pollutant						
	Highest HAP = Hexane	PM	PM10	SO2	NOx	VOC	CO
Potential Emission in tons/yr	0.3	1.1	1.1	0.1	14.0	0.8	11.8

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, (Supplement D 7/98)  
 Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

### Actual Emissions

Pollutant	Date of Test	Test Location	Stack Test Results (gr/dscf)	Stack Test Results (lbs/hr)	Estimate @ 8760 hr/yr (ton/yr)	Throughput during the test (tons/hr)	Calculated emission factor (lbs/ton)
PM	12/10/98	Stack 111	0.0009	0.3	1.314	38.03	0.0079
Pb	12/10/98	Stack 111	1.58E-05	0.007	0.03066	38.03	0.0002
NOx	08/13/96	Stack 111	NA	60.2	263.676	27.63	2.1788
CO	08/13/96	Stack 111	NA	4.2	18.396	27.63	0.1520
SO2	08/13/96	Stack 111	NA	19.1	83.658	27.63	0.6913
PM	03/18/96	SRF	0.0092	2.1	9.198	3.75	0.5600
Pb	03/18/96	SRF	0.00004	0.008	0.03504	3.75	0.0021
SO2	03/18/96	SRF	ND	ND	ND	3.75	ND
PM	09/26/95	Reverb	0.0072	1.69	7.40	25.5	0.07

The 12/10/98 testing reflects the emissions resulting from the the trial testing period increase in maximum capacity of the Reverbratory Furnace and SRF (32.82 + 5.21)

HAPs	% HAP in Baghouse Dust	Controlled PM emission rate (tons/yr)	Estimated HAP emission rate (tons/yr)
As	0.950	1.314	1.25E-03
Sb	2.050	1.314	2.69E-03
Ni	0.055	1.314	7.23E-05
Cr	0.045	1.314	5.91E-05
Se	0.060	1.314	7.88E-05
Cd	0.750	1.314	9.86E-04

These metal HAP constituents are estimated based on the highest quarterly result from the 1994 baghouse dust analyses

### Limited Potential to Emit

Pollutant	Facility	Rule Cite		
PM	Reverb	326 IAC 6-1-12(a)	0.016 gr/dscf	5.8 tons/yr
PM	SRF	326 IAC 6-1-2(a)	0.03 gr/dscf	
PM-10	SRF	326 IAC 2-2	0.0172 gr/dscf	15 tons/yr
SO2	SRF	326 IAC 2-2	5.705 lbs/hr	25 tons/yr
Pb	SRF	326 IAC 2-2	0.0007 gr/dscf	0.6 tons/yr
Pb	Stack 111	326 IAC 20-13	1.0 mg/dscm	0.18 tons/yr
Opacity	Stack 111	326 IAC 20-13	5%	
SO2	Stack 111	Permit/326 IAC 7-4-2	50 lbs/hr	219 tons/yr

**Appendix C Emissions Calculations**

**Company Name:** Quemetco, Inc.  
**Address City IN Zip:** 7870 West Morris St., Indpls., IN 46231  
**CP:**  
**Plt ID:** T097-6201-00079  
**Reviewer:** M. Caraher  
**Date:** 05/19/2003

Emission Unit	EMF	Reverb	Rotary Dryer	Casting Machine	Kettles 1-8	Kettle 9
Emission Unit ID	3.2	3.1	8	7	K-1 through K-8	Kettle # 9
Max. Oper. Cap. (tons/hr)	5.5	34.5	26.3	41.7	46.3	2.14
	1984	1972			(K1-K6 1972) (K7 1988) (K8 1992)	
Date Installed			Prior to 1978	Prior to 1978		2002
Collection Hood	036-2,3,4,5	038-3	038-1,2	R-11	R-1 through R-8	041-18
Control Device	BH #036	BH #038	BH #038	BH#039 or 040	BH #039	BH #041
Collection Hood	041-3,4,5	041-9, 10	041-8, 11,12,13			
Control Device	BH #041	BH #041	BH #041		BH #039 or # 040	BH #041
Collection Hood		R-9, R-10				
Control Device		BH#040 or 039				
Fuel	NA	See S-111	natural gas	---	natural gas	natural gas
Heat Input Capacity (MMBtu/hr)	0	---	14	0	32	4.25
Stack Flowrates	(acfm)	(F)	(dscfm)			
BH# 036	38,000	90	36,831			
BH# 038	38,000	90	36,831			
BH# 039	22,000	90	21,323			
BH# 040	18,000	90	17,446			
BH# 041	189,000	90	183,185			
Stack 100	305,000	90	295,615			

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr						
50.3	440.6						
	Pollutant						
	Hexane	PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.8	7.6	7.6	0.6	100.0	5.5	84.0
Potential Emission in tons/yr	0.4	1.7	1.7	0.1	22.0	1.2	18.5

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, (Supplement D 7/98)  
 Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu  
 Gas firing is not directed to S-100 but emissions are accounted for in this calculation page; Heat input capacity is total gas firing for listed emission units

**Actual Emissions**

Pollutant	Date of Test	Test Location	Stack Test Results (gr/dscf)	Stack Test Results (lbs/hr)	Estimated emissions assuming 8760 hr/yr of operation (ton/yr)	Throughput (tons/hr)	Calculated emission factor (lbs/ton)
PM	8/95	EMF	0.0018	0.44	1.9272	6.5	0.068
Pb	8/95	EMF	0.0002	0.04	0.1752	6.5	0.006
SO2	10/88	EMF	----	4.7	20.586	6.5	0.723
CO	10/88	EMF	----	2.50	10.9354	6.5	0.384
PM	03/27/02	S-100	0.0005	1.11	4.8618	33.1	0.034
Pb	03/27/02	S-100	2.18E-05	0.048	0.21024	33.1	0.001
NOx	08/16/96	S-100	----	8.9	38.982	32.41	0.275
CO	08/16/96	S-100	----	52	227.76	32.41	1.604
SO2	08/16/96	S-100	----	33.8	148.044	32.41	1.043
Pb	10/08/02	S-100 (K7, 8, 9)	5.33E-05	0.11	0.4818	38.6	0.003

HAPs	% HAP in Baghouse Dust	Controlled PM emission rate (tons/yr)	Estimated HAP emission rate (tons/yr)
As	0.522	4.862	0.003
Sb	1.632	4.862	0.008
Ni	0.371	4.862	0.002
Cr	0.025	4.862	0.000
Se	0.061	4.862	0.000
Cd	0.262	4.862	0.001

These metal HAP constituents are estimated based on the highest quarterly result from the 1994 baghouse dust analyses

**Limited Potential to Emit**

Pollutant	Facility	Rule Cite	Limit	Actual	Compliance
PM/PM10	EMF	326 IAC 2-2	0.023 gr/dscf	3.4 lbs/hr	15 ton/yr
Pb	EMF	326 IAC 2-2	0.00054 gr/dscf	0.134 lbs/hr	0.6 ton/yr
SO2	EMF	326 IAC 2-2	NA	9.1 lbs/hr	40 ton/yr
	Kettle #9	40 CFR 60.120	10%		
PM	Stack 100	326 IAC 6-1-2(a)	0.03 gr/dscf		1.11 tons/yr
Pb	Stack 100	326 IAC 20-13	1.0 mg/dscm		
SO2	Stack 100	Permit	366 lbs/hr		
Opacity	Stack 100	326 IAC 20-13	5%		

**Appendix C Emissions Calculations**

Stack S-100

**Company Name:** Quemetco, Inc.  
**Address City IN Zip:** 7870 West Morris St., Indpls., IN 46231  
**CP:**  
**Plt ID:** T097-6201-00079  
**Reviewer:** M. Caraher  
**Date:** 05/19/2003

Emission Unit I.D.	GV101	GV102	GV103	GV104	GV105	GV106
Description	Ventilation for the bin 10 feed storage hopper	Ventilation for the cold charge electric arc furnace building west	Ventilation for the cold charge electric arc furnace building east	Ventilation for the reverb charge room	Ventilation for the cold charge electric arc furnace slag room	Ventilation for the reverb and slag reduction furnaces
Date Installed	1991	1991	1991	1991	1991	1991
Collection Hood	045-1	045-2	045-3	045-4	045-5	045-6
Control Device	RV BH#1	RV BH#2	RV BH#3	RV BH#4	RV BH#5	RV BH#6
Stack I.D.	S-101	S-102	S-103	S-104	S-105	S-106
Flowrate (acfm)	40000	40000	40000	40000	40000	40000
Gas temp (F)	80	80	80	80	80	80
Flowrate (dscf)	39259	39259	39259	39259	39259	39259

Emission Unit I.D.	GV107	GV108	GV109
Description	Ventilation for the refinery area	Ventilation for the slag reduction furnace area	Ventilation for the refinery area
Date Installed	1991	1992	1995
Collection Hood	045-1	045-2	045-3
Control Device	RV BH#7	RV BH#8	RV BH#9
Stack I.D.	S-107	S-108	S-109
Flowrate (acfm)	40000	40000	40000
Gas temp (F)	80	80	80
Flowrate (dscf)	39259	39259	39259

**Actual Emissions**

Stack I.D.	Date Tested	PM Stack Test Results (gr/dscf)	PM Stack Test Results (lbs/hr)	Pb Stack Test Results (gr/dscf)	Pb Stack Test Results (lbs/hr)	Pb Stack Test Results (lbs/hr)	Process throughput during the test (tons/hr)	Calculated PM emission factor (lbs/ton)	Calculated Pb Emission Factor (lbs/ton)
S-101	10/21/97	0.0049	0.185	0.000031	0.0118	0.0118	30	6.17E-03	3.93E-04
S-106	04/28/97	0.00046	0.13	0.000029	0.0083	0.0083	27.88	4.66E-03	2.98E-04
S-108	04/28/97	0.0029	0.08	0.000016	0.0046	0.0046	27.88	2.87E-03	1.65E-04

Controlled PM emission rate for an individual RV BH:	lbs/hr	0.13	tons/yr	0.58
Controlled PM emission rate for all RV BH:		1.19		5.19
Controlled Pb emission rate for an individual RV BH:		0.01		0.04
Controlled Pb emission rate for all RV BH:		0.07		0.32

HAPs	% HAP in Baghouse Dust	Maximum controlled PM emission rate (tons/yr)	Estimated HAP emission rate (tons/yr)
As	0.500	5.190	0.003
Sb	2.000	5.190	0.010
Ni	0.400	5.190	0.002
Cr	0.070	5.190	0.000
Se	0.090	5.190	0.000
Cd	0.300	5.190	0.002

**Potential to Emit**

Pollutant	Facility	Rule Cite	Value
PM	Each RV BH	326 IAC 6-1-2(a)	0.03 gr/dscf
Pb	Each RV BH	326 IAC 15-1-2(8)	0.15 lbs/hr

**Appendix C Emissions Calculations**

**Company Name:** Quemetco, Inc.  
**Address City IN Zip:** 7870 West Morris St., Indpls., IN 46231  
**CP:**  
**Plt ID:** T097-6201-00079  
**Reviewer:** M. Caraher  
**Date:** 05/19/2003

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**Most Recent  
Stack Tests**

Emission Unit	Stack/Vent ID	Date	Date	Pollutant								Test Rate tons/hr	In Compliance Y/N
				PM	PM-10	Lead	SO2	CO	NOx	VOC	Opacity		
Reverberatory Furnace/SRF	S-111	---	04/10/03	0.0007 gr/dscf 0.28 #/hr	---	1.82E-5 gr/dscf 0.007 #/hr	---	---	---	---	0%	36.3	Y
Reverberatory Furnace/SRF	S-111	---	08/13/96	---	---	---	19.1 #/hr	4.2 #/hr	60.2 #/hr	---	0%	27.8	Y
SRF	S-111	---	03/18/96	0.0092 gr/dscf 0.21 #/hr	---	0.00004 gr/dscf 0.008 #/hr	ND	---	---	---	0%	3.75	Y
EAF	S-100	03/27/02	---	---	---	---	---	---	---	---	0%	---	---
Rotary Dryer													
K-1													
K-2													
K-3													
K-4													
K-5													
K-6													
Casting Machine	S-100	08/16/96 (SO2, CO & NOx)	---	---	---	---	33.8 #/hr	52.0 #/hr	8.9 #/hr	---	0%	32.4	Y
K-7													
K-8													
K-9	S-100	---	10/08/02 (K-7,K-8 &K-9)	---	---	33E-5 gr/ds	---	---	---	---	0%	38.6	Y
GV101	RV #1	---											
GV102	RV #2	---											
GV103	RV #3	---											
GV104	RV #4	---											
GV105	RV #5	---											
GV106	RV #6	---	03/25/03	0.0002 gr/dscf 0.062 #/hr	---	6.25E-6 gr/dscf 0.0018 #/hr	---	---	---	---	0%	38.7	Y
GV107	RV #7	---	03/26/03	0.0001 gr/dscf 0.041#/hr	---	7.40E-6 gr/dscf 0.0026 #/hr	---	---	---	---	0%	34.5	Y
GV108	RV #8	---	03/25/03	0.0002 gr/dscf 0.044 #/hr	---	1.08E-5 gr/dscf 0.0027 #/hr	---	---	---	---	0%	38.7	Y
GV109	RV #9	---	03/26/03	0.0002 gr/dscf 0.070 #/hr	---	7.47E-6 gr/dscf 0.0026 #/hr	---	---	---	---	0%	34.5	Y