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US EPA RECORDS CENTER REGION 5

1003159

Date: March 18, 2013

Initial: S. Neal

Facility Name: Refined Metals Corporation

Facility Identification Number: IND 000 718 130

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Comments:_____

UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF INDIANA
INDIANAPOLIS DIVISION

UNITED STATES OF AMERICA, Plaintiff, INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, Intervening Plaintiff, v. REFINED METALS CORPORATION, Defendant.	CIVIL ACTION NO. IP902077C HONORABLE JUDGE SARAH E. BARKER

CONSENT DECREE

OBV 44 PG 841

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WHEREAS, Plaintiff, United States of America, on behalf of the United States Environmental Protection Agency (hereinafter "U.S. EPA"), filed its Complaint on November 21, 1990 in this action against Defendant, Refined Metals Corporation (hereinafter "Defendant" or "RMC"), pursuant to Sections 3008(a), (g), and (h) of the Resource Conservation and Recovery Act, as amended (hereinafter "RCRA"), 42 U.S.C. §§ 6928(a), (g), and (h), and Section 113(b) of the Clean Air Act (hereinafter "CAA"), 42 U.S.C. § 7413(b), alleging that Defendant violated requirements of RCRA and the CAA and regulations promulgated thereunder, at its facility in Beech Grove, Indiana (the "Refined Metals Facility");

WHEREAS, the Indiana Department of Environmental Management ("IDEM"), intervened in this action as a party plaintiff;

WHEREAS, Plaintiffs and Defendant, having recognized that settlement of this matter is in the public interest, have agreed to the entry of this Consent Decree in order to compromise and settle the claims stated in the Complaint against the Defendant without further litigation;

NOW THEREFORE, without adjudication of any issue of fact or law, and upon consent of the parties hereto, it is hereby ORDERED, ADJUDGED, AND DECREED as follows:

I. JURISDICTION AND VENUE

1. The Court has jurisdiction over the subject matter of this action under Section 3008(a) of RCRA, 42 U.S.C. § 6928(a), Section 113(b) of the CAA, 42 U.S.C. § 7413(b), and 28 U.S.C.

§§ 1331, 1345, and 1355, and over the parties to this action. The Complaint states a cause of action upon which the Court can grant relief against Defendant, pursuant to Section 3008(a) of RCRA, 42 U.S.C. § 6928(a), and Section 113(b) of the CAA, 42 U.S.C. § 7413(b). Venue is proper under Section 3008(a) of RCRA, 42 U.S.C. § 6928(a), Section 113(b) of the CAA, 42 U.S.C. § 7413(b), and 28 U.S.C. § 1391(b) because the defendant's facility is located in this district and because the violations occurred in this district.

II. STIPULATIONS

Solely for the purpose of this Consent Decree, and without any admission of liability by Defendant, the parties stipulate to the following:

2. Refined Metals Corporation is a corporation organized and existing under the laws of the State of Delaware.

3. Defendant is the owner and operator of a former lead reclaiming facility located at 3700 South Arlington Avenue, Beech Grove, Indiana (hereinafter "Refined Metals Facility" or "Facility").

4. All operating activities at the Refined Metals Facility regulated under RCRA and the CAA have ceased, with the exception of those activities provided in this Consent Decree, and all Federal and State environmental compliance permits and interim status designations under RCRA and the CAA, are terminated and no longer in effect.

5. One of the principal aspects of the former operations at the Facility involved secondary lead smelting of non-ferrous metals and alloys, principally materials containing lead. As the former owner and operator of the Refined Metals Facility, Defendant is required to comply with this Consent Decree, RCRA, the CAA, and regulations promulgated thereunder.

6. The Refined Metals facility is a facility that contains hazardous waste management units as defined at 40 C.F.R. § 260.10.

7. Pursuant to 42 U.S.C. § 6925(e)(1), on November 19, 1980, Defendant obtained "interim status" to operate its hazardous waste piles, in the manner set forth in Part A of its RCRA permit application, pending the issuance of a final RCRA operating permit. As a result of Defendant's alleged failure to comply with Section 3005(e)(2) of RCRA, 42 U.S.C. 6925(e)(2), on November 8, 1985, pursuant to 42 U.S.C. § 6925(e)(2), the facility's waste piles allegedly lost "interim status." Defendant denies these allegations.

8. Defendant's facility includes the following units regulated under RCRA Subtitle C: a series of indoor and outdoor waste piles used to store batteries and lead-bearing wastes, and a surface impoundment used to collect surface water run-off.

9. E.P. toxicity analyses conducted by U.S. EPA on soil samples collected at the facility indicate that the soil samples are characteristic for lead and cadmium. These analyses were conducted prior to promulgation of the Toxicity Characteristic

Leaching Procedure (TCLP) rule pursuant to Sections 3001(g) and (h) of RCRA.

10. Hazardous constituents (lead and cadmium) may further migrate from the facility into the environment through the following potential pathways:

a. migration of hazardous constituents into an aquifer from which down-gradient populations may obtain water supplies; and

b. migration of hazardous constituents into the air.

11. On August 18, 1982, U.S. EPA granted to the State of Indiana Phase I interim authorization under Section 3006 of RCRA, 42 U.S.C. § 6926, to carry out certain portions of the RCRA hazardous waste management program in Indiana. On January 31, 1986, Indiana received final authority to promulgate such regulations presently codified at 329 IAC Article 3.1, previously codified at 329 Article 3, 320 IAC Article 3, and 320 IAC Article 4 and 4.1.

12. The federally approved State regulations are enforceable by the United States pursuant to Section 3008(a)(2) of RCRA, 42 U.S.C. § 6928(a)(2). However, the Indiana Department of Environmental Management ("IDEM") has the authority to approve or disapprove any closure plan under this Decree, so long as Indiana is an authorized state, although U.S. EPA may comment on and participate in the review of such plans.

13. In the Complaint, the United States alleges that since November 8, 1985 through the present, Defendant has treated,

stored, and/or disposed of hazardous waste at the Refined Metals Facility without a permit, in violation of Section 3005(a) of RCRA, 42 U.S.C. § 6925(a), and has violated and continues to violate numerous federally approved Indiana Hazardous Waste Program regulations.

14. In the Complaint, the United States also alleges that Defendant has violated and continues to violate the federally approved Indiana Hazardous Waste Program regulations by failing to submit closure plans and failing to provide certain financial assurances at the Refined Metals Facility.

15. In the Complaint, the United States also alleges that Defendant has violated Section 3008(h) of RCRA, 42 U.S.C. § 6928(h), because Defendant has released hazardous waste into the environment from the Refined Metals Facility.

16. Section 109 of the CAA, 42 U.S.C. § 7409, requires U.S. EPA to promulgate national ambient air quality standards ("NAAQS") for air pollutants in order to protect the public health and welfare.

17. In order to achieve the NAAQS within established time limits, Section 110 of the CAA, 42 U.S.C. § 7410, requires each state to adopt and submit to U.S. EPA for approval a state implementation plan ("SIP") which regulates the emissions of air pollutants from sources within the State. Upon approval, a SIP is federally enforceable.

18. Section 113(b) of the CAA, 42 U.S.C. § 7413(b), authorizes the United States to commence a civil action for a

permanent or temporary injunction and/or to assess and recover a civil penalty of not more than $25,000 per day for each violation, whenever any person has violated, or is in violation of any requirement or prohibition of an applicable SIP.

19. On or about July 16, 1982, U.S. EPA approved 325 IAC 6-1-12 (now recodified at 325.1 and 326 IAC), which then became part of the Indiana SIP. See 47 Fed. Reg. 30972. This rule limits emissions of total suspended particulate matter from Refined Metals' blast furnace to 0.003 grains per dry standard cubic foot.

20. On or about April 19, 1988 U.S. EPA approved 325 IAC 15-1, part of the Indiana SIP. See 53 Fed. Reg. 12896. The rule (subsequently recodified at 325.1 and 326 IAC) limits lead emissions from Refined Metals' three baghouse stacks as follows:

M-1 stack	1.132 pounds/hour
M-2 stack	0.015 pounds/hour
M-3 stack	0.005 pounds/hour

21. The federally-approved Indiana SIP, including 326 IAC 6-1-12 and 326 IAC 15-1, is the "applicable implementation plan" within the meaning of Section 113(b) of the Act, 42 U.S.C. § 7413(b), that governs operations at the RMC facility.

22. In the Complaint, the United States alleges that Defendant exceeded and continues to exceed the SIP limits for particulate matter and lead at the Refined Metals Facility.

23. On January 10, 1995, the Defendant entered into an Agreed Order with IDEM concerning Defendant's alleged violations

of the Indiana SIP. In the Agreed Order, Defendant agreed to take specific action to address its alleged Clean Air Act violations, and to pay a civil penalty.

III. PARTIES BOUND

24. Each signatory to this Decree on behalf of Defendant certifies that he or she is fully authorized to enter into the terms and conditions of this Decree and to execute and legally bind Defendant to this Decree.

25. This Consent Decree shall apply to and be binding upon Defendant, as well as Defendant's successors and assigns. In any action to enforce this Consent Decree, Defendant shall not raise as a defense the failure of its officers, directors, agents, servants, contractors, or employees to take action necessary to comply with the provisions hereof. This Consent Decree shall also apply to and be binding upon the United States and the State of Indiana.

26. Prior to any sale, assignment, or other transfer of Defendant's property or operations subject to this Consent Decree, Defendant shall provide to any such purchaser, assignee, or transferee written notification of this Consent Decree and of its binding effect upon said purchaser, assignee, or transferee. Defendant shall serve a copy of this written notification by certified mail, return receipt requested, to the addresses specified in Section XI at least sixty (60) days prior to such sale, assignment, or transfer. Until termination of this Consent Decree in accordance with Section XXIV, Defendant shall not sell,

transfer or assign the Memphis property or Memphis operations except with the prior written approval of the United States. In the event of a sale, transfer or assignment of the Memphis property or Memphis operations to an affiliate(s) of the Defendant, prior written approval by the United States is not required, and this Consent Decree shall apply to and be binding upon the affiliate(s).

27. Nothing in this Consent Decree shall relieve Defendant of its obligation to comply with the notice requirements at 40 C.F.R. § 270.72.

28. Within seven (7) days of entry of this Consent Decree, Defendant shall provide a copy of this Consent Decree to all contractors, subcontractors, laboratories, consultants, representatives, and agents retained to conduct or monitor any portion of the work to be performed pursuant to this Consent Decree. For any such person or entity retained thereafter, Defendant shall provide a copy of this Consent Decree upon the date of such retention.

IV. DEFINITIONS

29. Unless otherwise stated, all terms used in this Consent Decree shall have the same meaning as used in RCRA and in the regulations promulgated thereunder, at 40 C.F.R. Parts 260 through 271, and 329 IAC 3.1, and as used in the CAA, 42 U.S.C. § 7413(b), 42 U.S.C. § 7602(e), 42 U.S.C. § 7411(a)3-5, and 326 IAC 6-1-12 and 326 IAC 15-1.

30. "Refined Metals Facility," "RMC Facility," and "Facility" mean the facility, as defined at 40 C.F.R. § 260.10 and 329 IAC 3.1-4-1, located at 3700 South Arlington Avenue, Beech Grove, Indiana.

31. "Responsible agent" means a corporate officer, such as a president, secretary, treasurer, or vice-president with authority to sign and approve, as defined in 40 C.F.R. § 270.11.

32. "Waste piles" include all indoor and outdoor waste piles used for the storage of hazardous waste (which includes spent lead-acid batteries) that exist or may have existed at the RMC Facility.

33. "Surface impoundment" means the surface impoundment at the RMC Facility used to collect surface water run-off.

V. STATEMENT OF PURPOSE

34. The objectives of this Decree are for the Defendant to: (a) effectuate the closure of Defendant's indoor and outdoor waste piles and the surface impoundment by submitting a closure plan, and a post-closure plan if applicable, to IDEM for approval and then for the Defendant to implement the plan(s) as approved; (b) perform a RCRA Facility Investigation ("RFI") to evaluate and determine thoroughly the nature and extent of the releases and potential releases of hazardous waste and hazardous constituents at the RMC Facility and to gather necessary data to support any Corrective Measures Study ("CMS"), and/or any

Interim/Stabilization Measures ("ISMs") approved by U.S. EPA; (c) allow for the performance of ISMs to control or abate threats to human health and/or the environment from releases and/or to prevent or minimize the further spread of contamination while long-term remedies are pursued; (d) as required by U.S. EPA, perform a CMS to develop and evaluate corrective measures alternative(s) and to recommend a final corrective measure(s) for the RMC Facility necessary to protect human health and the environment; (e) perform the final corrective measure(s) as required by U.S. EPA; and (f) pay a civil penalty to address the Clean Air Act and RCRA violations alleged in the United States' Complaint and the States' Complaint, at the Refined Metals Facility.

VI. COMPLIANCE REQUIREMENTS

Hazardous waste placement, storage, treatment and disposal.

35. As of October 1, 1997, Defendant shall not accumulate, store, treat or dispose of hazardous waste at the RMC Facility, except pursuant to a closure or corrective measure plan approved by U.S. EPA pursuant to this Consent Decree, or as may be allowed under, 40 C.F.R. §§ 262.34, 268.50, 261.6(a)(2)(iv), 266.80, and 329 IAC 3.1-7-1, 3.1-12-1, 3.1-6-1, 3.1-11-1, or a duly issued permit. In the event Defendant intends to accumulate, treat, store or dispose of hazardous waste at the RMC Facility, which may only be done pursuant to the previous sentence, Defendant must provide U.S. EPA and IDEM 60 days prior written notice.

This notice is not required for any accumulation, storage, treatment or disposal of hazardous waste in accordance with the an approved closure or corrective measure plan under this Consent Decree.

36. Immediately upon Defendant's signing of this Consent Decree, Defendant shall manage all existing waste piles at the RMC Facility so as to prevent and control wind dispersal, leachate creation, and run-on or run-off of leachate, as required by 40 C.F.R. §§ 265.251 and 265.253, and 329 IAC 3.1-10-1.

Closure.

37. Within ninety (90) days of lodging of this Consent Decree, Defendant shall submit to IDEM for approval a Closure Plan for all waste piles and the surface impoundment which meets the requirements of 40 C.F.R. Part 265, Subparts F and G, and 329 IAC 3.1-10-1(8), and shall concurrently submit a copy thereof to U.S. EPA. A map identifying all waste piles is attached as Exhibit A [Facility Map Identifying Waste Piles], which is incorporated herein by reference and made an enforceable part of this decree. EPA and IDEM also acknowledge that Defendant, in order to satisfy closure requirements, may utilize data collected for purposes of Corrective Action provided said data meets the quality assurance requirements for closure.

Within thirty (30) days of being notified of any deficiencies in the Closure Plan, or such longer time as agreed to by IDEM, after consultation with U.S. EPA, Defendant shall submit to IDEM and U.S. EPA a revised Closure Plan which corrects any deficiencies

identified by IDEM. Within ten (10) days of receipt of IDEM's approval of the Closure Plan, Defendant shall implement the Closure Plan in accordance with the schedule contained therein.

38. Within sixty (60) days of completion of closure of all waste piles and the surface impoundments at the RMC Facility, Defendant shall submit to U.S. EPA and IDEM a certification of closure executed by the RMC Facility owner or operator and an independent registered professional engineer, in accordance with 40 C.F.R. § 265.115 and 329 IAC 3.1-10-1.

Financial Assurance and Liability Coverage Requirements.

39. Within sixty (60) days of signing this Consent Decree, Defendant shall submit to Plaintiff written certification that the RMC Facility is in compliance with the financial assurance and liability coverage requirements set forth in 40 C.F.R. Part 265, Subpart H and 329 IAC 3.1-14. Defendant shall maintain such assurances and coverage for as long as required under 40 C.F.R. Part 265, Subpart H and 329 IAC 3.1-14.

40. Defendant agrees that unless and until it meets the 40 C.F.R. Part 265 Subpart H and 329 IAC 3.1-14-1 financial assurance and coverage requirements for all closure, post-closure, and corrective action activities at the RMC Facility as required by this Decree, Defendant shall not make payment of any kind on any loans extended to Defendant by Richard Swain.

Corrective Action.

41. Within forty-five (45) days of the lodging of this Consent Decree, Defendant shall submit to U.S. EPA a work plan

for a RCRA Facility Investigation ("RFI Work Plan"), incorporating the applicable provisions of Exhibit B [Scope of Work for a RCRA Facility Investigation]. The RFI Work Plan shall be subject to approval by U.S. EPA. The RFI Work Plan shall be designed to determine the presence, magnitude, extent, direction and rate of movement of any hazardous wastes and hazardous waste constituents, both within and beyond the RMC Facility boundaries, which wastes or constituents originated from hazardous waste management units or solid waste management units at the Facility. The RFI Work Plan shall set forth in detail the manner in which Defendant shall determine: (1) the presence or absence of hazardous wastes and hazardous constituents on and off the RMC Facility; (2) the nature and extent, and the rate of movement of contamination on and off the RMC Facility; (3) the possible routes of migration of hazardous wastes and hazardous constituents on and off the RMC Facility, including characterization of the geology and hydrology of the Facility which delineates possible routes of migration; and (4) the extent and potential for migration of hazardous wastes and hazardous constituents through each of the environmental media. EPA and IDEM acknowledge that Defendant may undertake the RCRA Facility Investigation and may implement Corrective Measures, as required by U.S. EPA, on a Facility-wide basis. EPA and IDEM also acknowledge that Defendant, for purposes of satisfying the Corrective Action requirements under this Consent Decree, may utilize data collected for purposes of closure activities

provided said data meets the quality assurance requirements for Corrective Action.

42. Upon review of the RFI Work Plan, U.S. EPA shall inform Defendant that the RFI Work Plan has been approved, approved as modified by U.S. EPA, or disapproved. Upon receipt of U.S. EPA approval or approval as modified of the RFI Work Plan, Defendant shall conduct the RFI in accordance with the RFI Work Plan, including any U.S. EPA modifications thereto, and the schedule contained therein. In the event of U.S. EPA disapproval, Defendant shall resubmit within thirty (30) days a RFI Work Plan that meets U.S. EPA requirements, including all modifications requested and correcting any deficiencies noted by U.S. EPA.

43. At any time during corrective action activities and subject to the approval of U.S. EPA, Defendant may propose to perform ISMs. Any such ISM shall be performed only as approved by U.S. EPA. If U.S. EPA requires Defendant have an ISM Workplan, procedures identical to those for review, approval, modification and/or disapproval of the RFI Workplan shall be followed.

44. Within sixty (60) days after U.S. EPA approval of the final RFI Report, Defendant shall submit to U.S. EPA a work plan for a Corrective Measures Study ("CMS Work Plan"), incorporating the applicable provisions of Exhibit C [Scope of Work for a Corrective Measures Study]. The CMS Work Plan shall be subject to approval by U.S. EPA.

45. Upon review of the CMS Work Plan, U.S. EPA shall inform Defendant that the CMS Work Plan has been approved, approved as modified by U.S. EPA, or disapproved. Upon receipt of U.S. EPA approval or approval as modified of the CMS Work Plan, Defendant shall conduct the CMS in accordance with the CMS Work Plan, including any U.S. EPA modifications thereto, and the schedule contained therein. In the event of U.S. EPA disapproval, Defendant shall resubmit within thirty (30) days a CMS Work Plan that meets U.S. EPA requirements, including all modifications requested and correcting any deficiencies noted by U.S. EPA.

Corrective Measure Implementation; Public Comment and Participation.

46. After Defendant has submitted and U.S. EPA has approved the CMS Final Report, and following the public review and comment period, U.S. EPA shall notify the Defendant in writing of the corrective measure(s) selected by U.S. EPA. If the corrective measure(s) recommended in the CMS Final Report is not the corrective measure selected by U.S. EPA after consideration of public comments, U.S. EPA shall inform the Defendant in writing of the reasons for that decision, and the Defendant shall modify the RFI/CMS and/or reports thereof based upon public comment if directed by U.S. EPA to do so.

47. The Administrative Record supporting the selection of the corrective measure will be available for public review at a repository for public documents in or near Indianapolis, Indiana.

48. No later than sixty (60) days after receiving the written notification referred to in Paragraph 46, Defendant shall

submit to U.S. EPA a Corrective Measures Implementation Program Plan ("CMI Program Plan"), incorporating the applicable provisions of Exhibit D [Scope of Work for the Corrective Measure Implementation]. The CMI Program Plan shall be subject to U.S. EPA approval.

49. Upon review of the CMI Program Plan, U.S. EPA shall inform Defendant that the CMI Program Plan has been approved, approved as modified by U.S. EPA, or disapproved. Upon receipt of U.S. EPA approval or approval as modified of the CMI Program Plan, Defendant shall implement the corrective measure(s) in accordance with the CMI Program Plan, including any U.S. EPA modifications thereto, and the schedule contained therein. In the event of U.S. EPA disapproval, Defendant shall resubmit within thirty (30) days a CMI Program Plan that meets U.S. EPA's requirements, including all modifications requested and correcting any deficiencies noted by U.S. EPA.

50. Within forty-five (45) days after Defendant believes it has completed the construction phase of the CMI, Defendant shall submit a draft CMI Report to U.S. EPA. Upon review of the draft CMI Report, U.S. EPA shall inform Defendant that the draft CMI Report has been approved, approved as modified by U.S. EPA, or disapproved. In the event of U.S. EPA disapproval, Defendant shall resubmit within thirty (30) days a CMI Final Report that meets U.S. EPA requirements, including all modifications requested and correcting any deficiencies noted by U.S. EPA.

Financial Assurance for Corrective Action.

51. Based on the remedy option selected by U.S. EPA, within 30 days of receipt of U.S. EPA's selected remedy decision, Defendant shall prepare and submit a cost estimate for the corrective action and, except as otherwise provided in this paragraph, shall provide financial assurance for corrective action within 90 days of receipt of U.S. EPA's selected remedy decision. If Defendant maintains that it does not possess adequate financial resources to provide sufficient financial assurance for the corrective action, Defendant shall provide adequate inability to pay documentation to U.S. EPA no later than submission of the cost estimate and, pursuant to paragraph 40 herein, continue to refrain from making any payments on any loans extended to Defendant by Richard Swain. U.S. EPA's evaluation of Defendant's ability to provide sufficient financial guarantee(s) to fund the corrective action shall be determinative, subject to Section XX (Dispute Resolution).

Agency Review and Approval of Document Submittals.

52. In accordance with the requirements of Exhibits B, C, and D, and any RFI/CMS/CMI work or program plan requiring monthly reports, beginning with the end of the first full month following the effective date of this Consent Decree, Defendant shall submit to U.S. EPA such reports no later than fifteen (15) days after the end of each monthly reporting period. Such reports shall at a minimum:

a. describe the actions which have been taken toward achieving compliance with this Consent Decree;

b. summarize the results of sampling and tests and other data received by the Defendant;

c. discuss all tasks and actions completed during the past month, as well as such actions and tasks that are scheduled for the next month; and

d. identify any other elements not completed as required and any problems or anticipated problems.

53. In addition to the monthly reports referred to in paragraph 52, Defendant shall provide draft and final plans or reports to U.S. EPA as required by and in accordance with the terms of this Consent Decree and any plan or report approved hereunder.

54. The reports required under Paragraphs 52 and 53 shall include a certification of compliance or noncompliance, as applicable, with any action required by this Decree or plan approved hereunder. If any required action has not been taken or completed in accordance with the Decree or plan, Defendant shall notify U.S. EPA of the reasons for the failure, the projected date for completion, and the probability of meeting the next requirement in the schedule. The notification does not excuse any noncompliance unless Defendant seeks and obtains relief in accordance with Section XXI (Force Majeure). If the compliance status changes with respect to any requirements of the Consent

Decree, Defendant shall also notify U.S. EPA in writing of the change in compliance status.

55. All submittals made under this Section shall be signed by a Responsible Agent of the Defendant under oath and shall include the following certification statement:

> "I certify under penalty of perjury that the information contained in or accompanying this (submission) (document) is, to the best of my knowledge after thorough investigation, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

56. Within thirty (30) days of lodging of this Consent Decree, Defendant shall provide for Facility security, in accordance with the requirements of 40 C.F.R. § 265.14 and 329 IAC 3.1-10-1(3), including the requirement to maintain a fence in good repair.

Compliance With CAA.

57. In the event Defendant seeks to recommence operations at the RMC Facility, and EPA approves of such operation, Defendant shall comply with the January 10, 1995, Agreed Order in Commissioner of the Department of Environmental Management v. Refined Metals Corporation, Cause Number A-2521 ("State Order"), as amended, included as Exhibit E and incorporated herein by reference and made an enforceable part of this Consent Decree until termination of the State Order in accordance with the terms of the State Order. Upon termination of the State Order, Defendant must provide U.S. EPA and IDEM written notice at least

180 days prior to commencing or recommencing operations at the RMC Facility that are regulated by the CAA. Defendant must comply with the CAA.

VII. ADDITIONAL WORK

58. Consistent with the objectives of this Consent Decree, U.S. EPA may determine that certain additional tasks, including investigatory work, engineering evaluation and corrective measures, are necessary in addition to those required by this Decree and the plans and studies required thereby. If U.S. EPA determines that such additional work is necessary, U.S. EPA shall request in writing that Defendant perform the additional work and shall specify the basis and reasons for U.S. EPA's determination that the additional work is necessary.

59. Such requests for additional work shall not be incompatible or inconsistent with the reports previously approved by U.S. EPA or with closure activities previously approved by IDEM, unless it appears at the time the additional work is requested that the previous work may not be fully protective of human health or the environment. Defendant shall have the opportunity to meet with U.S. EPA to discuss the additional work U.S. EPA has requested and propose alternatives.

60. Defendant shall commence any additional work required under this Section within thirty (30) days of receipt of U.S. EPA's request and shall complete such work in accordance with an EPA-approved schedule.

VIII. SELECTION OF SUPERVISING CONTRACTORS

61. All aspects of the work to be performed by Defendant pursuant to this Consent Decree shall be under the direction and supervision of (a) qualified contractor(s), the selection of which shall be subject to disapproval by U.S. EPA. Within 10 days after Defendant signs this Consent Decree, Defendant shall notify U.S. EPA in writing of the name, title and qualifications of any proposed contractor. U.S. EPA will issue a notice of disapproval or an authorization to proceed. If at any time thereafter, Defendant proposed to change any contractor, Defendant shall give such notice to U.S. EPA and must obtain an authorization to proceed from U.S. EPA before any new contractor performs, directs or supervises any such work under this Consent Decree.

62. If U.S. EPA disapproves a proposed contractor, U.S. EPA will notify Defendant in writing. Defendant shall submit to U.S. EPA a list of contractors, including the qualifications of each contractor, that would be acceptable to them within 30 days of receipt of U.S. EPA's disapproval of the contractor previously proposed. U.S. EPA will provide written notice of the names of any contractor(s) that it disapproves and an authorization to proceed with respect to any of the other contractors. Defendant may select any contractor from that list that is not disapproved and shall notify U.S. EPA of the name of the contractor selected within 21 days of U.S. EPA's authorization to proceed.

63. If U.S. EPA fails to provide written notice of its authorization to proceed or disapproval as provided in this Paragraph and this failure prevents Defendant from meeting one or more deadlines in a plan approved by U.S. EPA pursuant to this Consent Decree, Defendant may seek relief under the provisions of Section XXI (Force Majeure) hereof.

IX. PROJECT COORDINATORS

64. On or before the effective date of this Consent Decree, U.S. EPA, IDEM, and Defendant shall designate Project Coordinators. Each Project Coordinator shall be responsible for overseeing the implementation of this Consent Decree. To the maximum extent possible, communications between U.S. EPA and Defendant, and all documents, reports, approvals and other correspondence concerning the activities performed pursuant to the terms and conditions of this Consent Decree, shall be directed through the Project Coordinators.

65. Each party shall provide seven (7) days written notice of a change of its Project Coordinator.

a. The U.S. EPA Project Coordinators shall have the authority to halt any RFI/CMS work if, in his or her opinion, the work poses a significant threat to human health and the environment or if the work being done is not in accordance with the Scope of Work or an approved Work Plan.

b. During the course of implementation of the Consent Decree, the Project Coordinators shall, whenever possible,

attempt to resolve any disputes informally through good faith discussion of the issues.

X. QUALITY ASSURANCE

66. Defendant shall use U.S. EPA-approved quality assurance, quality control, and chain-of-custody procedures in all sample collections and analysis activities for all corrective action activities, including investigation and performance activities, in accordance with the requirements of Exhibit G [Region V Model RCRA Quality Assurance Project Plan (QAPjP)]. Such procedures shall be detailed in the RFI and CMS Work Plans.

67. Defendant shall make best efforts to ensure laboratory quality assurance, to include the following measures:

a. Defendant shall inform the U.S. EPA Project Coordinator in advance which laboratories will be used by Defendant.

b. Defendant shall include provisions in all laboratory service contracts that:

(i) U.S. EPA and U.S. EPA-authorized representatives shall have reasonable access to inspect and audit the laboratories;

(ii) such laboratories shall perform all analyses according to U.S. EPA methods (SW-846) or other methods approved by U.S. EPA. If methods other than U.S. EPA methods are to be used Defendant shall, sixty (60) days prior to the commencement of analyses, submit

all protocols to be used for analyses to U.S. EPA for approval;

(iii) such laboratories shall participate in a quality assurance/quality control program equivalent to that which is followed by U.S. EPA;

(iv) a performance audit may be conducted by U.S. EPA on the laboratories selected by the Defendants unless a U.S. EPA contract-lab is selected; and

(v) upon request by U.S. EPA, laboratories shall perform analysis of a reasonable number of known samples provided by U.S. EPA to demonstrate the quality of the analytical data.

68. Defendant shall use its best efforts to enforce contract provisions with laboratories used pursuant to this Consent Decree.

XI. SUBMITTAL OF DOCUMENTS

69. Documents, including reports, approvals, disapprovals and other correspondence to be submitted to the United States pursuant to this Consent Decree, shall be sent by U.S. certified mail to the following addresses, except as stated herein, and which are subject to change:

70. Three (3) copies of all RCRA documents to be submitted to the U.S. EPA should be sent to:

United States Environmental
Protection Agency Region V
RCRA Enforcement Branch
77 W. Jackson St., HRE-8J
Chicago, IL 60604-3590
Attn: Refined Metals Corp. - Project Coordinator

71. Documents to be submitted to IDEM should be sent to:

Thomas Linson, Branch Chief
Office of Solid & Hazardous Waste
Management Branch
Indiana Department of Environmental Management
105 S. Meridian St.
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Attn: Refined Metals Corp.

Defendant shall submit to IDEM six (6) copies of its initial draft Closure Plan, and shall submit such number of copies of other documents as required by IDEM.

72. Documents to be submitted to the Department of Justice should be sent to:

United States Department of Justice
Environmental Enforcement Section
P.O. Box 7611
Ben Franklin Station
Washington, D.C. 20044
Re: U.S. v. Refined Metals
DOJ Case 90-11-2-469

73. All plans required by this Consent Decree are enforceable requirements of this Consent Decree.

XII. SAMPLING AND DATA/DOCUMENT AVAILABILITY

74. At the request of the U.S. EPA, the Defendant shall provide split or duplicate samples to U.S. EPA of any samples collected by, or on behalf of, the Defendant. Defendant shall notify U.S. EPA not less than seventy-two (72) hours in advance

of any sample collection activity, provided, however, that Defendant shall notify U.S. EPA at least ten (10) days prior to any sampling relating to closure required under this Consent Decree. U.S. EPA shall provide its own sample containers.

75. Defendant may assert a confidentiality claim pursuant to 40 C.F.R. § 2.203(b), if appropriate, covering part or all of the information requested by this Consent Decree. Analytical data shall not be claimed as confidential by the Defendant. Information determined to be confidential by U.S. EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no such claim accompanies this information when it is submitted to U.S. EPA, it may be made available to the public without further notice to the Defendant. If the information is determined not to be confidential in accordance with Federal laws and regulations, the information may be made public by U.S. EPA in accordance with the provisions of 40 C.F.R. Part 2. U.S. EPA shall provide written notice to the Defendant in the event of any such determination.

76. Defendant agrees that it shall preserve and make available to U.S. EPA for inspection and copying during the pendency of this Consent Decree and for a minimum of six (6) years after its termination, all records and documents in Defendant's possession or in the possession of its divisions, employees, agents or consultants or contractors which relate in any way to this Consent Decree or to hazardous waste management and disposal at the Facility. At the conclusion of the six (6)

year period, and prior to any alienation of such records, Defendant shall make them available to U.S. EPA for its retention and shall provide copies of any such records to U.S. EPA upon U.S. EPA's request. If U.S. EPA determines that it does not want copies of the records, Defendant may dispose of such to the extent permitted by Federal and State law.

XIII. CIVIL PENALTY

77. Defendant shall pay a civil penalty of two hundred ten thousand dollars ($210,000), plus interest calculated from the date of the Defendant's signature on this Consent Decree at the rate established by the Secretary of the Treasury pursuant to 31 U.S.C. § 3717, to the United States of America. Payment shall be made in two installments: the first payment of $70,000 shall be made within thirty (30) days of entry of this Consent Decree and shall include accrued interest on the entire $210,000; the second payment of $140,000 shall be made within 6 months of entry of this Consent Decree and shall also include accrued interest on the entire unpaid penalty. Each payment shall be made by Electronic Funds Transfer ("EFT" or "wire transfer"), to the United States Department of Justice lockbox bank, referencing the DOJ File Number 90-11-2-4690 and the U.S.A.O. file number 90 V 0553. Payment shall be made in accordance with instructions provided by the United States to the Defendant upon entry of the Consent Decree. Any EFTs received at the U.S. D.O.J. lockbox bank after 11:00 A.M. (Eastern Time) will be credited on the next business day. At the time of payment, copies of such payment

shall be sent to U.S. EPA and the Department of Justice to the address specified in Section XI of this Decree.

78. In calculating this penalty, the United States relied on financial information supplied by Defendant. Defendant hereby certifies that the information it has given to the United States regarding its financial status is true, correct and complete. The United States reserves all rights it may have to bring any action against Defendant, and the covenant not to sue in Section XVI, Paragraphs 90-91 shall not be effective, if this information is not true, correct and complete.

79. In addition to the payments required by Paragraph 77, Defendant shall pay over to the United States as an additional civil penalty twenty-five percent (25%) of all monies received by Defendant inn excess of $500,000 pursuant to any indemnification or contribution agreement and/or settlement and from any insurance policy or bond relating to conditions or occurrences at the Site, including insurance policies or bonds for property damage, environmental impairment, natural resources damages, or cleanup costs. Any such payments shall be due and payable within thirty (30) days after Defendant receives any such monies and shall be paid in the manner set forth in Paragraph 77. This additional penalty will be capped at $500,000.

XIV. STIPULATED PENALTIES

80. The Defendant shall pay the following stipulated penalties for each failure to comply with any requirement set forth in this Consent Decree and all Exhibits hereto, including

any deadline in any plan required to be submitted and implemented pursuant to Section VI of this Consent Decree.

81. For purposes of this Consent Decree, three tiers of stipulated penalties shall apply:

a. Tier I noncompliance shall be defined as follows:

(1) failure to commence or complete on time any work required pursuant to Section VI of this Consent Decree;

(2) failure to provide on time the financial assurance required under this Consent Decree;

(3) failure to provide on time the liability coverage required under this Consent Decree;

(4) failure to submit on time the RFI Work Plan (including QAPjP), CMS Work Plan, or CMI Program Plan;

b. Tier II noncompliance shall be defined as follows:

(1) failure to submit timely or adequate preliminary plans or reports; or

(2) failure to submit timely or adequate final plans or reports;

(3) failure to comply with any of the terms and conditions specified in Section II.20. of the State Order, except as otherwise provided in Tier III.

c. Tier III noncompliance shall be defined as follows:

(1) failure to comply with any requirement of this Consent Decree, not described in subparts a and b, above.

d. Stipulated penalties for the violations described above shall accrue in the following amounts:

Period of Failure to Comply	Penalty Per Violation Per Day of Noncompliance
Tier I Noncompliance:	
1st through 30th day	$ 2,000
31st through 60th day	4,000
61st day and beyond	6,000
Tier II Noncompliance:	
1st through 30th day	$ 1,000
31st through 60th day	2,000
61st day and beyond	3,000
Tier III Noncompliance:	
1st through 30th day	$ 500
31st through 60th day	1,000
61st day and beyond	1,500

82. If any plan or report required to be submitted to U.S. EPA or IDEM for approval under Section VI herein is disapproved by U.S. EPA or IDEM, then the submission shall be deemed inadequate and a violation of this Consent Decree, and shall be subject to stipulated penalties beginning thirty days after Defendant receives notification from U.S. EPA or IDEM that the plan or report is disapproved, provided however that if a substitute acceptable to U.S. EPA or IDEM is submitted within the thirty day period, no stipulated penalties will be assessed.

83. All stipulated penalties begin to accrue on the day that performance is due or a violation of this Consent Decree occurs, and continue to accrue through the final day of correction of the violation.

84. Stipulated penalties shall accrue during any dispute resolution proceeding. Defendant shall pay all accrued sums, with interest at the rate set forth at 31 U.S.C. §3717 within thirty (30) days of Defendant's failure to file a petition pursuant to Section XX (Dispute Resolution), or within thirty (30) days of the Court's decision.

85. Stipulated penalties under this Section shall be paid within thirty (30) days of receipt of written notification of non-compliance from U.S. EPA or IDEM, such payment to be made in the manner prescribed in Section XIII above unless Defendant invokes dispute resolution (Section XX). The written notification shall be accompanied by a statement which identifies each instance of noncompliance, the date(s) of noncompliance, and the amount of payment. The payment shall be accompanied by a statement which identifies each instance of noncompliance, the date(s) of noncompliance, and the amount of payment.

86. Fifty percent of stipulated penalties shall be paid to the United States and fifty percent to IDEM for violations of the requirements of this Decree. Payment to the United States shall be in accordance with the requirements of Paragraph 77. Payment to IDEM shall be paid by cashier's or certified check payable to "Environmental Management Special Fund" and shall be tendered to

the attention of the Cashier, IDEM, at the address provided in Section XI.

XV. ACCESS TO THE FACILITY AND SAMPLES

87. U.S. EPA, IDEM, and their respective employees, contractors, and authorized representatives, upon presentation of proper credentials, are authorized at any reasonable time to enter and freely move about all property at the RMC Facility for the purpose of, inter alia: interviewing the Project Coordinator, his designated representative(s) or contractor personnel directly involved in any field work required by this Consent Decree at the Facility; inspecting records, operating logs, and contracts related to the performance under this Consent Decree; reviewing the progress of the Defendant in carrying out the terms of this Consent Decree; evaluating the compliance of the Defendant with the provisions of this Consent Decree; conducting such sampling and tests as U.S. EPA or IDEM or their representatives deem necessary for evaluating compliance with this Consent Decree; using a camera, sound recording, or other documentary type equipment for evaluating compliance with this Consent Decree; and verifying the reports and data submitted to U.S. EPA or IDEM by the Defendant under this Consent Decree. The Defendant shall permit such persons to inspect and copy all records, files, photographs, and other writings, including all sampling and monitoring data that pertains to work undertaken pursuant to this Consent Decree. In addition, Defendant shall insure that such persons have the authority to inspect at all reasonable times

laboratories used by Defendant or its contractors for analyses conducted under this Consent Decree.

88. To the extent that work required by this Consent Decree must be done on property not owned or controlled by Defendant, Defendant will use its best efforts to obtain site access agreements from the present owner(s) of such property within forty-five (45) days of lodging of this Consent Decree. Such efforts to secure access shall include the transmission by defendants to the property owner of a formal request for access, to be sent by certified letter, return receipt requested, within the forty-five (45) calendar day period. Any such access agreement negotiated with adjacent property owners shall be incorporated by reference into this Consent Decree. Defendant shall report fully on its efforts to secure access in its reports submitted pursuant to Section VI herein. In the event U.S. EPA obtains access for Defendant, Defendant shall undertake the necessary activities in accordance with this Consent Decree.

89. This Section in no way limits any right of entry available to U.S. EPA or IDEM pursuant to applicable Federal or State laws, regulations, or permits, including, but not limited to, Section 3007 of RCRA, 42 U.S.C. §6927.

XVI. COVENANT NOT TO SUE; RESERVATION OF RIGHTS

90. In consideration of the actions that will be performed and the payments that will be made by the Defendant under the terms of the Consent Decree, and except as specifically provided in Paragraphs 92-94 of this Decree, the United States

covenants not to sue or to take administrative action against Defendant:

a. pursuant to Sections 3008(a) and (g) of RCRA, 42 U.S.C. § 6928(a) and (g), for those civil claims relating to the Refined Metals Facility which arose prior to the date of Defendant's signing of this Decree and which have been alleged in the Complaint;

b. pursuant to Sections 3008(a) and (g) of RCRA, 42 U.S.C. § 6928(a) and (g), for those civil claims arising under the Land Disposal Restrictions, 40 C.F.R. § 268 et seq., relating to the indoor waste piles at the Refined Metals Facility which arose prior to the date of Defendant's signing of this Decree; and

c. pursuant to Section 3008(h) of RCRA, 42 U.S.C. § 6928(h), for those civil claims relating to the Refined Metals Facility which arose prior to the date of Defendant's signing of this Decree.

d. pursuant to Section 113 of the CAA, 42 U.S.C. § 7413, for those civil claims relating to the Refined Metals Facility which arose prior to the date of Defendant's signing of this Decree and which have been alleged in the Complaint.

91. In consideration of the actions that will be performed by the Defendant under the terms of the Consent Decree, and except as specifically provided in Paragraphs 92-94 of this Decree, IDEM covenants not to sue or to take administrative

action against Defendant for violations alleged in the State's Complaint.

92. The United States and IDEM expressly reserve, and this Consent Decree shall be without prejudice to, any right of the United States or IDEM: (1) to pursue any remedies available to the United States or IDEM for any violation of this Decree; (2) except to the extent otherwise limited by this Consent Decree, to assert claims for civil penalties, injunctive relief, or any other remedy available to the United States or IDEM, for any violation of Federal or State laws, regulations, or permit conditions, and in particular, any claims for violations of the CAA subsequent to the date Defendant signed this Consent Decree; (3) except to the extent otherwise limited by this Consent Decree, to impose or enforce any permit requirement pursuant to RCRA or the CAA; (4) to bring any action pursuant to Section 7003 of RCRA, 42 U.S.C. § 6973; (5) to bring any action pursuant to Sections 120 and 303 of the CAA, 42 U.S.C. §§ 7420 and 7603; and (6) to take any action and assert any claim relating to any criminal liability of the Defendant.

93. The United States expressly reserves, and this Consent Decree shall be without prejudice to, any right of the United States: (1) to take any action and assert any claim pursuant to EPCRTKA, 42 U.S.C. § 11001 *et seq.*; and (2) to take any action and assert any claim pursuant to CERCLA, including Sections 106 and 107 of CERCLA, 42 U.S.C. §§ 9606 and 9607. Further, except to the extent otherwise limited by this Consent

Decree, incorporation herein of the State Agreed Order shall in no way limit the United States' CAA authority to enforce the federally approved SIP limits for particulate matter and lead at the Refined Metals Facility.

94. IDEM expressly reserves, and this Consent Decree shall be without prejudice to, any right of IDEM to take any action and assert any claim pursuant to Ind. Code Section 13-7-8.7.

95. This Consent Decree shall not be construed as a covenant not to sue, release, waiver or limitation of any rights, remedies, powers and/or authorities, which any person not a party hereto may have under RCRA, CERCLA, CAA or any other statutory, regulatory or common law authority relating to the Defendant and the RMC Facility.

96. In any subsequent administrative or judicial proceeding initiated by the United States or the State for injunctive relief, recovery of response costs, or other appropriate relief relating to the RMC Facility of Defendant, Defendant shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by the United States or the State in the subsequent proceeding were or should have been brought in the instant case; provided, however, that nothing in this Paragraph affects the enforceability of the covenants not to sue set forth in Paragraphs 90-91.

97. The execution or performance of this Consent Decree by Defendant shall not constitute an admission of any fact or legal issue, or of any liability or wrongdoing relating to the RMC Facility. Defendant expressly reserves the right to raise all legal and equitable rights, claims and defenses which it may have under RCRA, CAA or any other legal authority in any proceeding initiated by Plaintiffs, except the Defendant is precluded from challenging the validity of the Consent Decree.

98. This Consent Decree in no way relieves Defendant of its responsibility to comply with all applicable Federal, State and local laws, regulations, and permit conditions. This Consent Decree is neither a permit nor a modification to a permit.

XVII. PRECLUSION OF CLAIMS AGAINST THE HAZARDOUS SUBSTANCE RESPONSE TRUST FUND

99. Defendant agrees not to make any claims pursuant to Sections 106(b), 111 or 112 of CERCLA, 42 U.S.C. §§ 9606(b), 9611 or 9612, or any other provision of law, directly or indirectly against the United States or the Hazardous Substance Response Trust Fund established by CERCLA for costs incurred in complying with this Consent Decree. Nothing in this Consent Decree shall be deemed to constitute preauthorization of a CERCLA claim within the meaning of 40 C.F.R. § 300.25(d).

XVIII. COSTS

100. Each party to this action shall bear its own costs and attorney's fees.

XIX. MODIFICATIONS

101. Schedules specified in this Consent Decree for completion of work may be modified by agreement of U.S. EPA and Defendant. All such modifications shall be made in writing. Nothing in this Decree shall be deemed to alter the Court's power to enforce, supervise or approve modifications to this Consent Decree.

XX. DISPUTE RESOLUTION

102. In the event that the parties cannot resolve a dispute with respect to this Consent Decree, then the interpretation advanced by the United States shall be considered binding unless Defendant invokes the dispute resolution provisions of this Section.

103. If, in the opinion of any party, there is a dispute with respect to any obligation imposed by this Consent Decree or any plan incorporated therein, that party shall send a written notice to the other parties which outlines the nature of the dispute and suggests a means for its resolution. Any such request shall be followed by a period of informal negotiations which shall not extend beyond thirty (30) days from the date when the notice was sent unless the parties agree otherwise.

104. If the informal negotiations are unsuccessful, the position of the United States or, with respect to those matters for which Indiana is authorized, IDEM, shall control unless Defendant files with the court a petition which shall describe the nature of the dispute and include a proposal for its

resolution. Defendant's petition must be filed no more than twenty (20) days after delivery of Plaintiff(s)'s written notice of termination of informal negotiations. Plaintiff(s) shall then have twenty (20) days to respond to the petition. In any such dispute, Defendant shall have the burden of proving that Plaintiff(s)'s position is arbitrary and capricious, an abuse of discretion, or otherwise not in accordance with law. If Defendant does not sustain that burden, the Plaintiff(s) shall prevail. In any instance in which the United States has compiled a record documenting a final agency decision, as contemplated in Section VI of the Consent Decree, any judicial review of the agency action shall be on the Administrative Record.

105. Invocation of the dispute resolution provisions of this Section shall not extend or postpone any obligations not directly in dispute imposed by this Decree, unless U.S. EPA agrees otherwise. Stipulated penalties with respect to a disputed matter, if any, shall continue to accrue but payment shall be stayed pending resolution of the dispute and payable upon any decision adverse to Defendant, in accordance with Section XIV (Stipulated Penalties).

XXI. FORCE MAJEURE

106. A "Force Majeure" event for purposes of this Decree is defined as any event that is caused by circumstances entirely beyond the control of Defendant, or any entity controlled by or under the common control of Defendant including the Defendant's consultants and contractors, and that Defendant could not have

foreseen and prevented, that delays or prevents the performance of any obligation under this Consent Decree. Failure to obtain a permit is not a force majeure event.

107. When circumstances are occurring or have occurred that can reasonably be anticipated to cause a delay in achieving compliance with any requirement set forth in this Consent Decree, or in any plan developed hereunder within the time allowed under the Decree, whether or not due to a "Force Majeure" event, Defendant shall orally notify U.S. EPA by no later than five business days after Defendant obtains or should have obtained information indicating that a delay reasonably can be anticipated to be encountered. Thereafter, by no later than ten business days after Defendant obtains or should have obtained information indicating that a delay reasonably can be anticipated to be encountered, Defendant shall submit written notification to U.S. EPA which includes a detailed explanation of the precise cause(s) for and anticipated duration of any such delay; the measures taken and to be taken by Defendant to prevent or minimize the delay; the timetable for implementation of such measures; the anticipated date such requirement will be achieved; a statement as to whether Defendant is claiming a "Force Majeure"; and the bases for Defendant's claim of "Force Majeure". The Defendant shall adopt all reasonable measures to avoid or minimize any such delay. To the extent practicable, oral notice under this paragraph must include all of the information required to be included in a written notification. Failure to notify within the

time period specified above shall constitute a waiver of any claim of "Force Majeure" with respect to the particular event involved. Notification of any delay, in and of itself, shall not extend the time allowed for meeting any requirement or excuse the delay or payment of stipulated penalties. U.S. EPA shall notify Defendant in writing of its agreement or disagreement after receipt of Defendant's written notification.

108. If the United States agrees that a delay is or was attributable to a "Force Majeure" event, the parties shall, by written agreement, modify the compliance schedule to provide such additional time as may be necessary to allow the completion of the specific phase of the required activity and/or any succeeding phase of the activity affected by such delay, not to exceed the actual duration of the delay.

109. If the United States and Defendant are unable to agree as to whether the reason for the delay was a "Force Majeure" event, or on a stipulated extension of time, then the Dispute Resolution provisions of Section XX shall apply. Defendant shall have the burden of demonstrating that the event was a "Force Majeure" event, that the duration of the delay caused by such event is or was warranted under the circumstances, and that, as a result of the delay, a particular extension period is appropriate.

110. Increased costs of complying with this Consent Decree, or Defendant's financial inability to carry out the

provisions of this Consent Decree, shall not be considered a "Force Majeure" event.

XXII. EFFECTS OF CHANGES IN STATE AUTHORIZATION

111. If, prior to the termination of this Consent Decree, the State of Indiana pursuant to Section 3006(b) of RCRA, 42 U.S.C. § 6926(b), promulgates and adopts corrective action regulations which are approved by the federal government, then the federally-approved state regulations rather than the federal standards shall apply to and be enforceable under this Consent Decree unless such standards would require the revision of a Plan previously submitted and approved pursuant to Section VI of this Consent Decree.

XXIII. CONTINUING JURISDICTION OF THE COURT

112. The Court shall retain jurisdiction to enforce the terms and conditions of this Consent Decree and to resolve disputes arising hereunder as may be necessary or appropriate for the construction or execution of this Consent Decree.

XXIV. TERMINATION

113. Once Defendant determines it has fully complied with all of the requirements of this Consent Decree, and is continuing to comply with the reporting requirements, if any, of this Consent Decree, it shall submit to U.S. EPA a certification of compliance. The certification shall contain the following

statement, signed by a responsible corporate official of the Defendant:

> "To the best of my knowledge, after thorough investigation, I certify that the information contained in or accompanying this certification is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

If U.S. EPA concurs that Defendant has fully satisfied the requirements of this Consent Decree, the parties shall file a joint motion with the Court to terminate this Consent Decree. After passage of 120 days from Defendant's submission to U.S. EPA of a certification of compliance, Defendant may file a motion with the Court to terminate this Consent Decree. U.S. EPA reserves its right to oppose or support Defendant's motion.

XXV. NOTICE REQUIREMENTS

114. The parties acknowledge that final approval by the United States and the entry of this Consent Decree are subject to the Public Notice and Comment requirements of 28 C.F.R. § 50.7. This Consent Decree shall be lodged with the Court for a period of not less than thirty (30) days for public notice and comment in accordance with 28 C.F.R. § 50.7. The United States reserves the right to withdraw or withhold its consent if the comments regarding the Consent Decree disclose facts or considerations which indicate that the Consent Decree is inappropriate, improper, or inadequate. If for any reason the Court should decline to approve this Consent Decree in the form presented, this agreement is voidable at the sole discretion of any party

and the terms of the agreement may not be used as evidence in any litigation between the Parties.

Date and entered this 31st day of August, 1998.

HONORABLE JUDGE SARAH E. BARKER
UNITED STATES DISTRICT COURT

FOR THE PLAINTIFF UNITED STATES OF AMERICA:

LOIS J. SCHIFFER
Assistant Attorney General
Environment and Natural Resources Division
U.S. Department of Justice

5/16/98
Dated

LEONARD M. GELMAN
Trial Attorney
Environmental Enforcement Section
U.S. Department of Justice
999 18th Street, Suite 945 North
Denver, Colorado 80202

7-9-98
Dated

Consent Decree: United States of America and the Indiana Department of Environmental Management v. Refined Metals Corporation, Civil Action No. IP902077C.

_____ _____

JUDITH A. STEWART
United States Attorney for the
Southern District of Indiana
46 East Ohio Street
Indianapolis, Indiana 46204

Dated

Consent Decree: United States of America and the Indiana Department of Environmental Management v. Refined Metals Corporation, Civil Action No. IP902077C.

DAVID A. ULLRICH
Acting Regional Administrator
U.S. Environmental Protection Agency
Region V
77 West Jackson Blvd.
Chicago, Illinois 60604

March 27, 1998
Dated

Consent Decree: United States of America and the Indiana Department of Environmental Management v. Refined Metals Corporation, Civil Action No. IP902077C.

FOR THE PLAINTIFF-INTERVENOR INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

_____ Dated _____

JOHN HAMILTON
Commissioner, IDEM

_____ _____

JEFFREY MODISETT, Indiana Attorney General
by: ANITA WYLIE

Date

Consent Decree: United States of America and the Indiana Department of Environmental Management v. Refined Metals Corporation, Civil Action No. IP902077C.

FOR THE DEFENDANT REFINED METALS CORPORATION:

[RESPONSIBLE CORPORATE OFFICIAL]

Ari D. Levine

Vice President + Secretary

2/26/98

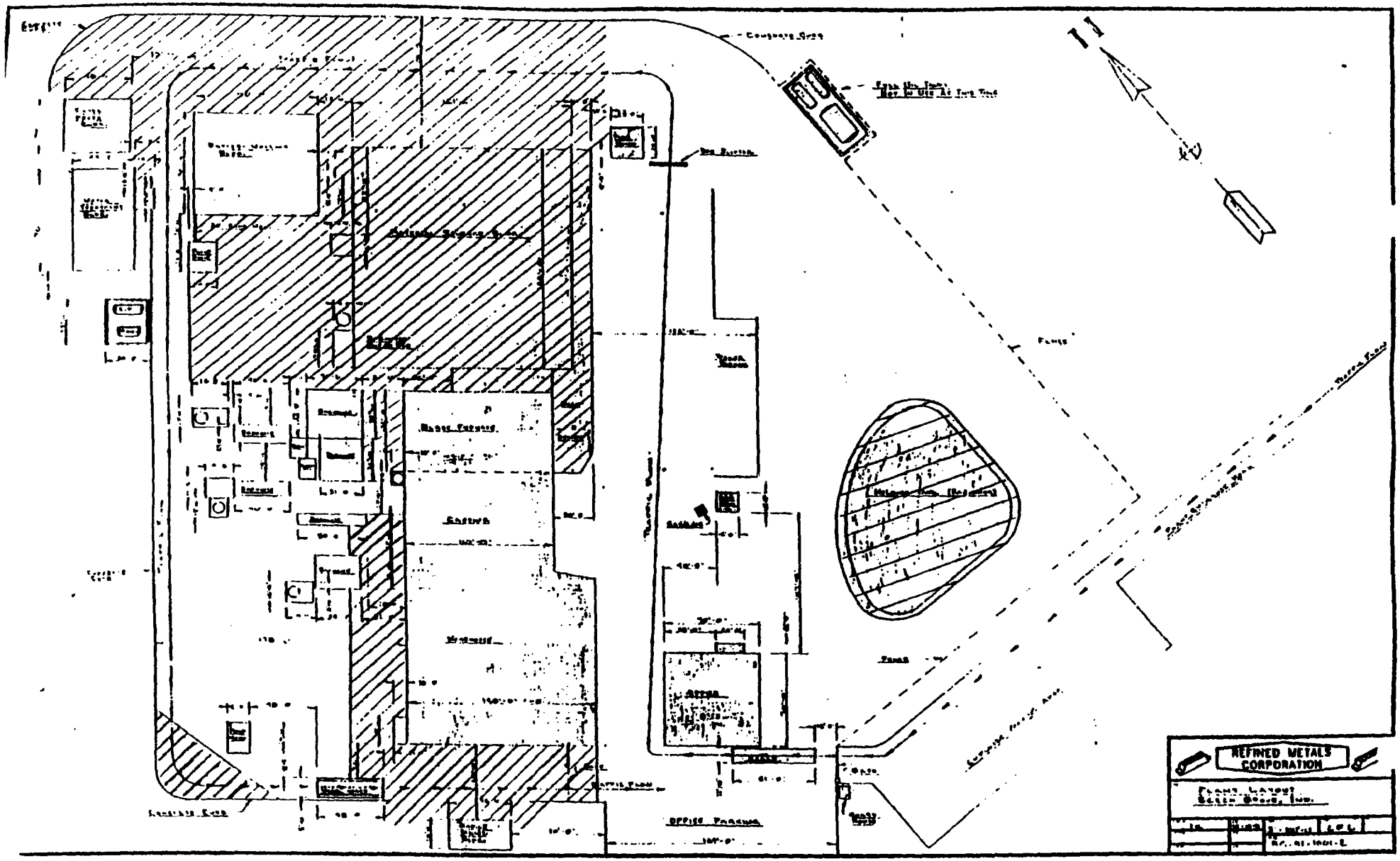
Dated

UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF INDIANA
INDIANAPOLIS DIVISION

UNITED STATES OF AMERICA, Plaintiff, INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, Intervening Plaintiff, v. REFINED METALS CORPORATION, Defendant.	CIVIL ACTION NO. IP902077C HONORABLE JUDGE SARAH E. BARKER

CONSENT DECREE

EXHIBIT A: Facility Map Identifying Waste Piles



KEY:

= area of waste piles / surface impoundment

EXHIBIT A

NOTE:

VOLUMINOUS PAGES OF ATTACHMENTS HAVE BEEN OMITTED FROM THIS COPY IN THE INTEREST OF CONSERVING PAPER.

SHOULD YOU NEED COPIES OF THESE ADDITIONAL MATERIALS, PLEASE CONTACT MR ANASTASIO

UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF INDIANA
INDIANAPOLIS DIVISION

UNITED STATES OF AMERICA, Plaintiff, INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, Intervening Plaintiff, v. REFINED METALS CORPORATION, Defendant.	CIVIL ACTION NO. IP902077C HONORABLE JUDGE SARAH E. BARKER

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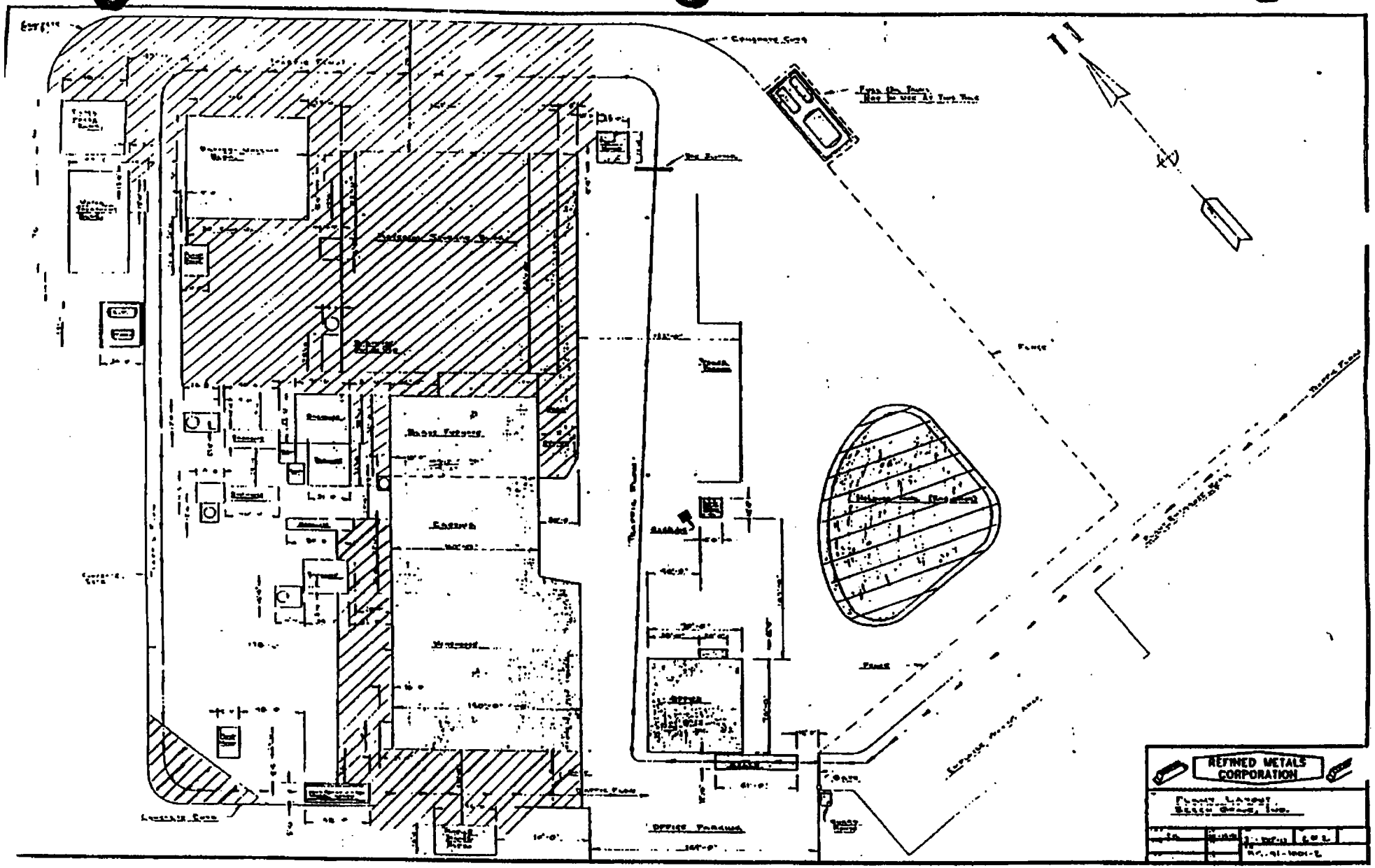

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EXHIBIT A

UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF INDIANA
INDIANAPOLIS DIVISION

UNITED STATES OF AMERICA, Plaintiff, INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, Intervening Plaintiff, v. REFINED METALS CORPORATION, Defendant.	CIVIL ACTION NO. IP902077C HONORABLE JUDGE SARAH E. BARKER

CONSENT DECREE

EXHIBIT B: Scope of Work for a RCRA Facility Investigation

EXHIBIT B

SCOPE OF WORK FOR A RCRA FACILITY INVESTIGATION
AT REFINED METALS CORPORATION, INDIANAPOLIS, INDIANA

PURPOSE

The purpose of this RCRA Facility Investigation (RFI) is to determine the nature and extent of the release of hazardous waste or hazardous constituents from regulated units, solid waste management units, and other source areas at the Facility, and to gather necessary data to support the Corrective Measures Study. Defendant shall furnish all personnel, materials, and services necessary for, or incidental to, performing the RCRA Facility Investigation at Refined Metals Corporation, 3700 South Arlington Avenue, Indianapolis, Indiana.

SCOPE

The RCRA Facility Investigation consists of six tasks:

Task I: Description of Current Conditions

A. Facility Background
B. Nature and Extent of Contamination
C. Implementation of Interim Measures (optional)

Task II: Pre-Investigation Evaluation of Corrective Measure Technologies

Task III: RFI Workplan Requirements

A. Project Management Plan
B. Quality Assurance Project Plan (QAPjP)
C. Data Management Plan
D. Health and Safety Plan
E. Community Relations Plan

Task IV: Facility Investigation

A. Environmental Setting
B. Source Characterization
C. Contamination Characterization
D. Potential Receptors

Task V: Investigation Analysis

A. Data Analysis
B. Protection Standards

Task VI: Reports

A. Preliminary and Workplan
B. Progress
C. Draft and Final

TASK I: DESCRIPTION OF CURRENT CONDITIONS

Defendant shall submit for U.S. EPA approval, a report providing the background information pertinent to the facility and contamination as set forth below. The data gathered during any previous investigations, and other relevant data shall be included.

A. Facility Background

Defendant's report shall summarize the regional location, pertinent boundary features, general facility physiography, hydrogeology, and historical use of the facility for the treatment, storage, or disposal of solid and hazardous waste. Defendant's report shall include:

1. Maps depicting the following:

   a. General geographic location;

   b. Property lines with owners of all adjacent property clearly indicated;

   c. Topography and surface drainage depicting all waterways, wetlands, floodplains, water features, drainage patterns, and surfacewater containment areas;

   d. All tanks, buildings, utilities, paved areas, easements, rights-of-way, and other features;

   e. All solid or hazardous waste treatment, storage, or disposal areas active after November 19, 1980;

   f. All known past solid or hazardous waste treatment, storage or disposal areas regardless of whether they were active on November 19, 1980;

   g. All known past and present product and waste underground tanks or piping;

   h. Surrounding land uses (residential, commercial, agricultural, recreational);

   i. The location of all past and present production, recovery and groundwater monitoring wells. These wells shall be clearly labeled, and ground and top of casing elevations and construction details included. These elevations and details may be included as an attachment which outlines well depth, aquifer(s) screened, screen length, screen interval (AMSL), well diameter, well material and openhole or sand/gravel pack interval (AMSL); and

   j. Terrestrial Habitat Cover - Types (i.e. vegetation communities).

All maps shall be consistent with the requirements set forth in 40 CFR 270.14 and be of sufficient detail and accuracy to locate and report all current and future work performed at the site.

2. A history and description of the ownership and operation, solid and hazardous waste generation, treatment, storage, and disposal activities at the facility.

3. Exact dates or approximate periods of past product and waste spills or deposits, identification of the materials spilled, the amount spilled, the amount recovered, the location where spilled, media impacted, and a description of the response actions conducted (local, State, or Federal response units or private parties), including any inspection reports or technical reports generated as a result of the response.

4. A summary of past and present environmental permits requested and/or received, any enforcement actions and their subsequent responses, and a list of documents and studies prepared for the facility.

5. Description of major habitat types (e.g., grasslands, forests, lakes, streams, wetlands) located in, adjacent to, or affected by the facility. In delineating wetlands, the U.S. Fish and Wildlife Service's National Wetland inventory maps should be consulted. In addition, if the facility is located in a state other than Michigan, The U.S. Corps of Engineers should be consulted and wetlands should be delineated using the Federal Manual for Identifying and Delineating Jurisdictional Wetlands (this manual is currently undergoing revision. Until the revision is finalized, the Corps of Engineers should be consulted).

6. Description of plants and animals at and adjacent to the site, should include the following: qualitative observations of resident plants and animals (birds, mammals, fish, stream benthos, etc.); classification of vegetation community types; threatened and endangered species possibly on or near the site should be identified.

B. Nature and Extent of Contamination

Defendant shall prepare and submit for U.S. EPA approval, a preliminary report describing the existing information on the nature and extent of contamination.

1. Defendant's report shall summarize all possible source areas of contamination. This, at a minimum, should include all regulated units, solid waste management units, spillage areas, and other suspected source areas of contamination. For each area, Defendant shall identify the following:

a. Location of unit/area (which shall be depicted on a facility map;

b. Quantities of solid and hazardous wastes present;

c. Hazardous waste or constituents, to the extent known; and

d. Identification of areas where additional information is necessary.

2. Defendant shall prepare an assessment and description of the existing degree and extent of contamination. This should include:

a. Available monitoring data and qualitative information on locations and levels of contamination at the facility;

b. All potential migration pathways including information on geology, pedology, physiography, hydrogeology, physiography, hydrology, water quality, meteorology, air quality, and migration through food chains; and

c. The potential impacts on human health and the environment, including demography, groundwater and surface water use, land use, and potential ecological receptors, including any threatened or endangered species. (Threatened or endangered species possibly on or near the site should be identified as early as possible.) This assessment should be based on existing site information, literature-based information on contaminant fate and toxicity, and available criteria and standards (e.g., Ambient Water Quality Criteria).

d. Any known or observed effects of site contaminants to biota, such as fish kills, stressed vegetation, or other obvious impacts.

C. Implementation of Interim Measures

If an interim measure is determined to be necessary, Defendant shall prepare and submit for approval, an Interim Measures Workplan in accordance with Appendix A to this Scope of Work.

TASK II: PRE-INVESTIGATION EVALUATION OF CORRECTIVE MEASURE TECHNOLOGIES

Prior to starting the facility investigation, the Defendant shall submit to U.S. EPA a report that identifies the potential corrective measure technologies that may be used on-site or off-site for the containment, treatment, remediation, and/or disposal of contamination from the facility. This report shall also identify any field data that needs to be collected in the facility investigation to facilitate the evaluation and selection of the final corrective measures (e.g., compatibility of waste and construction materials, information to evaluate effectiveness, treatability of wastes, etc.).

TASK III: RFI WORKPLAN REQUIREMENTS

Defendant shall prepare a RCRA Facility Investigation (RFI) Workplan. The RFI Workplan shall include the development of several plans, which shall be prepared concurrently. During the RCRA Facility Investigation, it may be necessary to revise the RFI Workplan to increase or decrease the detail of information collected to accommodate the facility specific situation. The RFI Workplan includes the following:

A. Project Management Plan

Defendant shall prepare a Project Management Plan which will include a discussion of the technical approach, schedules, budget, and personnel. The Project Management Plan also will include a description of the qualifications of personnel performing or directing the RFI, including contractor personnel. This plan shall document the overall management approach to the RCRA Facility Investigation.

B. Quality Assurance Project Plan (QAPjP)

Defendant shall prepare a plan to document all monitoring procedures, sampling, field measurements and sample analyses performed during the investigation to characterize the environmental setting, source, and contamination, so as to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented. The QAPjP shall be prepared in accordance with Exhibit F. A pre-QAPjP meeting shall be held prior to preparation of the QAPjP. Participants should include, but are not limited to the Defendant, their QAPjP preparer, laboratory representatives, U.S. EPA Project Coordinator, U.S. EPA Quality Assurance and Laboratory representatives.

(A performance audit will be conducted by U.S. EPA on laboratories selected by Defendant. This audit must be completed and laboratories approved for use on the project prior to the start of field work for the RFI.)

C. Data Management Plan

Defendant shall develop and initiate a Data Management Plan to document and track investigation data and results. This plan shall identify and set up data documentation materials and procedures, project file requirements, and project-related progress reporting procedures and documents. The plan shall also provide the format to be used to present the raw data and conclusions of the investigation.

1. Data Record

The Data record shall include the following:

a. Unique sample or field measurement code;

b. Sampling or field measurement location and sample or measurement type;

c. Sampling or field measurement raw data;

d. Laboratory analysis ID number;

e. Property or component measured; and

f. Result of analysis (e.g., concentration).

2. Tabular Displays

The following data shall be presented in tabular displays:

a. Unsorted (raw) data;

b. Results for each medium, or for each constituent monitored;

c. Data reduction for statistical analysis;

d. Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and

e. Summary data.

3. Graphical Displays

The following data shall be presented in graphical formats (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transects, three dimensional graphs, etc.):

a. Display sampling location and sampling grid;

b. Indicate boundaries of sampling area, and areas where more data are required;

c. Display levels of contamination at each sampling location;

d. Display geographical extent of contamination;

e. Display contamination levels, averages, and maxima;

f. Illustrate changes in concentration in relation to distance from the source, time, depth or other parameters; and

g. Indicate features affecting intramedia transport and show potential receptors.

D. Health and Safety Plan

Defendant shall prepare a Health and Safety Plan.

1. The Health and Safety Plan shall:

a. Provide a facility description, including availability of resources such as roads, water supplies, electricity and telephone service;

b. Describe the known hazards and evaluate the risks associated with the incident and with each activity conducted;

c. List key personnel and alternates responsible for site safety, response operations, and for protection of human health;

d. Delineate work area;

e. Describe levels of protection to be worn by personnel;

f. Establish procedures to control site access;

g. Describe decontamination procedures for personnel and equipment;

h. Establish site emergency procedures;

i. Address emergency medical care for injuries and toxicological problems;

j. Describe requirements for an environmental surveillance program;

k. Specify any routine and special training required for responders; and

l. Establish procedures for protecting workers from weather-related problems.

2. The Facility Health and Safety Plan shall be consistent with:

a. NIOSH Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (1985);

b. U.S. EPA Order 1440.1 - Respiratory Protection;

c. U.S. EPA Order 1440.3 - Health and Safety Requirements for Employees engaged in Field Activities;

d. Facility Contingency Plan;

e. U.S. EPA Standard Operating Safety Guide (1984);

f. OSHA regulations, particularly those in 29 CFR 1910 and 1926;

g. State and local regulations; and

h. Other U.S. EPA guidance as provided.

E. Community Relations Plan

The Defendant shall prepare a plan, for the dissemination of information to the public regarding investigation activities and results.

TASK IV: FACILITY INVESTIGATION

Defendant shall conduct those investigations necessary to: characterize the facility (Environmental Setting); define the source (Source Characterization); define the degree and extent of contamination (Contamination Characterization); and identify actual or potential receptors (Potential Receptor Identification). The investigations should result in data of adequate technical content to support the development and evaluation of the corrective measure alternatives during the Corrective Measures Study.

The site investigation activities shall follow the plans set forth in Task III. All sampling and analyses shall be conducted in accordance with the Data Collection Quality Assurance Plan. All sampling locations shall be documented in a log and identified on a detailed site map.

A. Environmental Setting

Defendant shall collect information to supplement and verify existing information on the environmental setting at the facility. Defendant shall characterize the following:

1. Hydrogeology

Defendant shall conduct a program to evaluate hydrogeologic conditions at the facility. This program shall provide the following information:

a. A description of the regional and facility specific geologic and hydrogeologic characteristics affecting groundwater flow beneath the facility, including:

i) Regional and facility specific stratigraphy: description of strata including strike and dip; and identification of stratigraphic contacts;

ii) Structural geology: description of local and regional structural features (e.g., folding, faulting, tilting, jointing, etc.);

iii) Depositional history;

iv) Identification and characterization of areas and amounts of recharge and discharge;

v) Regional and facility specific groundwater flow patterns; and

vi) Seasonal variations in the groundwater flow regime;

b. An analysis of any topographic features that might influence the groundwater flow system;

c. Based on field data, tests, and cores, a representative and accurate classification and description of the hydrogeologic units which may be part of the migration pathways at the facility (i.e., the aquifers and any intervening saturated and unsaturated units), including:

   i) Hydraulic conductivity and porosity (total and effective);

   ii) Lithology, grain size, sorting;

   iii) An interpretation of hydraulic interconnections between saturated zones; and

   iv) The attenuation capacity and mechanisms of the natural earth materials (e.g., ion exchange capacity, organic carbon content, mineral content etc.);

d. Based on field studies and cores, structural geology and hydrogeological cross-sections showing the extent (depth, thickness, lateral extent) of hydrogeologic units which may be part of the migration pathways, identifying:

   i) Sand and gravel deposits in unconsolidated deposits;

   ii) Zones of fracturing or channeling in consolidated or unconsolidated deposits;

   iii) Zones of high permeability or low permeability that might direct or restrict the flow of contaminants;

   iv) The uppermost aquifer (geologic formation, group of formations, or part of a formation capable of yielding a significant amount of groundwater to wells or springs); and

   v) Water-bearing zones above the first confining layer that may serve as a pathway for contaminant migration, including perched zones of saturation;

e. Based on data obtained from groundwater monitoring wells and piezometers installed upgradient and downgradient of the potential contaminant source, a representative description of water level or fluid pressure monitoring, including:

   i) Water-level contour and/or potentiometric maps;

   ii) Hydrogeologic cross-sections showing vertical gradients;

   iii) The flow system, including the vertical and horizontal components of flow; and

iv) Any temporal changes in hydraulic gradients, for example due to tidal or seasonal influences; and

f. A description of man-made influences that may affect the hydrogeology of the site, identifying:

i) Active and inactive local water-supply and production wells with an approximate schedule of pumping; and

ii) Man-made hydraulic structures (pipelines, French drains, ditches, unlined ponds, septic tanks, NPDES outfalls, retention areas, etc.).

2. Soils

Defendant shall conduct a program to characterize the soil and rock units above the water table in the vicinity of the contaminant releases. Such characterization shall include but not be limited to, the following information:

a. SCS soil classification;

b. Surface soil distribution;

c. Soil profile, including ASTM classification of soils;

d. Transects of soil stratigraphy;

e. Hydraulic conductivity (saturated and unsaturated);

f. Relative permeability;

g. Bulk density;

h. Porosity;

i. Soil sorptive capacity;

j. Cation exchange capacity (CEC);

k. Soil organic content;

l. Soil pH;

m. Particle size distribution;

n. Depth of water table;

o. Moisture content;

p. Effect of stratification on unsaturated flow;

q. Infiltration;

r. Evapotranspiration;

s. Storage capacity;

t. Vertical flow rate; and

u. Mineral content.

3. Surface Water and Sediment

Defendant shall conduct a program to characterize the surface water bodies in the vicinity of the facility. Such characterization shall include, but not be limited to, the following activities and information:

a. Description of the temporal and permanent surface water bodies including:

i) For lakes: location, elevation, surface area, inflow, outflow, depth, temperature stratification, volume, and a description of substrate and cover;

ii) For impoundments: location, elevation, surface area, depth, volume, freeboard, and purpose of impoundment;

iii) For streams, ditches, wetlands, and channels: location, elevation, flow, velocity, depth, width, seasonal fluctuations, and flooding tendencies (i.e., 100 year event), and a description of substrate and surface cover.

iv) Drainage patterns; and

v) Evapotranspiration;

b. Description of the chemistry of the natural surface water and sediments. This includes determining the pH, total dissolved solids, total suspended solids, biological oxygen demand, alkalinity, conductivity, dissolved oxygen profiles, nutrients (NH_3, NO_3-/NO_2-, PO_4^{-3}), chemical oxygen demand, total organic carbon, specific contaminant concentrations, etc; and

c. Description of sediment characteristics including:

i) Depositional area;

ii) Thickness profile; and

iii) Physical and chemical parameters (e.g., grain size, distribution, density, organic carbon content, ion exchange capacity, pH, etc., and other parameters as directed by U.S. EPA.

4. Air

Defendant shall provide information characterizing the climate in the vicinity of the facility. Such information shall include, but not be limited to:

a. A description of the following parameters:

i) Annual and monthly rainfall averages;

ii) Monthly temperature averages and extremes;

iii) Wind speed and direction;

iv) Relative humidity/dew point;

v) Atmospheric pressure;

vi) Evaporation data;

vii) Development of inversions; and

viii) Climate extremes that have been known to occur in the vicinity of the facility, including frequency of occurrence; and

b. A description of topographic and man-made features which affect air flow and emission patterns, including:

i) Ridges or hills or mountain areas;

ii) Valleys and Canyons;

iii) Surface water bodies (e.g., rivers, lakes, bays, etc.);

iv) Wind breaks and forests; and

v) Buildings.

B. <u>Source Characterization</u>

Defendant shall collect analytical data to completely characterize the wastes and the areas where wastes have been placed, collected, or removed, including: type; quantity; physical form; disposition (containment or nature of deposits); and facility characteristics affecting release (e.g., facility security, and engineered barriers). This shall include quantification of the following specific characteristics, at each source area:

1. Unit/Disposal area characteristics:

a. Location of unit/disposal area;

b. Type of unit/disposal area;

c. Design features;

d. Operating practices (past and present);

e. Period of operation;

f. Age of unit/disposal area;

g. General physical conditions; and

h. Method used to close the unit/disposal area.

2. Waste characteristics:

a. Type of wastes placed in each unit, including:

i) Hazardous classification (e.g., flammable, reactive corrosive, oxidizing or reducing agent);

ii) Quantity;

iii) Chemical composition; and

iv) Waste form (bulk or containerized);

b. Physical and chemical characteristics:

i) Physical form (solid, liquid, gas);

ii) Physical description (e.g., powder, oily sludge);

iii) Temperature;

iv) pH;

v) General chemical class (e.g., acid, base, solvent);

vi) Molecular weight;

vii) Density;

viii) Boiling point;

ix) Viscosity;

x) Solubility in water;

xi) Cohesiveness of the waste;

xii) Vapor pressure; and

xiii) Flash point.

c. Migration and dispersion characteristics:

i) Sorption;

ii) Biodegradability, bioconcentration, biotransformation;

iii) Photodegradation rates;

iv) Hydrolysis rates; and

v) Chemical transformation.

vi) Defendant shall document the procedures used in making the above determinations.

C. Contamination Characterization

Defendant shall collect analytical data on groundwater, soils, surface water, sediment, air, and subsurface gas contamination in the vicinity of the facility. This data shall be sufficient to define the extent, origin, direction, and rate of movement of contaminant plumes. Data shall include time and location of samplings, medias sampled, concentrations of contaminants found, conditions during sampling, and the identity of the individuals performing the sampling and analysis. Defendant shall address the following types of contamination at the facility:

1. Groundwater Contamination

Defendant shall conduct a Groundwater Investigation to characterize any plumes of contamination at the facility. This investigation shall at a minimum provide the following information:

a. A description of the horizontal and vertical extent of any immiscible or dissolved plumes originating from the facility;

b. The horizontal and vertical directions of contamination movement;

c. The velocities of contaminant movement;

d. The horizontal and vertical concentration profiles of Appendix IX constituents in the plumes;

e. An evaluation of factors influencing the plume movement; and

f. An extrapolation of future contaminant movement. Defendant shall document the procedures to be used in making the above

determinations (e.g., well design, well construction, geophysics, modeling, etc.).

2. Soil Contamination

Defendant shall conduct an investigation to characterize the contamination of the soil and rock units above the water table in the vicinity of the contaminant release. The investigation shall include the following information:

a. A description of the vertical and horizontal extent of contamination;

b. A description of contaminant and soil chemical properties within the contaminant source area and plume. This includes contaminant solubility, speciation, adsorption, leachability, exchange capacity, biodegradability, hydrolysis, photolysis, oxidation, and other factors that might affect contaminant migration and transformation;

c. Specific contaminant concentrations;

d. The velocity and direction of contaminant movement; and
e. An extrapolation of future contaminant movement.

Defendant shall document the procedures used in making the above determinations.

3. Surface Water and Sediment Contamination

Defendant shall conduct a surface water investigation to characterize contamination in surface water bodies resulting from the contaminant releases at the facility. The investigation shall include, but not be limited to, the following information:

a. A description of the horizontal and vertical extent of any immiscible or dissolved plume(s) originating from the facility, and the extent of contamination in underlying sediments;

b. The horizontal and vertical direction of contaminant movement;

c. The contaminant velocities;

d. An evaluation of the physical, biological and chemical factors influencing contaminant movement;

e. An extrapolation of future contaminant movement; and

f. A description of the chemistry of the contaminated surface waters and sediments. This includes determining the pH, total dissolved solids, and specific contaminant concentrations, etc.

Defendant shall document the procedures used in making the above determinations.

4. Air Contamination

Defendant shall conduct an investigation to characterize the particulate and gaseous contaminants released into the atmosphere. This investigation shall provide the following information:

a. A description of the horizontal and vertical direction and velocity of contaminant movement;

b. The rate and amount of releases; and

c. The chemical and physical composition of the contaminants released, including horizontal and vertical concentration profiles.

Defendant shall document the procedures used in making the above determinations.

5. Subsurface Gas Contamination

Defendant shall conduct an investigation to characterize subsurface gases emitted from buried hazardous waste and hazardous constituents in the groundwater. This investigation shall provide the following information:

a. A description of the horizontal and vertical extent of subsurface gas migration;

b. The chemical composition of the gases being emitted;

c. The rate, amount, and density of the gases being emitted; and

d. Horizontal and vertical concentration profiles of the subsurface gases emitted.

Defendant shall document the procedures used in making the above determinations.

D. <u>Potential Receptors Identification</u>

Defendant shall collect data describing the human populations and environmental systems that are susceptible to contaminant exposure from the facility. Chemical analysis of biological samples may be needed.

Data on observable effects in ecosystems also may be needed. The following characteristics shall be identified:

1. Local uses and possible future uses of groundwater:

   a. Type of use (e.g., drinking water source, municipal, residential, agricultural, domestic/non-potable, and industrial); and

   b. Locations of groundwater users, including wells and discharge areas.

2. Local uses and possible future uses of surface water draining from the facility:

   a. Domestic and municipal (e.g., potable, lawn/gardening watering);

   b. Recreational (e.g., swimming, fishing);

   c. Agricultural;

   d. Industrial; and

   e. Environmental (e.g., fish and wildlife propagation).

3. Human use or access to the facility and adjacent lands, including but not limited to:

   a. Recreation;

   b. Hunting;

   c. Residential;

   d. Commercial; and

   e. Relationship between population locations and prevailing wind direction.

4. A description of the biota including benthic macro invertebrate and fish communities, in surface water bodies on, adjacent to, or affected by the facility. The aquatic biota expected in these water bodies in the absence of site-related contamination, based on physical habitat characteristics, should also be described.

5. Ecological characteristics of the facility. Data required for this may include the following: (a) Chemical sampling in potentially exposed habitats and reference sites, (b) Toxicity Testing, (c) Tissue analysis, (d) Biological Community assessment, (e) Habitat assessment of aquatic and terrestrial habitats on or potentially affected by this site, (f) Revised assessment of ecological impact on receptors. Impact should include those occurring at individual level

(e.g., mortality growth and reproductive impairments) and those occurring at higher levels of biological organization (i.e., at population, community, and ecosystem levels).

6. A demographic profile of the people who use or have access to the facility and adjacent land, including, but not limited to: age; sex; and sensitive subgroups.

7. A description of any endangered or threatened species near the facility.

TASK V: INVESTIGATION ANALYSIS

Defendant shall prepare an analysis and summary of all facility investigations and their results. The objective of this task shall be to ensure that the investigation data are sufficient in quality (e.g., quality assurance procedures have been followed) and quantity to describe the nature and extent of contamination, potential threat to human health and the environment, and to support the Corrective Measures Study.

A. Data Analysis

Defendant shall analyze all facility investigation data outlined in Task IV and prepare a report on the type and extent of contamination at the facility including sources and migration pathways. The report shall describe the extent of contamination (qualitative/quantitative) in relation to the background levels indicative for the area.

B. Protection Standards

1. Groundwater Protection Standards

Defendant shall provide information to support the Agency's selection/development of Groundwater Protection Standards for all of the 40 CFR Part 264 Appendix IX constituents found in the groundwater during the Facility Investigation (Task IV).

a. The Groundwater Protection Standards shall consist of:

i) Maximum Contaminants Levels (MCLs) for constituents listed in the National Primary Drinking Water Regulations (40 CFR Part 141), if the background level of the constituent is below the given MCL; or

ii) The background level of that constituent in the groundwater; or
iii) A U.S. EPA-approved Alternate Concentration Limit (ACL).

b. Information to support the Agency's subsequent selection of Alternate Concentration Limits (ACL's) shall be developed by the Defendant in accordance with U.S. EPA guidance. For any proposed ACL's, Defendant shall include a justification based upon the criteria set forth in 40 CFR 264.94(b).

c. Within thirty (30) days of receipt of any proposed ACL's, the U.S. EPA shall notify Defendant in writing of approval, disapproval or modifications. The U.S. EPA shall specify in writing the reasons for any disapproval or modification.

d. Within thirty (30) days of receipt of the U.S. EPA's notification of disapproval of any proposed ACL, the Defendant shall amend and submit revisions to the U.S. EPA.

2. Other Relevant Protection Standards

Defendant shall identify and consider all relevant and applicable standards or criteria for protection of human health and the environment (e.g., National Ambient Air Quality Standards, Federally-approved State water quality standards, water quality criteria, health advisories, proposed MCLs, risk-based standards, etc.).

TASK VI: REPORTS

A. Preliminary and Workplan

Defendant shall submit to the U.S. EPA reports on Tasks I and II when it submits the RCRA Facility Investigation Workplan (Task III).

B. Progress

Defendant shall at a minimum provide U.S. EPA with signed, monthly progress reports containing:

1. A description and estimate of the percentage of the RFI completed;

2. Summaries of all findings;

3. Summaries of all changes made in the RFI during the reporting period;
4. Summaries of all contacts with representatives of local community public interest groups or State government during the reporting period;

5. Summaries of all problems or potential problems encountered during the reporting period;

6. Actions being taken to rectify problems;

7. Changes in personnel during the reporting period;

8. Projected work for the next reporting period; and

9. Copies of daily reports, inspection reports, laboratory/monitoring data, etc.

C. Draft and Final

Upon U.S. EPA approval, Defendant shall prepare a RCRA Facility Investigation Report to present Tasks IV and V. The RCRA Facility Investigation Report shall be developed in draft form for U.S. EPA review. The RCRA Facility Investigation Report shall be developed in final format incorporating comments received on the Draft RCRA Facility Investigation Report.

Three copies of all reports, including the Task I report, Task II report, Task III workplan, and both the Draft and Final RCRA Facility Investigation Reports (Tasks IV and V) shall be provided by the Defendant to U.S. EPA.

Facility Submission Summary

A summary of the information reporting requirements contained in the RCRA Facility Investigation Scope of Work is presented below.

Facility Submission	Due date
Description of Current Situation (Task I)	Within 45 days of lodging of the Consent Decree
Pre-Investigation Evaluation of Corrective Measure Technologies (Task II)	Within 45 days of lodging of the Consent Decree
RFI Work Plan (Task III)	Within 45 days of lodging of the Consent Decree
Final RFI Report	Contingent on schedule imposed in Workplan
Progress Reports on Tasks I through V	Monthly

INTERIM MEASURES
APPENDICES

APPENDIX A. INTERIM MEASURES WORKPLAN

1. Interim Measures Objectives
2. Health and Safety Plan
3. Community Relations Plan

APPENDIX B. INTERIM MEASURES INVESTIGATION PROGRAM

1. Data Collection Quality Assurance
2. Data Management Plan

APPENDIX C. INTERIM MEASURES DESIGN PROGRAM

1. Design Plans and Specifications
2. Operations and Maintenance Plan
3. Project Schedule
4. Final Design Documents

APPENDIX D. INTERIM MEASURES CONSTRUCTION QUALITY ASSURANCE PLAN

1. Construction Quality Assurance Objectives
2. Inspection Activities
3. Sampling Requirements
4. Documentation

APPENDIX E. REPORTS

1. Progress
2. Interim Measures Workplan
3. Final Design Documents
4. Draft Interim Measures Report
5. Final Interim Measures Report

APPENDIX A

INTERIM MEASURES WORKPLAN

The Defendant shall prepare an Interim Measures Workplan. The Workplan shall include the development of several plans which shall be prepared concurrently.

A. Interim Measures Objectives

The Workplan shall specify the objectives of the interim measures, demonstrate how the interim measures will abate releases and threatened releases, and to the extent possible, be consistent and integrated with any long-term solution at the facility. The Interim Measures Workplan will include a discussion of the technical approach, engineering design, engineering plans, schedules, budget, and personnel. The Workplan will also include a description of qualifications of personnel performing or directing the interim measures, including contractor personnel. This plan shall also document the overall management approach to the interim measures.

B. Health and Safety Plan

Defendant shall prepare a facility Health and Safety Plan.

1. Major elements of the Health and Safety Plan shall include:

   a. Facility description, including availability of resources such as roads, water supplies, electricity and telephone services;

   b. Describe the known hazards and evaluate the risks associated with the incident and with each activity conducted;

   c. List key personnel and alternates responsible for site safety, response operations, and for protection of human health;

   d. Describe levels of protection to be worn by personnel;

   e. Delineate work area;

   f. Establish procedures to control site access;

   g. Describe decontamination procedures for personnel and equipment;

   h. Establish site emergency procedures;

   i. Address emergency medical care for injuries and toxicological problems;

   j. Describe requirements for an environmental surveillance program;

   k. Specify any routine and special training required for responders;

   l. Establish procedures for protecting workers from weather-related problems; and

   m. Establish emergency procedures.

2. The Facility Health and Safety Plan shall be consistent with:

   a. NIOSH Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (1985);

b. U.S. EPA Order 1440.1 - Respiratory Protection;

c. U.S. EPA Order 1440.3 - Health and Safety Requirements for Employees engaged in Field Activities;

d. Facility Contingency Plan;

e. U.S. EPA Standard Operating Safety Guide (1984);

f. OSHA regulations particularly in 29 CFR 1910 and 1926;

g. State and local regulations; and

h. Other U.S. EPA guidance as provided.

3. The Health and Safety Plan shall be revised to address the activities to be performed at the facility to implement the interim measures.

C. Community Relations Plan

Defendant shall prepare a plan for the dissemination of information to the public regarding interim measure activities and results. These activities shall include the preparation and distribution of fact sheets and participation in public meetings.

APPENDIX B

INTERIM MEASURES INVESTIGATION PROGRAM

A. Data Collection Quality Assurance Plan

Defendant shall prepare a plan to document all monitoring procedures, sampling, field measurements and sample analysis performed during the investigation to characterize the environmental setting, source, and contamination, so as to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented.

1. Data Collection Strategy

   The strategy section of the Data Collection Quality Assurance Plan shall include but not be limited to the following:

   a. A description of the intended uses for the data, and the necessary level of precision and accuracy for these intended uses;

   b. A description of methods and procedures to be used to assess the precision, accuracy, and completeness of the measurement data;

   c. A description of the rationale used to assure that the data accurately and precisely represent a characteristic of a population, parameter variations at a sampling point, a process condition or an environmental condition. Examples of factors which shall be considered and discussed include:

2. Sampling

   The Sampling section of the Data Collection Quality Assurance Plan shall discuss:

   a. Selecting appropriate sampling locations, depths, etc.;

   b. Providing a statistically sufficient number of sampling sites;

   c. Measuring all necessary ancillary data;

   d. Determining which media are to be sampled (e.g., groundwater, air, soil, sediment, etc.);

   e. Determining which parameters are to be measured and where;

   f. Selecting the frequency of sampling and length of sampling period;

   g. Selecting the types of samples (e.g., composites vs. grabs) and number of samples to be collected;

   h. Documenting field sampling operations and procedures, including;

      i) Documentation of procedures for preparation of reagents or supplies which become an integral part of the sample (e.g., filters, and adsorbing reagents);

      ii) Procedures and forms for recording the exact location and specific considerations associated with sample acquisition;

      iii) Documentation of specific sample preservation methods;

iv) Calibration of field devices;

v) Collection of replicate samples;

vi) Submission of field-biased blanks, where appropriate;

vii) Potential interferences present at the facility;

viii) Construction materials and techniques, associated with monitoring wells and piezometers;

ix) Field equipment and sample containers listing;

x) Sampling order; and

xi) Decontamination procedures.

i. Selecting appropriate sample containers;

j. Sample preservation; and

k. Chain-of-custody, including:

i) Standardized field tracking reporting forms to establish sample custody in the field prior to shipment; and

ii) Pre-prepared sample labels containing all information necessary for effective sample tracking.

3. Sample Analysis

The Sample Analysis section of the Data Collection Quality Assurance Plan shall specify the following:

a. Chain-of-custody procedures, including:

i) Identification of a responsible party to act as sample custodian at the laboratory, who is authorized to sign for incoming field samples, obtain documents of shipment, and verify the data entered onto the sample custody records;

ii) Provisions for a laboratory samples custody log consisting of serially numbered standard lab-tracking report sheets; and

iii) Specification of laboratory sample custody procedures for sample handling, storage, and dispersement for analysis.

b. Sample storage;

c. Sample preparation methods;

d. Analytical procedures, including;

i) Scope and application of the procedure;

ii) Sample matrix;

iii) Potential interferences;

iv) Precision and accuracy of the methodology; and

v) Method detection limits.

e. Calibration procedures and frequency;

f. Data reduction, validation and reporting;

g. Internal quality control checks, laboratory performance and system audits and frequency, including:

i) Method blank(s);

ii) Laboratory control sample(s);

iii) Calibration check sample(s);

iv) Replicate sample(s);

v) Matrix-spiked sample(s);

vi) "Blind" quality control sample(s);

vii) Control charts;

viii) Surrogate samples;

ix) Zero and span gases; and;

x) Reagent quality control checks.

A performance audit may be conducted by U.S. EPA on the laboratories selected by the Defendant.

h. Preventative maintenance procedures and schedules;

i. Corrective action (for laboratory problems); and

j. Turnaround time.

B. Data Management Plan

Defendant shall develop and initiate a Data Management Plan to document and track investigation data and result. This plan shall identify and set up data documentation materials and procedures, project file requirements, and project-related progress reporting procedures and documents. The plan shall also provide the format to be used to present the raw data and conclusions of the investigation.

All groundwater data shall be submitted in a computer accessible format, i.e., diskette. The format used shall be compatible with the U.S. EPA, Region V groundwater database known as the Ground Water Information Tracking System (GRITS), Version 4.0.

1. Data Record

The Data record shall include the following:

a. Unique sample or field measurement codes;

b. Sampling or field measurement location and sample or measurement types;

c. Sampling or field measurement raw data;

d. Laboratory analysis ID numbers;

e. Properties or components measured; and

f. Result of analysis (e.g., concentration).

2. Tabular Displays

The following data shall be presented in tabular displays:

a. Unsorted (raw) data;

b. Results for each medium, or for each constituent monitored;

c. Data reduction for numerical analysis;

d. Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and

e. Summary data.

3. Graphical Displays

The following data shall be presented in graphical formats (e.g., bar graphs, line graphs, area or plan maps, isopleths plots, cross-sectional plots or transects, three dimensional graphs, etc.):

a. Display sampling location and sampling grid;

b. Indicate boundaries of sampling area, and areas where more data are required;

c. Display levels of contamination at each sampling location;

d. Display geographical extent of contamination;

e. Display contamination, levels, averages, and maxima;

f. Illustrate changes in concentration in relation to distance from the source, time, depth or other parameters; and

g. Indicate features affecting intramedia transport showing potential receptors.

APPENDIX C

INTERIM MEASURES DESIGN PROGRAM

A. Design Plans and Specifications

The Defendant shall develop clear and comprehensive design plans and specifications which include but are not limited to the following:

1. Discussion of the design strategy and the design basis, including:

   a. Compliance with all applicable or relevant environmental and public health standards; and

   b. Minimization of environmental and public impacts.

2. Discussion of the technical factors of importance including:

   a. Use of currently accepted environmental control measures and technology;

   b. The constructibility of the design; and

   c. Use of currently acceptable construction practices and techniques.

3. Description of assumptions made and detailed justification of these assumptions;

4. Discussion of the possible sources of error and references to possible operation and maintenance problems;

5. Detailed drawings of the proposed design including:

   a. Qualitative flow sheets;

   b. Quantitative flow sheets;

   c. Facility layout; and

   d. Utility locations.

6. Tables listing materials, equipment and specifications;

7. Tables giving material balances;

8. Appendices including:

   a. Sample calculations (one example presented and explained clearly for significant or unique design calculations);

   b. Derivation of equations essential to understanding the report; and

   c. Results of laboratory or field tests.

General correlations between drawings and technical specifications, is a basic requirement of any set of working construction plans and specifications. Before submitting the project specifications, the Defendant shall coordinate and cross-check the specifications and drawings and complete the proofing of the edited specifications and required cross-checking of all drawings and specifications.

B. Operation and Maintenance Plan

The Defendant shall prepare and Operation and Maintenance Plan to cover both implementation and long-term maintenance of the interim measure. The plan shall be composed of the following elements:

1. Equipment start-up and operator training

   The Defendant shall prepare, and include in the technical specifications governing treatment systems, contractor requirements for providing: appropriate service visits by experienced personnel to supervise the installation, adjustment, startup and operation of the treatment systems; and training covering appropriate operational procedures once the startup has been successfully accomplished.

2. Description of normal operation and maintenance (O&M)

   a. Description of tasks for operation;

   b. Description of tasks for maintenance;

   c. Description of prescribed treatment or operation conditions;

   d. Schedule showing frequency of each O&M task; and

   e. Common and/or anticipated remedies.

3. Description of routine monitoring and laboratory testing

   a. Description of monitoring tasks;

   b. Description of required laboratory tests and their interpretation;

   c. Required QA/QC; and

   d. Schedule of monitoring frequency and date, if appropriate, when monitoring may cease.

4. Description of equipment

   a. Equipment identification;

   b. Installation of monitoring components;

   c. Maintenance of site equipment; and

   d. Replacement schedule for equipment and installed components.

5. Records and reporting mechanisms required

   a. Daily operating logs;

   b. Laboratory records;

   c. Mechanism for reporting emergencies;

   d. Personnel and maintenance records; and

   e. Monthly/annual reports to Federal/State agencies.

The Operation and Maintenance Plan shall be submitted with the Final Design Documents.

C. Project Schedule

The Defendant shall develop a detailed Project Schedule for construction and implementation of the interim measure(s) which identifies timing for initiation and completion of all critical path tasks. Defendant shall specifically identify dates for completion of the project and major interim milestones which are enforceable terms of this order. A Project Schedule shall be submitted simultaneously with the Final Design Documents.

D. Final Design Documents

The Final Design Documents shall consist of the Final Design Plans and Specification (100%) complete, the final Draft Operation and Maintenance Plan, and Project Schedule. The Defendant shall submit the final documents 100% complete with reproducible drawings and specifications. The quality of the design documents should be such that the Defendant would be able to include them in a bid package and invite contractors to submit bids for the construction project.

APPENDIX D

INTERIM MEASURE CONSTRUCTION QUALITY ASSURANCE PLAN

A. Construction Quality Assurance Objectives

In the CQA plan, the Defendant shall identify and document the objectives and framework for the development of a construction quality assurance program including, but not limited to the following: responsibility and authority; personnel qualifications; inspection activities, sampling requirements; and documentation. The responsibility and authority of all organizations (i.e., technical consultants, construction firms, etc.) and key personnel involved in the construction of the interim measure should be described fully in the CQA plan. The Defendant must identify a CQA officer and the necessary supporting inspection staff.

B. Inspection Activities

The observations and tests that will be used to monitor the construction and/or installation of the components of the interim measure(s) shall be summarized in the CQA plan. The plan shall include the scope and frequency of each type of inspection. Inspections shall verify compliance with all environmental requirements and include, but not be limited to air quality and emissions monitoring records, waste disposal records (e.g., RCRA transportation manifests), etc. The inspection should also ensure compliance with all health and safety procedures. In addition to oversight inspections, the Defendant shall conduct the following activities:

1. Preconstruction inspection and meeting

   The Defendant shall conduct a preconstruction inspection and meeting to:

   a. Review methods for documenting and reporting inspection data;

   b. Review methods for distributing and storing documents and reports;

   c. Review work area security and protocol;

   d. Discuss any appropriate modifications of the construction quality assurance plan to ensure that site-specific considerations are addressed; and

   e. Conduct a site walk-around to verify that the design criteria, plans, and specifications are understood and to review material and equipment storage locations.

   The preconstruction inspection and meeting shall be documented by a designated person and minutes should be transmitted to all parties.

2. Prefinal inspection

   Upon preliminary project completion, Defendant shall notify U.S. EPA for the purposes of conducting a prefinal inspection. The prefinal inspection will consist of a walk-through inspection of the entire project site. The inspection is to determine whether the project is complete and consistent with the contract documents and the U.S. EPA approved interim measure. Any outstanding construction items discovered during the inspection will be identified and noted. Additionally, treatment equipment will be operationally tested by the

Defendant to certify that the equipment has performed to meet the purpose and intent of the specifications. Retesting will be completed where deficiencies are revealed. The prefinal inspection report should outline the outstanding construction items, actions required to resolve items, completion date for these items, and date for final inspection.

3. Final Inspection

Upon completion of any outstanding construction items, the Defendant shall notify U.S. EPA for the purpose of conducting a final inspection. The final inspection will consist of a walk-through inspection of the project site. The prefinal inspection will be used as a checklist and focusing on the outstanding items that have not been resolved.

4. Sampling and Testing Requirements

The sampling and testing activities, sample size, sample and test locations, frequency of testing, acceptance and rejection criteria, and plans for correcting problems should be presented in the CQA.

C. Documentation

Reporting requirements for CQA activities shall be described in detail the CQA plan. This shall include such items as daily summary reports, inspection data sheets, problem identification and interim measures reports, design acceptance reports and final documentation. Provisions for the final storage of all records shall be presented in the CQA plan.

APPENDIX E

REPORTS

A. Progress

The Defendant shall at a minimum provide the U.S. EPA with signed, monthly progress reports containing:

1. A description and estimate of the percentage of the interim measures completed;

2. Summaries of all findings;

3. Summaries of all changes made in the interim measures during the reporting period;

4. Summaries of all contacts with representatives of the local community, public interest groups, or State government during the reporting period;

5. Summaries of all problems of potential problems encountered during the reporting period;

6. Actions being taken to rectify problems;

7. Changes in personnel during the reporting period;

8. Projected work for the next reporting period; and

9. Copies of daily reports, inspection reports, laboratory/monitoring data, etc.

B. Interim Measures Workplan

The Defendant shall submit an Interim Measures Workplan as described in Appendix A, B, C, and D.

C. Final Design Documents

The Defendant shall submit the Final Design Documents as described in Appendix C.

D. Draft Interim Measures Report

At the "completion" of the construction of the project (except for long-term operations, maintenance and monitoring), the Defendant shall submit an Interim Measures and Implementation Report to the Agency. The Report shall document that the project is consistent with the design specifications, and that the interim measures are performing adequately. The Report shall include, but not be limited to the following elements:

1. Synopsis of the interim measures and certification of the design and construction;

2. Explanation of any modifications to the plan and why these were necessary for the project;

3. Listing of criteria, established before the interim measures were initiated, for judging the functioning of the interim measures and also explaining any modification to these criteria;

4. Results of facility monitoring, indicating that interim measures will meet or exceed the performance criteria; and

5. Explanation of the operation and maintenance (including monitoring) to be undertaken at the facility.

This report shall include of the inspection summary reports, inspection data sheets, problem identification and corrective measure reports, block evaluation reports, photographic reporting data sheets, design engineers' acceptance reports, deviations from design and material specifications (with justifying documentation) and as-built drawings.

E. Final Interim Measures Report

The Defendant shall finalize the Interim Measures Work Plan and the Interim Measures Implementation Report incorporating comments received on draft submissions.

Facility Submission Summary

A summary of the information reporting requirements contained in the Interim measures Scope of Work is present below:

FACILITY SUBMISSIONS	*DUE DATE**
INTERIM MEASURES WORKPLAN -Interim Measures Objectives -Health and Safety Plan -Community Relations Plan -Data Collection QA Plan -Data Management Plan -Construction QA Plan	60 days
Final Design Documents -Design Plans and Specs -O&M Plan -Project Schedule	60 days
Draft Interim Measures Report	Upon completion of construction
Final Interim Measures Report	15 days after receipt of U.S. EPA comments on Draft Interim Measures Report
Progress Reports	Monthly

*All dates are calculated from the effective date of this order unless otherwise specified.

UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF INDIANA
INDIANAPOLIS DIVISION

UNITED STATES OF AMERICA, Plaintiff, INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, Intervening Plaintiff, v. REFINED METALS CORPORATION, Defendant.	CIVIL ACTION NO. IP902077C HONORABLE JUDGE SARAH E. BARKER

CONSENT DECREE

EXHIBIT C: Scope of Work for a Corrective Measures Study

EXHIBIT C

SCOPE OF WORK FOR A CORRECTIVE MEASURES STUDY
AT REFINED METALS CORPORATION, INDIANAPOLIS, INDIANA

PURPOSE

The purpose of the Corrective Measures Study (CMS) is to develop and evaluate the corrective action alternatives and to recommend the corrective measures to be taken at Refined Metals Corporation Facility at Indianapolis, Indiana. Defendant shall furnish the personnel, materials, and services necessary to prepare the corrective measures study, except as otherwise specified.

SCOPE

The Defendant shall prepare a Corrective Measures Study Work Plan which consists of five tasks:

Task VII: Identification and Development of the Corrective Measure Alternatives

A. Description of Current Situation
B. Establishment of Corrective Action Objectives
C. Screening of Corrective Measure Technologies
D. Identification of the Corrective Measure Alternatives

Task VIII: Necessary Laboratory and Bench-Scale Studies

Task IX: Evaluation of the Corrective Measures Alternatives

A. Technical/Environmental/Human Health/Institutional
B. Cost Estimates

Task X: Justification and Recommendation of the Corrective Measures

A. Technical
B. Environmental
C. Human Health

Task XI: Reports

A. Progress
B. Draft
C. Final

TASK VII: IDENTIFICATION AND DEVELOPMENT OF THE CORRECTIVE MEASURE ALTERNATIVE or ALTERNATIVES

Based upon the results of the RCRA Facility Investigation and consideration of the identified Preliminary Corrective Measure Technologies (Task II), Defendant shall identify, screen, and develop the alternatives for removal, containment, treatment, and/or other remediation of the contamination based on the objectives established for the corrective action.

A. Description of Current Situation

Defendant shall submit an update to the information describing the current situation at the facility and the known nature and extent of the contamination as documented by the RCRA Facility Investigation Report. Defendant shall provide an update to the information presented in Task I of the RFI to the Agency regarding previous response activities and any interim measures which have been implemented at the facility. Defendant shall also make a facility-specific statement of the purpose for the response, based on the results of the RCRA Facility Investigation. The statement of purpose should identify the actual or potential exposure pathways that should be addressed by corrective measures.

B. Establishment of Corrective Action Objectives

Defendant, in conjunction with the U.S. EPA, shall establish site specific objectives for the corrective action needed to protect human health and the environment. These objectives shall be based on public health and environmental criteria, information gathered during the RCRA Facility Investigation, U.S. EPA guidance, and the requirements of any applicable Federal statutes. All corrective actions concerning groundwater releases must be consistent with, and pursuant to 40 CFR 264.100 and 264.92.

C. Screening of Corrective Measure Technologies

Defendant shall review the results of the RCRA Facility Investigation and reassess the technologies specified in Task II to identify and additional technologies which are applicable at the facility. Defendant shall screen the preliminary corrective measure technologies identified in Task II of the RCRA Facility Investigation and any supplemental technologies to eliminate those that may not prove feasible to implement, that rely on technologies unlikely to perform satisfactorily or reliably, or that do not achieve the corrective measure objective within a reasonable time period. This screening process should focus on eliminating those technologies which have several limitations for a given set of waste and site specific condition. The screening step may also eliminate technologies based on inherent technology limitations.

Site, waste, and technology characteristics which are used to screen inapplicable technologies are described in more detail below:

1. Site Characteristics

Site data should be reviewed to identify conditions that may limit or promote the use of certain technologies. Technologies whose use is clearly precluded by site characteristics should be eliminated from further consideration;

2. Waste Characteristics

Identification of waste characteristics that limit the effectiveness or feasibility of technologies is an important part of the screening

process. Technologies clearly limited by these waste characteristics should be eliminated from consideration. Waste characteristics particularly affect the feasibility of in-situ methods, direct treatment methods, and land disposal (on/off-site); and

3. Technology Limitations

During the screening process, the level of technology development, performance record, and inherent construction, operation, and maintenance problems should be identified for each technology considered. Technologies that are unreliable, perform poorly, or are not fully demonstrated may be eliminated in the screening process. For example, certain treatment methods have been developed to a point where they can be implemented in the field without extensive technology transfer or development.

D. Identification of the Corrective Measure Alternatives

Defendant shall develop the corrective measure alternatives based on the corrective action objectives and analysis of Preliminary Corrective Measure Technologies, as presented in Task II of the RCRA Facility Investigation, and as supplemented following the preparation of the RFI Report. Defendant shall rely on sound engineering practices to determine which of the previously identified technologies appear most suitable for the site. Technologies can be combined to form the overall corrective measure alternatives. The alternatives developed should represent a workable number of options that appear to adequately address all site problems and corrective action objectives. Each alternative may consist of an individual technology or a combination of technologies. Defendant shall document the reasons for excluding technologies identified in Task II, as supplemented in the development of the alternatives.

TASK VIII: LABORATORY AND BENCH-SCALE STUDIES

The Defendant shall conduct laboratory and/or bench-scale studies to determine the applicability of corrective measure technologies to facility conditions. Defendant shall analyze the technologies based on literature review, vendor contacts, and past experience to determine the testing requirements.

Defendant shall develop a testing plan identifying the types and goals of the studies, the level of effort needed, and the procedures to be used for data management and interpretation.

Upon completion of the testing, Defendant shall evaluate the testing results to assess the technologies with respect to the site-specific questions identified in the test plan.

Defendant shall prepare a report summarizing the testing program and its results, both positive and negative.

TASK IX: EVALUATION OF THE CORRECTIVE MEASURE ALTERNATIVES

Defendant shall describe each corrective measure alternative that passes through the Initial Screening in Task VII and evaluate each corrective measure alternative and its components. The evaluation shall be based on technical, environmental, human health, and institutional concerns. Defendant shall also develop cost estimates for each corrective measure.

A. Technical/Environmental/Human Health/Institutional

Defendant shall provide a description of each corrective measure alternative which includes, but is not limited to the following: preliminary process flow sheets; preliminary sizing and types of construction for buildings and structures; and rough quantities of utilities required. Defendant shall evaluate each alternative in the four following areas:

1. Technical

Defendant shall evaluate each corrective measure alternative based on performance, reliability, implementability, and safety.

a. Defendant shall evaluate each corrective measure alternative based on the effectiveness and useful life of the corrective measure:

i) Effectiveness shall be evaluated in terms of the ability to perform intended functions, such as containment, diversion, removal, destruction, or treatment. The effectiveness of each corrective measure shall be determined either through design specifications or by performance evaluation. Any specific waste or site characteristic which could potentially impede effectiveness shall be considered. The evaluation should also consider the effectiveness of combinations of technologies; and

ii) Useful life is defined as the length of time the level of effectiveness can be maintained. Most corrective measure technologies, with the exception of destruction, deteriorate with time. Often, deterioration can be slowed through proper system operation and maintenance, but the technology eventually may require replacement. Each corrective measure shall be evaluated in terms of the projected service lives of its component technologies. Resource availability in the future life of the technology, as well as appropriateness of the technologies, must be considered in estimating the useful life of the project.

b. Defendant shall provide information on the reliability of each corrective measure including its operation and maintenance requirements and demonstrated reliability:

i) Operation and maintenance requirements include the frequency and complexity of necessary operation and maintenance. Technologies requiring frequent or complex operation and maintenance activities should be regarded as less reliable than technologies requiring little or straightforward operation and maintenance. The availability of labor and materials to meet these requirements shall also be considered; and

ii) Demonstrated and expected reliability is a way of measuring the risk and effect of failure. Defendant shall evaluate whether the technologies have been used effectively under

analogous conditions; whether the combinations of technologies have been used together effectively; whether failure of any one technology has an immediate impact on receptors; and whether the corrective measure has the flexibility to deal with uncontrollable changes at the site.

c. Defendant shall describe the implementability of each corrective measure, including the relative ease of installation (constructability) and the time required to achieve a given level of response:

i) Constructability is determined by conditions both internal and external to the facility conditions, and includes such items as location of underground utilities, depth to water table, homogeneity of subsurface materials, and location of the facility (i.e., remote location vs. a congested urban area). Defendant shall evaluate what measures can be taken to facilitate construction under these conditions. External factors which affect implementation include the need for special permits or agreements, equipment availability, and the location of suitable off-site treatment or disposal facilities; and

ii) Time has two components that shall be addressed: the time it takes to implement a corrective measure; and the time it takes to actually see beneficial results. Beneficial results are defined as the reduction of contaminants to some acceptable, pre-established level.

d. Defendant shall evaluate each corrective measure alternative with regard to safety. This evaluation shall include threats to the safety of nearby communities and environments as well as threats to workers during implementation. Factors to consider are fire, explosion, and exposure to hazardous substances.

2. Environmental

Defendant shall assess each alternative to determine its short and long-term beneficial and adverse effects on the environment. Each alternative will be evaluated for its impact on habitat types and plant and animal receptors located in, adjacent to, or affected by the facility. Receptors impacted should include those occurring at the individual level (e.g., mortality, growth and reproductive impairments) and those occurring at higher levels of biological organization (i.e., at population, community, and ecosystem levels). The assessment should include proposed measures for mitigating adverse impacts.

3. Human Health

Defendant shall assess each alternative in terms of the extent to which it mitigates short and long-term potential exposure to any residual contamination and how it protects human health both during and after implementation of the corrective measure. The assessment will describe the levels and characterizations of contaminants on-site, potential exposure routes, and the potentially affected population. Each alternative will be evaluated to determine the level of exposure to contaminants and the reduction over time. For management of mitigation measures, the relative reduction of impact will be determined by comparing residual levels of each alternative with existing criteria, standards, or guidelines acceptable to U.S. EPA.

4. Institutional

Defendant shall assess relevant institutional needs for each alternative. Specifically, the effects of Federal, State, and local environmental and public health standards, regulation, guidance, advisories, ordinances, or community relation on the design, operation, and timing of each alternative.

B. Cost Estimate

Defendant shall develop an estimate of the cost of each corrective measure alternative (and for each phase or segment of the alternative). The cost estimate shall include both capital and operation and maintenance costs.

1. Capital costs consist of direct (construction) and indirect (nonconstruction and overhead) costs.

   a. Direct capital costs include:

      i) Construction costs: Costs of materials, labor (including fringe benefits and worker's compensation); and equipment required to install the corrective measure;

      ii) Equipment costs: Cost of treatment, containment, disposal and/or service equipment necessary to implement the action; these materials remain until the corrective action is complete;

      iii) Land and site-development costs: Expenses associated with purchase of land and development of existing property; and

   b. Indirect capital costs include:

      i) Engineering expenses: Costs of administration, design, construction supervision, drafting, and testing of corrective measure alternatives;

      ii) Legal fees and license or permit costs: Administrative and technical costs necessary to obtain licenses and permits for installation and operation;

      iii) Startup and shakedown costs: Costs incurred during corrective measure startup; and

      iv) Contingency allowances: Funds to cover costs resulting from unforeseen circumstances, such as adverse weather conditions, strikes, and inadequate facility characterization.

2. Operation and maintenance costs are post-construction costs necessary to ensure continued effectiveness of a corrective measure. Defendant consider the following operation and maintenance cost components:

   a. Operating labor costs: Wages, salaries, training, overhead, and fringe benefits associated with the labor needed for post-construction operations;

   b. Maintenance materials and labor costs: Cost for labor, parts, and other resources required for routine maintenance of facilities and equipment;

c. Auxiliary materials and energy: Costs of such items as chemicals and electricity for treatment plant operations, water and sewer service, and fuel;

d. Purchased services: Sampling cost, laboratory fees, and professional fees for which the need can be predicted;

e. Disposal and treatment costs: Costs of transporting, treating, and disposing of waste materials, such as treatment plant residues, generated during operations;

f. Administrative costs: Costs associated with administration of corrective measure operation and maintenance not included under other categories;

g. Insurance, taxes, and licensing costs: Costs of such items as liability and sudden accidental insurance; real estate taxes on purchased land or right-of-way; licensing fees for certain technologies; and permit renewal and reporting costs;

h. Maintenance reserve and contingency funds: Annual payments into escrow to cover: (1) costs of anticipated replacement or rebuilding of equipment; and (2) any large unanticipated operation and maintenance costs; and

i. Other costs: Items that do not fit any of the above categories.

TASK X: JUSTIFICATION AND RECOMMENDATION OF THE CORRECTIVE MEASURES

Defendant shall justify and recommend corrective measure alternatives using technical, human health, and environmental criteria. The recommendation shall include summary tables which allow the alternatives to be easily understood. Tradeoffs among health risks, environmental effects, and other pertinent factors shall be highlighted. The U.S. EPA will select the corrective measure alternatives to be implemented based on the results of Tasks IX and X. At a minimum, the following criteria will be used to justify the final corrective measures.

A. Technical

1. Performance - corrective measures which are most effective at performing their intended functions and maintaining the performance over extended periods of time will be preferred;

2. Reliability - corrective measures which do not require frequent or complex operation and maintenance activities and that have proven effective under waste and facility conditions similar to those anticipated will be preferred;

3. Implementability - corrective measures which can be constructed and operated to reduce levels of contamination that attain or exceed applicable standards in the shortest period of time will be preferred; and

4. Safety - corrective measures which pose the least threat to the safety of nearby residents and environment as well as workers during implementation will be preferred.

B. Human Health

The corrective measures must comply with existing U.S. EPA criteria, standards, or guidelines for the protection of human health. Corrective measures which provide the minimum level of exposure to contaminants and the maximum reduction in exposure with time will be preferred.

C. Environmental

The corrective measures posing the least adverse impact (or greatest improvement) over the shortest period of time on the environment will be preferred.

TASK XI: REPORTS

Defendant shall prepare a Corrective Measures Study (CMS) Report presenting the results of Tasks VII through X and recommending corrective measure alternatives. Three (3) copies of the draft report shall be provided by Defendant.

A. Progress

Defendant shall at a minimum provide U.S. EPA with signed, monthly progress reports containing:

1. A description and estimate of the percentage of the CMS completed;

2. Summaries of all findings;

3. Summaries of all changes made in the CMS during the reporting period;

4. Summaries of all contacts with representatives of the local community, public interest groups, or State government during the reporting period;

5. Summaries of all problems or potential problems encountered during the reporting period;

6. Actions being taken to rectify problems;

7. Changes in personnel during the reporting period;

8. Projected work for the next reporting period; and

9. Copies of daily reports, inspection reports, laboratory/monitoring data, etc.

B. Draft

The Report shall, at a minimum, include:

1. A description of the facility, including a site topographic map (which includes depiction of plant communities and fish and wildlife habitat types) and preliminary layouts;

2. A summary of the corrective measures:

   a. Description of the corrective measures and rationale for selection;

   b. Performance expectations;

   c. Preliminary design criteria and rationale;

   d. General operation and maintenance requirements; and

   e. Long-term monitoring requirements to assess attainment of goals relative to groundwater, surface waters and ecological integrity (ecological monitoring, where applicable, could include assessment of wetland vegetation, soils and hydrology; biotoxicity of surface waters, soils and/or sediments; analysis of biological tissues; and assessment of stream fish and benthic macroinvertebrate communities);

3. A summary of the RCRA Facility Investigation and impact on the selected corrective measures;

4. A summary of any necessary laboratory and bench-scale studies;

5. Design and Implementation Precaution:

   a. Special technical problems;

   b. Additional engineering data required;

   c. Permits and regulatory requirements;

   d. Access, easements, right-of-way;

   e. Health and safety requirements; and

   f. Community relations activities; and

6. Cost Estimates and Schedules:

   a. Capital cost estimate;

   b. Operation and maintenance cost estimate; and

   c. Project schedule (design, construction, operation).

C. Final

Defendant shall finalize the Corrective Measures Study Report, incorporating comments received from the public, and U.S. EPA on the Draft Final Corrective Measures Study Report.

Facility Submission Summary

A summary of the information requirements contained in the Corrective Measure Study Scope of Work is presented below:

Facility Submission	*Due Date*
CMS Workplan	60 days after U.S. EPA approval of Final RFI Report
Draft CMS Report (Tasks VII, VIII, IX, and X)	90 days after U.S. EPA approval of Final RFI Report
Final CMS Report (Tasks VII, VIII, IX, and X)	45 days after Public and U.S. EPA - Comments on the Draft Final CMS
Progress Reports on Tasks VII Through X	Monthly

INTERIM MEASURES
APPENDICES

APPENDIX A. INTERIM MEASURES WORKPLAN

1. Interim Measures Objectives
2. Health and Safety Plan
3. Community Relations Plan

APPENDIX B. INTERIM MEASURES INVESTIGATION PROGRAM

1. Data Collection Quality Assurance
2. Data Management Plan

APPENDIX C. INTERIM MEASURES DESIGN PROGRAM

1. Design Plans and Specifications
2. Operations and Maintenance Plan
3. Project Schedule
4. Final Design Documents

APPENDIX D. INTERIM MEASURES CONSTRUCTION QUALITY ASSURANCE PLAN

1. Construction Quality Assurance Objectives
2. Inspection Activities
3. Sampling Requirements
4. Documentation

APPENDIX E. REPORTS

1. Progress
2. Interim Measures Workplan
3. Final Design Documents
4. Draft Interim Measures Report
5. Final Interim Measures Report

APPENDIX A

INTERIM MEASURES WORKPLAN

The Defendant shall prepare an Interim Measures Workplan. The Workplan shall include the development of several plans which shall be prepared concurrently.

A. Interim Measures Objectives

The Workplan shall specify the objectives of the interim measures, demonstrate how the interim measures will abate releases and threatened releases, and to the extent possible, be consistent and integrated with any long-term solution at the facility. The Interim Measures Workplan will include a discussion of the technical approach, engineering design, engineering plans, schedules, budget, and personnel. The Workplan will also include a description of qualifications of personnel performing or directing the interim measures, including contractor personnel. This plan shall also document the overall management approach to the interim measures.

B. Health and Safety Plan

Defendant shall prepare a facility Health and Safety Plan.

1. Major elements of the Health and Safety Plan shall include:

   a. Facility description, including availability of resources such as roads, water supplies, electricity and telephone services;

   b. Describe the known hazards and evaluate the risks associated with the incident and with each activity conducted;

   c. List key personnel and alternates responsible for site safety, response operations, and for protection of human health;

   d. Describe levels of protection to be worn by personnel;

   e. Delineate work area;

   f. Establish procedures to control site access;

   g. Describe decontamination procedures for personnel and equipment;

   h. Establish site emergency procedures;

   i. Address emergency medical care for injuries and toxicological problems;

   j. Describe requirements for an environmental surveillance program;

   k. Specify any routine and special training required for responders;

   l. Establish procedures for protecting workers from weather-related problems; and

   m. Establish emergency procedures.

2. The Facility Health and Safety Plan shall be consistent with:

   a. NIOSH Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (1985);

b. U.S. EPA Order 1440.1 - Respiratory Protection;

c. U.S. EPA Order 1440.3 - Health and Safety Requirements for Employees engaged in Field Activities;

d. Facility Contingency Plan;

e. U.S. EPA Standard Operating Safety Guide (1984);

f. OSHA regulations particularly in 29 CFR 1910 and 1926;

g. State and local regulations; and

h. Other U.S. EPA guidance as provided.

3. The Health and Safety Plan shall be revised to address the activities to be performed at the facility to implement the interim measures.

C. Community Relations Plan

Defendant shall prepare a plan for the dissemination of information to the public regarding interim measure activities and results. These activities shall include the preparation and distribution of fact sheets and participation in public meetings.

APPENDIX B

INTERIM MEASURES INVESTIGATION PROGRAM

A. Data Collection Quality Assurance Plan

Defendant shall prepare a plan to document all monitoring procedures, sampling, field measurements and sample analysis performed during the investigation to characterize the environmental setting, source, and contamination, so as to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented.

1. Data Collection Strategy

   The strategy section of the Data Collection Quality Assurance Plan shall include but not be limited to the following:

   a. A description of the intended uses for the data, and the necessary level of precision and accuracy for these intended uses;

   b. A description of methods and procedures to be used to assess the precision, accuracy, and completeness of the measurement data;

   c. A description of the rationale used to assure that the data accurately and precisely represent a characteristic of a population, parameter variations at a sampling point, a process condition or an environmental condition. Examples of factors which shall be considered and discussed include:

2. Sampling

   The Sampling section of the Data Collection Quality Assurance Plan shall discuss:

   a. Selecting appropriate sampling locations, depths, etc.;

   b. Providing a statistically sufficient number of sampling sites;

   c. Measuring all necessary ancillary data;

   d. Determining which media are to be sampled (e.g., groundwater, air, soil, sediment, etc.);

   e. Determining which parameters are to be measured and where;

   f. Selecting the frequency of sampling and length of sampling period;

   g. Selecting the types of samples (e.g., composites vs. grabs) and number of samples to be collected;

   h. Documenting field sampling operations and procedures, including;

      i) Documentation of procedures for preparation of reagents or supplies which become an integral part of the sample (e.g., filters, and adsorbing reagents);

      ii) Procedures and forms for recording the exact location and specific considerations associated with sample acquisition;

      iii) Documentation of specific sample preservation methods;

iv) Calibration of field devices;

v) Collection of replicate samples;

vi) Submission of field-biased blanks, where appropriate;

vii) Potential interferences present at the facility;

viii) Construction materials and techniques, associated with monitoring wells and piezometers;

ix) Field equipment and sample containers listing;

x) Sampling order; and

xi) Decontamination procedures.

i. Selecting appropriate sample containers;

j. Sample preservation; and

k. Chain-of-custody, including:

i) Standardized field tracking reporting forms to establish sample custody in the field prior to shipment; and

ii) Pre-prepared sample labels containing all information necessary for effective sample tracking.

3. Sample Analysis

The Sample Analysis section of the Data Collection Quality Assurance Plan shall specify the following:

a. Chain-of-custody procedures, including:

i) Identification of a responsible party to act as sample custodian at the laboratory, who is authorized to sign for incoming field samples, obtain documents of shipment, and verify the data entered onto the sample custody records;

ii) Provisions for a laboratory samples custody log consisting of serially numbered standard lab-tracking report sheets; and

iii) Specification of laboratory sample custody procedures for sample handling, storage, and dispersement for analysis.

b. Sample storage;

c. Sample preparation methods;

d. Analytical procedures, including;

i) Scope and application of the procedure;

ii) Sample matrix;

iii) Potential interferences;

iv) Precision and accuracy of the methodology; and

v) Method detection limits.

e. Calibration procedures and frequency;

f. Data reduction, validation and reporting;

g. Internal quality control checks, laboratory performance and system audits and frequency, including:

i) Method blank(s);

ii) Laboratory control sample(s);

iii) Calibration check sample(s);

iv) Replicate sample(s);

v) Matrix-spiked sample(s);

vi) "Blind" quality control sample(s);

vii) Control charts;

viii) Surrogate samples;

ix) Zero and span gases; and;

x) Reagent quality control checks.

A performance audit may be conducted by U.S. EPA on the laboratories selected by the Defendant.

h. Preventative maintenance procedures and schedules;

i. Corrective action (for laboratory problems); and

j. Turnaround time.

B. Data Management Plan

Defendant shall develop and initiate a Data Management Plan to document and track investigation data and result. This plan shall identify and set up data documentation materials and procedures, project file requirements, and project-related progress reporting procedures and documents. The plan shall also provide the format to be used to present the raw data and conclusions of the investigation.

All groundwater data shall be submitted in a computer accessible format, i.e., diskette. The format used shall be compatible with the U.S. EPA, Region V groundwater database known as the Ground Water Information Tracking System (GRITS), Version 4.0.

1. Data Record

The Data record shall include the following:

a. Unique sample or field measurement codes;

b. Sampling or field measurement location and sample or measurement types;

c. Sampling or field measurement raw data;

d. Laboratory analysis ID numbers;

e. Properties or components measured; and

f. Result of analysis (e.g., concentration)..

2. Tabular Displays

The following data shall be presented in tabular displays:

a. Unsorted (raw) data;

b. Results for each medium, or for each constituent monitored;

c. Data reduction for numerical analysis;

d. Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and

e. Summary data.

3. Graphical Displays

The following data shall be presented in graphical formats (e.g., bar graphs, line graphs, area or plan maps, isopleths plots, cross-sectional plots or transects, three dimensional graphs, etc.):

a. Display sampling location and sampling grid;

b. Indicate boundaries of sampling area, and areas where more data are required;

c. Display levels of contamination at each sampling location;

d. Display geographical extent of contamination;

e. Display contamination, levels, averages, and maxima;

f. Illustrate changes in concentration in relation to distance from the source, time, depth or other parameters; and

g. Indicate features affecting intramedia transport showing potential receptors.

APPENDIX C

INTERIM MEASURES DESIGN PROGRAM

A. Design Plans and Specifications

The Defendant shall develop clear and comprehensive design plans and specifications which include but are not limited to the following:

1. Discussion of the design strategy and the design basis, including:

   a. Compliance with all applicable or relevant environmental and public health standards; and

   b. Minimization of environmental and public impacts.

2. Discussion of the technical factors of importance including:

   a. Use of currently accepted environmental control measures and technology;

   b. The constructibility of the design; and

   c. Use of currently acceptable construction practices and techniques.

3. Description of assumptions made and detailed justification of these assumptions;

4. Discussion of the possible sources of error and references to possible operation and maintenance problems;

5. Detailed drawings of the proposed design including:

   a. Qualitative flow sheets;

   b. Quantitative flow sheets;

   c. Facility layout; and

   d. Utility locations.

6. Tables listing materials, equipment and specifications;

7. Tables giving material balances;

8. Appendices including:

   a. Sample calculations (one example presented and explained clearly for significant or unique design calculations);

   b. Derivation of equations essential to understanding the report; and

   c. Results of laboratory or field tests.

General correlations between drawings and technical specifications, is a basic requirement of any set of working construction plans and specifications. Before submitting the project specifications, the Defendant shall coordinate and cross-check the specifications and drawings and complete the proofing of the edited specifications and required cross-checking of all drawings and specifications.

B. Operation and Maintenance Plan

The Defendant shall prepare and Operation and Maintenance Plan to cover both implementation and long-term maintenance of the interim measure. The plan shall be composed of the following elements:

1. Equipment start-up and operator training

   The Defendant shall prepare, and include in the technical specifications governing treatment systems, contractor requirements for providing: appropriate service visits by experienced personnel to supervise the installation, adjustment, startup and operation of the treatment systems; and training covering appropriate operational procedures once the startup has been successfully accomplished.

2. Description of normal operation and maintenance (O&M)

   a. Description of tasks for operation;

   b. Description of tasks for maintenance;

   c. Description of prescribed treatment or operation conditions;

   d. Schedule showing frequency of each O&M task; and

   e. Common and/or anticipated remedies.

3. Description of routine monitoring and laboratory testing

   a. Description of monitoring tasks;

   b. Description of required laboratory tests and their interpretation;

   c. Required QA/QC; and

   d. Schedule of monitoring frequency and date, if appropriate, when monitoring may cease.

4. Description of equipment

   a. Equipment identification;

   b. Installation of monitoring components;

   c. Maintenance of site equipment; and

   d. Replacement schedule for equipment and installed components.

5. Records and reporting mechanisms required

   a. Daily operating logs;

   b. Laboratory records;

   c. Mechanism for reporting emergencies;

   d. Personnel and maintenance records; and

   e. Monthly/annual reports to Federal/State agencies.

The Operation and Maintenance Plan shall be submitted with the Final Design Documents.

C. Project Schedule

The Defendant shall develop a detailed Project Schedule for construction and implementation of the interim measure(s) which identifies timing for initiation and completion of all critical path tasks. Defendant shall specifically identify dates for completion of the project and major interim milestones which are enforceable terms of this order. A Project Schedule shall be submitted simultaneously with the Final Design Documents.

D. Final Design Documents

The Final Design Documents shall consist of the Final Design Plans and Specification (100%) complete, the final Draft Operation and Maintenance Plan, and Project Schedule. The Defendant shall submit the final documents 100% complete with reproducible drawings and specifications. The quality of the design documents should be such that the Defendant would be able to include them in a bid package and invite contractors to submit bids for the construction project.

APPENDIX D

INTERIM MEASURE CONSTRUCTION QUALITY ASSURANCE PLAN

A. Construction Quality Assurance Objectives

In the CQA plan, the Defendant shall identify and document the objectives and framework for the development of a construction quality assurance program including, but not limited to the following: responsibility and authority; personnel qualifications; inspection activities, sampling requirements; and documentation. The responsibility and authority of all organizations (i.e., technical consultants, construction firms, etc.) and key personnel involved in the construction of the interim measure should be described fully in the CQA plan. The Defendant must identify a CQA officer and the necessary supporting inspection staff.

B. Inspection Activities

The observations and tests that will be used to monitor the construction and/or installation of the components of the interim measure(s) shall be summarized in the CQA plan. The plan shall include the scope and frequency of each type of inspection. Inspections shall verify compliance with all environmental requirements and include, but not be limited to air quality and emissions monitoring records, waste disposal records (e.g., RCRA transportation manifests), etc. The inspection should also ensure compliance with all health and safety procedures. In addition to oversight inspections, the Defendant shall conduct the following activities:

1. Preconstruction inspection and meeting

The Defendant shall conduct a preconstruction inspection and meeting to:

a. Review methods for documenting and reporting inspection data;

b. Review methods for distributing and storing documents and reports;

c. Review work area security and protocol;

d. Discuss any appropriate modifications of the construction quality assurance plan to ensure that site-specific considerations are addressed; and

e. Conduct a site walk-around to verify that the design criteria, plans, and specifications are understood and to review material and equipment storage locations.

The preconstruction inspection and meeting shall be documented by a designated person and minutes should be transmitted to all parties.

2. Prefinal inspection

Upon preliminary project completion, Defendant shall notify U.S. EPA for the purposes of conducting a prefinal inspection. The prefinal inspection will consist of a walk-through inspection of the entire project site. The inspection is to determine whether the project is complete and consistent with the contract documents and the U.S. EPA approved interim measure. Any outstanding construction items discovered during the inspection will be identified and noted. Additionally, treatment equipment will be operationally tested by the

Defendant to certify that the equipment has performed to meet the purpose and intent of the specifications. Retesting will be completed where deficiencies are revealed. The prefinal inspection report should outline the outstanding construction items, actions required to resolve items, completion date for these items, and date for final inspection.

3. Final Inspection

Upon completion of any outstanding construction items, the Defendant shall notify U.S. EPA for the purpose of conducting a final inspection. The final inspection will consist of a walk-through inspection of the project site. The prefinal inspection will be used as a checklist and focusing on the outstanding items that have not been resolved.

4. Sampling and Testing Requirements

The sampling and testing activities, sample size, sample and test locations, frequency of testing, acceptance and rejection criteria, and plans for correcting problems should be presented in the CQA.

C. Documentation

Reporting requirements for CQA activities shall be described in detail the CQA plan. This shall include such items as daily summary reports, inspection data sheets, problem identification and interim measures reports, design acceptance reports and final documentation. Provisions for the final storage of all records shall be presented in the CQA plan.

APPENDIX E

REPORTS

A. Progress

The Defendant shall at a minimum provide the U.S. EPA with signed, monthly progress reports containing:

1. A description and estimate of the percentage of the interim measures completed;

2. Summaries of all findings;

3. Summaries of all changes made in the interim measures during the reporting period;

4. Summaries of all contacts with representatives of the local community, public interest groups, or State government during the reporting period;

5. Summaries of all problems of potential problems encountered during the reporting period;.

6. Actions being taken to rectify problems;

7. Changes in personnel during the reporting period;

8. Projected work for the next reporting period; and

9. Copies of daily reports, inspection reports, laboratory/monitoring data, etc.

B. Interim Measures Workplan

The Defendant shall submit an Interim Measures Workplan as described in Appendix A, B, C, and D.

C. Final Design Documents

The Defendant shall submit the Final Design Documents as described in Appendix C.

D. Draft Interim Measures Report

At the "completion" of the construction of the project (except for long-term operations, maintenance and monitoring), the Defendant shall submit an Interim Measures and Implementation Report to the Agency. The Report shall document that the project is consistent with the design specifications, and that the interim measures are performing adequately. The Report shall include, but not be limited to the following elements:

1. Synopsis of the interim measures and certification of the design and construction;

2. Explanation of any modifications to the plan and why these were necessary for the project;

3. Listing of criteria, established before the interim measures were initiated, for judging the functioning of the interim measures and also explaining any modification to these criteria;

4. Results of facility monitoring, indicating that interim measures will meet or exceed the performance criteria; and

5. Explanation of the operation and maintenance (including monitoring) to be undertaken at the facility.

This report shall include of the inspection summary reports, inspection data sheets, problem identification and corrective measure reports, block evaluation reports, photographic reporting data sheets, design engineers' acceptance reports, deviations from design and material specifications (with justifying documentation) and as-built drawings.

E. Final Interim Measures Report

The Defendant shall finalize the Interim Measures Work Plan and the Interim Measures Implementation Report incorporating comments received on draft submissions.

Facility Submission Summary

A summary of the information reporting requirements contained in the Interim measures Scope of Work is present below:

FACILITY SUBMISSIONS	*DUE DATE**
INTERIM MEASURES WORKPLAN -Interim Measures Objectives -Health and Safety Plan -Community Relations Plan -Data Collection QA Plan -Data Management Plan -Construction QA Plan	30 days
Final Design Documents -Design Plans and Specs -O&M Plan -Project Schedule	30 days
Draft Interim Measures Report	Upon completion of construction
Final Interim Measures Report	15 days after receipt of U.S. EPA comments on Draft Interim Measures Report
Progress Reports	Monthly

*All dates are calculated from the effective date of this order unless otherwise specified.

UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF INDIANA
INDIANAPOLIS DIVISION

UNITED STATES OF AMERICA, Plaintiff, INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, Intervening Plaintiff, v. REFINED METALS CORPORATION, Defendant.	CIVIL ACTION NO. IP902077C HONORABLE JUDGE SARAH E. BARKER

CONSENT DECREE

EXHIBIT D: Scope of Work for a Corrective Measures Implementation

EXHIBIT D

SCOPE OF WORK FOR THE CORRECTIVE MEASURE(S) IMPLEMENTATION AT REFINED METALS CORPORATION, INDIANAPOLIS, INDIANA

PURPOSE

The purpose of the Corrective Measures Implementation (CMI) program is to design, construct, operate, maintain and monitor the performance of the corrective measure or measures selected by U.S. EPA. The Defendant will furnish all personnel, materials and services necessary for the implementation of the corrective measures.

SCOPE

The CMI program shall consist of four tasks:

Task XII: Corrective Measure Implementation Program Plan

- A. Program Management Plan
- B. Community Relations Plan

Task XIII: Corrective Measure Design

- A. Design Plans and Specifications
- B. Operation and Maintenance Plan
- C. Cost Estimate
- D. Project Schedule
- E. Construction Quality Assurance Objectives
- F. Health and Safety Plan
- G. Design Phases

Task XIV: Corrective Measures Construction

- A. Responsibility and Authority
- B. Construction Quality Assurance Personnel Qualifications
- C. Inspection Activities
- D. Sampling Requirements
- E. Documentation

Task XV: Reports

- A. Progress
- B. Draft
- C. Final

Task XII: CMI Program Plan

The Respondents shall prepare and submit a CMI Program Plan. This program will include the development and implementation of several plans, which shall be prepared concurrently. The Program Plan includes the following:

A. Program Management Plan

The Defendant shall prepare a Program Management Plan which will document the overall management strategy for performing the design, construction, operation, maintenance and monitoring of Corrective Measures for U.S. EPA review and approval. The plan shall document the responsibility and authority of all organizations and key personnel involved with the implementation. The Program Management Plan shall also include a description of qualifications of key personnel directing the Corrective Measure Design and Implementation, including contractor personnel. The Defendant shall submit a final CMI Program Plan incorporating U.S. EPA's comments on the Draft CMI Program Plan according to the schedule identified in the Submission Summary.

B. Community Relations Plan

The Defendant shall revise the Community Relations Plan to include any changes in the level of concern of information needs to the community during design and construction activities.

1. Specific activities which must be conducted during the design stage are the following:

   a. Rives the facility Community Relations Plan to reflect knowledge of citizen concerns and involvement at this stage of the process; and

   b. Prepare and distribute a public notice and an updated fact sheet at the completion of the engineering design.

2. Specific activities to be conducted during the construction stage could be the following: Depending on the citizen interest at the facility at this point in the corrective action process, community relations activities could range from group meetings to fact sheets on the technical issues.

TASK XIII: CORRECTIVE MEASURE DESIGN

The Defendant shall prepare final construction plans and specifications to implement the Corrective Measures at the facility which have been selected by U.S. EPA.

A. Design Plans and Specifications

The Defendant shall develop clear and comprehensive design plans and specifications which include but are not limited to the following:

1. Discussion of the design strategy and the design basis, including:

   a. Compliance with all applicable or relevant environmental and public health standards; and

   b. Minimization of environmental and public impacts.

2. Discussion of the technical factors of importance including:

   a. Use of currently accepted environmental control measures and technology;

   b. The constructability of the design; and

   c. Use of currently acceptable construction practices techniques.

3. Description of assumptions made and detailed justification of these assumptions;

4. Discussion of the possible sources of error and references to possible operation and maintenance problems;

5. Detailed drawings of the proposed design including:

   a. Qualitative flow sheets; and

   b. Quantitative flow sheets.

6. Tables listing equipment and specifications;

7. Tables giving material and energy balances;

8. Appendices including:

   a. Sample calculations (one example presented and explained clearly for significant or unique design calculations

b. Derivation of equations essential to understanding of the report; and

c. Results of laboratory or field tests.

B. Operation and Maintenance Plan

The Defendant shall prepare an Operation and Maintenance Plan to cover both implementation and long term maintenance of the Corrective Measures. An initial Draft Operation and Maintenance Plan shall be submitted simultaneously with the Prefinal Design Document submission and the Final Operation and Maintenance Plan with the Final Design documents. The plan shall include the following elements:

1. Description of normal operation and maintenance (O&M):

   a. Description of tasks for operation;

   b. Description of tasks for maintenance;

   c. Description of prescribed treatment or operation conditions; and

   d. Schedule showing frequency of each O&M task.

2. Description of potential operating problems:

   a. Description and analysis of potential operation problems;

   b. Sources of information regarding problems; and

   c. Common and/or anticipated remedies.

3. Description of routine monitoring and laboratory testing:

   a. Description of monitoring tasks;

   b. Description of required laboratory tasks and their interpretation;

   c. Required data collection, Quality Assurance Project Plan (QAPP);

   d. Schedule of monitoring frequency; and

   e. Description of triggering mechanisms for ground water/ surface water monitoring results.

4. Description of alternate O&M:

a. Should system fail, alternate procedures to prevent release or threatened releases of hazardous substances, pollutants or contaminants which may endanger public health and the environment or exceed cleanup standards; and

b. Analysis of vulnerability and additional resource requirements should a failure occur.

5. Corrective Steps:

a. Description of corrective steps to be implemented in the event or performance standards are not met; and

b. Schedule for implementing these corrective steps.

6. Safety Plan:

a. Description of precautions, of necessary equipment, etc., for site personnel; and

b. Safety tasks required in event of systems failure.

7. Description of equipment:

a. Equipment identification;

b. Installation of monitoring components;

c. Maintenance of site equipment; and

d. Replacement schedule for equipment and installed components.

8. Records and reporting mechanisms required:

a. Daily operating logs;

b. Laboratory records;

c. Records for operating costs;

d. Mechanism for reporting emergencies;

e. Personnel and maintenance records; and

f. Monthly/annual reports to State agencies.

C. <u>Cost Estimate</u>

The Defendant shall refine the cost estimate developed in the CMS to reflect the more detailed/accurate design plans

and specifications being developed. The cost estimate shall include both capital and operation and maintenance costs. An Initial Cost Estimate shall be submitted simultaneously with the Prefinal Design submission and the Final Cost Estimate with the Final Design Document.

D. Project Schedule

The Defendant shall develop a project schedule for construction and implementation of the Corrective Measures which identifies timing for initiation and completion of all critical path tasks. Defendant shall specifically identify dates for completion of the project and major interim milestones. An initial project schedule shall be submitted simultaneously with the Prefinal Design Document submission and the Final Project Schedule with the Final Design Document.

E. Construction Quality Assurance Objectives

The Defendant shall identify and document the objectives and framework for the development of a construction quality assurance program including, but not limited to the following: responsibility and authority; personnel qualifications; inspection activities; sampling requirements and documentation. Draft Construction Quality Assurance Objectives shall be submitted simultaneously with the Prefinal Design Submission and the Final Construction Quality Assurance Objectives shall be submitted following U.S. EPA approval of the Final Design Document.

F. Health and Safety Plan

The Defendant shall submit a Health and Safety Plan to address the activities to be performed at the facility to implement the Corrective Measures.

G. Design Phases

The Defendant shall meet regularly with U.S. EPA to discuss design issues. The design of the Corrective Measures shall include the phases outlined below.

1. Preliminary design

The Defendant shall submit the preliminary design when the design effort is approximately 30% complete according to the schedule in the Submission Summary. At this stage, the Defendant shall have field verified the existing conditions at the facility. The preliminary design shall reflect a level of effort such that the technical requirements of the project have been addressed and

outlined so that they may be reviewed to determine if the final design will provide an operable and usable Corrective Measure. Supporting data and documentation shall be provided with the design documents defining the functional aspects of the program.

The preliminary construction drawings by the Defendant shall reflect organization and clarity. The scope of the technical specifications shall be outlined in a manner reflecting the final specifications. The Defendant shall include with its preliminary submission, design calculations reflecting the same percentage of completion as the design they support. Predesign work, if required by U.S. EPA, shall be reported at this time.

2. Intermediate design

The intermediate design shall be submitted at 60% completion of the project. The intermediate design submittal should include the following sections:

a. Invitation to bid (without date);

b. Bid proposal forms (without units);

c. Subcontract forms;

d. Standard conditions; and

e. Preliminary technical specifications.

3. The detailed plans will have been started at this point. General correlation between drawings and technical specifications is a basic requirement of any set of working construction plans and specifications. Before submitting the project specifications, the Defendant shall:

a. Coordinate and cross-check the specifications and drawings; and

b. Complete the proofing of the edited specifications and required cross-checking of all drawings and specifications.

4. The Defendant shall prepare, and include in the technical specifications governing treatment systems, contractor requirements for providing: appropriate service visits by experienced personnel to supervise the installation, adjustment, start up and operation of the treatment systems, and training covering

appropriate operational procedures once the startup has been successfully accomplished.

5. Prefinal Design

The Defendant shall submit the Prefinal Design according to the schedule in the Submission Summary. The submission shall be at 95% completion of design (i.e., prefinal). After approval of the prefinal submission, the Defendant shall execute the required revisions and submit the final design (100% completion) with reproducible drawings and specifications.

The prefinal design submittal shall consist of the Design Plans and specifications, Operation and Maintenance Plan, Capital and Operating and Maintenance Cost Estimate, Project Schedule, Construction Quality Assurance Objectives and Specifications for the Health and Safety Plan.

6. Final Design

The Defendant shall submit a Final Design according to the schedule in the Submission Summary. The Final Design consists of the Final Design Plans and Specifications (100% complete), the Defendant's Final Construction Cost Estimate, the Final Operation and Maintenance Plan, Construction Quality Assurance Objectives, Final Project Schedule and Final Health and Safety Plan Specifications. The quality of the design documents shall be such that they will be ready, as is, for bid advertisement.

7. Additional Studies

The U.S. EPA may require additional studies to supplement the available technical data. The Defendant shall furnish all equipment and personnel necessary to complete any additional work needed. Draft and final reports shall be prepared presenting all data obtained during the additional studies, summary of the results and conclusions.

Task XIV: CORRECTIVE MEASURE CONSTRUCTION

The Defendant shall finalize the Construction Quality Assurance Plan incorporating comments received on the draft Construction Quality Assurance Plan submitted with the Prefinal Design. Within _____ days of U.S. EPA approval of the final design, the Defendant shall implement a construction quality assurance (CQA) program to ensure, with a reasonable degree of certainty, that a completed Corrective Measure will meet or exceed all design criteria, plans and specifications. The CQA plan is a facility specific document which must be approved by U.S. EPA prior to the start of the construction. At a minimum, the CQA plan should include the elements which are summarized below. Within _____ days of U.S. EPA approval of the CQA Plan, the Defendant shall construct and implement the Corrective Measures in accordance with the approved design, schedule and CQA plan. Defendant shall also implement the elements of the approved operation and maintenance plan.

A. Responsibility and Authority

The Defendant shall describe fully in the CQA Plan the responsibility and authority of all organizations (i.e., technical consultants, construction firms, etc.) and key personnel involved in the construction of the corrective measure. The Defendant shall identify a CQA Plan. The Defendant shall also identify a CQA officer and the necessary supporting inspection staff.

B. Construction Quality Assurance Personnel Qualifications

The Defendant shall set forth the qualifications of the CQA Officer and supporting inspection personnel shall be presented in the CQA plan to demonstrate that they possess the training and experience necessary to fulfill their identified responsibilities.

C. Inspection Activities

The Defendant shall summarize in the CQA plan the observations and tests that will be used to monitor the construction and/or installation of the components of the Corrective Measures. The plan shall include the scope and frequency of each type of inspection. Inspections shall verify compliance with environmental requirements and include, but not be limited to air quality and emissions monitoring records, waste disposal records (e.g., RCRA transportation manifests), etc. The inspection shall also ensure compliance with all health and safety procedures. In addition to the oversight inspections, the Defendant shall conduct the following activities:

1. Preconstruction inspection and meeting

The Defendant shall conduct a preconstruction inspection and meeting to:

a. Review methods for documenting and reporting inspection data;

b. Review methods for distributing and storing documents and reports;

c. Review work area security and safety protocol;

d. Discuss any appropriate modifications of the construction quality assurance plan to ensure that site-specific considerations are addressed; and

e. Conduct a site walk-around to verify that the design criteria, plans and specifications are understood and to review material and equipment storage locations. The preconstruction inspection and meeting shall be documented by a designated person and minutes shall be transmitted to all parties.

2. Prefinal Inspection

Upon preliminary project completion, Defendant shall notify U.S. EPA for the purposes of conducting a prefinal inspection. The prefinal inspection shall consist of a walk-through inspection of the entire project site. The inspection is to determine whether the project is complete and consistent with the contract documents and the U.S. EPA approved Corrective Measure. Any outstanding construction items discovered during the inspection shall be identified and noted. Additionally, treatment equipment shall be operationally tested by Defendant. The Defendant shall certify that the equipment has performed to meet the purpose and intent of the specifications. Retesting will be completed where deficiencies are revealed. The Defendant shall outline in the prefinal inspection report the outstanding construction items, actions required to resolve items, completion date for these items and date for final inspection.

3. Final Inspection

Upon completion of any outstanding construction items, the Defendant shall notify U.S. EPA for the purposes of conducting a final inspection. The final inspection shall consist of a walk-through inspection of the project site. The prefinal inspection report will be used as a checklist with the final inspection focusing on the outstanding

construction items identified in the prefinal inspection. Confirmation shall be made that outstanding items have been resolved.

D. Sampling Requirements

The Defendant shall present in the CQA plan the sampling activities, sample size, sample locations, frequency of testing, criteria for acceptance and rejection and plans for correcting problems as addressed in the project specifications.

E. Documentation

The Defendant shall describe in detail in the CQA plan the reporting requirements for CQA activities. This shall include such items as daily summary reports, inspection data sheets, problem identification and corrective measures reports, design acceptance reports and final documentation. Provisions for the final storage of all records shall be presented in the CQA plan.

TASK XV: Other Reports and Submissions

The Defendant shall prepare plans, specifications and reports as set forth in Tasks XII through Task XIV to document the design, construction, operation, maintenance and monitoring of the Corrective Measure. Other documentation shall include, but not be limited to the following:

A. Progress

The Defendant shall at a minimum provide the U.S. EPA with signed monthly progress reports during the design and construction phases and semi-annual progress reports for operation and maintenance activities containing:

1. A description and estimate of the percentage of the CMI completed;

2. Summaries of all findings;

3. Summaries of all changes made in the CMI during the reporting period;

4. Summaries of all contacts with representatives of the local community, public interest groups or State government during the reporting period;

5. Summaries of all problems or potential problems encountered during the reporting period;

6. Actions being taken to rectify problems;

7. Changes in personnel during the reporting period;

8. Projected work for the next reporting period; and

9. Copies of daily reports, inspection reports, laboratory/monitoring data, etc.

B. Draft Submittals

1. The Defendant shall submit draft CMI work plans as outlined in Task XII;

2. The Defendant shall submit draft Construction Plans and Specifications, Design Reports, Cost Estimates, Schedules, Operation and Maintenance Plans and study Reports as outlined in Task XII;

3. The Defendant shall submit a draft Construction Quality Assurance Program Plan and Documentation as outlined in Task XIV; and

4. At the completion of the project, the Defendant shall submit a draft Corrective Measure Implementation Report to the Agency. The report shall document that the project is consistent with the design

specifications, and that the corrective measure is performing adequately. The Report shall include, but not be limited to the following elements:

a. Synopsis of the corrective measure and certification of the design and construction;

b. Explanation of any modifications to the plans and why these were necessary for the project;

c. Listing of the criteria, established before the remedial action was initiated, for judging the functioning of the remedial action and also providing explanation of any modification to these criteria;

d. Results of facility monitoring, indicating that the remedial action will meet or exceed the performance criteria;

e. Explanation of the operation and maintenance (including monitoring) to be undertaken at the facility; and

f. Data demonstrating that the Cleanup Standards have been achieved.

C. Final Submittals

The Defendant shall finalize the Corrective Measure Implementation Program Plans, Design Reports, Construction Plans and Specifications, Cost Estimates. Project Schedule, Operation and Maintenance Plan, Study Reports, Construction Quality Assurance Program Plan/Documentation and the Corrective Measure Implementation Report incorporating comments received on draft submissions.

Submission Schedule

The Defendant shall comply with the information reporting requirements presented below.

FACILITY SUBMISSION	DATE DUE
Draft Program Plans (Task XII)	60 days after U.S. EPA final selection of Corrective Measures for facility
Final Program Plan (Task XII)	30 days after receipt of U.S. EPA comments on draft Program Plan
Design Phases (Task XIIIG)	
- Preliminary Design (30% completion)	- 45 days after U.S. EPA approval of final Program Plans
- Intermediate Design (60% completion)	- 90 days after U.S. EPA approval of final Program Plans
- Prefinal Design (95% completion)	- 135 days after U.S. EPA approval of the final Program Plans
- Final Design (100% completion)	- 35 days after U.S. EPA approval of the Prefinal Design
(Tasks XIIIA through F)	
-Draft Submittals	120 days after U.S. EPA final selection of corrective measures for facility
-Final Submittals	Concurrent with submittal of Final Design (100% Design Completion)
Draft Construction Quality Assurance Plan (Task XIV)	Concurrent with submittal of Prefinal Design (95%) Completion
Final Construction Quality Assurance Plan (Task XIV)	30 days after (a) U.S. EPA comment on Draft Construction Quality Assurance Plan or (b) U.S. EPA approval of Prefinal Design, whichever is later.
Construction of Corrective Measures	As approved in Final Design
Prefinal Inspection Report (Task XIV)	30 days after Prefinal Inspection
Draft CMI Report (Task V)	45 days after completion of the construction phase
Final CMI Report (Task V)	21 days after receipt of U.S. EPA comments on draft CMI Report
Progress Reports for Tasks XII through V	Monthly
Reports during Operation and Maintenance	Semi-annual

UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF INDIANA
INDIANAPOLIS DIVISION

UNITED STATES OF AMERICA, Plaintiff, INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, Intervening Plaintiff, v. REFINED METALS CORPORATION, Defendant.	CIVIL ACTION NO. IP902077C HONORABLE JUDGE SARAH E. BARKER

CONSENT DECREE

EXHIBIT E: **January 10, 1995, Agreed Order in Commissioner of the Department of Environmental Management v. Refined Metals Corporation, Cause Number A-2521.**

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

Evan Bayh
Governor
Kathy Prosser
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Telephone 317-232-8603
Environmental Helpline 1-800-451-6027

STATE OF INDIANA COUNTY OF MARION	) SS:	BEFORE THE INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
COMMISSIONER OF THE DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, Complainant, v. REFINED METALS CORPORATION Respondent.	)	CAUSE NO. A-2521

AGREED ORDER

The Commissioner and the Respondent hereby consent to the entry of the following Findings of Fact and Order. Pursuant to IC 13-7-11-2(b), entry into the terms of this Agreed Order does not constitute an admission of any violation contained herein.

I. FINDINGS OF FACT

Upon the consent of the parties hereto, the following findings are made by the Complainant:

1. Complainant is the Commissioner (hereinafter referred to as "Complainant") of the Indiana Department of Environmental Management (hereinafter referred to as "IDEM"), a department of the State of Indiana created by IC 13-7-2-11.

2. Refined Metals Corporation, (hereinafter referred to as "Respondent"), owns and operates a secondary lead smelter, located in Beech Grove, Indiana.

3. Complainant has jurisdiction over the Respondent and the subject matter of this action.

4. On March 17, 1994, Office of Air Management staff conducted an inspection of Respondent's operations. Inspection of Respondent's records showed that negative pressure had not been maintained continuously in the buildings housing the blast furnace, dust furnace, refining kettles, casting operation, and lead storage as required by Section 1 (1) of the emergency rule (a noncode provision concerning source specific provisions for Refined Metals Company)

approved by the Indiana Air Pollution Control Board on January 5, 1994 and effective for the period from January 6, 1994 through April 5, 1994. Failure to maintain continuous negative pressure in the aforementioned buildings constitutes an alleged violation of the aforementioned emergency rule.

5. Complainant's and Respondent's representatives met on April 15 to discuss concerns raised by the above noted alleged violation, as well as evidence indicating that the National Ambient Air Quality Standard for Lead was exceeded at the Indianapolis Air Pollution Control Section's monitoring site (site 28) located at 3700 South Arlington for the period of January through March 1994. The Respondent's and Complainant's representatives discussed a number of possible remedies regarding upgrades and improvements at Respondent's operation designed to address those concerns.

6. A Preliminary Agreed Order that did not resolve all issues in this matter, but did require the Respondent to take substantive actions, was executed on May 20, 1994.

7. Review of negative pressure monitoring records indicates that Respondent did not continuously maintain negative pressure in the buildings housing the refinery kettles, casting operation, blast furnace, dust furnace, and lead storage during the period February 11, 1994 through May 26, 1994 inclusive, and July 22, 1994 through July 26, 1994 inclusive, and on July 29, 1994. That negative pressure for those above-described locations be maintained is required by 326 IAC 15-1-2 (a)(1)(D), and Section 1 (1) of the emergency rule (a noncode provision concerning source specific provisions for Refined Metals Corporation approved by the Indiana Air Pollution Control Board on January 5, 1994. Failure to maintain negative pressure in the above-described locations for the aforementioned periods constitutes a total of 110 days of violation of the above-cited regulations.

8. Review of continuous opacity monitoring reports indicates that the continuous opacity monitor on baghouse M-1 failed to operate, or provided invalid data for significant periods of the fourth quarter of 1993, and the first, second, and third quarters of 1994 while the facility was in operation. The failure to operate the continuous opacity monitor and provide valid data continuously from the opacity monitor on baghouse M-1 while the facility is in operation constitutes a violation of 326 IAC 3-1.1, 326 IAC 15-1-2 (a)(1)(G), and 326 IAC 15-1-2 (a)(1)(I).

9. The Respondent conducted emissions sampling for particulate matter, sulfur dioxide, and lead on September 13 through September 15, 1994.

10. Emissions sampling conducted on September 15, 1994 demonstrated sulfur dioxide emissions of 74.47 pounds per hour from Respondent's blast furnace. Sulfur dioxide emissions from Respondent's blast furnace in excess of 64.8 pounds per hour constitute a violation of 326 IAC 7-4-2.

11. Review of continuous emissions monitoring reports for sulfur dioxide from Respondent's blast furnace, show emissions in excess of 64.8 pounds per hour, during the period from September 16 through September 30, 1994.

Sulfur dioxide emissions from Respondent's blast furnace in excess of 64.8 pounds per hour constitute violations of 326 IAC 7-4-2.

12. Agreed Order, Cause No. A-1031 was executed September 25, 1991. Pursuant to that Agreed Order, a stipulated penalty of $18,400 was assessed and paid for failure to submit reports for the first quarter of 1992.

13. Respondent failed to install a continuous emissions monitor for sulfur dioxide which complied with the requirements of 326 IAC 3-1 until July 1994. Order condition No. 4 of Agreed Order, Cause No. A-1031 (issued September 25, 1991), required Respondent to install such a continuous monitor within 120 days of the Effective Date of that Agreed Order. Failure to install such a monitor until July 1994 constitutes a violation of Order condition No. 4 of the aforementioned Agreed Order.

14. Respondent failed to submit the required continuous opacity monitor report for the fourth quarter of 1993 until April 4, 1994, sixty-three days later than required by 326 IAC 3-1.1. Order condition No. 14 (a) of Agreed Order, Cause No. A-1031 provides for stipulated penalties of $200 per day for failure to submit any report or notification as required by that Agreed Order. Therefore, a stipulated penalty of Twelve Thousand Six Hundred Dollars ($12,600) has accrued.

15. Respondent failed to seal its material storage building such that there are no visible openings until after August 1, 1994. Order condition No. 2 of Preliminary Agreed Order, Cause No. A-2521 required the material storage building to be so sealed no later than July 20, 1994. Order condition No. 10 of the aforementioned Preliminary Agreed Order provides a stipulated penalty of One Thousand Dollars ($1,000) per day for failure to comply with the requirements of Order condition No. 2. Respondent failed to comply with Order condition No. 2 for at least the twelve (12) day period from July 21 to August 1, 1994 inclusive.

16. Inspections on July 22, August 1, and August 18, 1994, by Office of Air Management staff found lead containing material deposited or tracked out of Respondent's buildings that was not actively being cleaned up, and as such was not being cleaned up immediately. Failure to clean up such material immediately was a failure to comply with the requirements of Order condition No. 6 of Preliminary Agreed Order, Cause No. A-2521. Order condition No. 10 of the aforementioned Preliminary Agreed Order provides a stipulated penalty of One Thousand Dollars ($1,000) per day for failure to comply with the requirements of Order condition No. 6. Respondent failed to comply with the requirements of Order condition No. 6 on the dates specified above.

17. An inspection on August 18, 1994, by Office of Air Management staff found that no records of sweeper operation were maintained for the period July 25, 1994 through August 18, 1994, inclusive. Order condition No. 6 of Preliminary Agreed Order, Cause No. A-2521 makes Respondent's May 4, 1994 revision of its fugitive dust control program a part of the Preliminary Agreed Order, and requires compliance with the requirements of the fugitive dust control program. The Respondent failed to comply with the requirements

of the fugitive dust control program by failing to maintain records of sweeper operation for the period cited above. Order condition No. 10 of the aforementioned Preliminary Agreed Order provides a stipulated penalty of One Thousand Dollars ($1,000) per day for failure to comply with the requirements of Order condition No. 6. Respondent failed to comply with the requirements of order condition No. 6 for the period specified above.

18. The Respondent has submitted and implemented an IDEM approved plan regarding thorough cleaning of all vehicle wheels of vehicles exiting the material storage building, as required by the aforementioned Preliminary Agreed Order.

19. Pursuant to IC 13-7-11-2(b), IDEM issued a Notice of Violation via Certified Mail to:

Mr. Michael Meloy
Plant Manager and Registered Agent
Refined Metals Corporation
P. O. Box 188
Beech Grove, Indiana 46107

Mr. T. W. Freudiger
Vice President
Refined Metals Corporation
257 West Mallory Avenue
P. O. Box 9009
Memphis, Tennessee 38109

20. This Agreed Order shall fully resolve the liability of Respondent through the Effective Date of this Agreed Order for all violations of the regulations and for all violations of terms of prior Agreed Order Cause No. A-1031 (September 25, 1991) and Preliminary Agreed Order Cause No. A-2521 (May 20, 1994) cited in this Agreed Order and in the Notice of Violation (Cause No. A-2521) issued December 6, 1994.

21. In agreeing to the issuance of and entering into this Order, the Respondent does not admit liability with respect to the alleged violations.

22. Respondent waives any right to administrative and judicial review of this Agreed Order and agrees not to contest the jurisdiction of Complainant to enter into this Order. However, in the event a dispute arises regarding an action taken by the Department under this Agreed Order, both parties retain their rights under the Indiana Administrative Orders and Procedures Act IC 4-21.5 concerning review of such action, but this Agreed Order itself will not be subject to review.

II. ORDER

WHEREFORE, based upon the Findings of Fact and upon the consent of the parties, it is hereby ORDERED that:

1. The Respondent has installed spark arresters or the equivalent on baghouses M-1 and M-2. The Respondent shall install a spark arrester or the equivalent on baghouse M-3 within thirty (30) days following the effective date of this Agreed Order.

2. The Respondent shall make permanent the sealing of the material storage building required by Preliminary Agreed Order, Cause No. A-2521 executed on May 20, 1994, Order Paragraph No. 2. A permanent seal means sealing any holes, or replacing walls with sheet metal, a sheet metal and insulation combination, or concrete so that the building can be maintained under negative pressure . The Respondent shall complete this project no later than within thirty (30) days following the effective date of this Order.

3. The Respondent shall permanently seal the furnace building in the same fashion as that required for the material storage building in Paragraph 2 above. The Respondent shall complete this project within ninety (90) days following the effective date of this Order.

4. The buildings housing the blast furnace, dust furnace, and materials storage shall be kept under continuous negative pressure, at all times during plant operation and when materials are being handled, by constant flow rate fans ducted to air pollution control devices. The Respondent shall maintain continuous negative pressure for a minimum of fifteen (15) minutes after the cessation of plant operation or material handling.

5. This Order shall be valid and enforceable the date this Order is executed by the Complainant or her delegatee. However, all time periods shall run from the date Respondent receives this executed Order (hereinafter called "Effective Date"). This Agreed Order shall remain in effect for a period of four years after the Effective Date.

6. The Respondent shall install, operate, and maintain a continuous monitoring system to measure and record pressure differential to demonstrate compliance with order condition No. 4. The measuring equipment shall be located on the north wall of the materials storage building. It shall consists of a differential pressure sensor/transmitter, a processor, and a recording device. This system shall produce valid data ninety-five percent (95%) of the time when required to operate under Order condition No. 4. The devices shall measure and record both negative and positive pressures. Data generated by this monitoring system shall be kept available for inspection at the site for a period of two (2) years.

7. There shall be no visible emissions from building openings housing the blast furnace, dust furnace, and material storage including doors and windows as determined in accordance with 40 CFR 60, Appendix A, Method 22.

8. Concrete and paved areas shall be cleaned at least daily, except on days the concrete and paved areas remain wet throughout the working hours, so that vehicle traffic will not entrain visible dusts as determined in accordance with 40 CFR 60, Appendix A, Method 22. Vehicle exhaust shall be exempt for purposes of determining compliance with this requirement.

9. The Respondent shall install and operate continuous opacity monitors on the exhaust stacks, or in the ductwork leading to those exhaust stacks, for baghouses M-2, and M-3, in accordance with the requirements of 326 IAC 3-1.1. The Respondent shall install indicator lights alerting operators whenever

opacity from any continuous opacity monitor, whether located on M-1, M-2, M-3, or M-4, exceeds five percent (5%) opacity. The indicator lights must indicate at which exhaust the excess opacity is occurring. The Respondent shall complete this project within 160 days of the effective date of this Agreed Order.

10. Upon notification in writing by the Indianapolis Air Pollution Control Section (IAPCS) or IDEM that: 1) the ambient air quality monitors located adjacent to or near the Respondent's plant have recorded lead concentrations that have or clearly will, when averaged over the quarter, result in an exceedance of the National Ambient Air Quality Standard (NAAQS) for lead of 1.5 ug/m3, and 2) the IAPCS or IDEM believes such exceedance was or will be caused in whole or in part by emissions from Respondent's facility (in all events where disputed Respondent shall have the burden of showing that it is not the cause in whole or in part of such exceedances of the NAAQS for lead), the Respondent shall immediately take the following steps:

a. Cease operations within forty-eight hours of receipt of notification until the measures identified in subparagraph b have been implemented and a corrective action plan to correct the conditions causing the excessive emissions has been approved by IDEM and the IAPCS.

b. The Respondent shall, if it elects to renew operations, undertake an investigation of the cause of the excessive lead concentrations and, submit a report of that investigation and its results to IDEM and IAPCS. At a minimum, the investigation shall include the following:

1. A description of whether and how the plant is in compliance with the provisions of its operating permit, 326 IAC 15-1, the Preliminary Agreed Order Cause No. 2521 issued May 20, 1994, the Agreed Order Cause No. 1031 issued September 25, 1991, its fugitive dust control plan, and this Agreed Order, as those provisions and requirements relate to lead emissions.

2. Investigation of all possible causes of excess emissions relating to lead, including but not limited to stack emissions, process and road fugitive emissions, unforeseen events or malfunctions of equipment and housekeeping and maintenance procedures. Housekeeping and maintenance investigations must include a "black light" check of the baghouses, an evaluation of the condition of the dust handling system performed by Respondent's consultant, and a leak inspection of all buildings which house lead-bearing materials. In investigating stack emissions Respondent shall review applicable monitoring data. Stack testing is not required as a part of this investigation, but if stack testing is performed it must comply with 326 IAC 3-2.1, and be approved by IDEM and the IAPCS. The IDEM reserves the right to require stack testing for purposes other than this report.

3. A proposed corrective action plan that includes specific measures and a schedule for expeditious implementation of those measures to eliminate the causes of the excess lead emissions.

4. A proposed date for recommencement of operations at the plant.

5. All continuous emissions monitor and continuous opacity monitor data for the ninety (90) day calendar quarter in which the ambient violation cited in the notification occurred.

6. Measurement data from the pressure differential device located within the material storage building for the ninety (90) day calendar quarter in which the ambient violation cited in the notification occurred.

7. Records of sweeping, spills, and spill control activities for the ninety (90) day calendar quarter in which the ambient violation cited in the notification occurred.

8. Records of the type and amount of material charged to the blast furnace for the ninety (90) day calendar quarter in which the ambient violation cited in the notification occurred.

9. Records of maintenance and inspection of all dust collection devices and fugitive dust emissions points for the ninety (90) day calendar quarter in which the ambient violation cited in the notification occurred.

10. A report certified by a responsible corporate official that the entire paved area and all building exteriors at Respondent's plant have been cleaned of visible dust deposits by power washing or sweeping since the receipt of the notification from the IDEM or IAPCS.

c. Within seven (7) days of receipt of the investigation report and proposed plan, IDEM and IAPCS shall concurrently either a) approve the report and proposed plan, b) disapprove the report and proposed plan and indicate to the Respondent which provisions are inadequate, or c) request additional information.

d. Upon approval by IAPCS and IDEM of the information required in order condition No. 10 (b)., operations may recommence at the plant on the date proposed by Respondent, if IDEM and IAPCS find that sufficient measures will be implemented by that date to reasonably assure that exceedances of the NAAQS for lead caused in whole or in part by Respondent will not occur or recur, or such other date the IDEM and IAPCS may identify. Neither IDEM nor IAPCS shall unreasonably withhold approval of the aforementioned required report and proposed plan, require unreasonable corrective action measures be undertaken by the Respondent, nor impose unreasonable time

schedules. The Respondent shall expeditiously implement the measures included in its corrective action plan in accordance with the schedule approved by IDEM and IAPCS.

e. If the Respondent undertakes and completes an investigation of excessive lead concentrations and submits a report containing the information required in Paragraph 10 (b) above and a proposed corrective action plan prior to receiving written notification described above, IDEM and IAPCS may approve the report and the proposed corrective action plan instead of issuing the notification of the lead NAAQS violation. Neither IDEM nor IAPCS shall unreasonably withhold approval of the aforementioned required report and proposed plan, require unreasonable corrective action measures be undertaken by the Respondent, nor impose unreasonable time schedules. The Respondent shall expeditiously implement the measures included in its corrective action plan in accordance with the schedule approved by IDEM and IAPCS.

f. In the event Respondent fails to timely implement the measures included in its approved corrective action plan, it shall cease operations until such requirements are fully implemented, unless the IDEM and IAPCS agree in writing to allow Respondent to continue to operate.

g. It is the understanding of the parties that the IAPCS will provide Respondent with the lead ambient air quality monitoring data within three business days of IAPCS' receipt of said data.

11. Upon notification in writing by IDEM or IAPCS that 1) the ambient air quality monitors located adjacent to or near Respondent's plant have recorded lead concentrations which equal or exceed 1.5 ug/m3 for a single day, and 2) the IAPCS or IDEM believe such lead concentrations were caused in whole or in part by emissions from Respondent's facility (in all events where disputed Respondent shall have the burden of showing that it is not the cause in whole or in part of such lead concentrations) Respondent shall do the following:

a. Prepare the following report and submit it to IDEM and IAPCS within five working days:

1. Continuous emissions monitor and continuous opacity monitor data for the stacks so equipped for the specified day and measurement data for the seven day period immediately preceding it.

2. Measurement data from the pressure differential device located within the material storage building for the specified day, and such data for the seven day period immediately preceding it.

3. Records of sweeping, spills, and spill control activities for the specified day, and for the seven day period immediately preceding it.

4. Records of the type and amount of material charged to the blast furnace on the specified day, and for the seven day period immediately preceding it.

5. Records of maintenance and inspection of all dust collection devices and fugitive dust emission points for the specified day, and for the seven day period immediately preceding it.

b. The Respondent shall undertake an investigation of the cause for any ambient air lead concentration equal to or in excess of 1.5 ug/m3, and within fourteen (14) days of initial notification by IDEM or IAPCS, submit a report of that investigation and its results to IDEM and IAPCS. At a minimum, the investigation shall include the following:

1. A description of whether and how the plant is in compliance with its operating permit, 326 IAC 15-1, the Preliminary Agreed Order Cause No. 2521 issued May 20, 1994, the Agreed Order Cause No. 1031 issued September 25, 1991, its fugitive dust control plan, and this Agreed Order as those provisions and requirements relate to lead emissions.

2. An investigation focused upon preventive maintenance to tighten controls on all possible causes of excess emissions , process and road fugitive emissions, unforeseen events or malfunctions of equipment and housekeeping and maintenance procedures.

3. A proposed corrective action plan for addressing the cause(s) for any ambient air lead concentrations equal to or in excess of 1.5 ug/m3.

12. The Respondent shall comply with all requirements of the most current fugitive dust control program as approved by IDEM.

13. The Respondent shall maintain the battery breaker building to prevent tracking of dust to the outside of the building.

14. The Respondent shall keep all doors closed (except for the occasional passage of people or equipment) on the following buildings:

Lower portions of baghouses
Battery breaker building (except northeast door for semi trailer, and west door when the ambient temperature is above 60 degrees Fahrenheit). Respondent shall investigate the feasibility of controlling acid gas emissions from the battery breaker building and providing other means of ventilation than opening of the west door of the battery breaker building and provide a report including an implementation schedule for feasible options found in the investigation to IDEM and IAPCS within 120 days of the Effective Date of this Order. Respondent shall implement the actions proposed pursuant to a schedule approved by IDEM and IAPCS.

15. The Complainant agrees to waive payment of the stipulated penalties cited in Paragraph Nos. 14, 15, 16, and 17 of the foregoing Findings of Fact, based upon evidence submitted by Respondent which adequately demonstrated its inability to pay these stipulated penalties in the amount commensurate with the alleged violations.

16. The Respondent is assessed a civil penalty of Two Hundred Seventy Thousand Dollars ($270,000). The Respondent shall pay a portion of the civil penalty in the amount of One Hundred Thousand Dollars ($100,000), in accordance with the following schedule:

    $10,000 paid within 90 days of the Effective Date of this Order,
    $10,000 paid within 180 days of the Effective Date of this Order,
    $10,000 paid within one year of the Effective Date of this Order,
    $17,500 paid within 18 months of the Effective Date of this Order,
    $17,500 paid within two years of the Effective Date of this Order,
    $17,500 paid within 30 months of the Effective Date of this Order, and
    $17,500 paid within three years of the Effective Date of this Order.

    The payments shall be submitted to the Environmental Management Special Fund as directed by Paragraph 24. The Respondent will pay an identical amount to the City of Indianapolis. In lieu of payment of the remaining Civil Penalty, the Respondent shall perform and complete the Supplemental Environmental Projects described in Paragraph 17 and 19. The total funds expended on the SEPs shall be a minimum of Five Hundred Thousand Dollars ($500,000). Upon the completion of the Projects, Respondent shall submit written notice and documentation which substantiates all actions taken and costs incurred, including but not limited to, all costs documentation, periodic progress reports, and final reports. Within ninety (90) days of the completion of the Projects, IDEM shall inspect the Projects, and all documentation. If the installation of the afterburner is not completed in accordance with this agreement and within the specified time period, subject to any extension for cause due to force majeure, the Respondent agrees to pay a portion of the remaining amount of the Civil Penalty due, One Hundred Twenty-five Thousand ($125,000), plus interest at the rate established by IC 24-4.6-1-101, to the Environmental Management Special Fund. If the installation of the wet scrubber is not completed in accordance with this agreement and within the specified time period, subject to any extension for cause due to force majeure, the Respondent agrees to pay the remaining amount of the Civil Penalty, Forty-five Thousand Dollars ($45,000), plus interest at the rate established by IC 24-4.6-1-101, to the Environmental Management Special Fund. Payment of the remaining portions of the Civil Penalty shall be submitted within 15 days from receipt of a notice to pay from the IDEM. Interest on the remaining Civil penalty shall be paid from the effective date of this Agreed Order.

17. As a Supplemental Environmental Project, the Respondent shall install and operate an afterburner having a combustion chamber operating temperature of 1400 degrees Fahrenheit for the combustion of carbon compounds. The afterburner is to be installed between the blast furnace and the cooling towers.

The afterburner shall be installed and operating within One Hundred Eighty (180) days of the Effective date of this Agreed Order. The Respondent shall demonstrate through continuous measuring and recording devices that the combustion chamber operating temperature is maintained at no less than 1400 degrees Fahrenheit averaged over a period of three consecutive hours when the blast furnace is operational. The Respondent shall perform emissions sampling in accordance with 326 IAC 3-2.1 within six months of the installation of the afterburner that demonstrates the control efficiency of the afterburner with respect to carbon compounds. If stack testing performed in accordance with 326 IAC 3-2.1 demonstrates a minimum control efficiency of 99% in removing carbon compounds at a lower average operating temperature, the operating temperature requirement of this paragraph will be revised to reflect a new lower operating temperature requirement equivalent to the temperature at which the afterburner was operated when 99% control efficiency was demonstrated. Regardless of the temperature required, compliance must be demonstrated through continuous measuring and recording devices and averaging the temperature over a period of three consecutive hours when the blast furnace is operational.

18. The Respondent shall perform emissions sampling for lead, particulate matter, and sulfur dioxide on M-1, and lead and particulate matter on M-2, M-3, and M-4 at least once annually in 1995, 1996, and 1997, with the emissions sampling to be performed in the first or second calendar quarter of each year. Such emissions sampling shall be done in accordance with 326 IAC 3-2.1.

19. The Respondent shall comply with the sulfur dioxide limits for its blast furnace as required in 326 IAC 7-4-2(20). The Respondent shall install a wet scrubber to control sulfur dioxide emissions from its blast furnace within one year of the Effective Date of this Agreed Order. Installation and operation of this wet scrubber shall be treated as a Supplemental Environmental Project, in lieu of payment of Forty-five Thousand Dollars ($45,000) of the $270,000 civil penalty. Stipulated penalties of One Hundred Fifty Dollars ($150) per day for sulfur dioxide emissions violations shall accrue during this one year period. Stipulated penalties shall be due and payable within thirty (30) days after Respondent receives written notice than the Complainant has determined that a stipulated penalty is due. The Complainant shall not give notice that such a stipulated penalty is due until at least 180 days after the Effective Date of this Agreed Order. If Respondent seeks a variance regarding its sulfur dioxide limit within 180 days of the Effective Date of this Agreed Order, the Complainant shall not give notice that a stipulated penalty is due until after IDEM has taken action on Respondent's request for a variance. If Respondent's variance request is granted, Complainant agrees to waive any stipulated penalties for sulfur dioxide emissions that accrue during that one year period for installation of the wet scrubber, plus any extensions granted due to force majeure, provided the penalties accrued due to emissions violations that have been less than or equal to any allowable emissions limit granted by the variance. The IDEM acknowledges Respondent's right to request a variance of the sulfur dioxide emission limitation applicable to the blast furnace, and obtain a variance provided that Respondent's petition for such variance is complete and accurate, demonstrates Respondent's grounds for the variance as required by IC 13-7-7-6 and is supported by valid

scientific evidence demonstrating that the variance, if granted, will not allow Respondent to cause exceedences of the National Ambient Air Quality Standard for sulfur dioxide.

20. In the event the following terms and conditions are violated, the Complainant may assess and the Respondent shall pay a stipulated penalty in the following amounts:

Violation	Penalty
Failure to comply with the deadline set forth in Order Paragraph Nos. 1, 2, 3, 9, 11, 14, 18, or 19.	One Thousand Dollars ($1,000) per day of violation
Failure to maintain buildings under negative pressure as required by Paragraph No. 4	Two Thousand Five Hundred Dollars ($2,500) per day of violation
Failure to comply with the no visible emissions requirement of Paragraph No. 7	Two Thousand Five Hundred Dollars ($2,500) per day of violation
Failure to comply with the requirement of Paragraph No. 8 that no visible dust be entrained by vehicle traffic	One Thousand Dollars ($1,000) per day of violation
Failure to comply with the shutdown provision of Paragraph No. 10	Twenty-five Thousand Dollars ($25,000) per day of violation
Failure to comply with the requirement of Respondent's fugitive dust control plan per Paragraph No. 13	One Thousand Dollars ($1,000) per day for each violation

21. Unless IDEM otherwise notifies Respondent in writing, all submittals required by this Preliminary Agreed Order shall be sent to:

Air Section Chief
Office of Enforcement
Indiana Department of
Environmental Management
P.O. Box 6015
Indianapolis, Indiana 46206-6015

22. If the Respondent elects to voluntarily cease operations except for scheduled maintenance, holidays, and emergencies it shall take all of the actions set forth above before operations are resumed including installation of all control equipment, the afterburner and wet scrubber proposed as SEPs, and monitoring equipment if the deadlines for installation of that equipment has

elapsed. Cessation of operations shall not relieve Respondent from the obligation to pay when due the $100,000 portion of the civil penalty according to the payment schedule established in Order Paragraph 16, and any stipulated penalties that have accrued. If Respondent voluntarily ceases operation except for scheduled maintenance, holidays, and emergencies prior to the expiration of the deadline or any extension granted due to force majeure for installation of the afterburner or wet scrubber, Respondent shall not be obligated to pay the $125,000 or $45,000 portion of the civil penalty associated with the afterburner or wet scrubber, unless Respondent fails to install the afterburner or wet scrubber by the respective deadlines as extended for any approved force majeure event, or prior to recommencing operation.

23. In lieu of assessment of the stipulated penalty given above, the Complainant may seek any other remedies or sanctions available by virtue of Respondent's violation of this Agreed Order, including, but not limited to, civil penalties pursuant to IC 13-7-13.

24. Civil and stipulated penalties are payable by check to the Environmental Management Special Fund. Checks shall include the Cause Number and shall be mailed to:

Cashier
IDEM
100 North Senate
P.O. Box 7060
Indianapolis, Indiana 46206-7060

25. "Force Majeure," for purposes of this Agreed Order, is defined as any event arising from causes beyond the control of the Respondent, including unreasonable delays by IDEM and the IAPCS, that delays or prevents the performance of any obligation under this Agreed Order despite Respondent's best efforts to fulfill the obligation. The requirement that the Respondent exercise "best efforts to fulfill the obligations" includes using best efforts to anticipate any potential force majeure event and best efforts to address the effects of any potential force majeure event (1) as it is occurring and (2) following the potential force majeure event, such that the delay is minimized to the greatest extent possible. "Force Majeure" does not include financial inability to complete the work required by this Agreed Order or increases in costs to perform the work.

The Respondent shall notify IDEM by calling within three (3) calendar days and by writing no later than seven (7) calendar days after any event which the Respondent contends is a force majeure. Such notification shall describe the anticipated length of the delay, the cause or causes of the delay, the measures taken or to be taken by the Respondent to minimize the delay, and the timetable by which these measures will be implemented. The Respondent shall include with any notice all available documentation supporting their claim that the delay was attributable to a force majeure. Failure to comply with the above requirements shall preclude Respondent from asserting any claim of force majeure for that event. The Respondent shall have the burden of demonstrating that the event is a force majeure. The decision of whether

an event is a force majeure shall be made by IDEM. Said decision shall be communicated to the Respondent within ten (10) calendar days of receipt of Respondent's written notification.

If a delay is attributable to a force majeure, IDEM shall extend, in writing, the time period for performance under this agreed Order, by the amount of time that is attributable to the event constituting the force majeure.

26. In the event that the stipulated penalties assessed pursuant to order paragraphs 19 and 20 are not made within thirty (30) days of Respondent's receipt of IDEM's demand, Respondent shall pay interest on the unpaid balance at the rate established by IC 24-4.6-1-101. The interest shall begin to accrue on the date the civil penalty or stipulated penalty is due until the full civil penalty is paid.

27. This Order shall apply to and be binding upon the Respondent, its successors, subsidiaries, and assigns. The signatories to this Order certify that they are fully authorized to execute and legally bind the parties they represent. No change in ownership, corporate, or partnership status of the Respondent shall in any way alter its status or responsibilities under this Order.

28. The Respondent shall provide a copy of this Order, if in force, to any subsequent owners or successors before ownership rights are transferred.

29. Respondent shall comply with all applicable laws and all rules regarding lead emissions of any board created by Title 13 of the Indiana Code.

Agreed Order
Page 15

TECHNICAL RECOMMENDATION:
Department of Environmental Management

By: _____
Air Section Chief
Office of Enforcement

Date: 1-10-95

RESPONDENT

By: _____

Printed: T.W. Freudiger

Title: Executive Vice President

Date: 1/10/95

COUNSEL FOR COMPLAINANT
Department of Environmental Management

By: Beth J. Kirk
Office of Legal Counsel

Date: 1-10-95

COUNSEL FOR RESPONDENT
Andrews & Kurth L.L.P.

By: _____

Date: 1/10/95

APPROVED AND ADOPTED BY THE INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

THIS 10TH DAY OF JAN, 1995.

Kathy Prosser
Kathy Prosser
Commissioner

UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF INDIANA
INDIANAPOLIS DIVISION

UNITED STATES OF AMERICA, Plaintiff, INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, Intervening Plaintiff, v. REFINED METALS CORPORATION, Defendant.	CIVIL ACTION NO. IP902077C HONORABLE JUDGE SARAH E. BARKER

CONSENT DECREE

EXHIBIT F: **Region V Model RCRA Quality Assurance Project Plan (QAPjP)**

Region 5
Model RCRA Quality Assurance Project Plan (QAPP)

The following model document has been prepared by U.S. EPA Region 5 to facilitate preparation of a QAPP based on U.S. EPA Quality Assurance Management Staff and Region 5 requirements. This model is intended to serve as a tool for the production of approvable QAPPs for a wide variety of RCRA investigations.

How to use this document

This document describes the preparation of a QAPP in a series of elements. Each element contains two types of information:

1) Content Requirements (presented as smaller text characters): The first pages of each QAPP element contain requirements which must be described in that QAPP section in order to receive Region 5 approval.

2) Structural Guidance (presented as larger text characters and headed by appropriate section number): This example language is intended to be guidance to show to the QAPP preparer the level of detail that is typically needed to gain Region 5 approval. This example language will appear as follows:

a) Portions of the Model QAPP which are example language are indicated in regular print. During preparation of a facility-specific QAPP, these portions should, of course, be deleted and replaced with the pertinent information for your site.

b) Alternative language specific to RCRA sites, and general notes, are indicated in **bold print.**

c) Some of the example language in this QAPP is applicable to a broad range of sites, and may be considered "boiler-plate". "Boiler-plate" language is indicated by a dark background, such as you see here. The "boiler-plate" language should be of wide-ranging applicability, and has been pre-approved by the Region 5 QAS.

All of the requirements presented in this model are needed for QAPP approval by Region 5. If there is any requirement which is not fully understood, it should be brought to the attention of the U.S. EPA project manager BEFORE the QAPP is presented to U.S. EPA for review and approval. **If concerns about the requirements in this document are not presented prior to the required submittal date of the draft workplan/QAPP, it will be assumed that the facility using the QAPP concurs with all requirements stated in this document.**

If you have any comments regarding improvements on this model document, please contact George Schupp, Quality Assurance Section Chief, at (312) 886-6221.

DOs AND DON'Ts TO FACILITATE QAPP APPROVAL

1. DO NOT submit the laboratory quality assurance program plan attached in an appendix in order to satisfy project-specific quality assurance project plan (QAPP) information. The generic lab QAPPs contain extraneous and ambiguous tables and information.

   DO append or otherwise incorporate into the QAPP the laboratory information that is project-specific (e.g. laboratory chain of custody, internal performance and system audits, etc.) to address certain elements outlined in this document.

2. DO NOT reproduce tables containing key information such as types of samples, numbers of investigational and quality control samples per matrix, or lists of target compounds. There should be one table of each kind of information contained in the QAPP.

   DO provide section-specific references when referring to the tabular information in the QAPP, Field Sampling Plan, or RFI Workplan. By doing so, errors caused by not changing duplicated or summarized tables will be minimized.

3. DO NOT submit photocopied pages from Test Methods For Evaluating Solid Waste (SW-846) as laboratory SOPs. If, for any reason, there is a need to refer to SW-846, specific references to it may be made.

   DO submit laboratory-specific SOPs for review.

4. DO NOT submit copies of manufacturer's guides to operating certain instrumentation such as the field equipment commonly used to detect volatile organic analytes, or for the measurement of pH, Eh, and specific conductance. The U.S. EPA evaluates the operator's standard operating procedure for calibrating and maintaining such instruments.

5. DO NOT submit a multiple choice list indicating which methods will be used to analyze certain hazardous constituents. Only the instrumental and preparatory/cleanup/extraction/digestion procedures that will actually be utilized for analysis must be indicated in the QAPP. If SW-846 offers a selection of possibilities for performing the analyses, then the QAPP must specify which methods will actually be used.

6. DO NOT submit a QAPP to the U.S. EPA for review until a laboratory has been selected by the facility for completing all work. Once a selection has been made, laboratories cannot be changed due to a possible lab audit by U.S. EPA.

7. DO NOT write the QAPP until a pre-QAPP meeting has been held. This meeting involves representatives of the laboratory, the facility, and the U.S. EPA for the purpose of defining project objectives and evaluating potential QA problems during implementation of the workplan.

8. DO provide in the QAPP the complete list of hazardous constituents to be measured and reported for the facility project. Such lists will be consistent with those constituent lists for which the methods have been validated.

9. DO provide information on sample tags. Sample tags are required for all samples taken in the field, as part of the chain of custody procedure.

10. DO provide a data deliverables package which will reflect a "CLP-like deliverables" format (the CLP forms are not required but the same information must be supplied).

11. DO provide for a data validation process which will validate 100% of the data by a party independent of the laboratory generating such data. This validation will be performed prior to transmittal to the U.S. EPA. All data must be made available to the U.S. EPA immediately upon request.

12. DO provide copies of the draft QAPP and revisions to the appropriate laboratory personnel in order to ensure the laboratory can meet the requirements of the QAPP.

13. DO NOT submit the entire QAPP document upon resubmittal.

    DO submit only those pages which were revised from the previous submittal.

QAPP ELEMENT 1

TITLE / SIGNATURE PAGE

The QAPP must contain a Title/Signature Page. This title page will document the following:

1) The complete title of the program and investigation (e.g. RCRA Facility Investigation, etc.) specifying the location (city, state) of the facility and its U.S. EPA identification number;

2) The firm that prepared the plan as well as the organization for whom it was prepared; and

3) The date and the revision number (the initial draft should be considered Revision 0 and subsequent revisions as Revision 1, 2 etc.).

Functionally, this page ensures that the desired content and level of detail are achieved through the review and approval (at a minimum) by the following personnel:

- Facility Quality Assurance Officer
- QAPP Preparer
- US EPA Project Coordinator/Permit Writer
- US EPA Regional Quality Assurance Manager
- Laboratory Directors

NOTE: The titles and names of all individuals appearing on the title page will be consistent with the references to these people elsewhere in the QAPP (e.g. project organization, corrective action, and QA reports to management sections).

QUALITY ASSURANCE PROJECT PLAN

FOR THE RCRA [PROJECT TYPE] AT

[FACILITY NAME]

U.S. EPA ID NUMBER [ILD 000 000 000]

REVISION [NUMBER]

[DATE OF SUBMITTAL]

Prepared by: [Contractor Name]

Prepared for: [Facility/Contractor]

[Contractor Project Manager]	Date
[Contractor QA Officer]	Date
[Laboratory QA Manager] (if applicable)	Date
U.S. EPA RCRA Project Coordinator/ RCRA Permit Writer	Date
U.S. EPA Regional Quality Assurance Manager	Date

QAPP ELEMENT 2

TABLE OF CONTENTS

All QAPP sections, tables, figures, and appendices (and contents of individual Appendices) shall be included in a Table of Contents. All subsections shall be numbered as in the sample Table of Contents. For instance, in the submitted QAPP, section 3.2 should correspond to "Accuracy".

Additionally, the QAPP Table of Contents shall address each of the following items:

1. An "Introduction" to the QAPP shall be referenced in the QAPP's Table of Contents.

2. A serial listing of the 16 QAPP elements shall be presented according to the structure indicated in the sample Table of Contents.

3. A listing of any appendices and subsections which are required to augment the QAPP as presented (i.e., standard operating procedures (SOPs), summaries of past data, etc.) shall be presented.

4. Following the list of appendices, a listing of any tables and figures which are required to augment the QAPP requirements shall be presented.

5. After the list of appendices will follow a complete listing of recipients including the U.S. EPA Quality Assurance Section Chief who will receive official copies of the QAPP and any subsequent revisions.

Page numbers shall be added to the Table of Contents of the submitted QAPP. Furthermore, within the body of the submitted QAPP, page numbers will be presented in accordance with the Document Control Format (DCF). A DCF should be used to individually paginate each QAPP element to facilitate revisions as well as ensure that no pages are missing. The DCF to be placed in the upper right hand corner of each page shall include:

1. Project Name

2. Revision Number

3. Revision Date

4. Section

5. Page Number

The Project Name may be shortened or abridged as necessary. The Page Number will be stated relative to the total number in the section (e.g. Section 4, Page 2 of 8). A new QAPP section will be started at page one. All other documents which are referenced in the QAPP (Work Plan, Field Sampling Plan, etc.) and have become a part of the QAPP by such reference should also include the DCF. A sample Table of Contents is shown below. Although minor deviations from this example will be permissible, each of the section headings and subheadings shown in the example must be included in the submitted Table of Contents and the submitted QAPP must be organized as reflected in the following Table of Contents.

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QAPP ELEMENT 3

PROJECT DESCRIPTION

All the QAPP elements are significant, in the sense that all can be viewed as integrally defining a process which when implemented can result in generated data that will be of documented quality, and also hopefully of a known reliable nature. However, the Project Description remains one of the most critical elements of a QAPP. For it is in this particular element that the purpose for implementing the project in a particular fashion, as well as the ultimate goals that are desired to be achieved, are fully explained.

Programmatic regulatory provisions usually require that environmental chemical measurements must be made in order to address certain Federal requirements or criteria, many of the project objectives that will be defined here shall, most often, be defined programmatically. However, this is the portion of the QAPP where it is necessary to define site-specific details so that generally stated Federal requirements, such as the need to investigate in order to "define the horizontal and vertical extent and rate of contamination" must be fully fleshed out into a working program for facility investigation.

QAPP preparers are encouraged to seek and present in this portion of the QAPP the known action or environmental criteria or health based levels (both State and Federal) which generated data may be eventually compared to. Outside of improper implementation of an approved QAPP through field sampling, or laboratory error, poorly defined project objectives may be the area most likely to result in unusable data. If the purpose of the overall project is not thought out carefully or conscientiously beforehand, then ultimately the generated data may not prove to be useful for any of a number of programmatic goals. Even if the data collected has been shown to be of known, documented quality and potentially useable for one particular function, if the data is later found not to address the real objectives that should have been defined before project implementation, then the investigation may have to be repeated!

The Project Description should include or reference the following items. (A technical person unfamiliar with the project must be able to understand what you have written.)

- A statement of the decision(s) to be made or the question(s) to be answered.
- A description of the site, facility, process, and/or operating parameters to be studied.
- The anticipated uses of the data.
- A list of all environmental measurements to be performed.
- A project schedule, indicating when samples are expected to be submitted to the laboratory.
- A summary table listing, for each sampling location, the total numbers of samples (including investigative, quality control, split and reserve), sample type or matrix, and all measurements to be performed, differentiating where applicable the critical measurements from the noncritical measurements.

The contents requirements for Project Description are more fully outlined below. If sections in the RFI Workplan, or Description of Current Conditions Report are found to address some of these items (shown in boldface), then specific sections (page or section numbers) of these identified reports may be referenced in the Project Description portion of the QAPP:

In the **Introduction** to the QAPP, the overall project objectives should be explained. This should be a succinct description of the project, including a brief statement addressing the phase(s) of the work and intended objectives and investigation. The section should answer the basic questions, "What is the purpose of the work effort?", and "Why has the facility been asked to complete the work?".

The **Site Description** should focus on a description of site-specific features, including location, size, borders, important physical features, topographic, geological and hydrogeological information. Each of these items should be clearly addressed. The QAPP preparer should also consider whether there are any unique or special site-specific features of any kind which may have some later bearing on the way in which data is obtained.

Under the **Site History or Background** section of this element, the chronological history of the site leading to its current status under RCRA should be outlined. Documentation of waste streams managed and releases known to have occurred on-site, a summary of any previous sampling and analysis efforts, data with overview of these results or copies of previous reports should be appended to the QAPP. Site histories are unique and often there are large historical gaps. Usually, much of the known information has already been gathered prior to the stage where an RFI is being conducted. Therefore, summaries of this information may only be required here, provided that the facility can identify previously generated reports precisely by title, date, and author.

The Project Objectives must be clearly outlined. There should be a succinct description of specific project objectives in terms of individual task or phase of work. This is the section where the QAPP preparer should discuss how the general programmatic goals can be addressed through specific tasks that will be implemented.

Target compounds and parameters must be described. The QAPP preparer must provide a list of all compounds that will be analyzed in samples taken from the facility. For the purposes of the RCRA program, such compounds, analytes, and parameters may be derived from any of a number of lists such as the Hazardous Substance List, the 40 CFR Part 261 Appendix VIII or IX lists, the toxicity characteristic list, method specific lists (where the methods have been validated for sets of constituents regulated under RCRA or by the U.S. EPA, such as the SW-846 1986 or 1990 version methods, the CLP methods), or other parameters such as those of possible use to hydrologists in assessing general groundwater quality.

In preparing a facility-specific target list, there are three rules of thumb to be aware of. First, any set of constituents representing a subset of the Appendix IX list must be supplemented with a good rationale for why certain constituents have been eliminated from the list of target compounds for the proposed project. Secondly, the selection of constituents must be shown to be consistent with the overall objectives or programmatic goals intended for the proposed project. Thirdly, even though the U.S. EPA shall consider the rationale presented for why certain constituents can be excluded from the facility list, if proposed analytical methods or strategies will still allow analytical measurement of those constituents (proposed for exclusion) anyway, then those constituents must also be reported in the RFI report. Tabular presentation of the actual list is preferred when used in conjunction with the rationale, and the list should address each matrix to be encountered, as well as the intended data usages, and anticipated method detection limits for each constituent in its respective matrix.

The **Intended Data usages** should provide a brief statement outlining the specific usages of all data to be obtained, including any data generated from field screening and/or field measurements. Please note that regulatory actions under such laws (and corresponding regulations) as RCRA, CERCLA, Safe Drinking Water Act, LUST, State regulatory authorities, the Clean Water Act, the Clean Air Act, may sometimes dictate the implementation of certain analytical methods, quality control, and chain-of-custody procedures. If possible, the intended data usages should be presented in tabular format.

These may include, but are not limited to, the following:

1. Qualitative or semi-quantitative analyses for selection of sample and/or sampling locations;

2. Future enforcement actions:

3. Data for remedial action alternatives:

4. Determination of hazardous waste characteristics for remedial removals:

5. Protection of Public Health:

6. Definition of extent of environmental contamination.

In addition to the rationale for target compounds and parameters, there should be a Sample Network and Rationale presented in the QAPP. At a minimum, inclusion of, or elaboration on, the following items is required:

1. Diagrams or site maps showing sampling locations;

2. Thorough rationale for selected sampling locations;

3. Summary table listing matrices, field and laboratory parameters, and their frequency of collection;

4. A categorized listing of matrix types to be encountered;

5. Any field screening to be performed;

6. Any field measurements to be performed;

7. Any measurements to be performed in conjunction with hydrogeologic investigations;

8. Ambient monitoring of media at the facility subject to investigation; and

9. Pertinent regulatory requirements.

Please note that for RCRA purposes when groundwater sampling is to be conducted for metals analyses, the QAPP must specify the procedures for collection of both field filtered and unfiltered samples. Furthermore, soil samples shall not be composited.

A Project Schedule, providing a description of dates anticipated for project initiation, milestones, and completion of the project as well as monitoring activities shall be provided. A milestone table or a bar chart consisting of project tasks and time lines is appropriate for this purpose.

SECTION 1

PROJECT DESCRIPTION

1.0 Project Description

This project description outlines the overall scope of an investigation to be performed in accordance with pertinent permit requirements for a permit issued on a specific date. This QAPP presents the organization, objectives, planned activities, and specific QA/QC procedures associated with the RFI for this facility. Specific protocols for sampling, sample handling and storage, chain-of-custody, and laboratory and field analyses will be described. All QA/QC procedures will be structured in accordance with applicable technical standards, U.S. EPA's requirements, regulations, guidance, and technical standards. This QAPP was prepared in accordance with a guidance manual entitled, "Region 5 Model RCRA Quality Assurance Project Plan", May, 1993.

1.1 Introduction

In this section, the overall scope of this project plan shall be described. Current status and QAPP preparation guidelines shall be explained. This QAPP has been prepared in behalf of [the facility] by (the contractor). A Project Management Plan, a QAPP, and a Health and Safety Plan have been appended to the RFI Workplan, dated_____. A Field Sampling Plan has also been prepared, which has been entirely incorporated into the QAPP through specific reference.

1.1.1 Overall Project Objectives

The purpose of the RFI is to gather sufficient information to quantify risk to public health and environment (Baseline Risk Assessment) and to consider possible remedial alternatives (Corrective Measures Study at the Site). The objectives of the RFI are to determine the nature and extent of contamination at the facility.

Objectives of the data collection will be as follows:

- o Verify and further define the nature and extent of contamination in previously identified on-site and off-site areas. Data quality must be sufficient to be able to compare with State health-based criteria, and other Federal regulatory criteria that are pertinent, (e.g. TSCA rules for PCBs, and RCRA).

- o Determine the nature and extent of contamination in previously uninvestigated areas. Data will eventually be compared to State and Federal regulatory criteria. [Please include a Table indicating what the pertinent criteria are.]

- o Collect sufficient data on all contaminated media to support a baseline risk assessment and feasibility study.

1.1.2 Project Status/Phase

[The Contractor] will utilize an integrated and phased approach for the RFI. During the RFI, data collection will be conducted in phases, with the results of the baseline risk assessment being a determining factor in decisions regarding the necessity for additional phases of investigation. The Phase I investigation will integrate existing data with information that will be gathered through direct field investigations.

The Phase I field investigation will include:

- o Surface soil (0 to 18 inches) sampling for verification and site characterization both on- and off-site;

- o Subsurface soil sampling along existing and previously excavated sewer lines, and in areas where deeper soil removals have occurred;

- o Groundwater sampling;

- o Residential well sampling;

- o Sediment and surface water sampling; and

- o In-situ permeability testing of aquifer materials.

Samples will be analyzed for volatile organics, organic extractables, pesticides/PCBs and/or metals. A limited number of samples will also be analyzed for cation exchange capacity (CEC), Atterburg limits, percent moisture, grain size distribution, and total organic carbon (TOC) to determine soil physical parameters and their effect on contamination migration. A limited number of samples will also be analyzed for the Toxicity Characteristic Leaching Procedure (TCLP) to characterize the waste for disposal. Soil pH tests will be conducted on a selected number of samples at the field screening laboratory.

Data from the Phase I investigation will be qualitatively and statistically evaluated in conjunction with existing data to determine whether a Phase II investigation is necessary. The rationale and scope of any Phase II investigation will be discussed with and approved by the U.S. EPA prior to implementation.

Potential Phase II work may include:

- Additional soil/sediment sampling;
- Asbestos sampling;
- Installation of additional monitoring wells and a detailed groundwater investigation; and,
- Treatability studies or pilot testing.

If Phase I data suggests that sufficient site characterization information has been collected [the Contractor] will proceed with the risk assessment for the site. A technical memorandum, presenting the Phase I data and recommendations of the risk assessment will be prepared and submitted to the U.S. EPA. After a review of the technical memorandum, the need for implementing a Phase II investigation will be evaluated in light of the data requirements for the feasibility study.

1.1.3 QAPP Preparation Guidelines

As explained above, this QAPP has been prepared in accordance with the "Region 5 Model RCRA Quality Assurance Project Plan", dated, May, 1993. Furthermore, in meetings held with the U.S. EPA in which the Region's protocol for presentation of QAPPs, additional guidance was received on how to prepare this QAPP. One of these meetings was a formal "pre-QAPP" meeting, and discussions held prior to the pre-QAPP meeting which focused on project scoping. At all meetings, representatives from the U.S. EPA's Environmental

Sciences Division were present and available for consultation.

1.2 Site/Facility Description

A brief description of the facility, its geological setting, and associated features is presented in the section below.

1.2.1 Location

The [RCRA Facility] is an inactive lead-acid battery manufacturing operation located in [facility, County, State]. The facility occupies approximately 18 acres on U.S. Highway [facility address] northwest of the city of [City], along the eastern bank of the [River name] River [Please provide a Map]. The facility is bordered on the north by [Street Name] Street, on the south by [Street Name] Street, on the west by a State Highway garage and on the east by the parking lot of a local inn. The study area for the [site name] RFI includes the [site name] property and off-site areas immediately surrounding the site.

1.2.2 Facility/Size and Borders

This section is addressed on pages ____ through ____ of the RFI Workplan, which is herein incorporated into this QAPP through reference, and in the drawings which have been submitted along with the RFI Workplan.

1.2.3 Natural & Manmade Features

This section is addressed on pages ____ through ____ of the RFI Workplan, which is hereby incorporated into this QAPP through reference.

1.2.4 Topography

See sections _____ of the RFI Workplan for information concerning the site's general topography.

1.2.5 Local Hydrology & Hydrogeology

See sections _____ of the RFI Work Plan for information concerning the site's physical features, population and land use, geology and soil, groundwater resources and surface hydrology and drainage.

1.3 Site/Facility History

1.3.1 General History

The facility was established in [Date] to manufacture lead acid batteries, primarily for cars and trucks, first by the [Historic Facility Names] Corporation and then by the [xxx] Corporation, which used the name [xxx] when it bought the facility from [xxx] in [Date]. [xxx] acquired the [xxx] Company in [year].

Over the years of operation, successive industrial sewer lines became plugged with lead sludge. The plugged line was typically left in place and a new line was installed. As a result of leaks and sewer line backups, the soils around some of these sewers and associated sumps were found to be contaminated with lead. The upper soils around the holding lagoon also showed elevated levels of lead. Other contaminants of concern are PCBs that were found in the soil around the transformer pad, the nearby water tower pad, and below a section of the main process building (see Figure xxx).

During normal plant operation, manufacturing process wastes and wastewater became laden with lead, lead oxides, sulfuric acid, and lead sulfates. The plant's ventilation system and processes released air laden with lead contaminants to the atmosphere around the facility [reference report]. Prior to 1978, wastewater was sent through the on-site industrial sewer system, then directly to the [City/County/etc.] sanitary sewer system. Beginning in [Date], wastewater effluent was subject to pH treatment on-site followed by placement into a wastewater sedimentation lagoon. Overflow from the lagoon went to the [Name] Publicly Owned Treatment Works.

Soil on and in the vicinity of the facility has been contaminated with lead, predominantly from airborne particulates. Malfunctions and accidental spills have also contributed to contamination of on-site soils with high concentrations

1.3.2 Past Data Collection Activities

The [site name] has been subject to a number of investigations since [Date]. The following summaries are based on a review of reports and supporting documents submitted by consultants and information obtained from the project files of the U.S. EPA and the State.

Beginning in [Date], [Company name] has contracted with [contractor names], to assess the degree of contamination at the facility, and evaluate remedial actions for the identified contamination problems. These include the contaminated surface soils both on-site and in certain off-site areas, the plugged sewer lines, the pH treatment system and surrounding soils, and the PCB contamination.

Pursuant to these studies more then 7,000 cubic yards of lead and PCB-contaminated soil have reportedly been removed from on and off-site [Previous study reference]. The clean up standard was to remove all lead-contaminated soil down to a level below 1000 ppm, as recommended and approved by the State. This standard was coupled with a requirement to lime all remaining soils where lead levels exceeded 250 ppm in order to maintain a soil pH greater than 7.0 and thereby reduce the mobility of the lead still in the soil. Soils contaminated with PCBs were removed from the facility in two separate actions. In the first action, PCB soils were reportedly removed down to a level below 50 ppm [Previous study reference]. In the second action, soils were removed to a level below 10 ppm [Previous study reference]. Verification samples following removal actions will be taken in accordance with this QAPP.

1.3.3 Current Status

Based on reports and documents reviewed for the site, and a current assessment of all available information, the following target compounds and source area release mechanisms have been targeted for further investigation.

- Past Facility Operations. Records indicate that during the active period of battery manufacture, the plant's ventilation system and processes released lead-laden air and possibly other contaminants to the atmosphere. Malfunctions and accidental spills also may have released both organic and inorganic contaminants to the environment. Other metals which may have been released along with lead include; antimony, arsenic, tin, calcium, strontium, tellurium, and barium. Organic chemicals that were used at the facility identified from RCRA documentation, include: trichloroethane, methylene chloride, paint thinner, epoxy resin, refined coal tar, and lubricant containing trichloroethylene.

- Wastewater Sewers. During plant operations, manufacturing process wastewater, containing lead oxides, lead sulfates, sulfuric acid, and possibly other metals was sent through the industrial sewer system to be discharged to the [City] publicly owned treatment works (POTW). After [Date], wastewater was subject to pH adjustment and sedimentation prior to discharge to the POTW. Documents indicate that as

industrial sewers became plugged with lead, they were left in place and new sewer lines were installed adjacent to the old. Reports indicate the soils around some of the sewer lines were heavily contaminated with lead, suggesting leaks. Other reports indicate that plugged sewers caused wastewater to back up in sumps and manholes causing wastewater releases to the ground surface.

- Surface Impoundment. The surface impoundment located in the southwest corner of the facility received pH adjusted wastewater for sedimentation. Documents indicate concerns over cracks in the concrete lining and the integrity of joints in the concrete construction. Concerns regarding overtopping of the impoundment have also been reported. Sample analysis of the sludge which settled in the wastewater lagoon indicates that high levels of waste lead, iron, aluminum, arsenic, barium, and calcium were generated during the manufacturing process.

- PCB Transformers. Records indicate that two PCB transformers located near the northwest corner of the facility leaked, releasing contaminated dielectric fluid to surrounding soils.

The historical release of contaminants as described above resulted in the contamination of on- and off-site soils and potentially the [Facility] facility and nearby buildings. Although significant attempts have been made to remediate the contamination i.e., on- and off-site soil removal, sewer excavations, etc., potentially significant concentrations of lead may remain in soils even though the primary sources have been removed. At this time, these soils constitute a secondary source of contamination, potentially affecting human and environmental targets in the area of the site. Similarly, lead contamination in on- and off-site structures may present a continuing exposure point for workers, residents, and visitors to the area.

1.4 Project Objectives

Data Quali[redacted]tives (DQOs) are qualitative and quantitative statements which specify the quality of t[redacted] required to support decisions made during RI/FS activities and are based on the end uses of the data to be collected. As such, different data uses may require different levels of data quality. There are at least five analytical levels which address various data uses and the QA/QC effort and methods required to achieve the desired level of quality.

1.4.1 Specific Objectives and Associated Tasks

For this project, it will be necessary to gather sufficient information to evaluate the nature

and extent of releases from _____ solid waste management units, and also to determine whether unreasonable health risks are associated by the _____ areas. This could include evaluation of the impact of releases on human health and the environment both within and beyond the facility property boundary, if applicable.

The specific objectives of the data collection at the [Facility name] are as follows:

Some field monitoring will be utilized for purposes of screening for "hot spot" areas and for worker health safety. Site characterization to locate areas for subsequent and more accurate analyses will be conducted. These types of data include those generated on-site through the use of HNu, pH, conductivity, and other real-time monitoring equipment at the site. The field data requirements are summarized in the submitted table.

In order to assess the presence or absence of hazardous constituents at the _____ and the _____, soil samples will be screened during this Phase I RFI for likely contaminants of concern, including volatile organics, organic extractables, pesticides/PCBs and (both) total and TCLP metals. In the event that metals are found to exceed TCLP action levels in soil or sediment, then any excavated soil will be regarded as hazardous waste by characteristic. A limited number of samples will also be analyzed for cation exchange capacity (CEC) and other soil characteristics. Groundwater samples will also be tested for the parameters indicated in the laboratory (with exception of CEC & other soil properties). This information will be used to compare results to representative background soil characteristics. If detectable low levels of constituents are identified, then the values shall be subject to a risk assessment study to be sent to the U.S. EPA at the conclusion of the study. This risk assessment shall be prepared according to guidance contained in a document, "Guidance for Data Useability in Risk Assessment", (EPA/540/G-90/008), October, 1990. For purposes of performing the risk assessment study, levels of undetected contaminants shall be assumed to be present at concentrations equal to 1/2 of the respective measured method detection limits. If the risk assessment results appear favorable, then the need for Phase II may be obviated, and [Facility name] will seek the "No Action Alternative" option through a modification to its RCRA permit.

In order to accomplish these goals, a confirmational level of analytical quality is needed. This provides the highest level of data quality and includes, but is not limited to the purposes of risk assessment, evaluation of remedial alternatives and establishing cleanup levels. These analyses require full documentation of SW 846 analytical methods, sample preparation steps, data packages and data validation procedures necessary to provide defensible data. Quality Control must be sufficient to define the precision and accuracy of these procedures at every step.

If the data generated during Phase I does not support the case for the "No Action Alternative", then a second planned Phase of activity will begin subject to an approved modification to this QAPP.

1.4.2 Project Target Parameters and Intended Data Usages

The list of target parameters for this project is included in (the Appendix to this Model QAPP). Intended data usages are to screen for Phase I analytes. The data shall be compared to background soil levels, or to measured detection limits and other (low level) health based criteria with the ultimate objective being to develop a risk assessment study. Data may also be used to assess feasability of using certain remediation technologies if contamination is found to exist. However, it is understood that a QAPP modification to allow bench scale testing of a remediative process, or simply to allow further evaluation of remediative process feasability may be required.

1.4.2.1 Field Parameters

The intended field parameters are stated in (the Appendix to this Model QAPP).

1.4.2.2 Laboratory Parameters

The intended laboratory parameters are stated in (the Appendix to this Model QAPP).

1.4.3 Data Quality Objectives

The intended data quality objectives for this project are summarized in (the Appendix to this Model QAPP).

1.5 Sample Network Design and Rationale

The sample network design and rationale for sample locations (in respective media) is fully described in detail in section _____ of the Field Sampling Plan. Rationale for why certain groups or classes of hazardous constituents listed in 40 CFR Part 261, Appendix IX, will not be analyzed during Phase I is also described in the Field and Sampling Plan.

1.5.1 Sample Network by Task and Matrix

Sample matrices, analytical parameters and frequencies of sample collection can be found in

(the Appendix to this Model QAPP).

1.5.2 Site Maps of Sampling Locations

Maps showing intended soil, sediment and surface water sampling locations are included as Figures in the Field Sampling Plan, which is fully incorporated into this QAPP through reference. It is possible, however, that depending on the nature of encountered field conditions some of these locations will be changed. The person who shall be responsible for making such decisions will be the Site Field Manager whose responsibilities are described in Section 2 of this QAPP. Locations of monitoring and residential wells to be sampled, with associated screen depths is also indicated in the Field Sampling Plan.

1.5.3 Rationale of Selected Sampling Locations

The rationale for why the selected sampling locations (and depths) were chosen in conjunction with each solid waste management unit and area of concern is fully described in the Field Sampling Plan, along with statistical arguments supporting the number of samples to be taken. (e.g. A total of seven background soil samples shall be taken to fully characterize background conditions with respect to each parameter, at a statistically high level of confidence.)

1.5.4 Sample Network Summary Table

The sample network for this project is presented in tabular format in the Field Sampling Plan (and in the Appendix to this Model QAPP).

1.6 Project Schedule

1.6.1 Anticipated Date of Project Mobilization

The earliest date for which samples are planned to be collected is _____. However, as indicated in the submitted Task Bar Chart, some activities such as installation of monitoring wells are scheduled to begin on _____.

1.6.2 Task Bar Chart and Associated Timeframes

The dates of projected milestones are indicated in the submitted Task Bar Chart.

QAPP ELEMENT 4

PROJECT ORGANIZATION AND RESPONSIBILITY

This element will include the following sections:

1) Management Responsibilities

All managers who will have some responsibility in this project will be stated and their responsibilities will be specifically defined. This includes the facility, their contractors, U.S. EPA, and State management (if applicable).

2) QA Responsibilities

The responsibilities of all QA personnel involved in this project will be stated by position and their responsibilities will be delineated. As part of the detail of this section, the QA personnel responsible for the following will be specified:

a) data validation

b) data assessment

c) internal performance and system audits

3) Field Responsibilities

The responsibility of the field personnel will be outlined in this section. Included in this section will be the person responsible for identifying and documenting nonconformances through corrective action.

4) Laboratory Responsibilities

Laboratory responsibilities will be outlined in this section. This includes stating the location of the laboratory (city and state) and listing the analytes and matrices that will be tested at the laboratory. Any lab staff with responsibility during this project will have those duties stated (e.g. lab sample custodian, etc.).

5) Project Organization Diagram

This diagram will include ALL personnel (no more, no less) discussed in the text and will show the lines of authority and communication.

Examples of the level of detail necessary are provided in the example that follows. Any information inside square brackets ([]) denotes replacing this information with facility and/or contractor-specific names or information.

SECTION 2

PROJECT ORGANIZATION AND RESPONSIBILITY

[The example language for this section includes a wide variety of types of individual responsibilities. In writing a QAPP, you may use or modify whichever of the following examples are applicable to your project.]

At the direction of the [U.S. EPA RCRA Permit Writer/RCRA Project Coordinator(RPC)/State Project Manager], [Contractor] has overall responsibility for all phases of the RFI/CMS. [Contractor/Facility] will perform the field investigation, prepare the RFI report, and perform the subsequent CMS. Project management will also be provided by [Contractor/Facility]. The various quality assurance, field, laboratory and management responsibilities of key project personnel are defined below.

2.1 Project Organization Chart

The lines of authority for this specific project can be found in Figure 2-1. This chart includes all individuals discussed below.

2.2 Management Responsibilities

U.S. EPA RCRA Permit Writer/RCRA Project Coordinator/State Project Manager

The [U.S. EPA RCRA Permit Writer (RPW)/RCRA Project Coordinator (RPC)] has the overall responsibility for all phases of the RFI/CMS. The State Project Manager has overall responsibility for all phases of the RFI/CMS with oversight by the U.S. EPA [RPC/RPW].

[Facility] Project Manager

The [Facility] project manager is responsible for implementing the project, and has the authority to commit the resources necessary to meet project objectives and requirements. The [Facility] manager's primary function is to ensure that technical, financial, and scheduling objectives are achieved successfully. The [Facility] project manager will report directly to the [U.S. EPA Region 5 RPW/RPC/State Project Manager] and will provide the major

laboratory). The [Contractor] project manager will report directly to the [Facility] project manager and is responsible for technical quality control and project oversight.

2.3 Quality Assurance Responsibilities

[Facility] QA Manager

The [Facility] QA manager will remain independent of direct job involvement and day-to-day operations, and have direct access to corporate executive staff as necessary, to resolve any QA dispute. He/she is responsible for auditing the implementation of the QA program in conformance with the demands of specific investigations, [Contractor's] policies, and U.S. EPA requirements. Specific functions and duties include:

- o Providing QA audit on various phases of the field operations;
- o Reviewing and approving of QA plans and procedures;
- o Providing QA technical assistance to project staff;
- o Reporting on the adequacy, status, and effectiveness of the QA program on a regular basis to the program manager and executive vice president for technical operations.

[Contractor] QA Manager

The [Contractor] QA manager reports directly to the [Contractor] project manager and will be responsible for ensuring that all [Contractor] procedures for this project are being followed. In addition, the [Contractor] QA manager will be responsible for the data validation of all sample results from the analytical laboratory.

U.S. EPA Region 5 Quality Assurance Manager (RQAM)

EPA RQAM has the responsibility to review and approve all Quality Assurance Project Plans (QAPPs). Additional U.S. EPA responsibilities for the project include:

- o Conducting external Performance and System Audits of RFI Laboratory

point of contact and control for matters concerning the project. The [Facility] project manager will:

o Define project objectives and develop a detailed work plan schedule;

o Establish project policy and procedures to address the specific needs of the project as a whole, as well as the objectives of each task;

o Acquire and apply technical and corporate resources as needed to ensure performance within budget and schedule constraints;

o Orient all field leaders and support staff concerning the project's special considerations;

o Monitor and direct the field leaders;

o Develop and meet ongoing project and/or task staffing requirements, including mechanisms to review and evaluate each task product;

o Review the work performed on each task to ensure its quality, responsiveness, and timeliness;

o Review and analyze overall task performance with respect to planned requirements and authorizations;

o Approve all reports (deliverables) before their submission to U.S. EPA Region 5;

o Ultimately be responsible for the preparation and quality of interim and final reports; and

o Represent the project team at meetings and public hearings.

[Contractor] Project Manager

The [Contractor] project manager has overall responsibility for ensuring that the project meets U.S. EPA's objectives and [Contractor] quality standards. The [Contractor] project manager will provide assistance to the [Facility] project manager in terms of writing and distributing the QAPP to all those parties connected with the project (including the

o Reviewing and evaluating analytical field and laboratory procedures

2.4 Laboratory Responsibilities

[Laboratory] Project Manager

The [Laboratory] project manager will report directly to the [Contractor] project manager and will be responsible for the following:

- o Ensuring all resources of the laboratory are available on an as-required basis; and
- o Overviewing of final analytical reports.

[Laboratory] Operations Manager

The [Laboratory] operation manager will report to the [Laboratory] Project Manager and will be responsible for:

- o Coordinating laboratory analyses;
- o Supervising in-house chain-of-custody;
- o Scheduling sample analyses;
- o Overseeing data review;
- o Overseeing preparation of analytical reports; and
- o Approving final analytical reports prior to submission to [The Contractor/Facility].

[Laboratory] Quality Assurance Officer

The [Laboratory] QA officer has the overall responsibility for data after it leaves the laboratory. The [Laboratory] QA officer will be independent of the laboratory but will communicate data issues through the [Laboratory] project manager. In addition, the [Laboratory] QA officer will:

- o Overview laboratory quality assurance;
- o Overview QA/QC documentation;
- o Conduct detailed data review;
- o Determine whether to implement laboratory corrective actions, if required;
- o Define appropriate laboratory QA procedures;
- o Prepare laboratory Standard Operation procedures; and
- o Sign the title page of the QAPP.

[Laboratory] Sample Custodian

The [Laboratory] sample custodian will report to the [Laboratory] operations manager. Responsibilities of the [Laboratory] sample custodian will include:

- o Receiving and inspecting the incoming sample containers;
- o Recording the condition of the incoming sample containers;
- o Signing appropriate documents;
- o Verifying chain-of-custody and its correctness;
- o Notifying laboratory manager and laboratory supervisor of sample receipt and inspection;

o Assigning a unique identification number and customer number, and entering each into the sample receiving log;

o With the help of the laboratory manager, initiating transfer of the samples to appropriate lab sections; and

o Controlling and monitoring access/storage of samples and extracts.

Final responsibility for project quality rests with [Contractor's] Project Manager. Independent quality assurance will be provided by the [Laboratory] Project Manager and QA Officer prior to release of all data to [Contractor/Facility].

[Laboratory] Technical Staff

The [Laboratory] technical staff will be responsible for sample analysis and identification of corrective actions. The staff will report directly to the [Laboratory] operations manager.

2.5 Field Responsibilities

[Contractor/Facility] Field Leader

The [Facility] project manager will be supported by the [Facility/Contractor] field team leader. He/she is responsible for leading and coordinating the day-to-day activities of the various resource specialists under his/her supervision. The [Facility/Contractor] field team leader is a highly experienced environmental professional and will report directly to the [Facility] project manager. Specific field team leader responsibilities include:

o Provision of day-to-day coordination with the [Facility] project manager on technical issues in specific areas of expertise;

o Developing and implementing of field-related work plans, assurance of schedule compliance, and adherence to management-developed study requirements;

o Coordinating and managing of field staff including sampling, drilling, and supervising field laboratory staff;

o Implementing of QC for technical data provided by the field staff including field

measurement data;

o Adhering to work schedules provided by the project manager;

o Authoring, writing, and approving of text and graphics required for field team efforts;

o Coordinating and overseeing of technical efforts of subcontractors assisting the field team;

o Identifying problems at the field team level, resolving difficulties in consultation with the [Facility] project manager, implementing and documenting corrective action procedures, and provision of communication between team and upper management; and

o Participating in preparation of the final report.

[Laboratory] On-Site Laboratory Manager [if applicable]

The on-site laboratory manager is responsible for leading and coordinating the day-to-day laboratory activities. Specific on-site laboratory manager responsibilities include:

o Providing day-to-day coordination with the RFI field team leader on technical issues in specific areas of expertise;

o Implementing QC for analytical data;

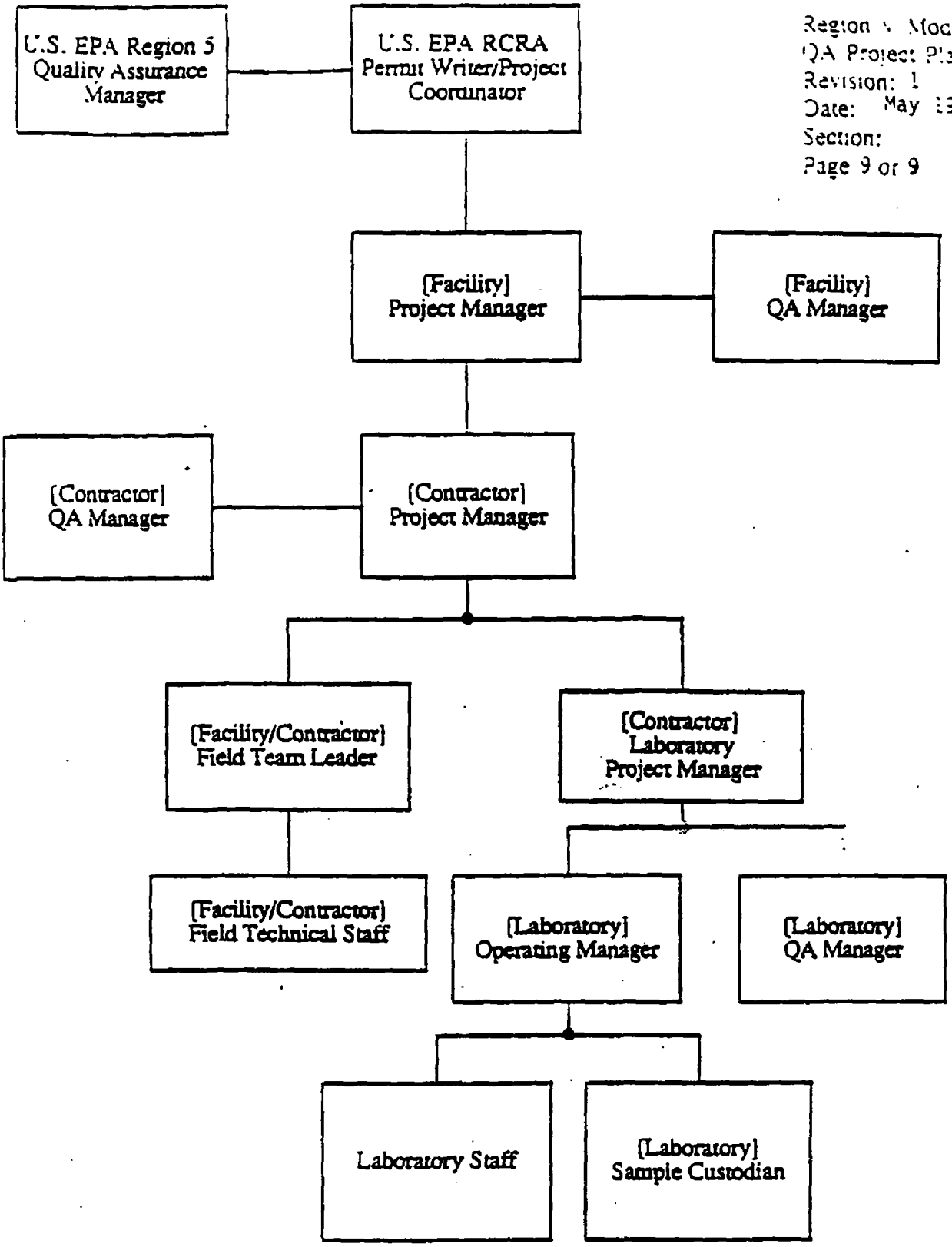
o Identifying problems at the laboratory level and discussing and documenting resolutions with the field team leader.

[Contractor] Field Technical Staff

The technical staff (team members) for this project will be drawn from [Contractors's] pool of corporate resources. The technical team staff will be utilized to gather and analyze data, and to prepare various task reports and support materials. All of the designated technical team members are experienced professionals who possess the degree of specialization and technical competence required to effectively and efficiently perform the required work.

[Laboratory] On-Site Lab Staff (if applicable)

The on-site laboratory staff will be responsible for maintaining all aspects of the laboratory to meet the requirements outlined in this QAPP. They will also be responsible for notifying the field team leader when nonconformances are noticed and when corrective action is warranted.



——— LINE OF AUTHORITY
------- LINE OF COMMUNICATION

FIGURE 2-1 PROJECT ORGANIZATION DIAGRAM

QAPP ELEMENT 5

QUALITY ASSURANCE OBJECTIVES FOR MEASUREMENT DATA

The purpose of this section is to address project-specific objectives for accuracy, precision, completeness, representativeness, and comparability.

This section will include the following:

1) Discussion of Quantitative QA Objectives

a) Summary Tables

- A table will have the QA limits required for the project (Project Quantitation Limits, PQLs). Also, this table will include the laboratory method detection limits. If this table is presented in the Project Description section, then a reference to that section will be given.

- A table of control limits will be supplied in this section. The control limits for all QC samples (e.g. matrix spikes/matrix spike duplicates, surrogates, etc.) for all analytes to be quantitated will be stated.

b) Precision - The definition for precision and a description of how precision will be assessed for field and laboratory measurements will be presented.

c) Accuracy - The definition for accuracy and a description of how accuracy will be assessed for field and laboratory measurements will be presented.

d) Completeness - The definition of completeness along with the percent of completeness to be obtained for the project will be stated for both field and laboratory analyses.

2) Discussion of Qualitative QA Objectives

a) Representativeness - The measures to be employed to ensure representativeness for field and laboratory measurements will be stated.

b) Comparability - The measures to be employed to ensure comparability for field and laboratory measurements will be stated.

SECTION 3

QUALITY ASSURANCE OBJECTIVES FOR MEASUREMENT DATA

The overall QA objective for this project is to develop and implement procedures for field sampling, chain-of-custody, laboratory analysis, and reporting that will provide results which are legally defensible in a court of law. Specific procedures for sampling, chain-of-custody, laboratory instrument calibration, laboratory analysis, reporting of data, internal quality control, audits, preventive maintenance of field equipment, and corrective action are described in other sections of this QAPP.

3.1 Precision

3.1.1 Definition

Precision is a measure of the degree to which two or more measurements are in agreement.

3.1.2 Field Precision Objectives

Field precision is assessed through the collection and measurement of field duplicates at a rate of 1 duplicate per 10 analytical samples. The total number of duplicates for this project are found in [the Appendix to this Model QAPP] of the project description section.

3.1.3 Laboratory Precision Objectives

Precision in the laboratory is assessed through the calculation of relative percent differences (RPD) and relative standard deviations (RSD) for three or more replicate samples. The equations to be used for precision in this project can be found in section 12 of this QAPP. Precision control limits are given in [the Appendix to this Model QAPP] and are referenced to the provided SOPs.

3.2 Accuracy

3.2.1 Definition

Accuracy is the degree of agreement between an observed value and an accepted reference value.

3.2.2 Field Accuracy Objectives

Accuracy in the field is assessed through the use of field and trip blanks and through the adherence to all sample handling, preservation and holding times.

3.2.3 Laboratory Accuracy Objectives

Laboratory accuracy is assessed through the analysis of matrix spikes (MS) or standard reference materials (SRM) and the determination of percent recoveries. The equation to be used for accuracy in this project can be found in section 12 of this QAPP. Accuracy control limits are given in [the Appendix to this Model QAPP] and are referenced to the provided SOPs.

3.3 Completeness

3.3.1 Definition

Completeness is a measure of the amount of valid data obtained from a measurement system compared to the amount that was expected to be obtained under normal conditions.

3.3.2 Field Completeness Objectives

Field completeness is a measure of the amount of valid measurements obtained from all the measurements taken in the project. The equation for completeness is presented in section 12 of this QAPP. Field completeness for this project will be greater than 90 percent.

3.3.3 Laboratory Completeness Objectives

Laboratory completeness is a measure of the amount of valid measurements obtained from all the measurements taken in the project. The equation for completeness is presented in section 12 of this QAPP. Laboratory completeness for this project will be greater than 95 percent.

3.4 Representativeness

3.4.1 Definition

Representativeness expresses the degree to which data accurately and precisely represent a characteristic of a population, parameter variations at a sampling point, a process condition, or an environmental condition.

3.4.2 Measures to Ensure Representativeness of Field Data

Representativeness is dependent upon the proper design of the sampling program and will be satisfied by ensuring that the field sampling plan (FSP) is followed and that proper sampling techniques are used.

3.4.3 Measures to Ensure Representativeness of Laboratory Data

Representativeness in the laboratory is ensured by using the proper analytical procedures, meeting sample holding times and analyzing and assessing field duplicated samples. The sampling network was designed to provide data representative of facility conditions. During development of this network, consideration was given to past waste disposal practices, existing analytical data, physical setting and processes, and constraints inherent to the RCRA program. The rationale of the sampling network is discussed in detail in the field sampling plan (FSP).

3.5 Comparability

3.5.1 Definition

Comparability is an expression of the confidence with which one data set can be

compared with another.

3.5.2 Measures to Ensure Comparability of Field Data

Comparability is dependent upon the proper design of the sampling program and will be satisfied by ensuring that the FSP is followed and that proper sampling techniques are used:

3.5.3 Measures to Ensure Comparability of Laboratory Data

Planned analytical data will be comparable when similar sampling and analytical methods are used and documented in the QAPP. Comparability is also dependent on similar QA objectives.

3.6 Level of Quality Control Effort

Field blank, trip blank, method blank, duplicate, standard reference materials (SRM) and matrix spike samples will be analyzed to assess the quality of the data resulting from the field sampling and analytical programs.

Field and trip blanks consisting of distilled water, will be submitted to the analytical laboratories to provide the means to assess the quality of the data resulting from the field sampling program. Field blank samples are analyzed to check for procedural contamination at the facility which may cause sample contamination. Trip blanks are used to assess the potential for contamination of samples due to contaminant migration during sample shipment and storage.

Method b[redacted]ples are generated within the laboratory and used to assess contamination resulting [redacted]atory procedures. Duplicate samples are analyzed to check for sampling and analy[redacted]eproducibility. Matrix spikes provide information about the effect of the sample matrix on the digestion and measurement methodology. All matrix spikes are performed in duplicate and are hereinafter referred to as MS/MSD samples. One matrix spike/matrix spike duplicate will be collected for every 20 or fewer investigative samples. MS/MSD samples are designated/ collected for organic analyses only.

MS/MSD samples are investigative samples. Soil MS/MSD samples require no extra volume for VOCs or extractable organics. However, aqueous MS/MSD samples must be collected at triple the volume for VOCs and double the volume for extractable organics. One MS/MSD sample will be collected/designated for every 20 or fewer investigative samples per sample matrix (i.e., groundwater, soil).

The general level of the QC effort will be one field duplicate and one field blank for every 10 or fewer investigative samples. One volatile organic analysis (VOA) trip blank consisting of distilled deionized ultra pure water will be included along with each shipment of aqueous VOA samples.

The number of duplicate and field blank samples to be collected are listed in [the Appendix to this Model QAPP]. Sampling procedures are specified in the Field Sampling Plan.

QAPP ELEMENT 6

SAMPLING PROCEDURES

This section will provide detailed, stepwise sampling procedures for each matrix (soil borings, sediment, surface water, groundwater, air, biota, etc.) to be evaluated. A matrix will be defined as a unique stratum which may be solid, liquid, gaseous, animal, or vegetable. Solid matrices may be similar (i.e. soil boring and sediment) but are considered separate matrices. Each sampling procedure will specify:

1) All equipment necessary to sample the matrix,

2) Detailed, "cookbook" procedures to collect investigative samples,

3) Explicit instructions for collecting each applicable type of QC sample for each matrix and associated analytical parameter. These QC samples will include field duplicates, field blanks, trip blanks (for aqueous volatile samples), matrix spike, matrix spike duplicates, etc.,

4) The order of analytical parameter sample fraction collection (i.e. "volatiles first, followed by extractable organics...") for each matrix,

5) Sample containers for each analytical fraction, matrix type, and concentration level. Specifically, the following will be addressed:

   a) The type of container

   b) The container volume

   c) The number of containers required for each analysis

   d) Specific chemical/temperature preservations required

6) Obtaining contaminant-free sample containers. Specifically, the following will be addressed:

   a) Detailed procedures used to prepare contaminant-free sample containers for each container/analytical fraction type,

   b) The criteria all containers must meet (i.e. "benzene < 1 ppb," etc.)

   c) How the criteria are verified and the frequency of the verification (i.e. "{Laboratory} will conduct a GC/MS analysis using CLP OLM01.8 at a frequency of one volatile and semivolatile container perlot of 100 sample containers.")

   d) Who will prepare the containers (i.e. "Containers will be prepared by [Sample Container Company].)"

   e) How the criteria are documented (i.e. "[Sample Container Company] will provide a certified analysis for each sample container lot.")

7) Decontamination procedures for field equipment,

8) Any ancillary procedures such as monitoring well installation or hydropunch work,

9) Sample packaging and shipping procedures to be used as part of the field chain-of-custody procedures since many considerations of sample shipping are integral to custody.

NOTE: If a Field Sampling Plan (FSP) is being prepared, the information to be supplied in the QAPP can be referenced to the FSP. However, the information in the FSP must 1) address ALL requirements stated in this section, 2) provide very detailed information, and 3) provide the specific reference to the FSP where the requested information is located. If these criteria cannot be met by the FSP, then this information must be detailed in this section of the QAPP.

SECTION 4

SAMPLING PROCEDURES

[The following is an example of a sampling procedures section where a Field Sampling Plan (FSP) has been prepared. If a FSP is not prepared, this information must be stated in this section.]

The sampling procedures to be used in this site investigation will be consistent for the purpose of this project. The field sampling plan outlines all the sampling procedure information. Please refer to the following sections and subsections of the FSP for the following information:

- Groundwater Monitoring Well Installation - Section 2.1
- Groundwater Monitoring Well Equipment - Section 2.2
- Groundwater Sampling Procedures - Section 2.3
- Sample Containers - Section 2.4
- Obtaining Contaminant-Free Sample Containers - Section 2.4.1
- QC Sample Procedures - Section 2.5
- Field Blank Collection - Section 2.5.1
- Field Duplicative Collection - Section 2.5.2
- Matrix Spike/Matrix Spike Duplicate Collection - Section 2.5.3
- Trip Blank Preparation - Section 2.5.4
- Groundwater Sampling Equipment Decontamination - Section 2.5.5
- Groundwater Sampling Order - Section 2.5.6

[NOTE: **This reference orientation was presented for groundwater only. However, the same referencing would be applied to ALL matrices (i.e. soil, sediments, wipes, fish, etc.)]**

QAPP ELEMENT 7

CUSTODY PROCEDURES

Chain of custody is defined as the sequence of persons who have the item in custody. Chain of custody will be demonstrated by documenting that the item in question was always in a state of custody. This will be accomplished through a combination of field and laboratory records that demonstrate possession and transfer of custody.

This section will provide detailed procedures for chain of custody for field activities, laboratory activities, and final evidence files as follows:

1) Field Custody Procedures

Detailed custody procedures will be stated for evidence collected in the field. All documents, logbooks, photographs, measurements, analyses, samples collected, etc. must be addressed in the field custody procedures. Detailed explanations will include:

- Procedures for transfer of custody between individuals.
- A sample numbering system (if not presented in another QAPP section).
- Sample packaging and shipment procedures to an off site laboratory.
- Chronological sequences and instructions for completing all field custody documents as well as copies of each document (as applicable):

  i. Field logbooks: The field logbook entry shall provide all information pertinent to the collection of field samples including locations, number/types of samples, measurements, sampling/atmospheric conditions, observations, etc. The field logbook will be a bound volume assigned to an individual field team member. All entries will be completed with a permanent inkpen with no erasures or whiteout used. All entries will be signed/dated. Any entry which is to be deleted shall use a single crossout which is signed/dated.

  ii. Sample tags: A sample tag is attached to each individual sample aliquot for each investigative or quality control sample. An example of a U.S. EPA sample tag with instructions for completion is found as a figure appended to this Model QAPP (see section entitled "chain of custody samples"). At a minimum, the tag will include the field sample number, location (if not already encoded in the sample number), date/time of collection and type of analysis. A space for lab sample number (provided by the lab upon log-in) is also required.

  A sample tag may be attached to the sample container with a wire around the container neck through a reinforced hole in the tag. All tag entries are made with a waterproof, permanent ink.

  While sample labels (described below) may be used in addition to tags, tags must always be used whenever chain of custody is required! The sample tag is the only physical evidence of the sample aliquot as carried through the entire custody process outside of keeping all sample containers. Sample labels cannot usually be removed intact and often do not include enough space for information on smaller containers.

Sample tags allow for disposal of sample containers once the samples have exceeded their holding times.

iii. Sample labels: As noted above, sample labels are optional when chain-of-custody is required. Sample labels may repeat some of the information provided on tags but usually cannot be removed intact.

iv. Chain of custody record form: A chain-of custody record form is the form used to record information pertinent to all samples being shipped in the same cooler. In general, the form will record samples which may be shipped together (i.e. extractable organics or metals) to the same laboratory. The form will also include spaces for transfers of custody by the field team as well as for log-in by the lab sample custodian.

v. Shipping cooler custody seals: Shipping cooler custody seals are placed on the edges of the cooler between the lid and sides to determine whether coolers may have been tampered with. The custody record form, along with all associated samples/tags, preservative (i.e., ice) and packing material are placed in the cooler prior to sealing with one or more seals.

vi. Airbills: Airbills used by the shipping company are often overlooked in the custody chain. Airbills are the only means to document and ensure continuity in custody between the shipment of samples from the field until their arrival at the laboratory. Copies of all completed airbills must be included as part of the final custody documentation.

2) Laboratory Custody Procedures

Detailed laboratory custody procedures specific to each laboratory associated with the project will be stated. The RCRA facility and its field contractor must ensure continuity between field and lab custody procedures. Laboratory custody procedures will:

- begin when samples are received by the laboratory.

- maintain the chain of custody initiated in the field.

- provide the chronological sequence from sample log-in through sample analysis and disposal.

- provide detailed log-in procedures.

- detail the internal sample tracking and numbering systems.

- identify the sample custodian.

- detail transfers of custody within the laboratory.

- provide examples of internal custody documents (with instructions for completion).

- specify how and where samples are stored.

- specify how and when samples, extracts, and digestates are disposed.

- specify how custody of analytical data are maintained.

- specify how analytical data and custody records are "purged" from the custody of the lab to the final evidence file.

3) Final Evidence Files: This section will specify:

- the contents of the final evidence file.

- the identification of the file custodian.

- the location where the file will be maintained in a secure, limited access area.

- the length of time (as mandated by U.S. EPA) that the file will be maintained. This may be specified in an order, etc. The file must be offered to U.S. EPA prior to disposal.

SECTION 5

CUSTODY PROCEDURES

Custody is one of several factors which is necessary for the admissibility of environmental data as evidence in a court of law. Custody procedures help to satisfy the two major requirements for admissibility: relevance and authenticity. Sample custody is addressed in three parts: field sample collection, laboratory analysis, and final evidence files. Final evidence files, including all originals of laboratory reports and purge files, are maintained under document control in a secure area.

A sample or evidence file is under your custody if:

* the item is in actual possession of a person; or

* the item is in the view of the person after being in actual possession of the person; or

* the item was in actual physical possession but is locked up to prevent tampering; or

* the item is in a designated and identified secure area.

5.1 FIELD CUSTODY PROCEDURES

Field logbooks will provide the means of recording data collecting activities performed. As such, entries will be described in as much detail as possible so that persons going to the facility could reconstruct a particular situation without reliance on memory.

Field logbooks will be bound, field survey books or notebooks. Logbooks will be assigned to field personnel, but will be stored in the document control center when not in use. Each logbook will be identified by the project-specific document number.

The title page of each logbook will contain the following:

* Person to whom the logbook is assigned.

* Logbook number.
* Project name.
* Project start date, and
* End date.

Entries into the logbook will contain a variety of information. At the beginning of each entry, the date, start time, weather, names of all sampling team members present, level of personal protection being used, and the signature of the person making the entry will be entered. The names of visitors to the site, field sampling or investigation team personnel and the purpose of their visit will also be recorded in the field logbook.

Measurements made and samples collected will be recorded. All entries will be made in ink, signed, and dated and no erasures will be made. If an incorrect entry is made, the information will be crossed out with a single strike mark which is signed and dated by the sampler. Whenever a sample is collected, or a measurement is made, a detailed description of the location of the station, which includes compass and distance measurements, shall be recorded. The number of the photographs taken of the station, if any, will also be noted. All equipment used to make measurements will be identified, along with the date of calibration.

Samples will be collected following the sampling procedures documented in Section __ of this QAPP. The equipment used to collect samples will be noted, along with the time of sampling, sample description, depth at which the sample was collected, volume and number of containers. Sample identification number will be assigned prior to sample collection. Field duplicate samples, which will receive an entirely separate sample identification number, will be noted under sample description.

The sample packaging and shipment procedures summarized below will ensure that the samples will arrive at the laboratory with the chain of custody intact. The protocol for specific sample numbering using case numbers and traffic report numbers if applicable and other sample designations are included in Section ____ of this QAPP. Examples of field custody documents and instructions for completion are presented in [Appendix to this Model QAPP].

a) The field sampler is personally responsible for the care and custody of the samples until they are transferred or properly dispatched. As FEW people as possible should handle the samples.

(b) All bottles will be identified by use of sample tags with sample numbers, sampling locations, date/time of collection, and type of analysis. The sample numbering system is presented in section ___ of this QAPP.

(c) Sample tags are to be completed for each sample using waterproof ink unless prohibited by weather conditions. For example, a logbook notation would explain that a pencil was used to fill out the sample tag because the ballpoint pen would not function in freezing weather.

d) Samples are accompanied by a properly completed chain of custody form. The sample numbers and locations will be listed on the chain of custody form. When transferring the possession of samples, the individuals relinquishing and receiving will sign, date, and note the time on the record. This record documents transfer of custody of samples from the sampler to another person, to a mobile laboratory, to the permanent laboratory, or to/from a secure storage area.

(e) Samples will be properly packaged on ice at 4°C for shipment and dispatched to the appropriate laboratory for analysis, with a separate signed custody record enclosed in and secured to the inside top of each sample box or cooler. Shipping containers will be locked and secured with strapping tape and custody seals for shipment to the laboratory. The preferred procedure includes use of a custody seal attached to the front right and back left of the cooler. The custody seals are covered with clear plastic tape. The cooler is strapped shut with strapping tape in at least two locations.

(f) Whenever samples are collocated with a government agency, a separate sample receipt is prepared for those samples and marked to indicate with whom the samples are being collocated. The person relinquishing the samples to the facility or agency should request the representatives signature acknowledging sample receipt. If the representative is unavailable or refuses to sign, this is noted in the "Received By" space.

(g) All shipments will be accompanied by the Chain of Custody Record identifying the contents. The original record will accompany the shipment, and the pink and

yellow copies will be retained by the sampler for returning to the sampling office.

(h) If the samples are sent by common carrier, a bill of lading should be used. Receipts of bills of lading will be retained as part of the permanent documentation. If sent by mail, the package will be registered with return receipt requested. Commercial carriers are not required to sign off on the custody form as long as the custody forms are sealed inside the sample cooler and the custody seals remain intact.

(i) Samples will be transported to the laboratory the same day the samples are collected in the field by overnight carrier.

5.2 LABORATORY CUSTODY PROCEDURES

Laboratory custody procedures for sample receiving and log-in; sample storage and numbering; tracking during sample preparation and analysis; and storage of data are described in the [Laboratory] procedures in the appendix. Examples of laboratory chain of custody traffic reports along with instructions for completion are [included in the Appendix to this Model QAPP]. **[This laboratory information can be attached to the QAPP as an appendix and referenced. Otherwise, please list the procedures here.]**

5.3 FINAL EVIDENCE FILES

The final evidence file will be the central repository for all documents which constitute evidence relevant to sampling and analysis activities as described in this QA[illegible]ntractor] is the custodian of the evidence file and maintains the contents of [illegible] for the RFI, including all relevant records, reports, logs, field no[illegible]ures, subcontractor reports and data reviews in a secured, limited ac[illegible] under custody of the [Contractor] facility manager.

The final evidence file will include at a minimum:

- field logbooks

- field data and data deliverables

- photographs

- drawings
- soil boring logs
- laboratory data deliverables
- data validation reports
- data assessment reports
- progress reports, QA reports, interim project reports, etc.
- all custody documentation (tags, forms, airbills, etc.)

QAPP ELEMENT 8

CALIBRATION PROCEDURES AND FREQUENCY

This section will include a description of the calibration procedures and the frequency with which these procedures will be performed for both field and laboratory instruments. This section will include the following:

1) Field Instrument Calibration

- Initial calibration
- Continuing calibration

2) Laboratory Instrument Calibration

- Initial calibration for each instrument, 3 or 5 point calibration [NOTE: The ICP only requires a 2-point initial calibration.]
- Initial calibration verification
- Continuing calibration

Each calibration procedure will also include the acceptance criteria and the conditions that will require recalibration. The accuracy and traceability of the calibration standards used must be properly documented.

[NOTE: The SOPs for all the analyses that will be performed on the samples collected for this RFI will include a section on instrument calibration if the format described in *"Guidelines For The Preparation of Standard Operating Procedures (SOPs) For Field and Laboratory Measurements"* was followed. For details, refer to section 7 instructions page.]

[NOTE: Any deviation from the SOP must be explained and justified in this section. It must be specified whether the deviation to the SOP is only temporary for the purpose of this facility investigation. Otherwise, if the deviation is permanent, then the SOP will have to be revised and resubmitted to the EPA.]

SECTION 6

CALIBRATION PROCEDURES AND FREQUENCY

This section describes the calibration procedures and the frequency at which these procedures will be performed for both field and laboratory instruments.

6.1 Field Instrument Calibration

The field instruments will be calibrated as described in field SOPs. Field instruments include a pH meter, potentiometer for Eh measurement, thermometer, nephelometer, conductivity meter, field GC system, organic vapor analyzer (OVA) or organic vapor photoionization detector (PID). As a rule, instruments will be calibrated daily prior to use and will be recalibrated every [number] samples. For specific instructions on the calibration frequency, the acceptance criteria and the conditions that will require more frequent recalibration, refer to the specific SOPs for each field analysis.

The linearity of the instrument will be checked by using a 2-point calibration with reference standards bracketing the expected measurement. All the calibration procedures performed will be documented in the field logbook and will include the date/time of calibration, name of person performing the calibration, reference standard used, temperature at which readings were taken and the readings. Multiple readings on one sample or standard, as well as readings on replicate samples, will likewise be documented.

[The following example calibration procedures for standard field measurements are acceptable and may be inserted verbatim into individual facility investigations QAPP, if applicable. The SOPs for these field measurements may also be referenced. Field instruments may vary by manufacturer in which case the instruction or operating manual should serve as a guide in preparing SOPs.]

pH Meter Calibration

The pH meter will be calibrated with standard buffer solutions before being taken to the field. In the field, the meter will be calibrated daily with two buffer solutions before use. The range of the buffer solutions will be at least three or more pH units apart and will bracket the expected pH of the sample being measured.

* Ensure that the temperature of sample and buffer are the same.
* Connect pH electrode into pH meter and turn on pH meter.
* Set temperature setting based on the temperature of buffer; place electrode in first buffer solution.
* After reading has stabilized, adjust "CALIB" knob to display correct value.
* Repeat procedure for second buffer solution.
* Place pH electrode in the sample and record the pH as displayed.
* Remove pH electrode from sample and rinse off with distilled water.
* Recalibrate the pH meter every time it is turned off and turned back on, or if it starts giving erratic results.

Thermometer Calibration

Temperature readings will be taken using thermometers which have been compared to NIST traceable thermometer. Prior to use, the thermometers will be inspected to ensure that there is no mercury separation and will be periodically checked in the field. The thermometers used will be calibrated against a NIST traceable reference thermometer by immersing both thermometers in a bath of an expected known temperature such as freezing (0 degrees C) or boiling (100 degrees C) and comparing the readings. If the error is more than [illegible] limit in percent, then the thermometer will be [illegible] and replaced.

Conductivity Meter Calibration

The con[illegible] the specific conductivity meter will be cleaned and checked against known con[illegible] before being taken to the field. In the field, the instrument will be checked daily with NIST [illegible] traceable reference standards. The calibration procedure is described below.

* Place the probe in the conductivity calibration standard solution.
* Set temperature knob for temperature of standard solution.

* Turn to appropriate scale and set the instrument for the value of calibration standard.

* Rinse off the electrode with distilled water.

* Measure the conductivity for distilled water to be used for a field blank, making sure temperature is set correctly for temperature of solution to be tested.

* If the conductivity of blank (distilled water) is high, it must be discarded and a new blank sample obtained.

Organic Vapor analyzer (OVA), Organic Vapor Photoionization Detector (OV-PID) and HNU GC

The OVA will be checked daily by use of the internal calibration mechanism. The OV-PID will be calibrated daily with [calibration gas, for example: methane] of known concentration.

Geophysical Instrument Calibration

The calibration procedures and their frequency for geophysical instruments such as magnetometer, electromagnetic conductivity meter and ground penetrating radar equipment are described in an SOP.

6.2 Laboratory Instrument Calibration

Calibration procedures for a specific laboratory instrument will consist of initial calibration (3 or 5-points), initial calibration verification and continuing calibration verification. For a description of the calibration procedures for a specific laboratory instrument, refer to the applicable SOPs in [the Appendix to this Model QAPP] of this QAPP. The SOP for each analysis performed in the laboratory describes the calibration procedures, their frequency, acceptance criteria and the conditions that will require recalibration. In all cases, the initial calibration will be verified using an independently prepared calibration verification solution. **[NOTE: Any deviation from the SOP must be explained and justified in this section. It must be specified whether the deviation to the SOP is only temporary for the purpose of this facility investigation. Otherwise, if the deviation is permanent, then the SOP will have to be revised and resubmitted to the EPA.]**

The laboratory maintains a sample logbook for each instrument which will contain the following information: instrument identification, serial number, date of calibration, analyst, calibration solutions run and the samples associated with these calibrations.

QAPP ELEMENT 9

ANALYTICAL PROCEDURES

This section will describe the field and laboratory analytical procedures to be used for the site investigation. Field analytical procedures are those procedures which generate analytical data to be used in a decision-making process involved with sample selection or site screening (e.g. field screening with a GC to determine particular constituent concentrations). Laboratory analytical procedures include organic and inorganic constituents as well as characteristic matrix concentrations (e.g. BOD, COD, TOC, TOX, TPH, etc.). These procedures will provide information for the purpose of meeting defined project objectives.

The following information will be stated in this section:

1) The analytical parameters and matrices to be tested will be stated for each laboratory involved in the project. Each laboratory address will be stated in this section of the QAPP. A reference to the specific section in QAPP Section 2 (Lab Responsibilities) is acceptable to satisfy this requirement.

2) Standard Operating Procedures for sample preparation (i.e. extraction, concentration, etc., for organics; digestion, dilutions, etc., for inorganics) and cleanup methods, for all types of matrices, if not included in the determinative SOPs will be stated in this section of the QAPP. Determinative SOPs are those that describe the qualitative/quantitative analysis of specific analyte groups which, may or may not include the sample preparation and cleanup of the extracts. For example, in *The Test Methods for Evaluating Solid Waste (SW-846)*, the sample preparation and cleanup methods are cited independent of the determinative instrumental methods.

3) Standard Operating Procedures (SOPs) for all analyses that will be performed on the samples collected from the site under investigation will be stated. The SOPs may be based on SW-846, or other EPA methods, such as those promulgated under the Clean Water Act (e.g. EPA 600 Series Organic Methods) and Safe Drinking Water Act (e.g. EPA 500 Series Methods) provided that the methods are sufficient to meet any defined project objectives. Some SOPs for inorganic analysis will be based on EPA-600/4-79-020 *"Method for Chemical Analysis of Water and Wastes"*. The SOPs must be detailed and specify analytes and matrices of interest for this RCRA investigation. Pertinent sections of the equivalent SW-846 method may be referenced in the SOP, but need not be included if these sections are followed without modification. If any referenced sections offer several options, the option selected must be clearly stated. To the extent possible, all SOPs should follow a definite format as described in the attached EPA Region 5 document *"Guidelines For the Preparation of Standard Operating Procedures (SOPs) For Field And Laboratory Measurements"* which is included in the Appendix to this Model QAPP.

4) Standard Operating Procedures to be used for confirmatory analysis of detected compounds, if applicable, will be stated in this section. The basis for these SOPs will be the EPA SW-846, 600 or 500 Series Methods, as stated earlier. For example, if a compound determined by GC/EC will be confirmed using a different detector system (such as FID, NPD, MS, etc.), then the SOP will have to be included in the QAPP.

5) An explanation of how the method validation study (including detection limit study) was conducted. This should be based on the laboratory SOPs and must include the criteria for acceptance, rejection or qualification of data.

6) Summary tables of analyte groups of interest (e.g. volatiles, acid/base/neutrals, metals, nutrients, etc.), including the appropriate laboratory SOP numbers and EPA method reference shall be included in this section. For each analyte group on a matrix-specific basis, all the applicable sample preparation, cleanup and analysis SOPs will be included in a table format. In addition, list each of the project target compounds in each analyte group that will be measured and reported.

7) The quantities and types of QC samples to be taken for each analyte group, on a matrix-specific basis will be included in this section. This list will reflect the specific needs of the project. The laboratory SOP will have a QC section which addresses minimum QC requirements. However, any additional project requirements will be addressed. (NOTE: Pertinent sections of the QAPP may be referenced.)

NOTE: The SOPs and method validation studies will be sent under separate cover. The SOPs and method validation study will be submitted along with the QAPP and will be referenced as an attachment in the document but will be spatially distinct from the QAPP to facilitate laboratory audit procedures.

SECTION 7

ANALYTICAL PROCEDURES

Groundwater samples and residential well water samples collected during field sampling activities for the **[Facility]** RFI will be analyzed by the **[First Laboratory name, address and telephone number]**. Soil samples collected will be analyzed by **[Second Laboratory name, address, and telephone number]**.

7.1 Field Analytical Procedures

The standardization and QA information for field measurements of pH, Eh, specific conductivity, and temperature are described in Section 3 of this QAPP. A copy of the Field Sampling Plan has been submitted with the QAPP to expedite review and approval of these methods. The SOP for the GC field screening procedure to be used during this investigation is presented as an SOP.

7.2 Laboratory Analytical Procedures

The laboratories named above will implement the project required Standard Operating Procedures (SOPs). These laboratory SOPs for sample preparation, cleanup and analysis are based on SW-846 Revision **[Revision Number and Date]** and **[other EPA methods, such as 600 Series or 500 Series Methods]**. These SOPs provide sufficient details and are specific to this RCRA facility investigation.

The site samples for volatile organic compounds analysis (VOA) shall be screened in the laboratory, as described in the VOA SOP and shall be analyzed, either as low or medium level concentration samples, or as a series of dilutions in order to cover the expected concentration range of the site-specific compounds of interest.

The site soil sample extracts requiring pesticide/PCB and/or semivolatile organic compounds analysis (acid/base/neutral analysis or ABNs) shall be subjected to gel permeation chromatography cleanup and/or other column chromatography cleanup, as necessary.

For confirmatory analysis of **[compounds of interest]**, SOP number **[Laboratory SOP number]** based on **[SW-846 method number]** will be performed.

The documentation of appropriate method validation for the project target compounds is submitted in [the Appendix to this Model QAPjP]. It includes the criteria for acceptance, rejection or qualification of data.

Tables 7.1 and 7.2 summarize the analyte groups of interest, appropriate laboratory SOP numbers and EPA reference method for the organic and inorganic analytes, respectively, to be evaluated in this investigation. The [Laboratory] SOPs to be used in this investigation have been (submitted as a separate document). **[NOTE: This table is only an example. The actual table will reflect the analytical requirements of the project.]**

7.2.1 List of project target compounds and laboratory detection limits

A complete listing of project target compounds, project quantitation limits, and current laboratory determined detection limits for each analyte group listed in Table 7.1 can be found in Section __ of this QAPP. Method detection limits shown have been experimentally determined using the method found in FR vol. 49, no. 209, page 198-199.**[NOTE: These detection limits and method of determination are essential and must be presented in the QAPP.]**

7.2.2 List of associated QC samples

The laboratory SOPs include a QC section which addresses the minimum QC requirements for the analysis of specific analyte groups. Since **[analyte 1, analyte 2, etc.]** have been found in a **[previous investigation type]** at **[concentrations]**, these compounds will be added to the spiking solution, in compliance with project requirements. Section __ of this QAPP contains a complete listing of the associated QC samples for every analyte group and matrix.

[NOTE: The following tables are examples only. The SOPs are examples of a naming convention which includes the basis for the SOP.]

TABLE 7.1

SUMMARY OF ORGANIC ANALYTICAL PROCEDURES

Analyte Group*	Lab. SOP No.	Equivalent EPA Method Number[a]
Matrix: Water		
Volatile Organics	SOP.01B8240/86 (Analysis)	8240
Semivolatiles	SOP.02B3510/86 (Sample Prep)	3510
	SOP.03B3640/86 (Cleanup/GPC)	3640
	SOP.04B8270/86 (Analysis)	8270
Matrix: Soil		
Pesticides/PCBs	SOP.05B3540/86 (Sample Prep/Soxhlet)	3540
	SOP.06B3640/86 (Cleanup/GPC)	3640
	SOP.07B3620/86 (Cleanup/Florisil)	3620
	SOP.08B3660/86 (Cleanup/Sulfur**)	3660
	SOP.09B8080/86 (Analysis***)	8080

[NOTE: The following are example notes on the options selected, where several options exist in the SOP.]

* See 7.2.1 for compounds in each analyte group.
** Sulfur cleanup will be done using mercury.
*** Pesticide/PCB analysis using dual, dissimilar megabore columns.
[a]SW-846, Third Edition

TABLE 7.2

SUMMARY OF INORGANIC ANALYTICAL PROCEDURES

Analyte*	Lab. SOP No.	Equivalent EPA Method Number[b]
Matrix: Water		
Arsenic	SOP.01B3020/86 (Digestion) SOP.01B7060/86 (Analysis)	3020 7060
Antimony	SOP.02B3005/86 (Digestion) SOP.03B7041/86 (Analysis)	3005 7041
Lead	SOP.04B3010/86 (Digestion) SOP.05B6010/88 (Analysis)	3010 6010
Sulfide	SOP.06B9030/88 (Analysis)	9030
Matrix: Soil		
Arsenic	SOP.01B3050/86 (Digestion) SOP.01B7060/86 (Analysis)	3050 7060
Antimony	SOP.02B3050/86 (Digestion) SOP.03B7041/86 (Analysis)	3050 7041
Lead	SOP.04B3050/86 (Digestion) SOP.05B6010/88 (Analysis)	3050 6010
Sulfide	SOP.06B9030/88 (Analysis)	9030[a]

[NOTE: The following are example notes on the options selected, where several options exist in the SOP.]

* See 7.2.1 for compounds in each analyte group.

[a]Modified to add soil digestion procedure; See SOP in separate attachment (Attachment _)

[b]SW-846, Third Edition

QAPP ELEMENT 10

INTERNAL QUALITY CONTROL CHECKS

This section describes all specific quality control checks to be addressed for both field and laboratory analysis in order to comply with the requirements of the project investigation. It will include, but not be limited to, the following information:

Field Quality Control Checks

- Replicate measurements per sample (if applicable)
- Duplicate samples
- Reference standards (used in calibrating field instruments such as pH meters, specific conductance or conductivity meters, potentiometer for Eh measurements, HNU GC for organics, etc.)
- For temperature measurements, thermometer is compared with NIST traceable thermometer
- Reference standards for turbidity measurements (Nephelometric method, etc.)
- Munsell color chart for color checks

Laboratory Quality Control Checks

- Field/Trip blanks
- Method blanks
- Reagent/preparation blanks (applicable to inorganic analysis)
- Instrument blanks
- Matrix spikes/matrix spike duplicates
- Surrogate spikes
- Analytical spikes (Graphite furnace)
- Field duplicates
- Laboratory duplicates
- Laboratory control standards
- Internal standard areas for GC/MS analysis; control limits
- Mass tuning for GC/MS analysis
- Endrin/DDT degradation checks for GC/EC analysis
- Second, dissimilar column confirmation for GC/EC analysis

The required laboratory SOPs [NOTE: Refer to Section 7 instructions page] will include a QC section which describes the specific QC requirements for the method.

September 12, 2008

Memo to File:

The following letters have been released from the C.3 Enforcement Confidential file:

October 9, 1990, letter from IDEM to Jeffrey Hannapel, Esq. Andrews & Kurth regarding Refined Metals Corporation Cause No. 89-S-J-254

October 1, 1990, letter from Robert Steinwurtzel, Andrews & Kurth Office to IDEM regarding Commissioner of the Department of Environment Mgt. v. Refined Metal Corporation Cause No. A-1031 with revised draft Agreed Order attachment

August 1, 1995, letter from Robert Steinwurtzel, Swidler & Berlin Office to Leonard Gelman, Esq., U.S. Department of Justice regarding Refined Metals Corporation

August 8, 1995, letter from Charles Grady, IDEM to Mike Meloy Refined Metals Corporation regarding Preliminary Determination.

These documents have been released per Mony Chabria of the Regional Counsel's Office.

9/12/08

These documents are now filed in C.2.

Clarita M. Gervas

ROBERT N. STEINWURTZEL
ATTORNEY-AT-LAW

SWIDLER & BERLIN
CHARTERED

DIRECT DIAL
(202)424-7830
RNSTEINWURTZEL@SWIDLAW.COM

March 10, 1998

RECEIVED
MAR 17 1998
Enforcement & Compliance Assurance Branch
Waste, Pesticides & Toxics Division
U.S. EPA – REGION 5

CERTIFIED MAIL--RETURN RECEIPT REQUESTED

United States Environmental Protection Agency
Region V
RCRA Enforcement Branch
77 W. Jackson Street, HRE-8J
Chicago, IL 60604-3590
ATT: Refined Metals Corp. -- Project Coordinator

Re: United States v. Refined Metals Corporation, Civ. No. IP 90-2077-C

To Whom It May Concern:

Pursuant to paragraph 61 of the consent decree executed by Refined Metals Corporation in connection with the above-captioned proceeding, please be informed that Refined Metals Corporation has selected Paul Stratman, Advanced GeoServices Corp., as the Supervising Contractor. Mr. Stratman is a Senior Project Consultant for Advanced GeoServices Corp., and is a registered professional engineer in Indiana. Mr. Stratman has served in a supervisor capacity for a number of CERCLA and RCRA projects, including principal responsibility for the RFI conducted at the General Battery Corporation facility located in Reading, Pennsylvania. A copy of his resume is attached hereto.

Please contact the undersigned if you have any questions regarding this matter.

Sincerely yours,

Robert N. Steinwurtzel

Robert N. Steinwurtzel

Enclosure

cc: Lee Gelman, Department of Justice (via facsimile and first class mail)
Paul Stratman, Advanced GeoServices Corp. (via first class mail)

PAUL G. STRATMAN, P.E.
Senior Project Consultant

FIELDS OF EXPERTISE
Civil Engineering, Environmental Engineering and Geotechnical Engineering.

EDUCATION
Bachelor of Science - Civil Engineering; Drexel University, 1990
Bachelor of Science - Geology; Bloomsburg University; 1984
Master of Science Studies - Environmental Engineering, Drexel University

LICENSES
Professional Engineer: AZ, IN, MD, MI, MO, MT, NC, NJ, OH, PA, TN, UT, VT and WV

PRESENT DUTIES AND RESPONSIBILITIES
Mr. Stratman is responsible for various project activities including project management, client contact, task assignments, quality control, budget and schedule control, invoicing, performing and reviewing engineering calculations, and report writing.

EXPERIENCE SUMMARY
Mr. Stratman has over fourteen years of experience in Civil, Environmental and Geotechnical Design Engineering. Mr. Stratman's experience in the environmental field includes the siting, design, construction and closure of municipal, residual and hazardous waste landfills and surface impoundments; design and implementation of plans for stabilizing and remediating contaminated sites; management and closure of underground storage tanks; and installation and testing of geosynthetic materials. In addition to his technical experience, Mr. Stratman has also performed the duties of Project Manager for a geosynthetics testing and research laboratory.

PROJECT EXPERIENCE
- Performed a major modification to an RCRA Part B permit for a lead-acid battery manufacturing and secondary lead smelting facility.
- Provided environmental, geotechnical and civil engineering support related to facility infrastructure and operations management for a large industrial facility on an ongoing basis.
- Prepared design drawings and specifications for the stabilization and closure of two 5-million gallon hazardous waste surface impoundments. Designs required a composite geomembrane and soil cap system. Also performed QA/QC services required during construction for geosynthetics and sludge plate load testing.
- Designed and permitted two waste disposal impoundments in accordance with RCRA design standards for a dye stuffs manufacturer. The impoundments covered 3.5 and 6.0 acres and were double lined with leachate detection and alarm systems. Construction specifications and quality assurance plans were also prepared as part of the projects. Provided technical QA support during construction.
- Developed and implemented a work plan for sampling soil and sediment near a secondary lead smelter. Work Plan development utilized dry deposition analysis of historic air emissions to define limits of the project area. Collected samples were analyzed using an XRF in conjunction with wet lab analysis for quality control. Results of the project were compiled in a detailed report for regulatory and public review.
- Independent representative and chairman of an Advisory Committee for an active manufacturing and secondary lead recovery operation. Responsible for running meetings, presenting technical information and initiating conversation between community, regulatory, and industry members of committee.
- Prepared design drawings, construction specifications, quality assurance plans and sequential development plans for a 130-acre construction waste landfill incorporating a clay liner, leachate collection system, and geosynthetic cap.
- Prepared design drawings and specifications for a groundwater interceptor trench at a lead-acid battery manufacturing facility.

PAUL G. STRATMAN, P.E.

PROJECT EXPERIENCE (CONTINUED)

- Assisted with the siting and design efforts for a privately funded double lined hazardous waste landfill in Mexico that required the preparation of construction drawings and operation plans in Spanish and English.

- Performed environmental engineering services required for retrofitting a 45-acre municipal waste landfill with a leachate collection system and geosynthetic liner.

- Prepared design drawings, specifications and CQA documents for a 1.8 million cubic yard incinerator ash landfill to be constructed beneath an air-supported structure.

- Remedial Design Team Leader for preparation of construction drawings, specifications and CQA documents required for remediation and on-site closure of four surface impoundments containing 600,000 cubic yards of electroplating sludges (F006). The project included designing a leachate collection system to be constructed within the in-place sludges, wave protection along tidal areas of Lake Erie, slurry walls and a geocomposite cover system.

- Prepared design drawings, specifications and CQA documents for the closure of three residual waste lagoons at a chemical manufacturing facility. Assisted owner during contractor selection and bidding and managed full-time CQA services.

- Project Engineer involved in the cleanup of a 50,000 gallon No. 6 fuel oil spill in Marcus Hook, PA caused by a ruptured pipe line. The project involved removing oil from buildings, yard areas, drainage ditches, a storm culvert and 1,000 feet of a major stream. Regulatory involvement included USEPA, U.S. Coast Guard, PADEP, and DNREC.

- Design of a groundwater recharge system for a commercial development situated within a "Wellhead and Recharge Resource Protection Area". The design incorporated a settling pond and a subsurface recharge system intended to protect the quality and quantity of groundwater recharge.

- Developed design drawings and specifications for the remediation of over 10,000 tons of PCB contaminated soil at an active chemical manufacturing facility in New Jersey. Project also included the design and construction of several above ground tank containment structures, a 5,000 square foot press pad and an extensive FRP piping system for product and wastewater. Provided full-time construction management services over three primary contractors and coordinated work to minimize disruption to plant activities.

- Designed stormwater management system at a large chemical manufacturing plant in southeastern Pennsylvania capable of collecting and holding first flush stormwater runoff and allowing subsequent runoff to discharge through NPDES outfall. Design incorporated conventional hydraulic and hydrologic design procedures with an automated pumping system.

CONTINUING EDUCATION

- Developing and Implementing an ISO 14001 EMS, Philadelphia, PA 1996
- Risk Communication Workshop, Chemical Manufacturers Association, Atlanta, GA 1995
- Geotextile Design Seminar, Philadelphia, PA 1995
- Health Risk Assessment Workshop, Boston, MA, 1995
- GRI Seminar, Geosynthetics in Filtration, Drainage, and Erosion Control, Drexel University, 1991
- Landfill Design Seminar, University of Wisconsin, 1990
- GRI Seminar, Landfill Closure, Drexel University, 1990
- Computational Methods in Stormwater Management, Pennsylvania State University

D 2.1

EXIDE TECHNOLOGIES

Exide Technologies
3000 Montrose Avenue
Reading, PA 19605
www.exideworld.com

April 18, 2002

Mr. Jonathan Adenuga
United States Environmental
Protection Agency – Region V
77 West Jackson Boulevard
Chicago, IL 60604-3590

Re: Phase II RCRA Facility Investigation Work Plan
Refined Metals Corporation
IND 000 718 130

Dear Mr. Adenuga,

This letter confirms our conversation on April 18, 2002 during which I requested an extension to the April 13, 2002 submittal deadline for the Phase II RCRA Facility Investigation report (Phase II report).

As I indicated during our conversation, work was halted on the project recently while a filing for reorganization by Refined Metals Corporation (Refined) was contemplated. Earlier this week, it was announced that Refined would not file for reorganization and work immediately resumed on the project. Due to down time when reorganization was being contemplated, an additional three weeks is required to finish the Phase II report. During our call, I requested an extension until May 3, 2002 to submit the Phase II report. From our conversation, I understand this is acceptable. Please contact me if I have in any way misrepresented our conversation.

Sincerely,

EXIDE TECHNOLOGIES

Matthew A. Love
Director, Environmental Affairs

Jonathan Adenuga has many files including D 2.1.
10/23/09

cc: Paul Stratman - AGC

Issue 4 July 2001

Refined Metals Corporation
Beech Grove Facility

INTRODUCTION

This newsletter for the inactive Refined Metals Corporation (RMC) facility located at 3700 South Arlington Avenue, Beech Grove, Indiana (the "facility") summarizes environmental investigation developments since issuance of the third newsletter (Issue 3; January 2001). Newsletters are issued every six months throughout the duration of this project, with even numbered newsletters (including this newsletter) containing a survey form to obtain community feedback regarding the project.

HISTORY OF FACILITY OPERATIONS

The facility was used as a secondary lead smelter from 1968 to 1995. While operating, lead-containing materials were received for recycling through melting and refining. Lead-acid auto batteries constituted approximately 90% of the materials recycled.

During operation, battery tops were sawed off and the acid was drained into a holding tank. Collected acid was subsequently treated in a wastewater treatment system and discharged to the municipal sewer system. The drained batteries were then tumbled and crushed. Lead components of the batteries were separated and placed in storage piles until fed into the furnace. Upon feeding lead-containing materials into the furnace, molten lead would pool at the bottom of the furnace. Pooled lead was tapped to the adjacent refining and casting area. The refined lead was typically cast into 60-pound bars.

Prior to 1984, lead containing materials were stored in outdoor piles. Stormwater runoff from the storage piles and work areas flowed to the on-site storage pond and was allowed to evaporate. In 1984, a material storage building was constructed and the storage piles moved inside, thus eliminating runoff considerations.

In 1988, the on-site storage pond was cleaned out, and a surface impoundment with a concrete bottom and a geomembrane liner was constructed in its place. After construction of the surface impoundment, collected surface runoff was treated and discharged to the municipal sewer system.

From April 14, 1995, to December 31, 1995, smelting operations were reduced at the facility. Operations during this period consisted primarily of enriching and casting lead ingots from off-specification lead products.

Both the indoor and outdoor waste piles have been removed. The surface impoundment was last cleaned out in 1996, and currently is used to manage stormwater runoff.

REGULATORY HISTORY

On July 14, 1998, RMC entered into a Consent Decree with the United States Environmental Protection Agency (EPA) and the Indiana Department of Environmental Management (IDEM) to resolve alleged violations of certain environmental regulations. The Consent Decree requires a thorough investigation of environmental conditions in all areas of the facility. IDEM has jurisdiction for oversight of the waste pile and surface impoundment investigations. These areas occupy approximately 12% of the facility. Activities overseen by IDEM are referred to as "closure activities". The EPA has jurisdiction for oversight of investigation of the remaining 88% of the facility. Activities overseen by the EPA are referred to as "RCRA Facility Investigation (RFI) activities".

CLOSURE ACTIVITIES SINCE JANUARY 2001

The *Closure Investigation Report* was submitted to IDEM on June 1, 2000. On October 2, 2000, IDEM issued a letter containing a few brief comments and a request for further quality assurance/quality control (QA/QC) data.

On October 20, 2000, RMC responded to IDEM's comments, including submittal of the QA/QC data requested by IDEM. Currently, RMC is awaiting IDEM's review of the QC/QA data and final approval of the *Closure Investigation Report*.

Upcoming Closure Activities

Currently, IDEM is continuing its review of the *Closure Investigation Report*. In the report, supplemental soil sampling is recommended to complete determination of the extent of impacted soil in the waste pile and surface impoundment areas. RMC will commence sampling once IDEM approves the recommended sampling.

RFI ACTIVITIES SINCE JANUARY 2001

The *RCRA Facility Investigation (RFI) Report* was submitted by RMC to the EPA on March 29, 2000. On July 12, 2000, the EPA issued comments on the report. The EPA concluded that the RFI Report had not fully documented the extent of the contamination

Facility in areas outside the waste piles and surface impoundment and concurred that further investigative activities are necessary to complete the RFI.

In response to EPA comments, RMC revised the RFI Report and resubmitted the report to the EPA on August 31, 2000. The revised RFI Report addressed EPA's July 12, 2000 comments and recommended that a Phase II RFI be performed to complete the RFI.

On November 29, 2000, the EPA issued a letter containing comments on the revised RFI Report. In its comments, the EPA agreed that a Phase II RFI should be completed. The EPA requested RMC to submit a Phase II RFI Work Plan outlining the proposed additional investigative activities to be performed at the facility. EPA also requested RMC to submit an Interim Measures Work Plan concurrently with the Phase II Work Plan.

The Phase II RFI Work Plan, the Interim Measures Work Plan, and RMC's response to EPA's November 29, 2000 comment letter was submitted to the EPA on December 20, 2000.

On April 3, 2001, EPA issued comments on the December 20, 2000 submittals.

A response to EPA comment letter (dated April 3, 2001), was submitted by RMC on June 27, 2001. Revisions to the text (as requested by EPA) of the Work Plans were also submitted as attachments to the June 27, 2001 response letter.

Upcoming RFI Activities

Revisions to the *Phase II RCRA Facility Investigation Work Plan* along with the *Work Plan for Installation of Interim Measures* were submitted to the EPA on June 27, 2001. RMC will implement both work plans once the EPA issues final approval.

PROJECT REFERENCES

The RFI Report and Closure Investigation Report, along with the Phase II Work Plan and Interim Measures Work Plan have been made available for the general public's review at the Beech Grove Library and also at IDEM.

Any other questions or comments regarding the project should be directed to Mr. Matthew Love of Exide Technologies (parent of RMC). Contact information for the Beech Grove Library, IDEM and Mr. Matthew Love is provided below:

Beech Grove Public Library
Attn: Diane Burns
1102 Main Street
Beech Grove, IN

Indiana Department of Environmental Management
100 North Senate Avenue
Indianapolis, Indiana 46206-6015

Mr. Matthew C. Love
Exide Technologies
3000 Montrose Avenue
Reading, Pennsylvania 19605
Ph: (610) 921-4054
Fax: (610) 921-4062
Email: Mlove@exideworld.com

QUESTIONNAIRE

As part of the ongoing investigation and cleanup of the former RMC facility, Exide Technologies values your input regarding our community relations efforts. Please fill out the questionnaire provided below and mail to Exide Technologies at the following address:

Mr. Matthew A. Love
Exide Technologies
3000 Montrose Avenue
Reading, PA 19605

Name of Person Completing Questionnaire (optional): _____

Address and Telephone Number (optional): _____

_____

Does the newsletter summarize the information important to you? __ yes __no

If no, what additional information should be added to the newsletter? _____

_____

Is the newsletter adequately distributed? __yes __no

If no, what additional individuals, groups, agencies, etc. should be added to the distribution list? _____

_____

Are the project documents available in the repository at the Beech Grove Public Library easily accessible? __yes __no __have not attempted to access the documents

If no, what specific problem did you experience when attempting to access the documents?_____

_____

Do you believe that additional activities should be performed to inform the public regarding investigation at the facility? __yes __no

If yes, what additional activities do you suggest?_____

_____

U.S. Department of Justice
Environment and Natural Resources Division
Environmental Enforcement Section

LMG
90-11-2-469

Leonard M. Gelman
Environmental Enforcement Section
999 18th Street, Suite 945 North
Denver, Colorado 80202

Telephone (303) 312-7302
Facsimile (303) 312-7331
internet: leonard.gelman@usdoj.gov

March 19, 1998

Robert N. Steinwurtzel, Esq.
Swidler & Berlin
3000 K Street, N.W., Suite 300
Washington, D.C. 20007-5116
(202) 424-7830
FAX (202) 424-7645

Re: United States v. Refined Metals Corporation
Civ. No. IP 90-2077-C
DOJ No. 90-11-2-469

Dear Rob:

As part of the final management review of the Consent Decree, a few cross-references in the final Consent Decree and appendices were incorrectly matched from the previous versions. Attached, please find the highlighted pages showing the corrections, and the final corrected pages.

If you have any concerns with the changes - please let me know. Otherwise, I will replace the old pages with these corrections in the final Consent Decree we lodge with the Court. I will of course send you a copy of the lodged Decree.

Sincerely,

Leonard M. Gelman
Environmental Enforcement Section

cc: Mike Anastasio, Esq., EPA Region 5
John Adanuga, EPA
Anita Wylie, IAG

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XVII. PRECLUSION OF CLAIMS AGAINST THE HAZARDOUS SUBSTANCE RESPONSE TRUST FUND 40

1. Defendant's report shall summarize all possible source areas of contamination. This, at a minimum, should include all regulated units, solid waste management units, spillage areas, and other suspected source areas of contamination. For each area, Defendant shall identify the following:

   a. Location of unit/area (which shall be depicted on a facility map;

   b. Quantities of solid and hazardous wastes present;

   c. Hazardous waste or constituents, to the extent known; and

   d. Identification of areas where additional information is necessary.

2. Defendant shall prepare an assessment and description of the existing degree and extent of contamination. This should include:

   a. Available monitoring data and qualitative information on locations and levels of contamination at the facility;

   b. All potential migration pathways including information on geology, pedology, physiography, hydrogeology, physiography, hydrology, water quality, meteorology, air quality, and migration through food chains; and

   c. The potential impacts on human health and the environment, including demography, groundwater and surface water use, land use, and potential ecological receptors, including any threatened or endangered species. (Threatened or endangered species possibly on or near the site should be identified as early as possible.) This assessment should be based on existing site information, literature-based information on contaminant fate and toxicity, and available criteria and standards (e.g., Ambient Water Quality Criteria).

   d. Any known or observed effects of site contaminants to biota, such as fish kills, stressed vegetation, or other obvious impacts.

C. <u>Implementation of Interim Measures</u>

If an interim measure is determined to be necessary, Defendant shall prepare and submit for approval, an Interim Measures Workplan in accordance with Appendix ~~IX~~A to this Scope of Work.

45. Upon review of the CMS Work Plan, U.S. EPA shall inform Defendant that the CMS Work Plan has been approved, approved as modified by U.S. EPA, or disapproved. Upon receipt of U.S. EPA approval or approval as modified of the CMS Work Plan, Defendant shall conduct the CMS in accordance with the CMS Work Plan, including any U.S. EPA modifications thereto, and the schedule contained therein. In the event of U.S. EPA disapproval, Defendant shall resubmit within thirty (30) days a CMS Work Plan that meets U.S. EPA requirements, including all modifications requested and correcting any deficiencies noted by U.S. EPA.

Corrective Measure Implementation; Public Comment and Participation.

46. After Defendant has submitted and U.S. EPA has approved the CMS Final Report, and following the public review and comment period, U.S. EPA shall notify the Defendant in writing of the corrective measure(s) selected by U.S. EPA. If the corrective measure(s) recommended in the CMS Final Report is not the corrective measure selected by U.S. EPA after consideration of public comments, U.S. EPA shall inform the Defendant in writing of the reasons for that decision, and the Defendant shall modify the RFI/CMS and/or reports thereof based upon public comment if directed by U.S. EPA to do so.

47. The Administrative Record supporting the selection of the corrective measure will be available for public review at a repository for public documents in or near Indianapolis, Indiana.

48. No later than sixty (60) days after receiving the written notification referred to in Paragraph 456, Defendant

45. Upon review of the CMS Work Plan, U.S. EPA shall inform Defendant that the CMS Work Plan has been approved, approved as modified by U.S. EPA, or disapproved. Upon receipt of U.S. EPA approval or approval as modified of the CMS Work Plan, Defendant shall conduct the CMS in accordance with the CMS Work Plan, including any U.S. EPA modifications thereto, and the schedule contained therein. In the event of U.S. EPA disapproval, Defendant shall resubmit within thirty (30) days a CMS Work Plan that meets U.S. EPA requirements, including all modifications requested and correcting any deficiencies noted by U.S. EPA.

Corrective Measure Implementation; Public Comment and Participation.

46. After Defendant has submitted and U.S. EPA has approved the CMS Final Report, and following the public review and comment period, U.S. EPA shall notify the Defendant in writing of the corrective measure(s) selected by U.S. EPA. If the corrective measure(s) recommended in the CMS Final Report is not the corrective measure selected by U.S. EPA after consideration of public comments, U.S. EPA shall inform the Defendant in writing of the reasons for that decision, and the Defendant shall modify the RFI/CMS and/or reports thereof based upon public comment if directed by U.S. EPA to do so.

47. The Administrative Record supporting the selection of the corrective measure will be available for public review at a repository for public documents in or near Indianapolis, Indiana.

48. No later than sixty (60) days after receiving the written notification referred to in Paragraph 46, Defendant shall

provisions of this Consent Decree, shall not be considered a "Force Majeure" event.

XXII. EFFECTS OF CHANGES IN STATE AUTHORIZATION

111. If, prior to the termination of this Consent Decree, the State of Indiana pursuant to Section 3006(b) of RCRA, 42 U.S.C. § 6926(b), promulgates and adopts corrective action regulations which are approved by the federal government, then the federally-approved state regulations rather than the federal standards shall apply to and be enforceable under this Consent Decree unless such standards would require the revision of a Plan previously submitted and approved pursuant to Section VI of this Consent Decree.

XXIII. CONTINUING JURISDICTION OF THE COURT

112. The Court shall retain jurisdiction to enforce the terms and conditions of this Consent Decree and to resolve disputes arising hereunder as may be necessary or appropriate for the construction or execution of this Consent Decree.

XXIV. TERMINATION

113. Once Defendant determines it has fully complied with all of the requirements of this Consent Decree, and is continuing to comply with the reporting requirements, if any, of this Consent Decree, it shall submit to U.S. EPA a certification of compliance. The certification shall contain the following

provisions of this Consent Decree, shall not be considered a "Force Majeure" event.

XXII. EFFECTS OF CHANGES IN STATE AUTHORIZATION

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XXIV. TERMINATION

113. Once Defendant determines it has fully complied with all of the requirements of this Consent Decree, and is continuing to comply with the reporting requirements, if any, of this Consent Decree, it shall submit to U.S. EPA a certification of compliance. The certification shall contain the following

1. Defendant's report shall summarize all possible source areas of contamination. This, at a minimum, should include all regulated units, solid waste management units, spillage areas, and other suspected source areas of contamination. For each area, Defendant shall identify the following:

   a. Location of unit/area (which shall be depicted on a facility map;

   b. Quantities of solid and hazardous wastes present;

   c. Hazardous waste or constituents, to the extent known; and

   d. Identification of areas where additional information is necessary.

2. Defendant shall prepare an assessment and description of the existing degree and extent of contamination. This should include:

   a. Available monitoring data and qualitative information on locations and levels of contamination at the facility;

   b. All potential migration pathways including information on geology, pedology, physiography, hydrogeology, physiography, hydrology, water quality, meteorology, air quality, and migration through food chains; and

   c. The potential impacts on human health and the environment, including demography, groundwater and surface water use, land use, and potential ecological receptors, including any threatened or endangered species. (Threatened or endangered species possibly on or near the site should be identified as early as possible.) This assessment should be based on existing site information, literature-based information on contaminant fate and toxicity, and available criteria and standards (e.g., Ambient Water Quality Criteria).

   d. Any known or observed effects of site contaminants to biota, such as fish kills, stressed vegetation, or other obvious impacts.

C. <u>Implementation of Interim Measures</u>

If an interim measure is determined to be necessary, Defendant shall prepare and submit for approval, an Interim Measures Workplan in accordance with Appendix ~~IX~~ A to this Scope of Work.

1. Defendant's report shall summarize all possible source areas of contamination. This, at a minimum, should include all regulated units, solid waste management units, spillage areas, and other suspected source areas of contamination. For each area, Defendant shall identify the following:

   a. Location of unit/area (which shall be depicted on a facility map;

   b. Quantities of solid and hazardous wastes present;

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   d. Any known or observed effects of site contaminants to biota, such as fish kills, stressed vegetation, or other obvious impacts.

C. <u>Implementation of Interim Measures</u>

If an interim measure is determined to be necessary, Defendant shall prepare and submit for approval, an Interim Measures Workplan in accordance with Appendix A to this Scope of Work.

TASK III:
RFI WORKPLAN REQUIREMENTS

Defendant shall prepare a RCRA Facility Investigation (RFI) Workplan. The RFI Workplan shall include the development of several plans, which shall be prepared concurrently. During the RCRA Facility Investigation, it may be necessary to revise the RFI Workplan to increase or decrease the detail of information collected to accommodate the facility specific situation. The RFI Workplan includes the following:

A. Project Management Plan

Defendant shall prepare a Project Management Plan which will include a discussion of the technical approach, schedules, budget, and personnel. The Project Management Plan also will include a description of the qualifications of personnel performing or directing the RFI, including contractor personnel. This plan shall document the overall management approach to the RCRA Facility Investigation.

B. Quality Assurance Project Plan (QAPjP)

Defendant shall prepare a plan to document all monitoring procedures, sampling, field measurements and sample analyses performed during the investigation to characterize the environmental setting, source, and contamination, so as to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented. The QAPjP shall be prepared in accordance with Attachment ~~IVE~~. A pre-QAPjP meeting shall be held prior to preparation of the QAPjP. Participants should include, but are not limited to the Defendant, their QAPjP preparer, laboratory representatives, U.S. EPA Project Coordinator, U.S. EPA Quality Assurance and Laboratory representatives.

(A performance audit will be conducted by U.S. EPA on laboratories selected by Defendant. This audit must be completed and laboratories approved for use on the project prior to the start of field work for the RFI.)

C. Data Management Plan

Defendant shall develop and initiate a Data Management Plan to document and track investigation data and results. This plan shall identify and set up data documentation materials and procedures, project file requirements, and project-related progress reporting procedures and documents. The plan shall also provide the format to be used to present the raw data and conclusions of the investigation.

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Defendant shall prepare a RCRA Facility Investigation (RFI) Workplan. The RFI Workplan shall include the development of several plans, which shall be prepared concurrently. During the RCRA Facility Investigation, it may be necessary to revise the RFI Workplan to increase or decrease the detail of information collected to accommodate the facility specific situation. The RFI Workplan includes the following:

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Defendant shall prepare a plan to document all monitoring procedures, sampling, field measurements and sample analyses performed during the investigation to characterize the environmental setting, source, and contamination, so as to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented. The QAPjP shall be prepared in accordance with Attachment F. A pre-QAPjP meeting shall be held prior to preparation of the QAPjP. Participants should include, but are not limited to the Defendant, their QAPjP preparer, laboratory representatives, U.S. EPA Project Coordinator, U.S. EPA Quality Assurance and Laboratory representatives.

(A performance audit will be conducted by U.S. EPA on laboratories selected by Defendant. This audit must be completed and laboratories approved for use on the project prior to the start of field work for the RFI.)

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ATT. 15

Facility Submission Summary

A summary of the information reporting requirements contained in the RCRA Facility Investigation Scope of Work is presented below.

Facility Submission	Due date
Description of Current Situation (Task I)	Within 45~~60~~ days of ~~the effective date~~lodging of the Consent Decree
Pre-Investigation Evaluation of Corrective Measure Technologies (Task II)	Within 45~~60~~ days of ~~the effective date~~lodging of the Consent Decree
RFI Work Plan (Task III)	Within 45~~90~~ days of ~~the effective date~~lodging of the Consent Decree
Final RFI Report	Contingent on schedule imposed in Workplan
Progress Reports on Tasks I through V	Monthly

Facility Submission Summary

A summary of the information reporting requirements contained in the RCRA Facility Investigation Scope of Work is presented below.

Facility Submission	Due date
Description of Current Situation (Task I)	Within 45 days of lodging of the Consent Decree
Pre-Investigation Evaluation of Corrective Measure Technologies (Task II)	Within 45 days of lodging of the Consent Decree
RFI Work Plan (Task III)	Within 45 days of lodging of the Consent Decree
Final RFI Report	Contingent on schedule imposed in Workplan
Progress Reports on Tasks I through V	Monthly

TASK XV: Other Reports and Submissions

The Defendant shall prepare plans, specifications and reports as set forth in Tasks XII through Task XIV to document the design, construction, operation, maintenance and monitoring of the Corrective Measure. Other documentation shall include, but not be limited to the following:

A. Progress

The Defendant shall at a minimum provide the U.S. EPA with signed monthly progress reports during the design and construction phases and semi-annual progress reports for operation and maintenance activities containing:

1. A description and estimate of the percentage of the CMI completed;

2. Summaries of all findings;

3. Summaries of all changes made in the CMI during the reporting period;

4. Summaries of all contacts with representatives of the local community, public interest groups or State government during the reporting period;

5. Summaries of all problems or potential problems encountered during the reporting period;

6. Actions being taken to rectify problems;

7. Changes in personnel during the reporting period;

8. Projected work for the next reporting period; and

9. Copies of daily reports, inspection reports, laboratory/monitoring data, etc.

B. Draft Submittals

1. The Defendant shall submit draft CMI work plans as outlined in Task XII;

2. The Defendant shall submit draft Construction Plans and Specifications, Design Reports, Cost Estimates, Schedules, Operation and Maintenance Plans and study Reports as outlined in Task XII;

3. The Defendant shall submit a draft Construction Quality Assurance Program Plan and Documentation as outlined in Task XIV~~III~~; and

TASK XV: Other Reports and Submissions

The Defendant shall prepare plans, specifications and reports as set forth in Tasks XII through Task XIV to document the design, construction, operation, maintenance and monitoring of the Corrective Measure. Other documentation shall include, but not be limited to the following:

A. Progress

The Defendant shall at a minimum provide the U.S. EPA with signed monthly progress reports during the design and construction phases and semi-annual progress reports for operation and maintenance activities containing:

1. A description and estimate of the percentage of the CMI completed;

2. Summaries of all findings;

3. Summaries of all changes made in the CMI during the reporting period;

4. Summaries of all contacts with representatives of the local community, public interest groups or State government during the reporting period;

5. Summaries of all problems or potential problems encountered during the reporting period;

6. Actions being taken to rectify problems;

7. Changes in personnel during the reporting period;

8. Projected work for the next reporting period; and

9. Copies of daily reports, inspection reports, laboratory/monitoring data, etc.

B. Draft Submittals

1. The Defendant shall submit draft CMI work plans as outlined in Task XII;

2. The Defendant shall submit draft Construction Plans and Specifications, Design Reports, Cost Estimates, Schedules, Operation and Maintenance Plans and study Reports as outlined in Task XII;

3. The Defendant shall submit a draft Construction Quality Assurance Program Plan and Documentation as outlined in Task XIV; and

Submission Schedule

The Defendant shall comply with the information reporting requirements presented below.

FACILITY SUBMISSION	DATE DUE
Draft Program Plans (Task XII)	60 days after U.S. EPA final selection of Corrective Measures for facility
Final Program Plan (Task XII)	30 days after receipt of U.S. EPA comments on draft Program Plan
Design Phases (Task XIIIG)	
- Preliminary Design (30% completion)	- 45 days after U.S. EPA approval of final Program Plans
- Intermediate Design (60% completion)	- 90 days after U.S. EPA approval of final Program Plans
- Prefinal Design (95% completion)	- 135 days after U.S. EPA approval of the final Program Plans
- Final Design (100% completion)	- 35 days after U.S. EPA approval of the Prefinal Design
(Tasks XIIIA through F)	
-Draft Submittals	120 days after U.S. EPA final selection of corrective measures for facility; ~~same schedule as Task I above~~
-Final Submittals	Concurrent with submittal of Final Design (100% Design Completion)
	<SPACE>
Draft Construction Quality Assurance Plan (Task XIV)	Concurrent with submittal of Prefinal Design (95%) Completion
Final Construction Quality Assurance Plan (Task XIV)	30 days after (a) U.S. EPA comment on Draft Construction Quality Assurance Plan or (b) U.S. EPA approval of Prefinal Design, whichever is later.
Construction of Corrective Measures	As approved in Final Design
	<SPACE>
Prefinal Inspection Report (Task XIV)	30 days after Prefinal Inspection
Draft CMI Report (Task V)	45 days after completion of the construction phase
Final CMI Report (Task V)	21 days after receipt of U.S. EPA comments on draft CMI Report
Progress Reports for Tasks XII through V	Monthly
Reports during Operation and Maintenance	Semi-annual

Submission Schedule

The Defendant shall comply with the information reporting requirements presented below.

FACILITY SUBMISSION	DATE DUE
Draft Program Plans (Task XII)	60 days after U.S. EPA final selection of Corrective Measures for facility
Final Program Plan (Task XII)	30 days after receipt of U.S. EPA comments on draft Program Plan
Design Phases (Task XIIIG)	
- Preliminary Design (30% completion)	- 45 days after U.S. EPA approval of final Program Plans
- Intermediate Design (60% completion)	- 90 days after U.S. EPA approval of final Program Plans
- Prefinal Design (95% completion)	- 135 days after U.S. EPA approval of the final Program Plans
- Final Design (100% completion)	- 35 days after U.S. EPA approval of the Prefinal Design
(Tasks XIIIA through F)	
-Draft Submittals	120 days after U.S. EPA final selection of corrective measures for facility
-Final Submittals	Concurrent with submittal of Final Design (100% Design Completion)
Draft Construction Quality Assurance Plan (Task XIV)	Concurrent with submittal of Prefinal Design (95%) Completion
Final Construction Quality Assurance Plan (Task XIV)	30 days after (a) U.S. EPA comment on Draft Construction Quality Assurance Plan or (b) U.S. EPA approval of Prefinal Design, whichever is later.
Construction of Corrective Measures	As approved in Final Design
Prefinal Inspection Report (Task XIV)	30 days after Prefinal Inspection
Draft CMI Report (Task V)	45 days after completion of the construction phase
Final CMI Report (Task V)	21 days after receipt of U.S. EPA comments on draft CMI Report
Progress Reports for Tasks XII through V	Monthly
Reports during Operation and Maintenance	Semi-annual

C- LAST PAGE

Facility Submission Summary

A summary of the information reporting requirements contained in the Interim measures Scope of Work is present below:

FACILITY SUBMISSIONS	*DUE DATE**
INTERIM MEASURES WORKPLAN -Interim Measures Objectives -Health and Safety Plan -Community Relations Plan -Data Collection QA Plan -Data Management Plan -Construction QA Plan	360 days
Final Design Documents -Design Plans and Specs -O&M Plan -Project Schedule	360 days
Draft Interim Measures Report	Upon completion of construction
Final Interim Measures Report	15 days after receipt of U.S. EPA comments on Draft Interim Measures Report
Progress Reports	Monthly

*All dates are calculated from the effective date of this order unless otherwise specified.

Facility Submission Summary

A summary of the information reporting requirements contained in the Interim measures Scope of Work is present below:

FACILITY SUBMISSIONS	*DUE DATE**
INTERIM MEASURES WORKPLAN -Interim Measures Objectives -Health and Safety Plan -Community Relations Plan -Data Collection QA Plan -Data Management Plan -Construction QA Plan	60 days
Final Design Documents -Design Plans and Specs -O&M Plan -Project Schedule	60 days
Draft Interim Measures Report	Upon completion of construction
Final Interim Measures Report	15 days after receipt of U.S. EPA comments on Draft Interim Measures Report
Progress Reports	Monthly

*All dates are calculated from the effective date of this order unless otherwise specified.

1. Defendant's report shall summarize all possible source areas of contamination. This, at a minimum, should include all regulated units, solid waste management units, spillage areas, and other suspected source areas of contamination. For each area, Defendant shall identify the following:

   a. Location of unit/area (which shall be depicted on a facility map;

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   c. The potential impacts on human health and the environment, including demography, groundwater and surface water use, land use, and potential ecological receptors, including any threatened or endangered species. (Threatened or endangered species possibly on or near the site should be identified as early as possible.) This assessment should be based on existing site information, literature-based information on contaminant fate and toxicity, and available criteria and standards (e.g., Ambient Water Quality Criteria).

   d. Any known or observed effects of site contaminants to biota, such as fish kills, stressed vegetation, or other obvious impacts.

C. <u>Implementation of Interim Measures</u>

If an interim measure is determined to be necessary, Defendant shall prepare and submit for approval, an Interim Measures Workplan in accordance with Appendix A to this Scope of Work.

SWIDLER & BERLIN
CHARTERED

ROBERT N. STEINWURTZEL
ATTORNEY-AT-LAW

DIRECT DIAL
(202)424-7830

August 1, 1995

RELEASE

VIA FACSIMILE

Leonard M. Gelman, Esquire
Trial Attorney
Environmental Enforcement Section
U.S. Department of Justice
P.O. Box 7611
Ben Franklin Station
Washington, D.C. 20044

Re: Refined Metals Corporation

Dear Lee:

This letter responds to the two issues you raised during yesterday's telephone conference call.

First, you inquired about the costs associated with the two Clean Air Act supplemental environmental projects to be installed at the Beech Grove plant. Please find enclosed costing information from the permit application for the two projects that was submitted on behalf of Refined Metals Corporation. You will note that the projected total costs are $1,321,000.

The second issue you raised concerned whether the Company has repaid any of the outstanding loans to Mr. Lee Swain. Refined Metals Corporation informed me that none of the loans have been repaid.

I trust that this information is responsive to your inquiry. In addition, I wanted to memorialize my concern about the June 14 RCRA inspection conducted by EPA and IDEM in light of the ongoing litigation and settlement negotiations. Please provide me with copies of the inspection reports. Prior to execution of the consent decree, Refined Metals Corporation will need to be assured that all the known RCRA compliance issues have been resolved by the settlement. As you can appreciate, my client does not want to executive the consent decree and then be subject to a new enforcement proceeding based on information that was known to the regulatory agencies.

On behalf of Refined Metals Corporation, I look forward to receipt of the United States' response to the May 30 settlement proposal submitted on behalf of the Company. We also will need to resolve the covenant not to sue provision.

Sincerely,

Rob

Robert N. Steinwurtzel

Enclosure

cc: Brian Barwick
T. W. Freudiger
Mike Meloy

INTEGRATED ENVIRONMENTAL SERVICES

PROJECT SCHEDULE

The Consent Decree between the City of Indianapolis and RMC requires that the afterburner be installed within 180 calendar days of the effective date of the Consent Decree and the wet scrubber must be installed within 1 year. The effective date of the Consent Decree is January 10, 1995. This places the installation dates of the afterburner and wet scrubber at July 9, 1995 and January 10, 1996, respectively. Figure 1-2 shows the project schedule with tentative interim dates for delivery, installation, and other milestones. The schedule is predicated upon the timely approval of the application and receipt of equipment.

CONTROL SYSTEM COSTS

The estimated cost for the equipment is $689,000. Equipment includes the afterburner, radiation cooler, wet scrubber, piping, pump, stack, water storage tank (optional), soda ash storage silo, and associated controls. A summary of the equipment costs is presented below:

Afterburner and controls:	$160,000
Gas cooler (radiation):	150,000
Scrubber, fan, pumps:	105,000
Stack:	110,000
Reagent off loading and storage:	65,000
Water softener:	11,000
Storage tank:	30,000
Additional system controls:	25,000
Freight:	33,000
TOTAL	$689,000

Installation costs for the proposed system are summarized below:

Site work	$ 15,000
Foundations	95,000
Equipment erection	96,000
Duct work	62,000
Piping	27,000
Insulation	20,000
Electrical	59,000
TOTAL	$374,000

INTEGRATED
ENVIRONMENTAL SERVICES

The indirect costs, such as engineering and contingencies, are $258,000. Therefore, the total installed costs, including equipment, installation, and indirect costs are $1,321,000.

System operating costs are presented below:

Utilities and reagent:	$735,600
Operating and maintenance labor and materials:	135,900
Total estimated annual operating cost:	$871,500

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live

Evan Bayh
Governor
Kathy Prosser
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Telephone 317-232-8603
Environmental Helpline 1-800-451-6027

RECEIVED
AUG 11 1995
OFFICE OF RCRA
WASTE MANAGEMENT DIVISION
EPA, REGION V

VIA CERTIFIED MAIL Z 339 817 936

August 8, 1995

Mr. Mike Meloy
Refined Metals Corporation
3700 South Arlington Avenue
P.O. Box 188
Beech Grove, Indiana 46107

Dear Mr. Meloy:

Re: Preliminary Determination
Hazardous Waste Management
Compliance Evaluation Inspect
Refined Metals Corporation
EPA I.D. No. IND000718130
Indianapolis, Marion County

Representatives of the Department of Environmental Management (Department) are conducting inspections of facilities in Indiana that are engaged in the generation, transportation, treatment, storage, or disposal of hazardous waste. Facilities are being inspected to determine compliance with Indiana Code 13-7 (IC 13-7), "Environmental Management Act", and Indiana Administrative Code, 329 IAC 3.1, "Hazardous Waste Management Permit Program and Related Hazardous Waste Management Requirements." These inspections and record reviews are also being conducted pursuant to the requirements of the Resource Conservation and Recovery Act (RCRA), Public Law 94-580, as amended, on behalf of the United States Environmental Protection Agency, (U.S. EPA).

This is to inform you that on June 14 and July 28, 1995, an inspection of Refined Metals Corporation, located at 3700 South Arlington Street, Indianapolis, was conducted by Mr. Mike Wilhelm and Mss. Christina Halloran and Rebecca Eifert, of the Office of Solid and Hazardous Waste Management (OSHWM), of the Department, and Mr. Duncan Campbell of the U.S. EPA. You represented your firm at this inspection.

A copy of the inspection checklist detailing the status of compliance of your company is enclosed. The attached Description of Violations elaborates on the deficiencies found as a result of the inspection, and recommends specific corrective actions when needed to eliminate misunderstandings.

Deficiencies are being referred to the U.S. EPA for inclusion with the federal enforcement action already initiated, Civil Action

No. IP902077C. During the interim period, it is recommended that Refined Metals Corporation initiate steps to address the deficiencies identified in the Description of Violations in order to prevent continued violation.

Please contact Mr. Mike Wilhelm of my staff at 317/232-3529 if you have any questions concerning the inspection and findings.

Very truly yours,

Charles P. Grady

Charles P. Grady, Chief
Compliance Section
Hazardous Waste Compliance Branch
Solid and Hazardous Waste Management

MRW

Enclosure

cc: Marion County Health Department

ENFORCEMENT SENSITIVE

HAZARDOUS WASTE ENFORCEMENT REFERRAL

TO: R Cantwell
Enforcement Section
Hazardous Waste Management Branch

FROM: Wilhelm / Grady
HW Compliance Sec.

Date:

Assigned:

Date:

~~Priority~~ These violations will be included with forthcoming federal Consent Decree.

TRACKING INFORMATION (or submit CMEL)

Originators Name: MR Wilhelm

Initial Evaluation: 6/14/95

Next (Follow-up) Evaluation Date:

Evaluation Type (3 letter code): SCE

Evaluation Comment (60 character limit): No LDR notif to RMC Memphis for batteries and battery parts.

FACILITY OR HANDLER DESCRIPTION:

Contact Persons: Mike Meloy

Firm Name: Refined Metals Corp

Location: 3700 South Arlington Ave

EPA I.D. No: IND 000 718 130

Hazardous Waste Activities:

Battery reclamation; storage in piles and containers; generation of D008 slag.

Description of Violations
Refined Metals Corporation
IND000718130
Inspection of June 14 and July 28, 1995

1. Page 19 329 IAC 3.1-7-6

During at least May and June of 1995, the generator failed to provide to this office copies of the manifests which accompanied at least twelve shipments of blast furnace slag (D008) to a Michigan treatment and disposal facility. The manifests so noted in particular during the inspection were:

MI4151581	MI4151582	MI4151583
MI4151584	MI4151586	MI4151587
MI4151588	MI4151589	MI4151590&see #3 below
MI4151591	MI4139828	MI4139829

2. Page 19 329 IAC 3.1-7 ref. 40 CFR 262.40

The generator had not obtained a signed copy of the manifest numbered MI4151590 within 35 days, which was signed and dated by the generator and transporter on May 8, 1995. An exception report had not been provided to this office regarding the non-receipt of that signed copy.

3. Page 21 40 CFR 268.7

The generator had not provided notification of wastes subject to Land Disposal Restrictions (LDR) with each shipment of waste to a lead recovery facility in Tennessee. In May, at least nine shipments of lead-acid batteries accepted into storage at Refined Metals Corporation, Indianapolis had been re-shipped to Memphis without LDR notifications. The manifests noted which represent these shipments include:

INA1025958	INA1025959	INA1025961
INA1025962	INA1025963	INA1025964
INA1025965	INA1025967	INA1025968

During May and June, at least eight shipments of lead battery parts (D008) were shipped to the Memphis facility without LDR notifications. The manifests noted which represent these shipments include:

INA1025969	INA1025970	INA1025971
INA1025972	INA1025973	INA1025977
INA1025978	INA1025979	

SUMMARY OF CASE, REMARKS
(also attach DOV w/ violation class)

See DOV

RECOMMENDED ACTION AND/OR RESOLUTION

[illegible] - forwarded to EPA for inclusion with Consent Decree

ATTACHED DOCUMENTATION

Contingency Plan __ Manifests ✓ LDR Forms __

Training Records __ WAP __ Inspection Forms __

Operating Records __ MSDS/Analytical data __

Closure Costs __ Tank Assessments __

Other __ (please describe)

ENFORCEMENT SENSITIVE

HAZARDOUS WASTE ENFORCEMENT REFERRAL

Michelle Williams/ Julian Mills

TO: Manifest Tracking
HWDS ~~Enforcement~~ Section
Hazardous Waste Management Branch

FROM: Wilhelm / Grady
HW Compliance Sec.

Date:

Assigned:

Date:

FYI only: These violations will be included with forthcoming federal Consent Decree.

TRACKING INFORMATION (or submit CMEL)

Originators Name: MRWilhelm

Initial Evaluation: 6/14/95

Next (Follow-up) Evaluation Date: —

Evaluation Type (3 letter code): SCE

Evaluation Comment (60 character limit): Have not submitted manifests to OSHWM, for an out of state TSD

FACILITY OR HANDLER DESCRIPTION:

Contact Persons: Mike Meloy

Firm Name: Refined Metals Corp

Location: 3700 South Arlington Ave Indpls

EPA I.D. No: IND000718130

Hazardous Waste Activities: Battery reclamation; storage in piles and containers; generation of D008 slag.

Description of Violations
Refined Metals Corporation
IND000718130
Inspection of June 14 and July 28, 1995

1. Page 19 329 IAC 3.1-7-6

During at least May and June of 1995, the generator failed to provide to this office copies of the manifests which accompanied at least twelve shipments of blast furnace slag (D008) to a Michigan treatment and disposal facility. The manifests so noted in particular during the inspection were:

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MI4151591	MI4139828	MI4139829

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The generator had not obtained a signed copy of the manifest numbered MI4151590 within 35 days, which was signed and dated by the generator and transporter on May 8, 1995. An exception report had not been provided to this office regarding the non-receipt of that signed copy.

3. Page 21 40 CFR 268.7

The generator had not provided notification of wastes subject to Land Disposal Restrictions (LDR) with each shipment of waste to a lead recovery facility in Tennessee. In May, at least nine shipments of lead-acid batteries accepted into storage at Refined Metals Corporation, Indianapolis had been re-shipped to Memphis without LDR notifications. The manifests noted which represent these shipments include:

INA1025958	INA1025959	INA1025961
INA1025962	INA1025963	INA1025964
INA1025965	INA1025967	INA1025968

During May and June, at least eight shipments of lead battery parts (D008) were shipped to the Memphis facility without LDR notifications. The manifests noted which represent these shipments include:

INA1025969	INA1025970	INA1025971
INA1025972	INA1025973	INA1025977
INA1025978	INA1025979	

SUMMARY OF CASE, REMARKS
(also attach DOV w/ violation class)

see attached DOV

RECOMMENDED ACTION AND/OR RESOLUTION

NA - forwarded to EPA for inclusion with Consent Decree

ATTACHED DOCUMENTATION

Contingency Plan __ Manifests ✓ LDR Forms __

Training Records __ WAP __ Inspection Forms __

Operating Records __ MSDS/Analytical data __

Closure Costs __ Tank Assessments __

Other __ (please describe)

TSD - RCRA INSPECTION REPORT

(Facility without Permit - 329 IAC 3.1-9)

EPA ID # IND000718130 **NAME** Refined Metals Corporation

MAILING ADDRESS: P.O. Box 188

Beech Grove, IN 46107

LOCATION ADDRESS: 3700 South Arlington Avenue

Indianapolis, Indiana 46203

CONTACT: Mr. Mike Meloy **PHONE:** 317/787-6364

OWNERSHIP: Refined Metals Corp. **COUNTY:** Marion

STATUS CODE: 1

1=Active 3=Dead Mail 4=PCB Handler
6=Non-Handler 2=Obsolete ID # 9=Superfund site
5=Out-of-Business

Person(s) interviewed:	Title:	Telephone:
Mr. Mike Meloy	Plant Manager	317/787-6364

Inspector(s):	Agency:	Telephone:
Mr. Mike Wilhelm	Indiana DEM	317/232-3529
Ms. Christina Halloran	Indiana DEM	317/232-8552
Ms. Rebecca Eifert	Indiana DEM	317/232-3404
Mr. Duncan Campbell	U.S. EPA, Region V	312/886-4555

Date of inspection: June14 & [redacted] **Time of Inspection:** 9am

The Indiana Hazardous Waste Management Permit Program and Related Hazardous Waste Requirements, 329 IAC 3.1, incorporates by reference federal standards for the management of hazardous waste which have been published in the Code of Federal Regulations in 40 CFR 260 through 40 CFR 270 as of July 1, 1992. Citations contained in this inspection form shall be to the federal rules as incorporated, except where the state rule substitutes full text language, in which case the specific 329 IAC 3.1 citation will be used.

Installation Processes by Process Code (EPA Form 3510-3)

S01	X	Container storage	T03	___	Incinerator treatment
S02	___	Tank Storage	T04	___	Other treatment
S03	X	Waste pile storage	D79	___	Injection well disposal
S04	X	Surface impoundment storage	D80	___	Landfill disposal
T01	___	Tank treatment	D81	___	Land application disposal
T02	___	Surface impoundment treatment	D83	___	Surface impoundment disposal

If Part A process codes are listed above as T04 please describe the process involved below:

S04: The surface impoundment has not recently been used to store or treat hazardous waste, and currently may receive rainwater from surfaces at the east side of the facility on occasions of wastewater treatment capacity exceedances.

1. Indicate any hazaradous waste processes, by process code, which have been omitted from Part A of the facility's permit application.

   A correct Part A has not been submitted.

2. Indicate any hazardous waste processes (by process code and line number on EPA Form 3510-3 page 1 of 5) which appear to be eligible for exclusion per 40 CFR 265.1(c). Provide a brief rationale for the possible exclusion.

   Sulfuric acid solution from battery reclamation is used in the on-site wastewater treatment system. It is collected from the breaker room floor into a stainless steel sump, which is piped to a larger plastic tank before being piped to the wastewater treatment building. There appears to be acid accumulated in the plastic tank; though with an on-going minimum of wastewater treatment activity, the acid is assumed to be at point of legitimate re-use.

3. If any of the wastes are managed in the manners listed below, please check those areas and utilize the provided appendices.

		YES	NO
A)	Waste Oil Fuel - Appendix A	___	X
B)		___	___
C)	Hazardous Waste Fuel - Appendix C	___	X
D)	Precious Metals	___	X
E)	Use Constituting Disposal	___	X
F)	Tanks	___	X
G)	Use and Management of Containers (today: NA)	___	X
H)	Generator Accumulation Appendix (today: NA)	___	X
I)	Waste Pile	X	___

J)	Surface Impoundment	X	
K)	Landfill		X
L)	Process Vents		X
M)	Equipment Leaks		X

4. Type of Operation, Products Manufactured, Processes Utilized, Size of Operation, Concentrate on processes that produce waste (hazardous or non-hazardous)!

The smelting operations have been inactive since April 14, 1995 but some refining and casting still occurs. Hazardous wastes are currently stored in piles at the materials storage bin room, one pile at the furnace room, and a small amount of lead bits and floor sweepings remaining in the breaker room.

This is a secondary lead smelter utilizing a blast furnace and "dust furnace" (to make briquettes of the baghouse dust prior to recovery in the blast furnace.) Automotive batteries and other lead-bearing materials are typically received and stored in containers or indoor piles prior to reclamation. Blast furnace slag is stored in indoor piles prior to treatment and disposal off-site at a hazardous waste disposal facility. Baghouse dusts from smelting operations (K069) and from plant-wide emissions control (D008) are typically stored in piles prior to reclamation.

5. **HAZARDOUS WASTE STREAMS**

DESCRIPTION/EPA #: receiving lead plates and groups from Battery Salvage
GENERTION RATE: 8X 50,000 P 5/30-6/13/95 **LDR GROUP:** ____ **WW** X **NON-WW**
DISPOSITION: reloaded and shipped to Refined Metals, Memphis

DESCRIPTION/EPA #: batteries, lead-acid, inventory when ops ceased
GENERTION RATE: 10 loads, 283,000 P **LDR GROUP:** ____ **WW** X **NON-WW**
DISPOSITION: shipped to General Smelting (aka Refined Metals),Memphis between May 3 and May 19, 1995

DESCRIPTION/EPA #: D008 baghouse dust currently generated
GENERTION RATE: not inspected **LDR GROUP:** ____ **WW** X **NON-WW**
DISPOSITION: satellite container, pile in the bin room, will become waste if not reclaimed

---

DESCRIPTION/EPA #: wastewater treatment sludge currently generated
GENERTION RATE: not inspected **LDR GROUP:** ____ **WW** X **NON-WW**
DISPOSITION stored on-site under press, will become waste if not reclaimed

6. Have both listed and characteristic waste codes been assigned, where a listed waste exhibits a characteristic? 40 CFR 268.9

K069: no additional codes needed.

7. Does the facility handle any California List Wastes? (liquid hazardous waste with greater than 50 ppm PCB greater than 134 nickel greater than 130 thallium, etc.) NA

8. List all wastes not listed in item 5.

Waste	Process Generating Waste	Rate	Disposition
structural concrete	interior wall removal	NA	pile outside *

*Note: The concrete appeared and was said to be cleaned so as to leave no contaminants on the surfaces, thus meeting treatment standards for hazardous debris and removing it from regulation under Subtitle C (40 CFR 268.45(b)&(c); Federal Register of September 19, 1994).

9. If the company claims a reuse or reclaim exemption please include the following information:

	Waste Type	Generation Rate	How reclaimed & by Who	Quantity stored on Site
A.	battery acid	currently none	onsite ww ttmt use	plastic tank
B.	D008 baghouse dust	currently small	currently not	plus K069:much
C.	D008 filtercake	currently small	currently not	<3 cubic yards

also see below recyclable materials

10. **Hazardous Waste On-Site**

EPA #	Amount	How Stored	Comments
K069 briquette	~20 cubic yard	pile east side of furnace room	
K069,D008 dust	>100cubic yard	pile(s),material storage(bin) room	
D008 battery parts	>400cubic yard	piles, materials storage(bin) room	
D008 blast furn. slag	~90 cubic yard	pile, NE corner of bin room	
D008 furnace cleanout	unknown	pile, NW quad bin room	reclaimable

also reverberatory furnace slag from Exide, Muncie--500,000 P pile bin rm.

and drosses in piles will need to be reclaimed $

also same reverb slag in eight drums in warehouse; to be sent to Memphis

11. Indicate any TSD activities which have been omitted from or are not clear on the facility map (for the purpose of determining if expansion has occured)
(40 CFR 270.13) (HWIMS 610)
Revised part A and part B are scheduled for receipt with lodging of Consent Decree prepared by EPA.

12. Is the Biennial Report Accurate? 1993 report does not report battery plates from Ace Battery, if then in fact received.

13. Note any non-RCRA Violations (Open Dumping, Dumping in City Sewer Without Pretreatment Program, OSHA, etc.)
none observed

14. Additional Comments:
The Description of Violations does not detail on-going violations at this facility as they are to be addressed with the lodging of a federal Consent Decree.

Negotiations for the settlement of Civil Action No. IP902077C in United States District Court are reaching finality. The purpose of the Consent Decree will be to cause: RCRA closure of indoor and outdoor waste piles and the surface impoundment, completion of a RCRA (Corrective Action) Facility Investigation and Corrective Measures Study and its implementation, and payment of a civil penalty. An operating permit application for the RCRA facility will also be required from Refined Metals Corporation.

The plant manager and a skeleton crew are maintaining the facility and casting twice per week; no wastes are added to inventory for the moment. Mr. Meloy did not know when the facility would start up reclamation (smelting) operations again.

April 14, 1995--Stopped receiving batteries and ceased smelting.
April 24, 1995--Stopped refining and casting; depleted suitable inventory.
May 15, 1995 --Began receiving off-spec lead from Tonolli(Ontario) and unrefined lead from Wiley Sanders(Troy,Alabama) and began (refining and) casting twice per week.

The reverberatory furnace slag from Muncie is a characteristic by-product and not solid waste when reclaimed. Speculative accumulation of the material would place it under regulation as a solid and hazardous waste. For the moment, drums of the material are shipped to the Memphis facility to fill otherwise deadhead hauls there. On July 28 the reverb slag continued to be placed in drums for shipment to Refined Metals in Memphis, and Mr. Meloy felt that this material would be all removed by the end of August. Records showed that no reverb slag was in inventory on January 1, 1995; therefore, the question of speculative accumulation occurring beyond December 31, 1995 is mooted for this year.

On July 28 I observed that the blast furnace slag had all been removed from the materials room. The battery parts piles were being worked to segregate plastic-cased industrial cells from the other parts, in order that Exide in Muncie would take this material. The operators were informed that this material would have to be shipped with manifests. After August, the contact will be Mr. George Ordel.

B. LAND BAN TREATMENT STANDARDS

	(HWIMS 700)	OK	DF	NI	NA
1)	Does owner/operator dilute prohibited wastes to meet treatment standard criteria, or render them nonhazardous, as a substitute for adequate treatment? 40 CFR 268.3	No			
2)	Do treatment standards for listed wastes cover constituents that may cause the waste to exhibit any characteristics? 40 CFR 268.9	✓			
3)	Does generator specify alternative treatment standards for lab packs? If yes, see 40 CFR 268.42(c)(2)				✓
4)	Does generator mix wastes with different treatment standards for a constituent of concern?				No
	a. If yes, did generator select most stringent treatment standards?				✓
5)	Does the generator handle any wastes with a LDR variance (national capacity, case-by-case, etc.)?				No

C. ON-SITE TREATMENT (HWIMS 700)

1)	Does the generator treat wastes in 90-day tanks or containers? If NA, go to next section.				No
2)	Does the generator treat the wastes to meet appropriate treatment standards?				
	a. If yes, has the generator prepared a waste analysis plan detailing the frequency of testing to be conducted? 40 CFR 268.7(a)(4)				
3)	Does the plan fulfill the following:				
	a. Based on a detailed chemical and physical analysis of a representative sample				
	b. Contains information necessary to treat the wastes in accordance with LDR				

	OK	DF	NI	NA
4) Has the plan been filed with the Regional Administrator or IDEM?				✓
5) Are characteristic wastes which have been rendered nonhazardous shipped to a solid waste facility?				✓
a. If yes, is a notification and a certification for each shipment sent to the Regional Administrator (prior to 2/24/92) or IDEM? 40 CFR 268.9(d)(1) and 268.7(b)(5)				✓

D. STORAGE (HWIMS 700)

	OK	DF	NI	NA
1) Is the amount of hazardous waste in the storage area(s) equal to or less than the capacity allowed in the Part A? List type and amount of any storage capacity overages? 40 CFR 270.72		✓*		

* See Consent Decree

	OK	DF	NI	NA
2) Are all containers clearly marked to identify the contents and date(s) entering storage or is such information available in the operating log? 40 CFR 268.50(a)(2)(i)	None			
3) Have wastes been stored for less than one year?	✓			
a. If no, can the facility show that such storage is necessary to facilitate proper recovery, treatment or disposal. 40 CFR 268.50(c)				✓

E. TREATMENT (HWIMS 700)

1) Does the facility treat hazardous waste other than in 90-day tanks and containers? If NA, go to next section. Reclamation of lead-bearing wastes and materials

2) Are required technologies used to treat wastes which have treatment standards expressed as technologies? 40 CFR 268.40(b) (HWIMS 700) Yes

	OK	DF	NI	NA
3) Are alternative methods approved? 40 CFR 268.2				✓
4) Is the LDR treatment standard lower than the Characteristic level?				No
a. If yes, does the facility manage the waste as restricted until treatment standards are met? 40 CFR 268.9				✓
5) Does the facility test residues from all treatment processes? 40 CFR 268.7 Blast slag is treated off-site.	✓			

F. REQUIRED NOTICES

1) Has the Regional Administrator/Environmental Management Board been notified regarding:				
a. Receipt of hazardous waste from a foreign source? 40 CFR 265.12(a) (HWIMS 300)				✓
b. Facility expansion? 40 CFR 270.72(b) (HWIMS 610)		✓*		
c. Change of owner or operator? 40 CFR 265.12(b) (HWIMS 300)				✓

* Permit application for the facility to be required by federal Consent Decree re: Civil Action No. IP 902077C

G. GENERAL WASTE ANALYSIS: (HWIMS 310)

1) Has the owner or operator made a detailed chemical and physical analysis of the waste either through testing or knowledge of the process? 40 CFR 265.13(a)1			✓	

	OK	DF	NI	NA
2) Does the owner or operator have a detailed waste analysis plan on file at the facility? 40 CFR 265.13(b)		✓*		
3) Does the waste analysis plan contain:				
a. Parameters (and rationale for their choice)				
b. Test Methods				
c. Sampling method for representative sample				
d. Frequency of analysis (and rationale)				
e. Off-site only: waste analysis form generators			✓	
f. Additional waste analysis needed for:				
i. 265.200 Tanks				✓
ii. 265.225 Impoundment ?			✓	
iii. 265.252 Waste Pile			✓	
iv. 265.273 Land Treatment				✓
v. 265.341 Incinerators				✓
vi. 265.375 Thermal Treatment				✓
vii. 265.402 Other Treatment				✓
viii. 268 LDR Standards			✓	

*See Consent Decree; required by same.

4) Does the waste analysis plan specify procedures for inspection and analysis of each movement of hazardous waste from off-site? 40 CFR 265.13(c)			✓	
5) Is the waste analysis plan followed?			✓	

H. GENERAL INSPECTION REQUIREMENTS (HWIMS 320)

1) Does the owner or operator inspect the facility for deterioration, malfunctions, operator errors, and discharges of hazardous waste that may affect human health or the environment? 40 CFR 265.15(a)			✓	

	OK	DF	NI	NA
2) Does the owner or operator have an inspection schedule at the facility? 40 CFR 265.15(b)2			✓	
3) If so, does the schedule address the inspection of the following items: 40 CFR 265.15(b)1				
a. Monitoring equipment?			✓	
b. Safety and emergency equipment?			✓	
c. Security devices (including fences)?			✓	
d. Operating and structural equipment (ie. dikes, pumps, etc.)?			✓	
e. Type of problems to be looked for during the inspection (e.g. leaky fittings, defective pump, etc.)? 40 CFR 265.15(b)(2)			✓	
f. Inspection frequency (based upon the possible deterioration rate of the equipment)? 40 CFR 265.15(b)(4)			✓	
g. Does the inspection frequency include:				
i. Weekly container storage? (See 265.174)			✓	
ii. Daily and Weekly Tank Storage? (See 265.195)				✓
iii. Daily freeboard and weekly dike inspection for surface impoundments? ? (See 265.226)			✓	
iv. Landfills, Waste Piles, Thermal treatment, Chemical, Physical, and Biological treatment should be inspected as determined by deterioration rate and daily at loading and unloading areas (where spills are likely) (See 265.15(b)(4)			✓	

H.2+3 See Consent Decree; required by same.

	OK	DF	NI	NA
4) Does Owner or Operator follow the written inspection schedule as outlined? 265.15(b)(1)			✓	
5) Are areas subject to spills inspected daily when in use? 265.15(b)(4)			✓	
6) Does the owner or operator maintain an inspection log or summary of owner or operator inspections? 40 CFR 265.15(d)			✓	
7) Does the inspection log contain the following information: 40 CFR 265.15(d)				
a. The date and time of the inspection?			✓	
b. The name of the inspector?			✓	
c. A notation of the observations made?			✓	
d. The date and nature of any repairs or remedial actions?			✓	

I. PERSONNEL TRAINING

1) Do personnel training records include: (HWIMS 330)

a. Job titles for the positions related to HWM 40 CFR 265.16(d)1 ___ ___ ✓ ___

b. The name of the employees filling each job title? 40 CFR 265.16(d)(1) ___ ___ ✓ ___

c. Job descriptions including the required skills, education, or other qualifications and the duties of the personnel assigned to the position? 40 CFR 265.16(d)2 ___ ___ ✓ ___

Check categories for which job titles/descriptions are available (please include the supervisors of each category in that category when reviewing documents).

Emergency coordinator___ Training coordinator___ Emergency response personnel___
Inspectors___ Material handlers___ Container labelers ___ Manifesters___
Recordkeepers ___

d. Description of both introductory and continuing training required for each job? 40 CFR 265.16(d)(3) ___ ___ ✓ ___

e. Records of training required in (d)? 40 CFR 265.16(d)4 ___ ___ ✓ ___

Describe in general the type of training program in use at the facility.

I. Required by consent Decree.

Also see report of 8/8/94 inspection.

f. Did facility personnel receive the required training including:

i) classroom or on the job ___ ___ ✓ ___

ii) within 6 months of hire ___ ___ ✓ ___

iii) annual review of training? ___ ___ ✓ ___

	OK	DF	NI	NA
g. Are all training records maintained for current personnel and for at least three years for former employees? 40 CFR 265.16(e)	___	___	✓	___

J. CONTINGENCY PLAN AND EMERGENCY PROCEDURES (HWIMS 350)

1) Does the Contingency Plan contain the following information:

Required by Consent Decree.

Also see report of 8/8/94 inspectio

a. The actions facility personnel must take to comply with 265.51 and 265.56 in response to fires, explosions, or any unplanned release of hazardous waste? (If the owner has a Spill Prevention, Control, and Countermeasures (SPCC) Plan, he needs only to amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this Part (as applicable).	___	___	✓	___
b. A description of arrangements agreed by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services.	___	___	✓	___
c. Names, addresses, and phone numbers of all persons qualified to act as emergency coordinators?	___	___	✓	___
d. A list of all emergency equipment at the facility which includes the location and physical description of each item on the list and a brief outline of its capabilities? 40 CFR 265.52(e)	___	___	✓	___
e. An evacuation plan for facility personnel where there is a possibility that evacuation could be necessary? (This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes.) 40 CFR 265.52(f)	___	___	✓	___

	OK	DF	NI	NA
2) Emergency Coordinator:				
a. Is the facility Emergency Coordinator identified? 40 CFR 265.52(d)	✓			
b. Is coordinator familiar with all aspects of site operation and emergency procedures? 40 CFR 265.55	✓			
c. Does Emergency Coordinator have the authority to carry out the Contingency Plan? 40 CFR 265.55	✓			

K. PREPAREDNESS AND PREVENTION

1) Has the owner or operator attempted to make arrangements with local authorities in case of an emergency at the facility? 40 CFR 265.37 (HWIMS 340)			✓	
2) Are copies of the Contingency Plan available at the site and local emergency organizations? 40 CFR 265.53 (HWIMS 350)			✓	
3) Emergency Procedures If an emergency situation has occurred at this facility, has the Emergency Coordinator followed the emergency procedures listed in 40 CFR 265.56 (329 IAC 3-18-7)? (HWIMS 350)				✓

Required by Consent Decree.

Also see report of 8/8/94 inspection.

L. MANIFEST SYSTEM (off-site facilities)

(HWIMS 360)

	OK	DF	NI	NA
1) Does the facility follow the procedures listed in 265.71 for processing each manifest? (Particularly sending a copy of the signed manifest back to the generator within 30 days after delivery.) Not lately receiving wastes with manifests.			✓	
2) Are records of past shipments retained for three (3) years? 40 CFR 265.71(b)5			✓	
3) Has the facility submitted copies of hazardous waste manifests to the Department within five (5) working days after receiving hazardous waste? (This requirements applies to both Indiana's and other states hazardous waste manifests)?			✓	
4) Does the owner or operator meet requirements regarding manifest discrepancies? (Off-site facilities only) 40 CFR 265.72			✓	

5) Unmanifested Waste Reports:

a. Has the facility accepted any hazardous waste from an off-site generator subject to 329 IAC 3.1-7-3 (3-8-1) without a manifest or shipping paper? 40 CFR 265.76 — Yes

b. If "a" is yes, provide the identity of the source of the waste and a description of the quantity, type and date received for each unmanifested hazardous waste shipment.

Receiving D008 plates and groups from spent automotive batteries broken at Ace Battery, aka Battery Salvage (IND016389546). See Attachment A

	OK	DF	NI	NA
c. Has the facility submitted an unmanifested waste report within 15 days after receiving the waste?	✓			

M. CLOSURE/POST CLOSURE

	OK	DF	NI	NA
1) Is the closure plan available for inspection? 40 CFR 265.112(a) (HWIMS 390)			✓	
2) Is the post-closure plan available for inspection? (for disposal facilities only) 40 CFR 265.118(a) (HWIMS 390)			✓	
3) Has the closure cost and post closure cost estimate been revised annually to account for inflation. (329 IAC 3.1-14-3) (HWIMS 400)			✓	

Required by Consent Decree

N. OPERATING RECORD (HWIMS 370)

	OK	DF	NI	NA
1) Does owner or operator have a operating record? 40 CFR 265.73(a)			✓	
2) Does the owner or operator maintain an operating record that contains the following information?				
a. The method(s) and date(s) of each waste's treatment, storage, or disposal as required in 40 CFR 265 Appendix I (including tanks)? 40 CFR 265.73(b)(1)			✓	

Summarize how the facility tracks the method and date of TSD activity.

Required by Consent Decree

	OK	DF	NI	NA
b. The location and quantity of each hazardous waste within the facility? (This information shall be cross referenced to a specific manifest number if the waste was accompanied by manifest.) 40 CFR 265.73(b)(2)			✓	

Summarize how the facility tracks the location and quantity of waste.

	OK	DF	NI	NA
c. A map or diagram of each cell or disposal area showing the location and quantity of each hazardous waste? (This information should be cross referenced to specific manifest number, if accompanied by a manifest.) 40 CFR 265.73(b)(2)				✓
d. Records and results of all waste analyses, trial tests, monitoring data, and operating inspections, including those conducted for LDR standards? 40 CFR 265.73(b)(3)(5)(6)			✓	
e. Reports detailing all incidents that required implementation of the Contingency Plan? 40 CFR 265.73(b)(4)				✓
f. All closure and post closure costs as applicable? 40 CFR 265.73(b)(7)			✓	
g. Copies of LDR notifications and certifications? 40 CFR 265.73 b (11)(13)(15)	~~✓*~~ NRW		✓*	

~~*~~ NRW * Not currently receiving battery plates but when RMC had, plates were received without manifests or notifications.

O. GROUNDWATER MONITORING

Complete this section for facilities that treat, store, or dispose of hazardous waste in landfills, surface impoundments and/or by land treatment.

	OK	DF	NI	NA
1) Has the owner or operator of the facility implemented a groundwater monitoring system? 40 CFR 265.90(a) (HWIMS 380)	not for RCRA		✓	
2) Has the owner or operator of the facility implemented an alternate groundwater monitoring system as described in 265.90(d)? (HWIMS 380)				✓

Required by Consent Decree

GENERATOR REQUIREMENTS

Complete the following sections if the owner or operator of a TSD facility also generates hazardous waste that is subsequently shipped off-site for treatment, storage, or disposal.

P. MANIFEST SYSTEM (generator) (HWIMS 110)	OK	DF	NI	NA
1) For hazardous waste shipments to Indiana facilities (or hazardous waste shipments to states that do not supply manifests) has the generator used the Indiana Hazardous Waste Manifest? 329 IAC 3.1-7-4	✓			
2) Does the operator have copies of the manifest available for review? 40 CFR 262.40 (329 IAC 3.1-7-6)	✓			
3) Have manifests been retained for 3 years? (40 CFR 262.40)	✓			
4) Examine manifests for shipments in past ~~6~~ 3 months. Indicate approximate number of manifested shipments during that period.	22			
5) Do the manifest forms examined contain the following information? 40 CFR 262.21 (329 IAC 3.1-7-8)				
a. Manifest document number? EPA ID No. + Unique 5 digit No.?	✓			
b. Name, mailing address, telephone number, and EPA ID number of generator?	✓			
c. Name, telephone number (3.1-7-11) and EPA ID Number of Transporter(s)?	✓			
d. Name, Address, telephone number (3.1-7-11) and EPA ID Number of designated permitted facility?	✓			

	OK	DF	NI	NA
e. The description of the waste(s) (DOT shipping name, DOT hazard class, DOT identification number)?	✓			
f. The total quantity of waste(s) and the type and number of containers loaded?	✓			
g. Required waste minimization certification?	✓			
h. Required signatures?	✓			
i. EPA hazardous waste numbers (3.1-7-11)?	✓			
j Handling Codes (3.1-7-11)?	✓			
k. Additional waste numbers included in box J.			✓	

6) Has the generator submitted copies of hazardous waste manifests to the Department within five (5) working days after shipping hazardous waste? (This requirement applies to both Indiana's and other states hazardous waste manifests).
329 IAC 3.1-7-6 — DF ✓ — SEE ITEM (1)

7) Reportable exceptions:
40 CFR 262.42 (HWIMS 180)

a. For manifests examined (except for shipments within the last 35 days), enter the number of manifests for which the generator has NOT received a signed copy from the designated facility within 35 days of the date of shipment. one (5/8/95)

b. For manifests indicated in question (7a), enter the number for which the generator has submitted exception reports (40 CFR 262.42) to the Commissioner. zero — SEE ITEM (2)

Q. EPA IDENTIFICATION NUMBERS (HWIMS 090)

	OK	DF	NI	NA
1) Has the generator received an EPA identification number prior to treating, storing, disposing of, transporting, or offering for transportation, hazardous waste? 40 CFR 262.12(a)	✓			
2) Has the generator offered his hazardous waste to transporters or to TSD facilities that have received an EPA identification number? 40 CFR 262.12(c)	✓			

R. INTERNATIONAL SHIPMENTS (HWIMS 190)

	OK	DF	NI	NA
1) Has the installation imported or exported hazardous waste? 40 CFR 262.50	No			
(If answered Yes, complete the following as applicable.)				
a. Exporting hazardous waste; has a generator:				
i. Notified the administrator and OSHWM/IDEM in writing?				
ii. Obtained the signature of the foreign consignee confirming delivery of the waste(s) in the foreign country?				
iii. Met the Manifest requirements?				
b. Importing hazardous waste; has the generator met the manifest requirements?				✓

S. LAND BAN NOTIFICATION REQUIREMENTS (HWIMS 700)

	OK	DF	NI	NA	
1) Does the generator provide a notification to the TSD facility with each shipment, even if waste meets treatment standards? 40 CFR 268.7		✓			SEE ITEM 3
2) Does the notification include the following: (if possible, make copies of, or record information from notification(s) that do not contain the necessary information) 40 CFR 268.7 — for notifications provided to facilities in Michigan and Ohio only:					
a. EPA hazardous waste number	✓				
b. Treatment standards (for wastes other than F001-F005 and F039, treatment standards may be referenced by including sub-category, treatability group, and CFR sections and paragraph where treatment standards appear)	✓				
c. Where treatment standards is specified technology, applicable five-letter treatment code?	✓				
d. Manifest number	✓				
e. If the waste meets treatment standards, or if alternate treatment standards for lab packs are specified, does it have proper certification statement?				✓	
f. Waste analysis data, if available.			✓		
3) Has the generator retained on-site a copy of all notices, certifications, waste analysis data, and other documentation produced pursuant to 268.7 for at least five (5) years? 268.7(a)(7)	✓				

T. RECORDKEEPING AND REPORTING

	OK	DF	NI	NA
1) Has the generator made a proper hazardous waste determination for all solid wastes generated at the facility, including correct LDR treatability group and treatment standard? 40 CFR 262.11 and 40 CFR 268.7(a) & 268.9 (HWIMS 100)			✓	

a. If DF, list below:

Assigned Classification	Correct Classification
Spent battery plastic chips	to be determined *

b. Which of the following methods does the generator employ for waste determination?

i. Knowledge of waste.
ii. Analysis. Specify Both * An analysis for spent battery plastic chips was conducted on-site prior to my arrival on 7/28. The TCLP result for lead was "1.92" "ppm Pb".

	OK	DF	NI	NA
2) Are all test results and analyses needed for hazardous waste determinations retained for at least three years? 40 CFR 262.40 (HWIMS 180)			✓	

* There were no plastic chips remaining on-site. The inspection of 8/8/94 discovered a lack of documentation of analysis for this reclaimable waste.

	OK	DF	NI	NA
3) Has the generator submitted biennial reports as required? 329 IAC 3.1-7-14) (HWIMS 180)	✓			

U. WASTE MINIMIZATION (HWIMS 100)

1) Does the generator have a written waste minimization plan? ___ No ___ ___

a. If a written plan is not available, briefly describe the waste minimization program as presented by the company representative.

Not requested.

	OK	DF	NI	NA
2) Does the biennial report include the required waste minimization information?	No	___	___	___

(40 CFR 265.75(h) and (J)/IC 13-7-27-7)

3) Note any discrepancies between the written or oral plan, and observed on-site waste minimization activities.

Hazardous blast furnace slag is generated from reclamation of lead.

WASTE PILE APPENDIX
40 CFR 265, SUBPART L
329 IAC 3.1-10-1 (HWIMS 440)

Location/Description of Unit Material Storage Area, Battery Breaker Area, Furnace Room

A. GENERAL OPERATING REQUIREMENTS	OK	DF	NI	NA	
1) Is wind dispersal of hazardous waste managed? 40 CFR 265.251	✓				
2) Is the pile protected from precipitation and run-on by some means (such as being under roof)? 40 CFR 265.253(b) (IF NOT then go to number 4)	✓				
3) Are liquids or wastes containing liquids placed in the pile? 40 CFR 265.253(b)			✓		3) not currently - see 8/8/94 inspection report - breaker area has minimum of damp debris on floor
4) Does the facility maintain a proper run-on control system? 40 CFR 265.253(a)2			✓		
5) Does the facility maintain a proper run-off system? 40 CFR 265.253(a)3			✓		
6) Are run-off and run-on collection and holding facilities managed or emptied expeditiously after storms? 40 CFR 265.253(a)4			✓		no known run-on runoff events
7) If required, are reactive or flammable wastes handled properly? Is 265.17(b) complied with? 40 CFR 265.256 & 257				✓	
8) Has the owner or operator complied with the requirement for liners and leachate collection systems in accordance with 40 CFR 264.251 with respect to waste received beginning May 8, 1985? 40 CFR 265.254	✓				8) As per 8/8/95 report. Remedy found in requirements of Consent Decree to be issued.

Please describe the location of the pile including data pertinent to regulatory status (ie. inside, outside)

inside

Please describe run-on and run-off control activities.

Surrounding outdoor pavement is serviced by large sumps which are pumped to on-site wastewater treatment facility.

B. PREPAREDNESS AND PREVENTION

1) Security - Do security measures include: (HWIMS 300)
40 CFR 265.14

	OK	DF	NI	NA
a. 24-hour surveillance which continuously monitors and controls entry?			✓	
OR				
b. Artificial or natural barrier around the facility and controlled entry, at all times?	✓			
c. Danger sign(s) at entrance?	✓			

2) Has the facility been maintained and operated to minimize the possibility of a fire, explosion, or release of hazardous waste or hazardous waste constituent? (HWIMS 340, 810 spill)
40 CFR 265.31

Waste piles are simply not managed in units constructed to appropriate engineered specifications.

3) If required, does the facility have the following equipment: (HWIMS 340)

	OK	DF	NI	NA
a. Internal communications or alarm systems? 40 CFR 265.32(a)	✓			
b. Telephone or 2-way radios at the scene of operations? 40 CFR 265.32(b)	✓			

	OK	DF	NI	NA
c. Portable fire extinguishers, fire control, spill control equipment and decontamination equipment? (Please specify) 40 CFR 265.32(c)	✓			
d. Water at adequate volume and pressure to supply water hoses, foam equipment, automatic sprinklers or water spray equipment available? (Please specify) 40 CFR 265.32(d)			✓	
4) Whenever waste is being handled do all personnel have immediate access to an alarm or communication device (thru another employee if always available)? 40 CFR 265.34(a) (HWIMS 340)	✓			

C. TESTING AND MAINTENANCE OF EMERGENCY EQUIPMENT

	OK	DF	NI	NA
1) Has the owner or operator established testing and maintenance procedures for emergency equipment? 40 CFR 265.33 (HWIMS 340)	✓			
2) Is emergency equipment maintained in operable condition? 40 CFR 265.33 (HWIMS 340)	✓			
3) Does the owner or operator maintain adequate aisle space for the movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment? (This applies to access for this equipment to reach hazardous waste management areas.) 40 CFR 265.35 (HWIMS 340)	✓			

SURFACE IMPOUNDMENT APPENDIX

40 CFR 265, Subpart K
329 IAC 3.1-10-1

(HWIMS 430)

Location/Description of Unit East side of property
"INACTIVE"
(Receives nothing but over-capacity precipitation falling on outdoor pavement.)

	OK	DF	NI	NA
A. GENERAL OPERATING REQUIREMENTS				
1) Do surface impoundments have at least 60 cm (2 feet) of freeboard? 40 CFR 265.222	✓			
2) Do earthen dikes have protective covers? 40 CFR 265.223	✓			
3) Are reactive & ignitable wastes rendered non-reactive or non-ignitable before storage in a surface impoundment? (If waste is rendered non-reactive or non-ignitable, see treatment requirements.) 40 CFR 265.229				✓
4) Are incompatible wastes stored in different impoundments? (If not, the provisions of 40 CFR 265.17(b) apply.) 40 CFR 265.230				✓
5) If required, are the following special requirements for ignitable, reactive, or incompatible wastes addressed? 40 CFR 265.17				✓
a. Special handling?				✓
b. No Smoking signs?				✓
c. Separation and protection from ignition sources?				✓
6) Has the owner or operator installed two or more liners and leachate collection system in accordance with 40 CFR 264.221(c) with respect to waste received beginning May 8, 1985? 40 CFR 265.221(a) ?	No. To be closed as a RCRA surface impoundment.		✓	

B. PREPAREDNESS AND PREVENTION

	OK	DF	NI	NA
1) Security - Do security measures include: (HWIMS 300) 40 CFR 265.14				
a. 24-hour surveillance which continuously monitors and controls entry? OR			✓	
b. Artificial a natural barrier around the facility and controlled entry at all times?	✓			
c. Danger sign(s) at the entrance?	✓			
2) Has the facility been maintained (HWIMS 340, 810 spill) and operated to minimize the possibility of a fire, explosion, or release of hazardous waste or hazardous waste constituent? 40 CFR 265.31	✓			
3) If required, does the facility have the following equipment: (HWIMS 340)				
a. Internal communications or alarm systems? 40 CFR 265.32(a)	✓			
b. Telephone or 2-way radios at the scene of operations? 40 CFR 265.32(b)	✓			
c. Portable fire extinguishers, fire control, spill control equipment and decontamination equipment? (Please specify) 40 CFR 265.32(c)				✓
d. Water at adequate volume and pressure to supply water hoses, foam equipment, automatic sprinklers or water spray equipment available? 40 CFR 265.32(d)				✓
4) Whenever waste is being handled do all personnel have immediate access to an alarm or communication device (thru another employee if always available)? 40 CFR 265.34(a) (HWIMS 340)	✓			

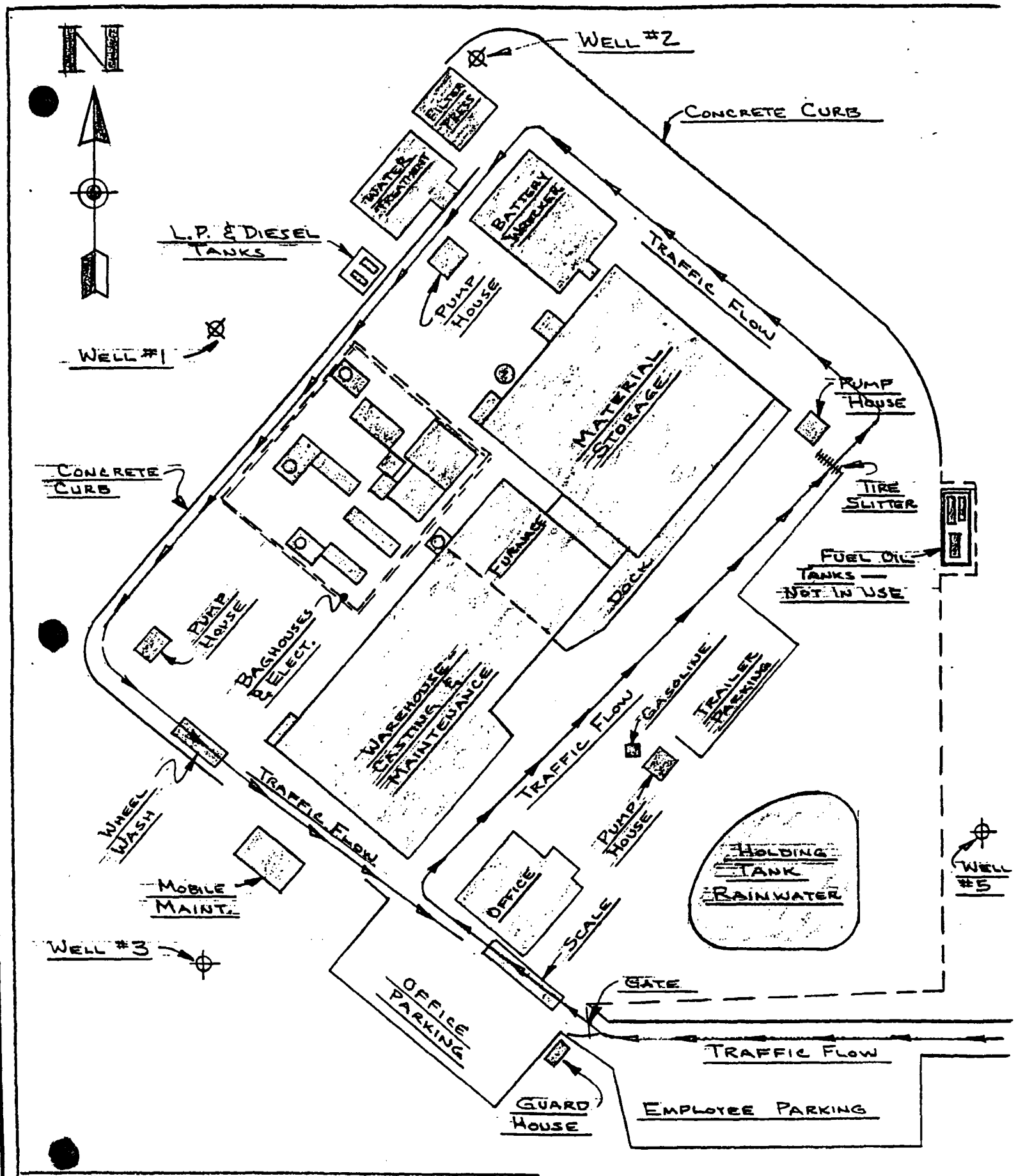
C. TESTING AND MAINTENANCE OF EMERGENCY EQUIPMENT

	OK	DF	NI	NA
1) Has the owner or operator established testing and maintenance procedures for emergency equipment? 40 CFR 265.33 (HWIMS 340)	✓			
2) Is emergency equipment maintained in operable condition? 40 CFR 265.33 (HWIMS 340)	✓			
3) Does the owner or operator maintain adequate aisle space for the movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment? (This applies to access for this equipment to reach hazardous waste management areas) 40 CFR 265.35 (HWIMS 340)	✓			

D. LAND BAN REQUIREMENTS (HWIMS 700)

1) Is treatment other than evaporation or dilution occurring in the surface impoundment? 40 CFR 268.3(a) and 268.4(b)				No
2) Has the facility submitted to the Agency a waste analysis plan and certification of compliance with minimum technology requirements and groundwater monitoring requirements? 40 CFR 268.4(a)(4)	To be closed		✓	
3) If the minimum technology requirements have not been met, has a waiver been granted for that unit? 40 CFR 268.4(a)(3)(ii)			✓	
4) Are representative samples of sludge and supernatant from the surface impoundment tested separately, acceptably, and in accordance with the sampling frequency and analyses specified in the waste analysis plan? (Attach test results.) 40 CFR 268.4(a)(2)(i)			✓	

	OK	DF	NI	NA
5) Does the operating record adequately document the results of waste analyses performed in accordance with 40 CFR 268.4? 40 CFR 264.73(b)(3) and 265.73(b)(3)	___	___	___	✓
6) Do the treatment residues (sludges or liquids) exceed applicable treatment standards/prohibition levels?				
a. Sludge	___	___	___	✓
b. Supernatant	___	___	___	✓
7) If sludge residues exceed treatment standards/ prohibition levels, are they removed on an annual basis? 40 CFR 268.4(a)(2)(ii)	___	___	___	✓
Are residues subsequently managed in another surface impoundment? 40 CFR 268.4(a)(2)(iii)	___	___	___	✓
8) If supernatant is determined to exceed treatment standards, is annual throughput greater than impoundment volume? 40 CFR 268.4(a)(2)(ii)	___	___	___	✓



REFINED METALS CORP.
PLANT LAYOUT
BEECH GROVE, IND.
DWG. #BG-92-100-2 — 1-9-92

PHOTO LOG

FACILITY Refined Metals Corporation

PHOTOGRAPHER Mike Wilhelm **DATE** 6/14/95

PHOTO #		LOCATION/SUBJECT
1	1-5	Furnace Room w/ K069 pile dust furnace briquettes/slag
2	6-11	Material Storage Room east/southeast side piles
3	12-17	Material Storage Room west northwest side piles
4	18-19	Material Storage Room east corner pile: blast slag
5	20-23	Breaker Room trench covered with plywood
6	24-25	Breaker Room some lead debris on floor
7	26-27	South of WW TTMT concrete pile from interior wall removal
8	28	~~Yard~~ South of WW TTMT lead battery parts on ground
9	29	Breaker Room Empty Tumbler Bin
10	30,31	Furnace Room Absorbent in front of furnace
11		
12		
13		
14		

32

PREINSPECTION FILES AUDIT CHECKLIST

DATE: 6/8/95

BY: Wilhelm

COMPANY: Refined Metals Corp

LOCATION: 3700 S. Arlington Ave.

I.D.#: IND/000 1718 1130

Type of Inspection: G—T—TSD—Closure—Complaint—Other (Please specify)

A. GENERAL

	YES	NO	NI
1. Federal Notification on File	G + updates		
2. Federal Part A on File	✓		
3. Closure Plan Reviewed			not avail.
4. Contingency Plan Reviewed			not avail
5. Biennial Report Reviewed	✓		
6. Part B Permit Reviewed (Note any Special Permit Conditions)			NA

Comments: —

B. NOTIFICATION DATA (Notify type, waste codes listed, etc.)

—

C. LAND DISPOSAL INFORMATION

1. List Waste and Land Disposal Facility

Blast Furn Slag 0008 CWM of Indiana

also have current Sp W approval for treated slag

D. LIST POSSIBLE WASTE STREAMS NOT LISTED ON BIENNIAL REPORT

E. LIST WASTE MANAGEMENT PRACTICES WHICH MAY REQUIRE A PERMIT

Storage in piles: (D008) battery parts, furnace dust (K069), dust furnace "slag" briquettes (K069/D008), blast furnace slag (D008)

F. FEDERAL PART A (Handling Codes), OR PART B PERMIT

	Code	Amount	Unit of Measure
1.	S03	400	Y cubic yards
2.			
3.			
4.			
5.			

Battery Storage Area - 12/7/90 signed 6/3/91 approved

Interim status was automatically lost on 11/8/85 due to failure to certify compliance with financial responsibility requirements. (Civil Action IP902077C filed Nov. 21, 1990)

G. CLOSURE/POST-CLOSURE

1. Are there any closed units? If yes, describe.

No

H. COMPLIANCE BRANCH

List past two inspections and enforcement actions (CO, NOV, VL, WL)

Date of Inspection	Action Type	Date of Action
8/8+19/94	Referred to Enforcement	+ EPA
3/26/93	" "	"

Federal Consent Decree re Civil Action No. IP902077C is near final form

I. LIST UNRESOLVED ENFORCEMENT ACTIONS/VIOLATIONS

US Civil Action No. IP 902077C

Latest Draft Consent Decree - 12/22/94 - Southern District of Indiana

Indianapolis Division

J. BRIEFLY SUMMARIZE PREVIOUS VIOLATIONS. (Note if they are repeats)

No permit or interim status

K. LIST ANY ITEMS UNDER COMPLIANCE SCHEDULES WHICH ARE NOT YET COMPLETED OR NEED FIELD VERIFIED, INCLUDING WASTE MINIMIZATION REQUIREMENTS IN ENFORCEMENT ORDER AND SETTLEMENT AGREEMENTS.

L. COMMENTS

93BR GM Slag D008 15859 T'92 4206.8 T'93 to IND078911146

PS wastewater tmt blast furnace

Ace Battery IND016389546	1	Ace Battery IND016389546	Refined Metals IND000718130	06/02/95	06/06/95	06/08/95			Waste Classification contested
Ace Battery IND016389546	1		Refined Metals IND000718130	06/06/95	06/06/95	06/08/95			Waste Classification contested
Ace Battery IND016389546	1	Ace Battery IND016389546	Refined Metals IND000718130	06/12/95	06/13/95	06/16/95			Waste Classification contested
Ace Battery IND016389546	1	Ace Battery IND016389546	Refined Metals IND000718130	06/08/95	06/09/95	06/16/95			Waste Classification contested
Ace Battery IND016389546	1	Ace Battery IND016389546	Refined Metals IND000718130	06/16/95	06/19/95	06/26/95			Waste Classification contested
Ace Battery IND016389546	1	Ace Battery IND016389546	Refined Metals IND000718130	06/21/95	06/21/95	06/26/95			Waste Classification contested
Ace Battery IND016389546	1	Ace Battery IND016389546	Refined Metals IND000718130	06/21/95	06/21/95	06/26/95			Waste Classification contested
Ace Battery IND016389546	1	Ace Battery IND016389546	Refined Metals IND000718130	06/26/95	06/26/95	06/28/95			Waste Classification contested

Attachment A

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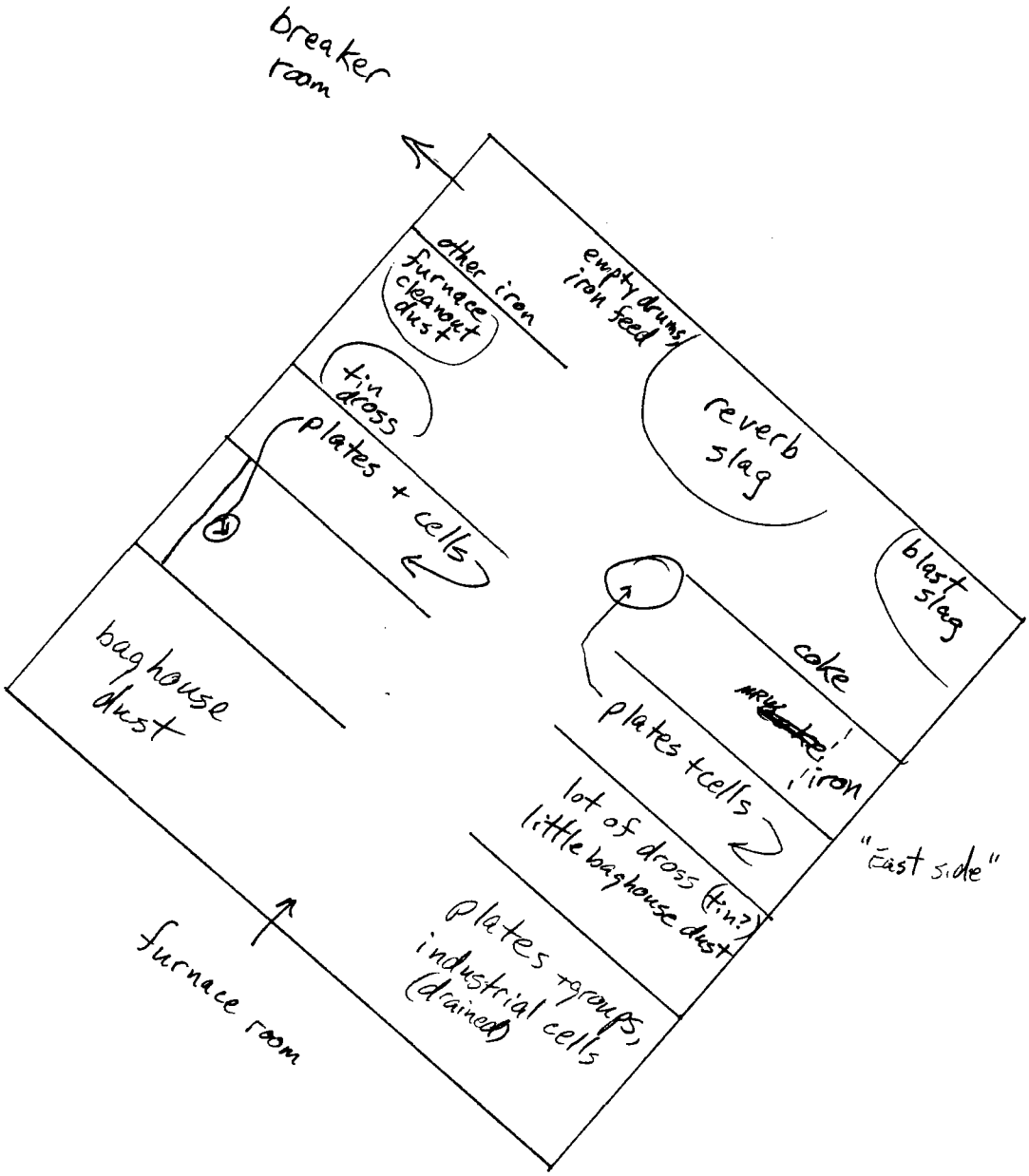
Attachment B



Material Storage Room

N

Indiana Department of Environmental Management

VERIFICATION OF INSPECTION

This is to verify that on June 14 + July 28 1995 an inspection of Refined Metals Corporation was conducted by the undersigned representatives of the Indiana Department of Environmental Management, Office of Solid and Hazardous Waste Management. The inspection was conducted to determine compliance with the Resource Conservation and Recovery Act (RCRA), IC 13-7, and rules promulgated pursuant to those statutes.

A summary of violations and concerns noted during the inspection were verbally communicated to the undersigned company representatives during the inspection. The company is encouraged to correct deficiencies as soon as possible. Corrections made and verified during the inspection may still be cited as violations; however, prompt action will be taken into consideration in determining the resolution to any enforcement action which may be taken.

Your company will be sent a preliminary summary of the violations identified as a result of the inspection within thirty (30) days of the inspection. The summary may identify violations not noted during the inspection if they surfaced as a result of a more extensive analysis of the rules or further review of records in the possession of the Department. The company is encouraged to contact the inspector to clarify any misunderstandings which you believe may be reflected in the inspection summary.

IDEM: Printed Name	Signature	Position	Phone #	Date
Mike Wilhelm	[illegible]	Env Mgr WGL	317 232-3529	7/28/95

Company: Printed Name		Position	Phone #	Date
Mike Meyer	[illegible]	Plant Mgr	317-787-6364	7/28/95

Address

P O Box 133

Beech Grove IN 46107

Description of Violations
Refined Metals Corporation
IND000718130
Inspection of June 14 and July 28, 1995

1. Page 19 329 IAC 3.1-7-6

During at least May and June of 1995, the generator failed to provide to this office copies of the manifests which accompanied at least twelve shipments of blast furnace slag (D008) to a Michigan treatment and disposal facility. The manifests so noted in particular during the inspection were:

MI4151581	MI4151582	MI4151583
MI4151584	MI4151586	MI4151587
MI4151588	MI4151589	MI4151590&see #3 below
MI4151591	MI4139828	MI4139829

2. Page 19 329 IAC 3.1-7 ref. 40 CFR 262.40

The generator had not obtained a signed copy of the manifest numbered MI4151590 within 35 days, which was signed and dated by the generator and transporter on May 8, 1995. An exception report had not been provided to this office regarding the non-receipt of that signed copy.

3. Page 21 40 CFR 268.7

The generator had not provided notification of wastes subject to Land Disposal Restrictions (LDR) with each shipment of waste to a lead recovery facility in Tennessee. In May, at least nine shipments of lead-acid batteries accepted into storage at Refined Metals Corporation, Indianapolis had been re-shipped to Memphis without LDR notifications. The manifests noted which represent these shipments include:

INA1025958	INA1025959	INA1025961
INA1025962	INA1025963	INA1025964
INA1025965	INA1025967	INA1025968

During May and June, at least eight shipments of lead battery parts (D008) were shipped to the Memphis facility without LDR notifications. The manifests noted which represent these shipments include:

INA1025969	INA1025970	INA1025971
INA1025972	INA1025973	INA1025977
INA1025978	INA1025979	

SENT BY:A & K WASH.

10:00 A.M
Conf call
9/31

ANDREWS & KURTH L.L.P.
A REGISTERED LIMITED LIABILITY PARTNERSHIP
ATTORNEYS
1701 PENNSYLVANIA AVENUE, N.W.
SUITE 200
WASHINGTON, D.C. 20006

OTHER OFFICES:
HOUSTON
DALLAS
LOS ANGELES
NEW YORK
THE WOODLANDS

TELEPHONE: (202) 662-2700
TELECOPIER: (202) 662-2739
TELEX: 7A-1206

Robert N. Steinwurtzel
(202) 662-2749

September 15, 1993

Via Telecopy

Leonard M. Gelman, Esquire
Trial Attorney
Environmental Enforcement Section
P.O. Box 7611
Ben Franklin Station
Washington, D.C. 20044

Tom Jacobs, Esquire
Regional Counsel
U.S. Environmental Protection Agency
Region 5
77 West Jackson Boulevard CS-3T
Chicago, Illinois 60604

insert "outdoor"
"...the existing waste piles"

Re: United States v. Refined Metals Corporation

Dear Lee and Tom:

As per the conference call conducted on September 2, 1993, this letter will propose revisions to several provisions contained in the draft Consent Decree that was transmitted on August 4, 1993. Other comments and revisions (regarding paragraphs 6, 28, 94, 95, 100, 107, and 110) were provided to you during the conference call.

EPA EPA/IDEM EPA/DOJ DOJ DOJ DOJ

The revisions are as follows:

IDEM

¶27 Revise the last sentence as follows: "~~Upon a final permit decision~~, Defendant shall comply with the permit decision rendered by IDEM ~~unless Defendant appeals the decision~~. After exhaustion of its available administrative and judicial rights of appeal, Defendant shall comply with the final appeal determination." Q: Compliance ~~case~~ stayed in appeal? US. - NO STA

- Δ retains it's adm. jud. rid

IDEM

¶31 Insert the following after the words "Exhibit G," which was moved from paragraph 28:

"The parties contemplate that the closure plan will propose closure and certification on a unit-by-unit basis, phased over a period of time, and that this method and schedule of closure shall be acceptable to IDEM and EPA."

IDEM

¶34 Revise as follows: "Defendant will establish and maintain compliance with financial assurance and liability coverage requirements only for those operating units wherein batteries and other lead bearing materials are stored. [We need to designate these units!] Financial assurance and liability coverage shall not be required for non-operating units [need to designate] unless Defendant, subject to the provisions of this Consent Decree, fails to comply with the schedule of closure contained in the approved closure plan. In the event of non-compliance with the approved closure plan schedule, Defendant shall have thirty (30) days from the date of final determination of non-compliance to establish and maintain compliance with financial assurance and sudden accidental liability coverage requirements."

what does he want here. How do you establish Fin assur for closure and don't maintain it. Do they want to default and then start paying the loan.

EPA

¶35 We need to discuss the word "meets." Does this mean that once financial assurance is established, loans can be repaid? If it means that financial assurance must be maintained, we object to incorporating "post-closure activities." Moreover, the provision should parallel the understanding set forth in paragraph 34, which distinguishes between "operating" and "non-operating" units.

¶59

EPA

¶49 Revise as follows: "Based on the remedy option selected by U.S. EPA, Defendant shall prepare a cost estimate for the corrective action. The parties shall then confer to determine whether Defendant possesses adequate financial resources to provide sufficient financial guarantee(s) to fund the corrective action. The parties acknowledge that as of the date of execution of this Consent Decree, Defendant lacks the capability to provide sufficient financial guarantee(s) to fund corrective action." NO

IDEM

¶56 See suggested revision to ¶27 with respect to the last sentence.

EPA

¶61 This provision should be deleted as it is, in part, duplicative of the RCRA permit application. Furthermore, Refined Metals will not submit itself to a process whereby EPA has the right to dictate how it will operate.

EPA

¶96 Add the following after the word "monies" in line three: "up to the amount of $1,000,000. . . ."

IDEM

During the conference call, we also discussed several issues with respect to IDEM. It is my understanding that assuming parties reach agreement regarding the terms of the Consent Decree, IDEM will dismiss, with prejudice, the pending administrative complaint, and act favorably on the variance application for plates and groups. As for the slag special waste permit, it is my understanding that this issue is close to resolution. During the conference call, I indicated that a letter of commitment from IDEM, memorialising the above understandings, would be acceptable to my client.

Messrs. Gelman and Jacobs
September 15, 1993
Page 3

ANDREWS & KURTH L.L.P.
A REGISTERED LIMITED LIABILITY PARTNERSHIP

EPA

The final issue that still remains unresolved concerns the LDR case-by-case variance application submitted by Refined Metals Corporation. By letter dated July 6, 1993, I proposed language responsive to this issue, but I do not know what is the position of the United States.

I look forward to discussing these issues with you.

Sincerely,

Robert N. Steinwurtzel

Robert N. Steinwurtzel

RNS/rah
cc: Mr. T. W. Freudiger
Refined Metals Corporation

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 3 1993

OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE

RECEIVED
JUN 7 1993
OFFICE OF RCRA
WASTE MANAGEMENT D
EPA REGION

Mr. Jeffery S. Hannapel
Counsel for Refined Metals Corporation
Andrews and Kurth
Suite 200
1701 Pennsylvania Avenue, NW
Washington, D.C. 20006

Dear Mr. Hannapel:

The Environmental Protection Agency (EPA) has reviewed the information submitted by Refined Metals Corporation (Refined Metals) on November 9, 1992, February 10, and April 6, 1993, in support of its request for a one-year renewal of the case-by-case extension of the land disposal restrictions (LDR) effective date applicable to the storage of lead-bearing materials prior to smelting at the Refined Metals facility in Beech Grove, Indiana. For the reasons discussed below, EPA will propose to deny Refined Metals' request for a renewal of the case-by-case extension.

The Agency granted an extension of the effective date applicable to these materials on June 26, 1992 (57 **FR** 28628), applicable to all persons managing such wastes. The current extension, which expired on May 8, 1993, was granted to allow owners and operators time to retrofit existing storage units (or build new units) to comply with the containment building standards in 40 CFR Part 264, Subpart DD. As provided in 40 CFR 268.5(e), EPA may renew the original extension for up to one additional year if each of the seven demonstrations required under §268.5(a) still can be made by an applicant on a site specific basis.

As part of its evaluation of Refined Metals' request for a renewal of the current extension, EPA also consulted with staff in EPA Region 5 and the Indiana Department of Environmental Management (IDEM). As you know, a complaint was filed by EPA on November 21, 1990, on the grounds that the building for which the Refined Metals Beech Grove facility is seeking an extension of the CBC lost interim status on November 9, 1985, due to its failure to provide adequate financial assurance per the requirements of Section 3005(e)(2) of RCRA, 42 U.S.C. § 6925 (e)(2). A memorandum stating the basis for the Complaint has

Printed on Recycled Paper

been provided by Mr. Jonathan Adenuga of EPA Region 5. (See Enclosure 1.)

To receive an extension, the applicant must make a number of demonstrations under 40 CFR 268.5(a). 40 CFR 268.5(a)(6) states that the applicant must have arranged for adequate capacity to manage the waste during the extension. Management that does not comply with RCRA requirements does not meet this condition. In addition, noncompliance with RCRA in regard to the management of the waste could result in revocation of the extension; see 40 CFR 268.5(g). Here, the facility in which the waste would be managed is not permitted and does not have interim status, so that the management would violate RCRA.

In addition, the loss of interim status makes Refined Metals' showing deficient under 40 CFR 268.5(a)(5); under this requirement, persons are required to provide a detailed schedule for obtaining the necessary permits or an outline of how and when alternative capacity will be available. The materials submitted to date do not provide this information. In this connection, a detailed explanation of whether permits will be sought for the existing structure, and of what will be done to this structure to bring it into compliance would be required. For similar reasons, the demonstrations under 40 CFR 268.5(a)(1), (2), and (4), have not been made. Enclosure 2 states the agency's detailed analysis of each demonstration. For all these reasons, EPA will propose to deny the application submitted by Refined Metals for a renewal of the current generic extension.

It is our understanding that EPA Region 5 and IDEM have discussed with Refined Metals the possibility of entering into a consent decree in which continued use of the existing structure would be allowed, for at least some wastes, for a period of time to conduct the phased closure of waste piles within the structure. If such a consent decree is entered, any waste management allowed by the consent decree may be relied upon to help make the demonstration of "adequate capacity to manage the waste"; if such an agreement is reached, it may be possible to grant the extension at least in part, if the deficiencies noted herein are cured. However, no final decision has been made as to whether the Agency would grant a renewal of the CBC even if Refined Metals enters into a consent decree with EPA Region 5 and IDEM.

Before making a final determination, EPA is providing Refined Metals with an opportunity to comment on the proposed action. In order for EPA to complete our evaluation of the Refined Metals application in a timely manner, any comments should be sent as soon as possible, but in no event more than 14 days after the receipt of this correspondence. (See Enclosure 3.)

Alternatively, Refined Metals may request that its application be withdrawn at this time, and renew its application at such time when Refined Metals can make all of the required demonstrations. Renewal of the applications would not require resubmittal of information provided to date; only the demonstrations currently found to be deficient need be addressed unless a new unit is proposed.

Please contact Mr. Les Otte or Mr. William Kline of my staff at (703) 308-8480 and (703) 341-3631, respectively, if you have any questions on this matter.

Sincerely,

Sylvia K. Lowrance
Director
Office of Solid Waste

Enclosures

cc: George Wyeth, OGC
Les Otte, WMD
William J. Kline, WMD
Jim Michael, PSPD
Ken Gigliello, OWPE
Region 5 RCRA Division Director
Jonathan Adenuga, Region 5
Rob Hoelscher, Region 5
Tom Jacobs, Region 5
Paula Bansch, IDEM
Jim Gross, IDEM
Mr. T.W. Freudiger, Refined Metals Corporation

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

ENCLOSURE 1

REPLY TO THE ATTENTION OF:

MAY 06 1993

MEMORANDUM

Subject: U.S. v. Refined Metals

From: Jonathan Adenuga JA for JA
Hydrogeologist

To: William Kline
Environmental Scientist

The purpose of this memorandum is to explain briefly the position of the United States regarding the regulatory status of Refined Metals Corporation's Beech Grove, Indiana secondary lead smelting facility.

On August 14, 1980, Refined Metals Corporation ("RMC") notified EPA under Section 3010(a) of RCRA that the RMC facility was generating hazardous wastes. On November 17, 1980, RMC submitted its Part A application under Section 3005(a) of RCRA. Thus, under Section 3005(e) of RCRA, RMC attained "interim status" for the waste management units listed in the Part A application, which units the United States alleges contained arsenic, cadmium and lead.

Section 3005(e)(2) requires that a land disposal facility that has been granted interim status loses that interim status on the date twelve months after November 8, 1984, unless the owner or operator files a Part B permit application and certifies compliance with all applicable groundwater monitoring and financial responsibility requirements. RMC failed to certify by November 8, 1985 that it was in compliance with the financial responsibility requirements of the Indiana Hazardous Waste Management Permit Program. 329 IAC 3-22. (Certification of compliance with groundwater monitoring requirements was not applicable for waste piles. 40 CFR § 265.90(a).) Accordingly, on November 9, 1985, RMC lost interim status. Consequently, RMC's continued placement of hazardous waste in the waste piles thereafter violated RCRA.

The United States' case against RMC is based on its disposal of hazardous waste in waste piles without a permit after November 8, 1985. The United States' position is that RMC did not comply

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with closure, financial responsibility, and other requirements of the Indiana Hazardous Waste Management Program. The United States seeks closure of the waste piles, corrective action, and payment of a penalty.

ENCLOSURE 2

EPA's Evaluation of Refined Metals Demonstrations for a Case-by Case Extension Renewal Under 40 CFR 268.5

1. § 268.5(a)(1): He has made a good-faith effort to locate and contract with treatment, recovery, or disposal facilities nationwide to manage his waste in accordance with the effective date of the applicable restriction established under Subpart C of this part.

Prior to promulgation of the containment building regulations on August 18, 1992 (57 **FR** 37194), there was not a reasonably available management option for the storage of lead-bearing materials prior to recycling that was consistent with the LDRs. Locating alternative management for these wastes likely would have resulted in the shut-down of this recycling facility, because only on-site storage of the lead-bearing materials can supply the uninterrupted smelter feed that is needed for this recycling process. EPA believes that Refined Metals, upon learning of the requirements for a containment building, as published in the August 18, 1992 Federal Register, has made reasonable efforts to bring its lead-bearing materials storage unit into compliance with the Subpart DD containment building technical requirements. However, the building being retrofitted lacks interim status and is not RCRA permitted. Unless this problem is cured, Refined Metals' effort to develop capacity cannot be considered adequate.

2. Section 268.5 (a)(2): He has entered into a binding contractual commitment to construct or otherwise provide alternative treatment, recovery (e.g., recycling), or disposal capacity that meets the treatment standards specified in Subpart D or, where treatment standards have not been specified, such treatment, recovery, or disposal capacity is protective of human health and the environment.

Refined Metals submitted, on February 10, 1993, a signed statement by Refined Metals Vice President, T.W. Freudiger, committing Refined Metals to provide the necessary secondary containment and to retrofit the existing storage units to comply with the LDRs. Refined Metals subsequently submitted documentation of a contract with H&B Construction Company to install a secondary containment and leak detection system for these storage units. EPA believes, as evidenced by this documentation, that Refined Metals-Beech Grove is fully committed to and pursuing construction of the necessary containment building modifications. Refined Metals also has submitted a certification by a professional engineer that these modifications will be sufficient to meet the design and operating standards set forth in 40 CFR Part 264, Subpart DD. However, even after the contract is carried out, the containment building will lack interim status and is not RCRA permitted. Unless the problem is

cured, the capacity being provided will not meet this requirement.

3. Section 268.5(a)(3): Due to circumstances beyond the applicant's control, such alternative capacity cannot reasonably be made available by the applicable effective date. This demonstration may include a showing that the technical and practical difficulties associated with providing the alternative capacity will result in the capacity not being available by the applicable effective date.

Given the lack of previous storage alternatives, the date of publication of the containment building standards in the **Federal Register** (August 18, 1992), and the time needed to design, obtain approval, and install the required secondary containment and leak detection system at the existing storage unit, EPA recognizes that alternative capacity cannot be made reasonably available by the May 8, 1993, effective date.

4. Section 268.5(a)(4): The capacity being constructed or otherwise provided by the applicant will be sufficient to manage the entire quantity of waste that is the subject of the application.

Refined Metals processed 25,000 tons of lead-bearing materials in 1992 and anticipates processing only about 12,000 tons of materials in 1993. The existing storage unit that Refined Metals is planning to upgrade to comply with the new containment building regulations is designed and constructed to provide 5745 cubic yards of storage capacity for lead-bearing materials. If Refined Metals processes 1000 tons or 526 cubic yards (assuming 3800 pounds/cubic yard) of lead-bearing materials per month, over ten months of storage capacity will be available for lead-bearing materials. Refined Metals states that it generally stores less than one month of lead-bearing materials. Thus, EPA believes that Refined Metals has demonstrated that the physical capacity of the retrofitted unit will be sufficient to manage the entire quantity of waste subject to the application.

Nevertheless, the capacity upon which Refined Metals is relying cannot be considered for purposes of this demonstration because it is not permitted and lacks interim status. Until Refined Metals provides a plan for obtaining proper RCRA status for the facility, this condition cannot be met.

5. Section 268.5(a)(5): He provides a detailed schedule for obtaining required operating and construction permits or an outline of how and when alternative capacity will be available.

Refined Metals has supplied a schedule for retrofitting its existing storage unit to comply with the containment building regulations. This schedule indicates that Refined Metals intends to finalize the specific design of proposed modifications by June 1993 and will commence with installation of the secondary

containment system as soon as approval is obtained from IDEM. Installation of the secondary containment is expected to be completed by December 1994. Refined Metals intends to be in compliance with the Subpart DD containment building requirements, except for secondary containment, by May 8, 1994. However, the facility is not currently permitted and lacks interim status. Until Refined Metals provides a plan and schedule for curing this problem, this requirement cannot be met.

6. Section 268.5(a)(6): <u>He has arranged for adequate capacity to manage his waste during an extension and has documented in the application the location of all sites at which the waste will be managed.</u>

Refined Metals will continue to store lead-bearing wastes during the period of the extension in piles in the existing storage unit. As discussed above, the existing storage unit that Refined Metals is planning to upgrade to comply with the new containment building regulations is designed and constructed to provide 5745 cubic yards of storage capacity for lead-bearing materials. If Refined Metals processes 1000 tons or 526 cubic yards (assuming 3800 pounds/cubic yard) of lead-bearing materials per month, over ten months of storage capacity will be available for lead-bearing materials. Refined Metals states that it generally stores less than one month of lead-bearing materials. Adequacy of interim capacity has not been shown, however, because the structure is not permitted under RCRA and lacks interim status. Until this defect is cured this requirement cannot be met.

7. Section 268.5(a)(7): <u>Any waste managed in a surface impoundment or landfill during the extension period will meet the requirements of paragraph (h)(2) of this section.</u>

Refined Metals has reported that none of the materials will be stored in a surface impoundment or landfill. As a result, EPA believes that Refined Metals has made this demonstration.

ENCLOSURE 3

Refined Metals response should be sent to one of the following addresses:

By regular mail:

Mr. William J. Kline
U.S. Environmental Protection Agency
Office of Solid Waste (OS-321-W)
401 M Street, SW
Washington, DC 20460

By over-night delivery, etc.:

Mr. William J. Kline
U.S. Environmental Protection Agency
Office of Solid Waste (OS-321W)
Capacity Programs Branch
2800 Crystal Drive, 7th Floor
Arlington, VA 22202
(703) 308-8440

ANDREWS & KURTH L.L.P.
A REGISTERED UNITED LIABILITY PARTNERSHIP
ATTORNEYS
1701 PENNSYLVANIA AVENUE, N.W.
SUITE 200
WASHINGTON, D.C. 20006

OTHER OFFICES:
HOUSTON
DALLAS
LOS ANGELES
NEW YORK
THE WOODLANDS

TELEPHONE: (202) 662-2700
TELECOPIER: (202) 662-2739
TELEX: 79-1208

June 23, 1993

Via Hand Delivery

Mr. William J. Kline
Capacity Programs Branch
Office of Solid Waste (OS-321W)
U.S. Environmental Protection Agency
2800 Crystal Drive, 7th Floor
Arlington, Virginia 22202

Re: Case-by-Case Capacity Extension
Refined Metals Corporation, Beech Grove, Indiana

Dear Mr. Kline:

On behalf of Refined Metals Corporation ("Refined Metals"), we have prepared these comments in response to EPA's June 3, 1993 proposed denial of Refined Metals' request for a one-year renewal of the case-by-case capacity extension of the effective date of the land disposal restrictions applicable to the storage of lead-bearing materials prior to recycling at the Beech Grove, Indiana facility. EPA indicated that Refined Metals had failed to make the required demonstrations under 40 C.F.R. § 268.5(a), claiming that the facility has lost interim status and does not have a RCRA permit to manage the lead-bearing materials prior to recycling. Refined Metals disagrees with EPA's underlying rationale determination that Refined Metals has failed to make the required demonstrations for the requested extension renewal and provides its reasons below.

I. Alleged Loss of Interim Status Cannot be the Basis for Denying an Extension Renewal for a Land Disposal Restriction Requirement

Citing as its justification for Refined Metals' failure to make the required demonstrations in support of the case-by-case capacity extension, EPA repeatedly asserts that the Refined Metals facility has lost interim status and does not have authority under RCRA to operate the regulated storage units at the facility. While EPA is correct in stating that it has filed a complaint in federal court alleging that Refined Metals had lost interim status under RCRA, this matter has not yet been resolved and is still pending before the court. Accordingly, EPA cannot rely on a mere allegation to justify the proposed denial of the case-by-case capacity extension.

In its request for an extension renewal, Refined Metals is only requesting temporary relief from the application of the land disposal restrictions to the storage of lead-bearing materials prior to recycling at the Beech Grove facility. As EPA has recognized, the application of the land disposal restrictions to the storage of these materials prior to recycling inhibits the beneficial recycling of lead-bearing materials. During the extension period, the materials would be managed consistent with the applicable management standards under RCRA. This temporary relief, — how so

How will this be accomplished

Retrofitting after closure not b/4 closure

narrowly focused on the application of the land disposal restrictions to the storage of materials prior to recycling, is necessary to allow Refined Metals to continue the beneficial recycling of lead-bearing materials as it retrofits the existing storage units to comply with the recently promulgated containment building regulations. As part of its request for the extension renewal, the Company has submitted to EPA its timetable for retrofitting the units to comply with the containment building regulations. Citing alleged loss of interim status as the basis for denying the extension renewal is inappropriate and unwarranted, particularly since storage units that are retrofitted to comply with the applicable containment building regulations would not require a RCRA permit, provided that wastes are stored for less than 90 days.

what units are we talking about. New or existing. If new it does not have an efficacious P.B Permit Being lost it interim status

No brainer
① LOIS
② no certification at closure
③ after certification of closure you can use the unit for <90 day storage

#1, RMC Current stores their wastes in waste piles
#2, These waste piles are not Containment Blds and until these waste piles are certified closed and then retrofitted to meet the current Cont. Bld. Standards, these units ~~waste~~ piles would continued to be called waste piles
#3 After certification of closure, the structure can be used for <90 day storage or after it qualifies as a containment Bld.

II. Requ ... ension Rene ...

effective d ... of the bearing ma ... lead- extension t ... this comply wit ... its to until Augu ... rated to satisfy t ... lities by-case cap ... case- EPA deter ... 992), demonstrat ... ired and with t ... tices adequate d ... ered concluded t ... EPA preferable t ... nner ... EPA further stated that the extension was "appropriate and consistent with the Agency's overall objective of encouraging recycling," Id. at 28628, and "serve[d] the ultimate statutory purpose [of RCRA] by facilitating BDAT treatment [i.e., recycling] of the lead plates and groups." Id. at 28629.

applicable only to those in compliance with permits not those that lost their permits to operate

The extension expired on May 8, 1993. EPA's regulations provided that an extension may be renewed for an additional year "if the demonstration required in [40 C.F.R. § 268.5(a)] can still be made." 40 C.F.R. § 268.5(e). As of June 26, 1992, EPA determined that lead recycling facilities (including Refined Metals' Beech Grove facility) had met the required demonstrations for the extension. The operative facts and materials management practices at the Beech Grove facility have not been altered since EPA granted the extension on June 26, 1992. In addition, Refined Metals has provided (in submissions dated November 9, 1992, February 10, 1993, and April 6, 1993) EPA with more detailed information in support of the case-by-case capacity extension renewal. Accordingly, Refined Metals can still make the required demonstrations and should be granted a renewal of the extension until May 8, 1994.

prove this

NO, you lost your interim status

The policy considerations that EPA cited in granting the case-by-case extension for all lead recycling facilities are equally applicable at this time for the extension renewal for the Beech Grove facility. The extension would: a) allow Refined Metals time to retrofit its existing units to comply with the applicable containment building regulations; b) encourage EPA's overall objective of recycling; and c) facilitate the BDAT treatment, i.e., recycling, of lead-bearing materials. The

materials would continue to be managed consistent with current practices, "in a manner preferable to any other management approach," as they were during the previous extension. Because Refined Metals has made the required demonstrations for the extension renewal and the extension renewal is consistent with the statutory goals and objectives of RCRA, EPA should grant Refined Metals the extension renewal for the Beech Grove facility.

III. Extension Renewals Have Been Granted for Other Facilities and for Other Wastes

EPA has granted case-by-case capacity extension renewals for the storage of lead-bearing materials at other lead recycling facilities. Some of these facilities also have pending allegations regarding RCRA permit status of units at the facility, or enforcement matters generally, that have not yet been resolved. Just as these facilities should not be denied extension renewals based on these mere allegations, Refined Metals should also not be denied the requested renewal extension. The regulations provide that an extension may be renewed if the facility can still make the required demonstrations. Like the other lead recycling facilities that were granted extension renewals, Refined Metals' Beech Grove facility can still make the required demonstrations (see discussion above) and should be granted the extension renewal for the storage of lead-bearing materials prior to recycling.

Represent you alle alone plegs

Are these LOIS cases or merely permit violation cases

So what's different that they went into this decision?

On May 14, 1993, EPA also issued a renewal of the case-by-case capacity extension of the land disposal restrictions applicable to hazardous debris (including metal slags, glassified slags, glass, concrete, masonry, refractory bricks, metal cans, containers, drums, tanks, metal nuts, bolts, pipes, pumps, valves, appliances, industrial equipment, and scrap metal). 58 Fed. Reg. 28506 (1993). This extension renewal was granted even though the demonstrations required under 40 C.F.R. § 268.5(a) were not all made. EPA simply concluded that one of the required demonstrations (i.e., providing a detailed schedule for obtaining operating permits or for entering into a binding contractual agreement to provide adequate treatment capacity) was not required for this extension renewal. 58 Fed. Reg. at 28509. In addition, this extension was granted without any consideration given to: a) the specific permit status of the facilities receiving the benefit of the extension; b) any enforcement proceedings brought against the facilities receiving the benefit of the extension; and c) the specific management practices for the hazardous debris during the extension period.

In the case of hazardous debris, EPA apparently granted the extension renewal based on policy considerations rather than strict adherence to the regulatory criteria for granting extensions. In its Federal Register notice, EPA stated that the extension for hazardous debris was warranted

> because of the unique circumstances which have resulted in the lack of treatment, recovery, and protective disposal capacity for hazardous debris, and EPA's conclusion that treatment capacity meeting the recently promulgated standards [which, incidentally, is the same date that the containment building standards were promulgated] is adequate, or not available due to logistical problems such as permitting delays, but can be ultimately provided. EPA believes that granting this renewal . . . is the most

> environmentally protective option because it will eliminate a regulatory obstacle that could otherwise force cleanup projects to be postponed.

58 Fed. Reg. at 28510.

Refined Metals supports the policy considerations to justify the extension renewal for hazardous debris. These are essentially the same considerations that EPA cited in granting the extension for the storage of lead-bearing materials prior to recycling; i.e., to allow additional time for facilities to comply with the applicable containment building regulations. Accordingly, if, as in the case of hazardous debris, policy considerations alone are sufficient basis for renewing the case-by-case capacity extension, then EPA should also grant Refined Metals the extension renewal. The extension renewal is further warranted because Refined Metals has also satisfied all of the applicable regulatory criteria, including a detailed schedule of when the storage units will be retrofitted to comply with the applicable containment building regulations.

IV. Conclusion

EPA should grant Refined Metals the renewal of the case-by-case capacity extension of the effective date of the land disposal restrictions applicable to the storage of lead-bearing materials prior to recycling. Refined Metals has provided EPA with documentation that it continues to meet the demonstration criteria for the extension renewal. EPA's stated rationale for denying Refined Metals' request is inappropriate and unwarranted. In addition, EPA's proposed denial is inconsistent with the public policy considerations used to support other extension renewals. Furthermore, the proposed action would impede beneficial recycling and is, therefore, contrary to the goals and objectives of RCRA. Accordingly, statutory objectives, Agency regulations, and policy considerations all dictate that EPA should grant the extension renewal to Refined Metals.

* * *

On behalf of Refined Metals Corporation, we appreciate the opportunity to submit these comments. If you have any questions or would like additional information, please contact us.

Sincerely,

Robert N. Steinwurtzel
Jeffery S. Hannapel
Counsel for Refined Metals Corporation

JSH/rah
cc: Mr. T. W. Freudiger

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

REPLY TO THE ATTENTION OF:

MAY 06 1993

MEMORANDUM

Subject: U.S. v. Refined Metals

From: Jonathan Adenuga JA for JA
Hydrogeologist

To: William Kline
Environmental Scientist

The purpose of this memorandum is to explain briefly the position of the United States regarding the regulatory status of Refined Metals Corporation's Beech Grove, Indiana secondary lead smelting facility.

On August 14, 1980, Refined Metals Corporation ("RMC") notified EPA under Section 3010(a) of RCRA that the RMC facility was generating hazardous wastes. On November 17, 1980, RMC submitted its Part A application under Section 3005(a) of RCRA. Thus, under Section 3005(e) of RCRA, RMC attained "interim status" for the waste management units listed in the Part A application, which units the United States alleges contained arsenic, cadmium and lead.

Section 3005(e)(2) requires that a land disposal facility that has been granted interim status loses that interim status on the date twelve months after November 8, 1984, unless the owner or operator files a Part B permit application and certifies compliance with all applicable groundwater monitoring and financial responsibility requirements. RMC failed to certify by November 8, 1985 that it was in compliance with the financial responsibility requirements of the Indiana Hazardous Waste Management Permit Program. 329 IAC 3-22. (Certification of compliance with groundwater monitoring requirements was not applicable for waste piles. 40 CFR § 265.90(a).) Accordingly, on November 9, 1985, RMC lost interim status. Consequently, RMC's continued placement of hazardous waste in the waste piles thereafter violated RCRA.

The United States' case against RMC is based on its disposal of hazardous waste in waste piles without a permit after November 8, 1985. The United States' position is that RMC did not comply

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with closure, financial responsibility, and other requirements of the Indiana Hazardous Waste Management Program. The United States seeks closure of the waste piles, corrective action, and payment of a penalty.

ANDREWS & KURTH
A REGISTERED LIMITED LIABILITY PARTNERSHIP
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LOS ANGELES
NEW YORK

TELEPHONE: (202) 662-2700
TELECOPIER: (202) 662-2739
TELEX: 79-1208

April 26, 1993

Via Telecopy

Gregory L. Lattimer, Esquire
U.S. Department of Justice
10th Street & Pennsylvania Ave., N.W.
Room 1544
Washington, D.C. 20530

Re: Refined Metals Corporation

Dear Greg:

Under separate cover, we are forwarding to you the requested financial information for Refined Metals Corporation. The information will be submitted for settlement purposes and should be treated as confidential.

As you know, we have scheduled a meeting in Indianapolis on April 29. As a precondition to the meeting, you were going to prepare an agenda and provide the Company with a proposed civil penalty figure. As of today, we have not received either the agenda or the settlement proposal. This information is critical to ensuring that we have a productive meeting.

As in the past, Refined Metals Corporation is more than willing to meet with you and representatives from EPA and IDEM. Nevertheless, we believe it is essential to have a focused discussion which is why we requested that the parties prepare and agree on an agenda. We want to avoid a scenario where the government representatives raise issues which we are not prepared to discuss since the Company may not have the information with it. In light of the Company's precarious financial condition, it is particularly important that we conduct face-to-face meetings when we are at the final point of our negotiations.

We also suggest, as we have in the past, that the prospects of settlement will increase when there is a clear understanding of the financial condition of Refined Metals Corporation. We again propose that a conference call be conducted between the financial representatives.

In conclusion, Refined Metals Corporation has made arrangements to meet with you on April 29; however, we question the need for such a meeting if there is no specific agenda or penalty to be discussed. Alternatively, we suggest that a telephone conference call be conducted at this time, with a meeting at a later date. Please call me at your earliest convenience to discuss this matter.

Sincerely,

Robert N. Steinwurtzel

RNS/rah
Enclosures
cc: T. W. Freudiger
Thomas Jacobs, EPA

Sylvester
6-21-93
Adeniuga

TSD - RCRA INSPECTION REPORT

(Interim Status Facility - 329 IAC 3.1.10)

EPA ID # IND 000 718 130 **NAME** Refined Metals Corporation

RECEIVED
WMD RECORD CENTER
JUL 12 1994

MAILING ADDRESS: P.O. Box 188
Beech Grove, Indiana 46107

LOCATION ADDRESS: 3700 South Arlington Avenue
Beech Grove, Indiana 46107

CONTACT: Mike Meloy **PHONE:** (317) 787-4419

OWNERSHIP: Refined Metals Corporation **COUNTY:** Marion

STATUS CODE: 1 1=Active 3=Dead Mail 4=PCB Handler 6=Non-Handler 2=Obsolete ID # 9=Superfund site 5=Out-of-Business

Person(s) interviewed:	Title:	Telephone:
Mike Meloy	Plant Manager	(317) 787-4419
John Saucerman	Safety Coordinator	(317) 787-4419

Inspector(s):	Agency:	Telephone:
Christina Halloran	IDEM	(317) 232-8552

Date of inspection: [redacted] **Time of Inspection:** 9:00AM

Hazardous Waste Management Permit Program and Related Hazardous Waste Requirements, 329 IAC 3.1, incorporates by reference federal standards for the management of hazardous waste which have been published in the code of federal regulations in 40 CFR 260 through 40 CFR 270 as of July 1, 1990. Citations contained in this inspection form shall be to the federal rules as incorporated, except where the State rule substitutes full text language, in which case the specific 329 IAC 3.1 citation will be used.

Installation Processes by Process Code (EPA Form 3510-3)

S01	___	Container storage	T03	___	Incinerator treatment
S02	___	Tank storage	T04	___	Other treatment
* S03	✓	Waste pile storage	D79	___	Injection well disposal
S04	___	Surface impoundment storage	D80	___	Landfill disposal
T01	___	Tank treatment	D81	___	Land application disposal
T02	___	Surface impoundment treatment	D83	___	Surface impoundment disposal

If Part A process codes are listed above as T04 please describe the process involved below:

* Part A Application addresses this as a container storage

A. GENERAL INFORMATION

1) Indicate any hazardous waste processes, by process code, which have been omitted from Part A of the facility's permit application.

S01, S04?

2) Indicate any hazardous waste processes (by process code and line number on EPA Form 3510-3 page 1 of 5) which appear to be eligible for exclusion per 40 CFR 265.1(c). Provide a brief rationale for the possible exclusion.

3) Type of Operation, Products Manufactured, Processes Utilized, Size of Operation, Concentrate on processes that produce waste (hazardous or nonhazardous)!

Secondary lead smelter, reclaims spent lead acid batteries, spent lead scraps, and sludges. During this inspection only operation taking place was casting. Currently eight employees. The plant operations were shut down. At this time most spent lead acid batteries and spent lead waste is being shipped off-site to their plant in Memphis, TN.

4) If any of the wastes are managed in the manners listed below, please check those areas and utilize the provided appendices.

		YES	NO
a)	Waste Oil Fuel	___	✓
b)	Hazardous Waste Fuel	___	✓
c)	Tanks	___	✓
d)	Container Management	✓	___
e)	Generator Accumulation	✓	___
f)	Waste Pile	✓	___

	YES	NO
g) Surface Impoundment	✓	
h) Landfill		✓
i) Process Vents		✓
j) Equipment Leaks		✓

5)

Hazardous Waste Streams/EPA #	Source	Rate	Disposition	LDR Treatability Group (WW/NWW)
Lead acid batteries	off-site		reclaimed on site	
Dust Slag (K069)	on-site baghouses		recycled on site	
Slag (D008)	from Blast Furnace	760 Tons	Adams Center Landfill	
Steel case battery plates	off-site		reclaimed	
Lead waste	off-site or Battery cracking		reclaimed on site	
D001	Parts Cleaner	~30 gal every 3 months (during normal plant operation)	Safety Kleen	NWW

	YES	NO	NA
6) Have both listed and characteristic waste codes been assigned, where a listed waste exhibits a characteristic? 40 CFR 268.9			✓
7) Does the facility handle any California List Wastes? (liquid hazardous waste with greater than 50 ppm PCB, greater than 134 ppm nickel, greater than 130 thallium, etc.)			✓

8) List all wastes not listed above.

Waste	Process Generating Waste	Rate	Disposition
steel scrap	battery casings	varies	blast furnace
iron scrap	batteries	varies	blast furnace
WWTP Sludge	acid from battery cracking plant run-off run-on	varies	blast furnace
dross-hard lead	skimmings off furnace & kettles	varies	" "
plastic	battery cracking	varies	washed & shipped to plastic manufacturer for recycling
steel drums	plant scrap	varies	Blast furnace as a flux

9) If the company claims a reuse or reclaim exemption please include the following information:

	Waste Type	Generation Rate	How reclaimed & by Who	Quantity stored on Site
A.	lead bearing waste	varies	Blast furnace on site	WWT sludge, Dross - hard lead, slag
B.				

10) Hazardous Waste

* See Additional Comments Below and attachment A

On-Site	Amount	How Stored	Comments
Industrial batteries + cells	69,720 lbs 224,100 lbs	wrecker Bin 8- Pile	
K069 Dust Slag	241,500 lbs	pile	fed into blast furnace
D008	761 Tons	pile	Adams Centre Landfill
auto batteries	335,925 lbs	Trailers	* During inspection plant shut down. all waste is being transported to Refined Metals Corp in Memphis TN
Steel case batteries	321,600 lbs	Trailers	
D008	8	55 gal Dm	
shavings	3	55 gal Dm	
Lead Dross	1	55 gal Dm	

11) Indicate any TSD activities which have been omitted from or are not clear on the facility map (for the purpose of determining if expansion has occurred)
(40 CFR 270.13) (HWIMS 610)

12) Is the Biennial Report Accurate? appears to be

13) Note any non-RCRA Violations (Open Dumping, Dumping in City Sewer Without Pretreatment Program, OSHA, etc.)

none observed

14) Additional Comments:

* Inorganic Lead 14 55 gal Drums
* 18 55 gallon DMs from Yuasa-Exide (Lead shaving + Dross)

B. LAND BAN TREATMENT STANDARDS

	(HWIMS 700)	OK	DF	NI	NA
1)	Does generator dilute prohibited wastes to meet treatment standard criteria, or render them nonhazardous, as a substitute for adequate treatment? 40 CFR 268.3	No			
2)	Do treatment standards for listed wastes cover constituents that may cause the waste to exhibit any characteristics? 40 CFR 268.9				✓
3)	Does generator specify alternative treatment standards for lab packs or F039 leachate? If yes, see 40 CFR 268.42(c)(2)				✓
4)	Does generator mix wastes with different treatment standards for a constituent of concern?	No			✓
	a. If yes, did generator select most stringent treatment standards?				✓
5)	Does the generator handle any wastes with a LDR variance (national capacity, case-by-case, etc.)?	No			✓

C. ON-SITE TREATMENT

	(HWIMS 700)				
1)	Does the generator treat wastes in 90-day tanks or containers? If NA, go to next section.	No			
2)	Does the generator treat the wastes to meet appropriate treatment standards?				✓
	a. If yes, has the generator prepared a waste analysis plan detailing the frequency of testing to be conducted? 40 CFR 268.7(a)(4)				✓
3)	Does the plan fulfill the following:				
	a. Based on a detailed chemical and physical analysis of a representative sample				✓
	b. Contains information necessary to treat the wastes in accordance with LDR				✓
4)	Has the plan been filed with the Regional Administrator or IDEM?				✓

	OK	DF	NI	NA
5) Are characteristic wastes which have been rendered nonhazardous shipped to a solid waste facility?				✓
a. If yes, is a notification and a certification for each shipment sent to the Regional Administrator (prior to 2/24/92) or IDEM? 40 CFR 268.9(d)(1) and 268.7(b)(5)				✓
D. STORAGE (HWIMS 700)				
1) Is the amount of hazardous waste in the storage area(s) equal to or less than the capacity allowed in the Part A? List type and amount of any storage capacity overages? 40 CFR 270.72	✓			
2) Are all containers clearly marked to identify the contents and date(s) entering storage or is such information available in the operating log? 40 CFR 268.50(a)(2)(i)				✓
3) Have wastes been stored for less than one year?				✓
a. If no, can the facility show that such storage is necessary to facilitate proper recovery, treatment or disposal. 40 CFR 268.50(c)				✓
E. TREATMENT (HWIMS 700)				
1) Does the facility treat hazardous waste other than in 90-day tanks and containers? If NA, go to next section.				✓
2) Are required technologies used to treat wastes which have treatment standards expressed as technologies? 40 CFR 268.40(b) (HWIMS 700)				
3) Are alternative methods approved? 40 CFR 268.2				
4) Is the LDR treatment standard lower than the Characteristic level?				
a. If yes, does the facility manage the waste as restricted until treatment standards are met? 40 CFR 268.9				
5) Does the facility test residues from all treatment processes? 40 CFR 268.7				

F. REQUIRED NOTICES

		OK	DF	NI	NA
1)	Has the Regional Administrator/Environmental Management Board been notified regarding:				
a.	Receipt of hazardous waste from a foreign source? 40 CFR 265.12(a) (HWIMS 300)				✓
b.	Facility expansion? 40 CFR 270.72(b) (HWIMS 610)				✓
c.	Change of owner or operator? 40 CFR 265.12(b) (HWIMS 300)				✓

G. GENERAL WASTE ANALYSIS: (HWIMS 310)

		OK	DF	NI	NA
1)	Has the owner or operator made a detailed chemical and physical analysis of the waste either through testing or knowledge of the process? 40 CFR 265.13(a)1 Pending previous Enforcement action Civil Action No. IP 90-077C			✓ See Item	
2)	Does the owner or operator have a detailed waste analysis plan on file at the facility? 40 CFR 265.13(b)			✓	
3)	Does the waste analysis plan contain:				
a.	parameters (and rationale for their choice)			✓	
b.	test methods			✓	
c.	sampling method for representative sample			✓	
d.	frequency of analysis (and rationale)			✓	
e.	off-site only: waste analysis from generators				
f.	Additional waste analysis needed for: change in waste type or process occurs)				
i.	265.200 Tanks				
ii.	265.225 Impoundment				
iii.	265.252 Waste Pile				
iv.	265.273 Land Treatment				
v.	265.341 Incinerators				

		DF	NI	
vi. 265.375 Thermal Treatment			✓	See Item #1
vii. 265.402 Other Treatment				
viii. 268 LDR Standards				

4) Does the waste analysis plan specify procedures for inspection and analysis of each movement of hazardous waste from off-site? 40 CFR 265.13(c)			✓	
5) Is the waste analysis plan followed?			✓	

H. GENERAL INSPECTION REQUIREMENTS (HWIMS 320)

1) Does the owner or operator inspect the facility for deterioration, malfunctions, operator errors, and discharges of hazardous waste that may affect human health or the environment? 40 CFR 265.15(a)	✓			
2) Does the owner or operator have an inspection schedule at the facility? 40 CFR 265.15(b)2	✓			
3) If so, does the schedule address the inspection of the following items: 40 CFR 265.15(b)1				
a. monitoring equipment?				✓
b. safety and emergency equipment?	✓			
c. security devices (including fences)?	✓			
d. operating and structural equipment (ie. dikes, pumps, etc.)?	✓			
e. type of problems to be looked for during the inspection (e.g. leaky fittings, defective pump, etc.)? 40 CFR 265.15(b)(2)	✓			

	OK	[illegible]	[illegible]	NA
f. inspection frequency (based upon the possible deterioration rate of the equipment)? 40 CFR 265.15(b)(4)	✓			
g. Does the inspection frequency include:				
i. Weekly container storage? (See 265.174)	✓			
ii. Daily and Weekly Tank Storage? (See 265.195)				✓
iii. Daily freeboard and weekly dike inspection for surface impoundments? (See 265.226)	✓			
iv. Landfills, Waste Piles, Thermal treatment, Chemical, Physical, and Biological treatment should be inspected as determined by deterioration rate and daily at loading and unloading areas (where spills are likely) [See 265.15(b)(4)				✓
4) Does Owner or Operator follow the written inspection schedule as outlined? 265.15(b)(1)	✓			
5) Are areas subject to spills inspected daily when in use? 265.15(b)(4)	✓			
6) Does the owner or operator maintain an inspection log or summary of owner or operator inspections? 40 CFR 265.15(d)	✓			
7) Does the inspection log contain the following information: 40 CFR 265.15(d)				
a. the date and time of the inspection?	✓			
b. the name of the inspector?	✓			

	OK	DF	NI	NA
c. a notation of the observations made?	✓			
d. the date and nature of any repairs or remedial actions?	✓			

I. PERSONNEL TRAINING

1) Do personnel training records include: (HWIMS 330)

	OK	DF	NI	NA
a. Job titles for the positions related to HWM 40 CFR 265.16(d)1	✓			
b. The name of the employees filling each job title? 40 CFR 265.16(d)(1)	✓			
c. Job descriptions including the required skills, education, or other qualifications and the duties of the personnel assigned to the position? 40 CFR 265.16(d)2		✓ See Item #		

Check categories for which job titles/descriptions are available (please include the supervisors of each category in that category when reviewing documents).

Emergency coordinator ✓ Training coordinator ✓ Emergency response personnel ___
Inspectors ✓ Material handlers ✓ Container labelers ✓ Manifesters ✓
Recordkeepers ✓

	OK	DF	NI	NA
d. Description of both introductory and continuing training required for each job? 40 CFR 265.16(d)(3)	✓			
e. Records of training required in (d)? 40 CFR 265.16(d)4	✓			

Describe in general the type of training program in use at the facility.

Classroom and on the job
June 8 1992 - Hazardous Material Communication

f. Did facility personnel receive the required training including:

	OK	DF	NI	NA
i) classroom or on the job	✓			
ii) within 6 months of hire	✓			
iii) annual review of training?	✓			
g. Are all training records maintained for current personnel and for at least three years for former employees? 40 CFR 265.16(e)	✓			

J. CONTINGENCY PLAN AND EMERGENCY PROCEDURES (HWIMS 350)

1) Does the Contingency Plan contain the following information:

	OK	DF	NI	NA
a. The actions facility personnel must take to comply with 265.51 and 265.56 in response to fires, explosions, or any unplanned release of hazardous waste? (If the owner has a Spill Prevention, Control, and Countermeasures (SPCC) Plan, he needs only to amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this Part (as applicable).	✓			
b. A description of arrangements agreed by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services.	✓			
c. Names, addresses, and phone numbers of all persons qualified to act as emergency coordinators?	✓			
d. A list of all emergency equipment at the facility which includes the location and physical description of each item on the list and a brief outline of its capabilities? 40 CFR 265.52(e)	✓			

	OK	DF	NI	NA
e. An evacuation plan for facility personnel where there is a possibility that evacuation could be necessary? (This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes.) 40 CFR 265.52(f)	✓			
2) Emergency Coordinator:				
a. Is the facility Emergency Coordinator identified? 40 CFR 265.52(d)		✓ See Item #3		
b. Is coordinator familiar with all aspects of site operation and emergency procedures? 40 CFR 265.55	✓			
c. Does Emergency Coordinator have the authority to carry out the Contingency Plan? 40 CFR 265.55	✓			

K. PREPAREDNESS AND PREVENTION

1) Has the owner or operator attempted to make arrangements with local authorities in case of an emergency at the facility? 40 CFR 265.37 (HWIMS 340)	✓			
2) Are copies of the Contingency Plan available at the site and local emergency organizations? 40 CFR 265.53 (HWIMS 350)	✓			
3) Emergency Procedures				
If an emergency situation has occurred at this facility, has the Emergency Coordinator followed the emergency procedures listed in 40 CFR 265.56 (329 IAC 3-18-7)? (HWIMS 350)	none occurred			✓

L. MANIFEST SYSTEM (off-site facilities)

(HWIMS 360)

		OK	DF	NI	NA
1)	Does the facility follow the procedures listed in 265.71 for processing each manifest? (Particularly sending a copy of the signed manifest back to the generator within 30 days after delivery.)	✓			
2)	Are records of past shipments retained for three (3) years? 40 CFR 265.71(b)5	✓			
3)	Has the facility submitted copies of hazardous waste manifests to the Department within five (5) working days after receiving hazardous waste? (This requirements applies to both Indiana's and other states hazardous waste manifests)?	✓			
4)	Does the owner or operator meet requirements regarding manifest discrepancies? (Off-site facilities only) 40 CFR 265.72	✓			
5)	Unmanifested Waste Reports:				
a.	Has the facility accepted any hazardous waste from an off-site generator subject to 329 IAC 3.1-7-3 (3-8-1) without a manifest or shipping paper? No 40 CFR 265.76	✓			
b.	If "a" is yes, provide the identity of the source of the waste and a description of the quantity, type and date received for each unmanifested hazardous waste shipment.				

c. Has the facility submitted an unmanifested waste report within 15 days after receiving the waste? — — — ✓

M. CLOSURE/POST CLOSURE

		OK	DF	NI	NA
1)	Is the closure plan available for inspection? 40 CFR 265.112(a) (HWIMS 390)	✓			
2)	Is the post-closure plan available for inspection? (for disposal facilities only) 40 CFR 265.118(a) (HWIMS 390)				✓
3)	Has the closure cost and post closure cost estimate been revised annually to account for inflation. (329 IAC 3.1-14-3) (HWIMS 400) $ 733,452	✓			

N. OPERATING RECORD (HWIMS 370)	OK	DF	NI	NA
1) Does owner or operator have a operating record? 40 CFR 265.73(a)	✓			
2) Does the owner or operator maintain an operating record that contains the following information?				
a. The method(s) and date(s) of each waste's treatment, storage, or disposal as required in 40 CFR 265 Appendix I (including tanks)? 40 CFR 265.73(b)(1) Facility has a Unmanifested Waste Trucking System		✓ See Item #4		

Summarize how the facility tracks the method and date of TSD activity.

Unmanifested Waste Code / Date Received / Quantity / Waste Type / Date of Storage in Regulated Unit / Date Moved from Regulated Unit / Date stored in the Raw Material Bld. / Time Stored During Recycling (Hours) / Date Recycled in Furnace / Comments

b. The location and quantity of each hazardous waste within the facility? (This information shall be cross referenced to a specific manifest number if the waste was accompanied by manifest.) 40 CFR 265.73(b)(2)		✓ See Item #5		

Summarize how the facility tracks the location and quantity of waste.

Same as above - does not cross reference with a manifest number when applicable

c. A map or diagram of each cell or disposal area showing the location and quantity of each hazardous waste? (This information should be cross referenced to specific manifest number, if accompanied by a manifest.) 40 CFR 265.73(b)(2)				✓
d. Records and results of all waste analyses, trial tests, monitoring data, and operating inspections, including those conducted for LDR standards? 40 CFR 265.73(b)(3)(5)(6)	✓			
e. Reports detailing all incidents that required implementation of the Contingency Plan? 40 CFR 265.73(b)(4)				✓
f. All closure and post closure costs as applicable? 40 CFR 265.73(b)(7)	✓			

g. Copies of LDR notifications and certifications?
40 CFR 265.73 b (11)(13)(15) ✓ ___ ___ ___

O. GROUNDWATER MONITORING

Complete this section for facilities that treat, store, or dispose of hazardous waste in landfills, surface impoundments and/or by land treatment.

		OK	DF	NI	NA
1)	Has the owner or operator of the facility implemented a groundwater monitoring system? 40 CFR 265.90(a) (HWIMS 380)	✓			
2)	Has the owner or operator of the facility implemented an alternate groundwater monitoring system as described in 265.90(d)? (HWIMS 380)				✓

GENERATOR REQUIREMENTS

Complete the following sections if the owner or operator of a TSD facility also generates hazardous waste that is subsequently shipped off-site for treatment, storage, or disposal.

	OK	DF	NI	NA
P. MANIFEST SYSTEM (generator) (HWIMS 110)				
1) For hazardous waste shipments to Indiana facilities (or hazardous waste shipments to states that do not supply manifests) has the generator used the Indiana Hazardous Waste Manifest? 329 IAC 3.1-7-4		✓ See Item #6		
2) Does the operator have copies of the manifest available for review? 40 CFR 262.40 (329 IAC 3.1-7-6)	✓			
3) Have manifests been retained for 3 years? (40 CFR 262.40)	✓			
4) Examine manifests for shipments in past 6 months. Indicate approximate number of manifested shipments during that period.	TMTC			
5) Do the manifest forms examined contain the following information? 40 CFR 262.21 (329 IAC 3.1-7-8)				
a. Manifest document number? EPA ID No. + Unique 5 digit No.? (five digit unique number)	✓			
b. Name, mailing address, telephone number, and EPA ID number of generator?	✓			
c. Name, telephone number (3.1-7-11) and EPA ID Number of Transporter(s)?	✓			
d. Name, Address, telephone number (3.1-7-11) and EPA ID Number of designated permitted facility?	✓			
e. The description of the waste(s) (DOT shipping name, DOT hazard class, DOT identification number)?	✓			
f. The total quantity of waste(s) and the type and number of containers loaded?	✓			
g. Required waste minimization certification?	✓			
h. Required signatures?	✓			
i. EPA hazardous waste numbers (3.1-7-11)?	✓			

	OK	DF	NI	NA
j Handling Codes (3.1-7-11)?	✓			
k. Additional waste numbers included in box J.	✓			
6) Has the generator submitted copies of hazardous waste manifests to the Department within five (5) working days after shipping hazardous waste? (This requirement applies to both Indiana's and other states hazardous waste manifests). 329 IAC 3.1-7-6	✓			
7) Reportable exceptions: 40 CFR 262.42 (HWIMS 180)				
a. For manifests examined (except for shipments within the last 35 days), enter the number of manifests for which the generator has NOT received a signed copy from the designated facility within 35 days of the date of shipment.		0		
b. For manifests indicated in question (7a), enter the number for which the generator has submitted exception reports (40 CFR 262.42) to the Commissioner.		0		

Q. EPA IDENTIFICATION NUMBERS (HWIMS 090)	OK	DF	NI	NA
1) Has the generator received an EPA identification number prior to treating, storing, disposing of, transporting, or offering for transportation, hazardous waste? 40 CFR 262.12(a)	✓			
2) Has the generator offered his hazardous waste to transporters or to TSD facilities that have received an EPA identification number? 40 CFR 262.12(c)	✓			
R. INTERNATIONAL SHIPMENTS (HWIMS 190)				
1) Has the installation imported or exported hazardous waste? 40 CFR 262.50 (If answered Yes, complete the following as applicable.)				✓
a. Exporting hazardous waste; has a generator:				
i. Notified the administrator and OSHWM/IDEM in writing?				✓

	OK	DF	NI	NA
ii. Obtained the signature of the foreign consignee confirming delivery of the waste(s) in the foreign country?				✓
iii. Met the Manifest requirements?				✓
b. Importing hazardous waste; has the generator met the manifest requirements?				✓

S. LAND BAN NOTIFICATION REQUIREMENTS (HWIMS 700)	OK	DF	NI	NA
1) Does the generator provide a notification to the TSD facility with each shipment, even if waste meets treatment standards? 40 CFR 268.7	✓			
2) Does the notification include the following: (if possible, make copies of, or record information from notification(s) that do not contain the necessary information) 40 CFR 268.7	✓			
a. EPA hazardous waste number	✓			
b. Treatment standards (for wastes other than F001-F005 and F039, treatment standards may be referenced by including sub-category, treatability group, and CFR sections and paragraph where treatment standards appear)	✓			
c. Where treatment standards is specified technology, applicable five-letter treatment code?	✓			
d. Manifest number	✓			
e. If the waste meets treatment standards, or if alternate treatment standards for lab packs are specified, does it have proper certification statement?	✓			
f. Waste analysis data, if available.	✓			
3) Has the generator retained on-site a copy of all notices, certifications, waste analysis data, and other documentation produced pursuant to 268.7 for at least five (5) years? 268.7(a)(7)	✓			

T. RECORDKEEPING AND REPORTING

	OK	DF	NI	NA
1) Has the generator made a proper hazardous waste determination for all solid wastes generated at the facility, including correct LDR treatability group and treatment standard? 40 CFR 262.11 and 40 CFR 268.7(a) & 268.9 (HWIMS 100)	✓			

a. If DF, list below:

Assigned Classification	Correct Classification

b. Which of the following methods does the generator employ for waste determination?

i. Knowledge of waste.
ii. Analysis. Specify _____

2) Are all test results and analyses needed for hazardous waste determinations retained for at least three years? 40 CFR 262.40 (HWIMS 180)	✓			

3) Has the generator submitted biennial reports as required? 329 IAC 3.1-7-14) (HWIMS 180)	✓			

U. WASTE MINIMIZATION (HWIMS 100)

1) Does the generator have a written waste minimization plan?		✓ See Item #7		

a. If a written plan is not available, briefly describe the waste minimization program as presented by the company representative.

Under normal facility operation little hazardous waste is generated it goes into the blast furnace on-site this includes the steel containers.

	OK	DF	NI	NA
2) Does the biennial report include the required waste minimization information? (40 CFR 265.7(h) and (J)/IC 13-7-27-7)				✓ See Item # 7

3) Note any discrepancies between the written or oral plan, and observed on-site waste minimization activities. _____

_____

_____

_____

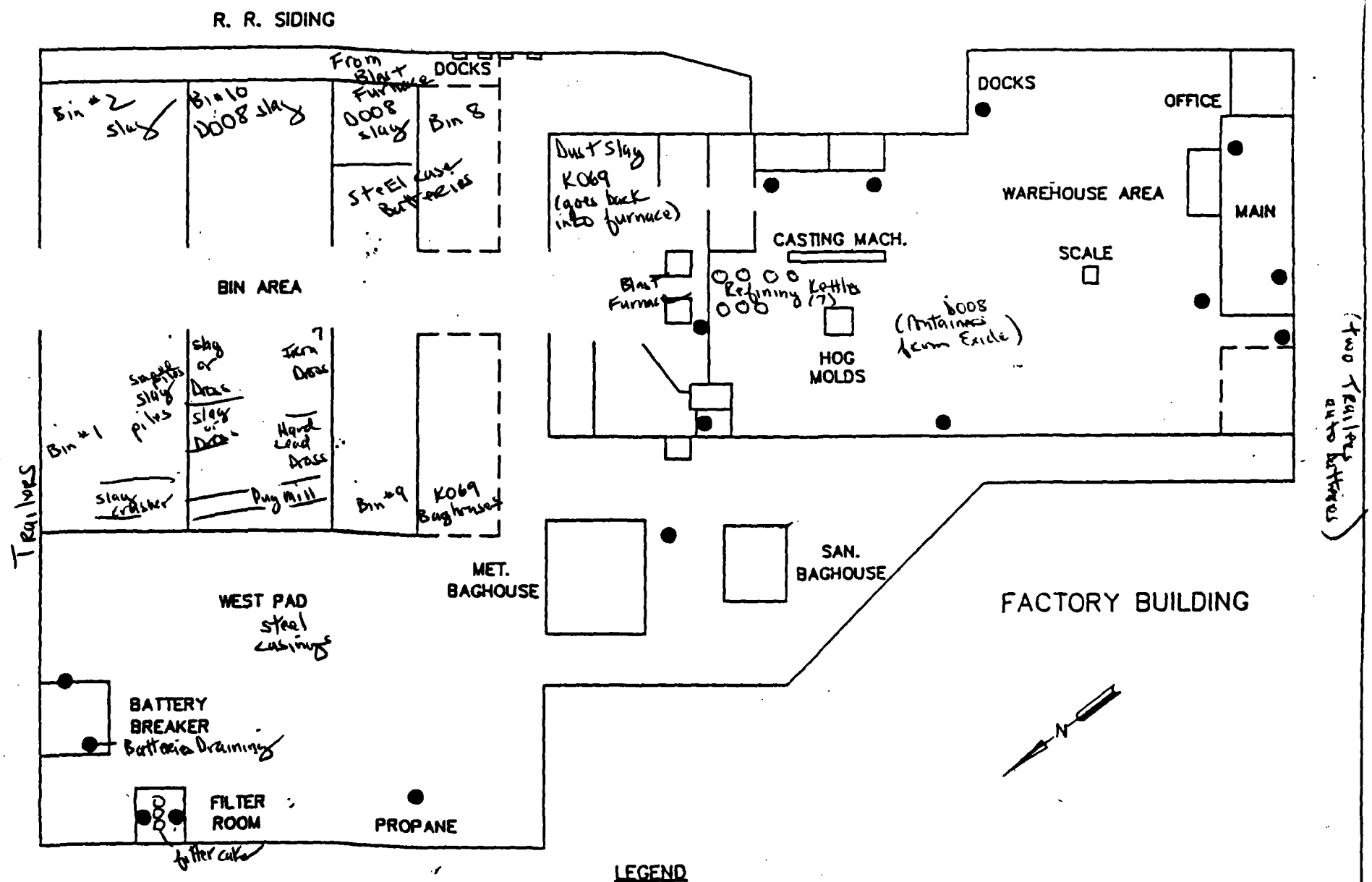
DRAW A SITE MAP; identify site of all hazardous waste activity, i.e. accumulation areas, storage areas, treatment areas, etc.

see following page

Remember to take photos and document as well as possible all violations!!!

5015S

255-028



LAKE ENVIRONMENTAL, INCORPORATED
6000 LAKE FOREST DR. SUITE 300
ATLANTA, GEORGIA 30328

REFINED METALS CORPORATION
BEECH GROVE, INDIANA

FIRE EXTINGUISHER LOCATIONS

FIGURE 7-1

255-028 1=1 6-9-89 M.A.R.

22

Container Management Appendix

(HWIMS 160 410)
40 CFR Part 265 as referenced by 262.34

Location/Description of Unit Casting

	OK	DF	NI	NA
A. GENERAL OPERATING REQUIREMENTS				
1) Are containers in good condition? (40 CFR 265.171)	✓			
2) Are containers compatible with waste in them? (40 CFR 265.172)	✓			
3) Are containers managed to prevent leaks? (40 CFR 265.173(b)	✓			
4) Are containers stored closed? (40 CFR 265.173(A))	✓	✓		
5) Are ignitable and reactive wastes stored at least 15 meters (50 feet) from the property line? (Indicate if waste is ignitable or reactive). (40 CFR 265.176)				✓
6) Are incompatable wastes stored in separate containers? (If not the provisions of 40 CFR 265.17(b) apply) (40 CFR 265.177(a))				✓
7) Are containers of incompatible waste separated or protected from each other by physical barriers or sufficient distance? (40 CFR 265.177(c))				✓
8) If required, are the following special requirements for ignitable, reactive, or incompatible wastes addressed? (40 CFR 265.17(a))				
a. Special handling?				✓
b. No Smoking signs?				✓
c. Separation and protection from ignition sources?				✓
9) Does the container storage area have adequate aisle space (40 CFR 265.35)	✓			
10) Are containers inspected weekly for leaks, deterioration, corrosion, or other factors? (40 CFR 265.174)	✓			
B. PREPAREDNESS AND PREVENTION				
1) Security - Do security measures include: (HWIMS 300) (40 CFR 265.14) (TSD facilities only)				
a. 24- hour surveillance which continuously monitors and controls entry?				✓

	OK	VF	NI	NA
b. Artificial or natural barrier around facility and controlled entry at all times?	✓			
c. Danger sign(s) at entrance?	✓			
2) Has the facility been maintained and operated to minimize the possibility of a fire, explosion, or release of hazardous waste or hazardous waste constituent? (40 CFR 265.31) (HWIMS 140/340, 810 spill)	✓			
3) If required, does the facility have the following equipment: (HWIMS 140/340)				
a. Internal communications or alarm systems? (40 CFR 265.32(a) & 40 CFR 265.34(a))	✓			
b. Telephone or 2-way radios at the scene of operations? (40 CFR 265.32(b) & 40 CFR 265.34(b)	✓			
c. Portable fire extinguishers, fire control, spill control equipment and decontamination equipment? (Please specify)	✓			
d. Water at adequate volume and pressure to supply water hoses, foam equipment, automatic spinklers or water spray equipment available? (Please specify) (40 CFR 265.32(d))	✓			
4) Whenever waste is being handled do all personnel have immediate access to an alarm or communication device (thru another employee if always available)? (40 CFR 265.34(a)) (HWIMS 140/340)	✓			

C. TESTING AND MAINTENANCE OF EMERGENCY EQUIPMENT (HWIMS 140/340)

1) a. Has the owner or operator established testing and maintenace procedures for emergency equipment? (40 CFR 265.33)	✓			
b. Is emergency equipment in operable condition? (40 CFR 265.33)	✓			
2) Does the owner or operator maintain adequate aisle space for the movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment? (This applies to access for this equipment to reach hazardous waste management areas) (40 CFR 265.35)	✓			

5017S

GENERATOR ACCUMULATION APPENDIX
(HWIMS 120)

Location/Description of Unit Casting

	OK	DF	NI	NA
A. GENERAL OPERATING REQUIREMENTS				
1) If waste is being shipped off-site is it properly packaged, labeled and marked per DOT regulations? 40 CFR 262.30-262.32			✓	
2) Is the container clearly marked with the start of accumulation date? 40 CFR 262.34		✓ See Item #8		
3) Has the generator accumulated hazardous waste on-site for 90 days or less? 40 CFR 262.34	✓			
4) Do wastes remain in accumulation tanks for more than 90 days? 40 CFR 262.34				✓
5) Is each container and tank labeled or marked clearly with the words "Hazardous Waste"? 40 CFR 262.34		✓ See Item #9		
B. SATELLITE ACCUMULATION (HWIMS 120) Mobile Equipment Area				
1) Are containers marked with the words "Hazardous Waste" or with other words identifying the contents? 40 CFR 262.34	✓			
2) Are containers in good condition, compatible with the wastes in them and stored closed? 40 CFR 262.34	✓			

WASTE PILE APPENDIX
40 CFR 265, Subpart L
329 IAC 3.1-10-1 (HWIMS 440)

Location/Description of Unit Material Storage Building - Bins

A. GENERAL OPERATING REQUIREMENTS	OK	DF	NI	NA
1) Is wind dispersal of hazardous waste managed? 40 CFR 265.251	✓			
2) Is the pile protected from precipitation and run-on by some means (such as being under roof)? 40 CFR 265.253(b) (IF NOT then go to number 4)	✓			
3) Are liquids or wastes containing liquids placed in the pile? 40 CFR 265.253(b)	✓			
4) Does the facility maintain a proper run-on control system? 40 CFR 265.253(a)2 inside building				✓
5) Does the facility maintain a proper run-off system? 40 CFR 265.253(a)3				✓
6) Are run-off and run-on collection and holding facilities managed or emptied expeditiously after storms? 40 CFR 265.253(a)4 any run-off/run-on is collected by sump system & treated in on-site WWTP	✓			
7) If required, are reactive or flammable wastes handled properly? Is 265.17(b) complied with? 40 CFR 265.256 & 257				✓
8) Has the owner or operator complied with the requirement for liners and leachate collection systems in accordance with 40 CFR 264.251 with respect to waste received beginning May 8, 1985? 40 CFR 265.254 inside building	✓			

Please describe the location of the pile including data pertinent to regulatory status (ie. inside, outside)

Inside Material Storage area in Bins

Please describe run-on and run-off control activities.

Run-off and run-on is collected by a sump system and treated in a on-site WWTP

B. PREPAREDNESS AND PREVENTION

1) Security - Do security measures include: (HWIMS 300)
40 CFR 265.14

	OK	DF	NI	NA
a. 24-hour surveillance which continuously monitors and controls entry?				✓
OR				
b. Artificial or natural barrier around the facility and controlled entry, at all times?	✓			
c. Danger sign(s) at entrance?	✓			

2) Has the facility been maintained and operated to minimize the possibility of a fire, explosion, or release of hazardous waste or hazardous waste constituent? (HWIMS 340, 810 spill)
40 CFR 265.31 — ✓

3) If required, does the facility have the following equipment: (HWIMS 340)

	OK	DF	NI	NA
a. Internal communications or alarm systems? 40 CFR 265.32(a)	✓			
b. Telephone or 2-way radios at the scene of operations? 40 CFR 265.32(b)	✓			
c. Portable fire extinguishers, fire control, spill control equipment and decontamination equipment? (Please specify) 40 CFR 265.32(c)	✓			
d. Water at adequate volume and pressure to supply water hoses, foam equipment, automatic spinklers or water spray equipment available? (Please specify) 40 CFR 265.32(d)	✓			

	OK	DF	NI	NA
4) Whenever waste is being handled do all personnel have immediate access to an alarm or communication device (thru another employee if always available)? 40 CFR 265.34(a) (HWIMS 340)	✓			

C. TESTING AND MAINTENANCE OF EMERGENCY EQUIPMENT

1) Has the owner or operator established testing and maintenace procedures for emergency equipment? 40 CFR 265.33 (HWIMS 340)	✓			
2) Is emergency equipment maintained in operable condition? 40 CFR 265.33 (HWIMS 340)	✓			
3) Does the owner or operator maintain adequate aisle space for the movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment? (This applies to access for this equipment to reach hazardous waste management areas.) 40 CFR 265.35 (HWIMS 340)	✓			

5022S

SURFACE IMPOUNDMENT APPENDIX

40 CFR 265, Subpart K
329 IAC 3.1-10-1

(HWIMS 430)

Location/Description of Unit East of the facility
(See Comments Page 32)

	OK	DF	NI	NA
A. GENERAL OPERATING REQUIREMENTS				
1) Do surface impoundments have at least 60 cm (2 feet) of freeboard? 40 CFR 265.222	✓			
2) Do earthen dikes have protective covers? 40 CFR 265.223	✓			
3) Are reactive & ignitable wastes rendered non-reactive or non-ignitable before storage in a surface impoundment? (If waste is rendered non-reactive or non-ignitable, see treatment requirements.) 40 CFR 265.229				✓
4) Are incompatible wastes stored in different impoundments? (If not, the provisions of 40 CFR 265.17(b) apply.) 40 CFR 265.230				✓
5) If required, are the following special requirements for ignitable, reactive, or incompatible wastes addressed? 40 CFR 265.17				
a. Special handling?				✓
b. No Smoking signs?				✓
c. Separation and protection from ignition sources?				✓
6) Has the owner or operator installed two or more liners and leachate collection system in accordance with 40 CFR 264.221(c) with respect to waste received beginning May 8, 1985? 40 CFR 265.221(a) In September 1989 the concrete lined impoundment was lined with a polyethylene liner.			✓	
B. PREPAREDNESS AND PREVENTION				
1) Security - Do security measures include: (HWIMS 300) 40 CFR 265.14				
a. 24-hour surveillance which continuously monitors and controls entry? OR				✓

	OK	DF	NI	NA
b. Artificial a natural barrier around the facility and controlled entry at all times?	✓			
c. Danger sign(s) at the entrance?	✓			
2) Has the facility been maintained (HWIMS 340, 810 spill) and operated to minimize the possibility of a fire, explosion, or release of hazardous waste or hazardous waste constituent? 40 CFR 265.31	✓			
3) If required, does the facility have the following equipment: (HWIMS 340)				
a. Internal communications or alarm systems? 40 CFR 265.32(a)	✓			
b. Telephone or 2-way radios at the scene of operations? 40 CFR 265.32(b)	✓			
c. Portable fire extinguishers, fire control, spill control equipment and decontamination equipment? (Please specify) 40 CFR 265.32(c)	✓			
d. Water at adequate volume and pressure to supply water hoses, foam equipment, automatic spinklers or water spray equipment available? 40 CFR 265.32(d)	✓			
4) Whenever waste is being handled do all personnel have immediate access to an alarm or communication device (thru another employee if always available)? 40 CFR 265.34(a) (HWIMS 340)	✓			

C. TESTING AND MAINTENANCE OF EMERGENCY EQUIPMENT

1) Has the owner or operator established testing and maintenance procedures for emergency equipment? 40 CFR 265.33 (HWIMS 340)	✓			
2) Is emergency equipment maintained in operable condition? 40 CFR 265.33 (HWIMS 340)	✓			

	OK	NO	NI	NA
3) Does the owner or operator maintain adequate aisle space for the movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment? (This applies to access for this equipment to reach hazardous waste management areas) 40 CFR 265.35 (HWIMS 340)	✓			

The on-site surface impoundment is used to collect facility run-off & run-on with possible K069 + D008 contaminate prior to treatment in their WWT

D. LAND BAN REQUIREMENTS (HWIMS 700)

	OK	NO	NI	NA
1) Is treatment other than evaporation or dilution occurring in the surface impoundment? 40 CFR 268.3(a) and 268.4(b)		✓		
2) Has the facility submitted to the Agency a waste analysis plan and certification of compliance with minimum technology requirements and groundwater monitoring requirements? 40 CFR 268.4(a)(4)		✓		
3) If the minimum technology requirements have not been met, has a waiver been granted for that unit? 40 CFR 268.4(a)(3)(ii)		✓		
4) Are representative samples of sludge and supernatant from the surface impoundment tested separately, acceptably, and in accordance with the sampling frequency and analyses specified in the waste analysis plan? (Attach test results.) 40 CFR 268.4(a)(2)(i)		✓		
5) Does the operating record adequately document the results of waste analyses performed in accordance with 40 CFR 268.4? 40 CFR 264.73(b)(3) and 265.73(b)(3)				✓
6) Do the treatment residues (sludges or liquids) exceed applicable treatment standards/prohibition levels?				
a. Sludge			✓	
b. Supernatant			✓	
7) If sludge residues exceed treatment standards/ prohibition levels, are they removed on an annual basis? 40 CFR 268.4(a)(2)(ii)		✓		
Are residues subsequently managed in another surface impoundment? 40 CFR 268.4(a)(2)(iii)		✓		

8) If supernatant is determined to exceed treatment standards, is annual throughput greater than impoundment volume? 40 CFR 268.4(a)(2)(ii) ___ ___ / ___

Surface Impoundment violations are being addressed by a Civil action taken by EPA against the facility on November 12, 1990. This action involves both RCRA and Clean Air Act Violations. Civil action No. IP 902077C.

5037S

attachment A

REFINED METALS BEECH GROVE
INVENTORY MARCH 27, 1993

AUTO BATTERIES

~~7707~~ x 37.5 = ~~289,103~~

8958 x 37.5 lbs = 335,925

STEEL CASE

536,000 x .60 = 321,600 lb

Pb value

Total battery count - Trailers + Cracker

REFINED METALS BEECH GROVE
INVENTORY - MARCH 27, 1993

		pounds
INDUSTRIAL PLATES AND CELLS		
BIN 8 - 25 x 18 x 6 = 2700 x 83 =		224,100
WRECKER - 14 x 10 x 6 = 840 x 83 =		69,720

		293,820
DROSS		
SOFTENING BIN 11 - 15 x 6 x 5 x 194		87,300
TIN BIN 7 - 10 x 10 x 4 x 194 =		77,600
DRY BIN 3 - 20 x 6 x 10 x 194 =		232,800
TIN DRUMS - 76 DRUMS x 1670 =		126,920

		524,620
fed back - DUST SLAG into furnace K069		
30 x 10 x 5 x 161 =		241,500
FLUE DUST		
22 x 60 x 6 = 7920 x 62 =		491,040
D008 - ESTIMATED BLAST SLAG		761 TON
FACTORY SCRAP		
132 DRUMS x 875 lbs =		115,500
wt/drum		

unfinished
not final alloy
(pigs outside)

REFINED METALS BEECH GROVE
FURNACE METAL INVENTORY

LOT#	COUNT	WEIGHT	SB	SN	AS	CU
111	2800 pigs	168,000#	4.32%	.85%	.04%	.05%
222	1960	116,200#	4.60%	.58%	.12%	.048%
2% SN	840	49,800#	6.60%	2.00%	.04%	.008%
444	2800	165,600#	3.92%	.86%	.05%	.011%

3-27-93

DATE	ALLOY	PIGS	LOT	ROW	pounds 3-27	Finished Product			
3/22	M12	910	910	15	58,036				
11/25	44H	49	856	E/W	94,492				
1/19	1030	2240	887	W/W	141,290				
7/27	A75	1050	732	11	66,492				
1/26	4B11	2555	896	3	160,408				
2/2	4B11	2905	901	6	177,790				
					338,198				
2/4	9B41	1505	904	W/W	90,900				
1/29	11C3	315	900	4	19,772				
10/26	GU3	630	817	5	40,374				
11/19	GU3	2625	836	12	168,684				
					209,058				
11/23	CaX	1750	852	10	110,066				
2/4	3% B	1050	903	W/W	66,332				
1/22	3½% P	490	891	5	30,768				
[redacted]									
			TOTAL WEIGHT		1,225,404				

REFINED METALS BEECH GROVE
KETTLE INVENTORY

KETTLE 1	5,000
KETTLE 2	93,000
KETTLE 3	5,000
KETTLE 4	5,000
KETTLE 5	14,000
KETTLE 6	171,000
KETTLE 7	5,000

TOTAL	293,000

lbs Pb in Kettles being processed

MARCH 27, 1993

PREINSPECTION FILES AUDIT
CHECKLIST

DATE: 3/23/93

BY: L Hallman

COMPANY: Refined Metals Corp

LOCATION: 3700 South Arlington Avenue

I.D.#: IND/000/718/130

Type of inspection: (G)--T--(TSD)--Closure--Complaint--Other (please specify)

A. GENERAL

		YES	NO	NA
1.	FEDERAL NOTIFICATION ON FILE?	✓		
2.	FEDERAL PART A ON FILE?	✓		
3.	CLOSURE PLAN REVIEWED?		✓	
4.	CONTINGENCY PLAN REVIEWED?		✓	
5.	BIENNIAL REPORT REVIEWED?	✓		
*6.	PART B PERMIT REVIEWED?		✓	

*(Note any Special Permit Conditions)

Comments:

B. NOTIFICATION DATA (Notify type, waste codes listed, etc.)

8/80 K069 (6)

C. LAND DISPOSAL INFORMATION

1. List Waste and Land Disposal Facility

D008	Adams Center Landfill

D. LIST POSSIBLE WASTE STREAMS NOT LISTED ON BIENNIAL REPORT

None

E. LIST WASTE MANAGEMENT PRACTICES WHICH MAY REQUIRE A PERMIT

F. FEDERAL PART A (Handling Codes), OR PART B PERMIT

	Code	Amount	Unit of Measure
1.	S03	400 yd³	
2.			
3.			
4.			
5.			

Are there any discrepancies regarding multiple Part A submittals?

G. CLOSURE/POST-CLOSURE

1. Are there any closed units? If yes, describe.

H. COMPLIANCE HISTORY

List past two inspections and enforcement actions (CO, NOV, VL, WL)

Date of Inspection	Action Type	Date of Action
6/25/92	None issued	Added to previous violations
3/28/91	" "	Sent to EPA

I. LIST UNRESOLVED ENFORCEMENT ACTIONS/VIOLATIONS

Continuous unresolved enforcement actions since 1987 inspection refusal

J. BRIEFLY SUMMARIZE PREVIOUS VIOLATIONS. NOTE IF THEY ARE REPEATS.

See civil action ED902077C, Cause No 91-S-J-496

K. LIST ANY ITEMS UNDER COMPLIANCE SCHEDULES WHICH ARE NOT YET COMPLETED OR NEED FIELD VERIFIED, INCLUDING WASTE MINIMIZATION REQUIREMENTS IN ENFORCEMENT ORDER AND SETTLEMENT AGREEMENTS.

L. COMMENTS

2455v

Revised 8/19/92

Description of Violations
Refined Metals Corporation
IND 000 718 130
Inspection of March 23, 1992

1. Page 7
Page 8

40 CFR 265.13

Facility does not have a detailed waste analysis plan on site.

2. Page 10

40 CFR 265.16(d)2

Facility personnel training record does not include job descriptions related to hazardous waste job activities.

A job description for John Saucerman, Safety & Health Coordinator, was not available during the inspection. A job description for John Saucerman was submitted to this office on April 5, 1993. This violation has been corrected.

3. Page 12

40 CFR 265.52(d)

The contingency plan did not identify the correct emergency coordinator.

The current emergency coordinator is Mike Meloy. The facility submitted a correct list of emergency coordinators to this office on April 5, 1993. This violation is now in compliance.

4. Page 14

40 CFR 265.73(b)(1)

The facility operating record did not include the method(s) and date(s) of each waste's treatment, storage, or disposal as required in 40 CFR Appendix I.

This pertains to the thirty-seven (37) fifty-five (55) gallon drums of D008 waste located in the Casting area.

5. Page 14

40 CFR 265.73(b)(2)

The facility operating record did not include the location and quantity of each hazardous waste within the facility.

This pertains to the above mentioned drums in Item 4 manifested to Refined Metals Corporation from Exide.

6. Page 16 <u>329 IAC 3.1-7-4</u>

The generator had not used the Indiana Hazardous Waste Manifest for hazardous waste shipments to Refined Metals Corporation in Memphis, Tennessee.

The facility has been transporting their hazardous waste without a manifest to their other plant located in Memphis, Tennessee during the facility's shut down.

7. Page 19
Page 20 <u>40 CFR 265.75(h) and (j)</u>

The 1991 Biennial Report did not include the required waste minimization information.

8. Page 25 <u>40 CFR 262.34</u>

The start of accumulation period was not clearly marked on each container of hazardous waste.

This pertains to eighteen fifty-five gallon drums of lead contaminated waste (D008) located in the casting area.

9. Page 25 <u>40 CFR 262.34</u>

Hazardous waste containers were not properly marked with the words "Hazardous Waste".

There were eighteen fifty-five gallon drums of lead contaminated waste (D008) located in the casting area not identified.

Indiana Department of Environmental Management

VERIFICATION OF INSPECTION

This is to verify that on 3/28/93 an inspection of Refined Metals Corp was conducted by the undersigned representatives of the Indiana Department of Environmental Management, Office of Solid and Hazardous Waste Management. The inspection was conducted to determine compliance with the Resource Conservation and Recovery Act (RCRA), IC 13-7, and rules promulgated pursuant to those statutes.

A summary of violations and concerns noted during the inspection were verbally communicated to the undersigned company representatives during the inspection. The company is encouraged to correct deficiencies as soon as possible. Corrections made and verified during the inspection may still be cited as violations; however, prompt action will be taken into consideration in determining the resolution to any enforcement action which may be taken.

Your company will be sent a preliminary summary of the violations identified as a result of the inspection within thirty (30) days of the inspection. The summary may identify violations not noted during the inspection if they surfaced as a result of a more extensive analysis of the rules or further review of records in the possession of the Department. The company is encouraged to contact the inspector to clarify any misunderstandings which you believe may be reflected in the inspection summary.

IDEM: Printed Name	Signature	Position	Phone #	Date
Christina Halloran	Christina Halloran	IDEM	(317) 232-8552	3/28/93

Company: Printed Name	Signature	Position	Phone #	Date
MIKE MCCOY	Mike McCoy	PLANT MGR.	317 787 6364	3/28/93

Company Mailing Address
P.O Box 188
Beech Grove IN 46107

ADENUGA

Sylvester
11-10-92

RECEIVED
NOV 10 1992
OFFICE OF RCRA
WASTE MANAGEMENT DIVISION
EPA, REGION V

TSD - RCRA INSPECTION REPORT

(Interim Status Facility - 329 IAC 3.1-10)

EPA ID # IND 000 718 130 NAME REFINED METALS, INC.

MAILING ADDRESS: 3700 S. ARLINGTON
REECH GROVE, IN 46107

RECEIVED
WMD RECORD CENTER
JUL 12 1994

LOCATION ADDRESS: SAME

CONTACT: RONALD WIDNER PHONE: 317/787-6364

OWNERSHIP: REFINED METALS COUNTY: MARION

STATUS CODE: 1 1=Active 3=Dead Mail 4=PCB handler
6=non-handler 2=Obsolete ID # 9=Superfund site
5=Out of business

Person(s) interviewed:	Title:	Telephone:
RONALD WIDNER	PLANT MANAGER	317/787-6364
JOHN SAUCERMAN	SAFETY COORDINATOR	"

Inspector(s):	Agency:	Telephone:
ROBERT MALONE	ONTARIO ENVIRONMENTAL	317/231-3600
	(IDEM CONTRACTOR)	

Date of inspection: [redacted] 7/2/92 Time of inspection: 11:00 AM

Hazardous Waste Management Permit Program and Related Hazardous Waste Requirements, 329 IAC 3.1, incorporates by reference federal standards for the management of hazardous waste which have been published in the code of federal regulations in 40 CFR 260 through 40 CFR 270 as of July 1, 1990. Citations contained in this inspection form shall be to the federal rules as incorporated, except where the State rule substitutes full text language, in which case the specific 329 IAC 3.1 citation will be used.

Installation Processes by Process Code (EPA Form 3510-3)

S01	___	Container storage	T03	___	Incinerator treatment
S02	___	Tank storage	T04	___	Other treatment
S03	✓	Waste pile storage	D79	___	Injection well disposal
S04	___	Surface impoundment storage	D80	___	Landfill disposal
T01	___	Tank treatment	D81	___	Land application disposal
T02	___	Surface impoundment treatment	D83	___	Surface impoundment disposal

If Part A process codes are listed above as T04 please describe the process involved below:

S01 and possibly S04 (surface impoundment)
Some S03 listed on Part A should be S01.

1. Indicate any hazardous waste processes, by process code, which have been omitted from Part A of the facility's permit application.

2. Indicate any hazardous waste processes (by process code and line number on EPA Form 3510-3 page 1 of 5) which appear to be eligible for exclusion per 40 CFR 265.1(c). Provide a brief rationale for the possible exclusion.

3. Type of Operation, Products Manufactured, Processes Utilized, Size of Operation, Concentrate on processes that produce waste (hazardous or non-hazardous):

This facility is a smelter of lead scrap, waste, batteries, etc., into lead ingots for other manufacturers.

4. If any of the wastes are managed in the manners listed below, please check those areas and utilize the provided appendices.

		YES	NO
A)	Waste Oil Fuel - Appendix A	___	✓
B)	Lead Acid Batteries	✓	___
C)	Hazardous Waste Fuel - Appendix C	___	✓
D)	Precious Metals	___	✓
E)	Use Constituting Disposal	___	✓
F)	Tanks	___	✓

G)	Use and Management of Containers	✓	
H)	Generator Accumulation Appendix	✓	
I)	Waste Pile	✓	
J)	Surface Impoundment	✓	
K)	Landfill		✓
L)	Process Vents		✓
M)	Equipment Leaks		✓

5)

Hazardous Waste Streams/EPA #	Source	Rate	Disposition	LDR Treatability Group (WW/NWW)
BATTERIES	VARIOUS VENDORS	148,000 MO.	CRACKED/ SMELTED	NWW
BATTERY MANUFACTURER SCRAP/ FLUE DUST/ ETC.	"	600,000 LBS MO	"	"
WHEEL WTS/ PLATES	"	SMALL AMTS	"	"
BLAST SLAG (D008)	FURNACE	2,097,080 LBS.	CWM	"

Have both listed and characteristic waste codes been assigned, where a listed waste exhibits a characteristic? 40 CFR 268.9

6) Does the facility handle any California List Wastes? (liquid hazardous waste with greater than 50 ppm PCB greater than 134 ppm nickel greater than 130 thallium, etc.)

7. List all wastes not listed above.

Waste	Process Generating Waste	Rate	Disposition

8) If the company claims a reuse or reclaim exemption please include the following information:

	Waste Type	Generation Rate	How reclaimed & by Who	Quantity stored on Site
A.				
B.				

9) Hazardous Waste

On-Site	Amount	How Stored	Comments
BATTERIES ON TRUCKS	631,350 LBS	BATTERIES	ON TRUCKS
BATTERY PLATES	2,300,000 LBS	PILE	WAREHOUSE
BATTERY MANUFACTURER WASTE	282,000 LBS	"	"
SLAG	(ON-SITE) 4,000 TONS - GEN 3 TRUCKS WK @ ~~40~~ 40,000 LBS	"	"

10) Indicate any TSD activities which have been omitted from or are not clear on the facility map (for the purpose of determining if expansion has occured)
(40 CFR 270.13) (HWIMS 610)

WASTE PILES, SURFACE IMPOUNDMENT

11) Is the Biennial Report Accurate? YES

12) Note any non-RCRA Violations (Open Dumping, Dumping in City Sewer Without Pretreatment Program, OSHA, etc.) NA

LAND BAN TREATMENT STANDARDS

	HWIMS 700	OK	DF	NI	NA
1)	Does generator dilute prohibited wastes to meet treatment standard criteria, or render them nonhazardous, as a substitute for adequate treatment? 40 CFR 268.3				✓
2)	Do treatment standards for listed wastes cover constituents that may cause the waste to exhibit any characteristics? 40 CFR 268.9				✓
3)	Does generator specify alternative treatment standards for lab packs or F039 leachate? If yes, see 40 CFR 268.42(c)(2)				✓
4)	Does generator mix wastes with different treatment standards for a constituent of concern? If yes, did generator select most stringent treatment standards?				✓
5)	Does the generator handle any wastes with a LDR variance (national capacity, case-by-case, etc.)?	✓			

ON-SITE TREATMENT

	HWIMS 700	OK	DF	NI	NA
1)	Does the generator treat wastes in 90-day tanks or containers? If no, go to next section.				✓
2)	Does the generator treat the wastes to meet appropriate treatment standards?				✓
3)	If yes, has the generator prepared a waste analysis plan detailing the frequency of testing to be conducted? 40 CFR 268.7(a)(4)				✓
4)	Does the plan fulfill the following:				
	-Based on a detailed chemical and physical analysis of a representative sample				✓
	-Contains information necessary to treat the wastes in accordance with LDR				✓
5)	Has the plan been filed with the Regional Administrator or IDEM?				✓
6)	Are characteristic wastes which have been rendered nonhazardous shipped to a Subtitle D facility?				✓
	a. If yes, is a notification and a certification for each shipment sent to the Regional Administrator (prior to 2/24/92) or IDEM? 40 CFR 268.9(d)(1) and 268.7(b)(5)				✓

STORAGE (HWIMS)

		OK	DF	NI	NA
1)	Has the capacity of the storage areas listed on the Part A or permit been equal to or less than that allow? List type and amount of any storage capacity overages? Citation?			✓	
	FACILITY CURRENTLY OVER CAPACITY FROM PAST STORAGE PRACTICES (4,000 TONS)				
2)	Are all containers clearly marked to identify the contents and date(s) entering storage or is such information available in the operating log? 40 CFR 268.50(a)(2)(i) NO CONTAINERS OTHER THAN BATTERIES ON-SITE DURING INSPECTION.				✓
3)	Have wastes been stored for less than one year?			✓	
4)	If no, can the facility show that such storage is necessary to facilitate proper recovery, treatment, or disposal. 40 CFR 268.50(c)				✓

TREATMENT (HWIMS)

		OK	DF	NI	NA
1)	Does the facility treat hazardous waste other than in 90-day tanks and containers? If no, go to next section.				✓
2)	Are required technologies used to treat wastes which have treatment standards expressed as technologies? 40 CFR 268.40(b) (HWIMS)				
3)	Are alternative methods approved? 40 CFR 268.2				
4)	Is the LDR treatment standard lower than the Characteristic level?				
5)	If yes, does the facility manage the waste as restricted until treatment standards are met? 40 CFR 268.9				
6)	Does the facility test residues from all treatment processes? 40 CFR 268.7 FACILITY DOES NOT TEST STABILIZED SLAG - USE KNOWLEDGE OF WASTE.				✓

13) Additional Comments:

General Facility Standards (paperwork)

		OK	DF	NI	NA
1)	Has the Regional Administrator/Environmental Management Board been notified regarding:				
a.	Receipt of hazardous waste from a foreign source? 40 CFR 265.12(a) (HWIMS 300)				✓
b.	Facility expansion? 40 CFR 270.72(b) (HWIMS 610)				✓
c.	Change of owner or operator? 40 CFR 265.12(b) (HWIMS 300)				✓

2) General Waste Analysis: (HWIMS 310)

		OK	DF	NI	NA
a.	Has the owner or operator made a detailed chemical and physical analysis of the waste either through testing of knowledge of the process? 40 CFR 265.13(a)1	✓			
b.	Does the owner or operator have a detailed waste analysis plan on file at the facility? 40 CFR 265.13(b)				✓
	Does the waste analysis plan contain:				
	1. parameters (and rationale for their choice)				
	2. test methods				
	3. sampling method for representative sample				
	4. frequency of analysis (and rationale)				
	5. off-site only: waste analysis from generators				
	6. Additional waste analysis needed (when a change in waste type or process occurs)				
	a. 265.193 Tanks (see above)				
	b. 265.225 Impoundment (same as above)				
	c. 265.252 Waste Pile (same as above)				
	d. 265.273 Land Treatment (same as above)				
	e. 265.341 Incinerators (same as above)				

	OK	DF	NI	NA
f. 265.375 Thermal Treatment (same as above)				✓
g. 265.402 Other Treatment (same as above)				

c. Does the waste analysis plan specify procedures for inspection and analysis of each movement of hazardous waste from off-site? 40 CFR 265.13(c)

d. Is the waste analysis plan followed? _____

3) Owner or Operator Inspections: (HWIMS 320)

	OK	DF	NI	NA
a. Does the owner or operator inspect the facility for deterioration, malfunctions, operator errors, and discharges of hazardous waste that may affect human health or the environment? 40 CFR 265.15(a)	✓			
b. Does the owner or operator have an inspection schedule at the facility? 40 CFR 265.15(b)2	✓			
c. If so, does the schedule address the inspection of the following items: 40 CFR 265.15(b)1				
i. monitoring equipment?	✓			
ii. safety and emergency equipment?	✓			
iii. security devices (including fences)?	✓			
iv. operating and structural equipment (ie. dikes, pumps, etc.)? NO SCHEDULE ON DIKES.		✓		
v. type of problems to be looked for during the inspection (e.g. leaky fittings, defective pump, etc.)? 40 CFR 265.15(b)(2)	✓			

	OK	DF	NI	NA
vi. inspection frequency (based upon the possible deterioration rate of the equipment)? 40 CFR 265.15(b)(4)	✓			

vii. Must include:

	OK	DF	NI	NA
1. Weekly container storage? (See 265.174)	✓			
2. Daily and Weekly Tank Storage? (See 265.194)				✓
3. Daily freeboard and weekly dike inspection for surface impoundments? NOT ON SCHEDULE (See 265.226)		✓		
4. Landfills, Thermal treatment, Chemical, Physical, and Biological treatment should be inspected as determined by deterioration rate and daily at loading and unloading areas (where spills are likely) [See 265.15(b)(4)				✓

	OK	DF	NI	NA
d. Does Owner or Operator follow the written inspection schedule as outlined? 265.15(b)(1)	✓			
e. Are areas subject to spills inspected daily when in use? 265.15(b)(4)	✓			

	OK	DF	NI	NA
f. Does the owner or operator maintain an inspection log or summary of owner or operator inspections? 40 CFR 265.15(d)	✓			
g. Does the inspection log contain the following information: 40 CFR 265.15(d)				
i. the date and time of the inspection? NO RECORD OF INSPECTION WHEN	RM ✓	✓		
ii. the name of the inspector? JOHN SAUCERMAN ON VACATION	✓			

	OK	DF	NI	NA
iii. a notation of the observations made?	*	✓		
iv. the date and nature of any repairs or remedial actions?	*	✓		

*NEED NOTATION ON REGULATED WASTE (INSPECTION) FORM FOR REMEDIATION (TYPE OF REMEDY)

PERSONNEL TRAINING RECORDS

1) Do personnel training records include: (HWIMS 330)

	OK	DF	NI	NA
a. Job titles for the positions related to HWM 40 CFR 265.16(d)1	✓			
b. The name of the employees filling each job title? 40 CFR 265.16(d)(1)	✓			
c. Job descriptions including the required skills, education, or other qualifications and the duties of the personnel assigned to the position? 40 CFR 265.16(d)2 JOB DESCRIPTIONS NEED TO DESCRIBE HAZARDOUS WASTE ACTIVITIES		✓		

Check categories for which job titles/descriptions are available (please include the supervisors of each category in that category when reviewing documents).

Emergency coordinator ✓ Training coordinator ✓ Emergency response personnel ✓
Inspectors ✓ Material handlers ✓ Container labelers ✓ Manifesters
Recordkeepers NOT LISTED

	OK	DF	NI	NA
d. Description of both introductory and continuing training required for each job? 40 CFR 265.16(d)(3)	✓			

Describe in general the type of training program in use at the facility.

	OK	DF	NI	NA
e. Records of training required in (d)? 40 CFR 265.16(d)4	✓			

f. Did facility personnel receive the required training including:

	OK	DF	NI	NA
i) classroom or on the job	✓			
ii) within 6 months of hire	✓			
iii) annual review of training?	✓			
g. Are all training records maintained for current personnel and for at least three years for former employees? 40 CFR 265.16(e)	✓			

CONTINGENCY PLAN AND EMERGENCY PROCEDURES (HWIMS 350)

1) Does the Contingency Plan contain the following information:

	OK	DF	NI	NA
a. The actions facility personnel must take to comply with 265.51 and 265.56 in response to fires, explosions, or any unplanned release of hazardous waste? (If the owner has a Spill Prevention, Control, and Countermeasures (SPCC) Plan, he needs only to amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this Part (as applicable).	✓			
A. A description of arrangements agreed by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services.	✓			
i. Names, addresses, and phone numbers of all persons qualified to act as emergency coordinators? (NOT OFFICE) ALSO - LOUIS LAWSON GONE		✓		
ii. A list of all emergency equipment at the facility which includes the location and physical description of each item on the list and a brief outline of its capabilities? 40 CFR 265.52(e) NO OUTLINE OF CAPABILITIES IS INCLUDED.		✓		

	OK	DF	NI	NA
iii. An evacuation plan for facility personnel where there is a possibility that evacuation could be necessary? (This plan must decribe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes.) 40 CFR 265.52(f)	✓			
2) Emergency Coordinator:				
a. Is the facility Emergency Coordinator identified? 40 CFR 265.52(d)	✓			
b. Is coordinator familiar with all aspects of site operation and emergency procedures? 40 CFR 265.55	✓			
c. Does Emergency Coordinator have the authority to carry out the Contingency Plan? 40 CFR 265.55	✓			

PREPAREDNESS AND PREVENTION

	OK	DF	NI	NA
1) Has the owner or operator attempted to make arrangements with local authorities in case of an emergency at the facility? 40 CFR 265.37 (HWIMS 340)	✓			
2) Are copies of the Contingency Plan available at the site and local emergency organizations? 40 CFR 265.53 (HWIMS 350)	✓			
3) Emergency Procedures				
If an emergency situation has occurred at this facility, has the Emergency Coordinator followed the emergency procedures listed in 40 CFR 265.56 (329 IAC 3-18-7)? (HWIMS 350)				✓

MANIFEST SYSTEM, RECORDKEEPING, AND REPORTING:

		OK	DF	NI	NA
1)	Use of Manifest System: (HWIMS 360)				
	a. Does the facility follow the procedures listed in 265.71 for processing each manifest? (Particularly sending a copy of the signed manifest back to the generator within 30 days after delivery.)	✓			
	b. Are records of past shipments retained for three (3) years? 40 CFR 265.71(b)5	✓			
2)	Has the facility submitted copies of hazardous waste manifests to the Department within five (5) working days after receiving hazardous waste? (This requirements applies to both Indiana's and other states hazardous waste manifests)?	✓			
3)	Does the owner or operator meet requirements regarding manifest discrepancies? (Off-site facilities only) 40 CFR 265.72 NONE NOTED				✓
4)	Unmanifested Waste Reports: (applies only to Off-site facilities)				
	a. Has the facility accepted any hazardous waste from an off-site generator subject to 329 IAC 3.1-7-3 (3-8-1) without a manifest or shipping paper? 40 CFR 265.76				✓
	b. If "a" is yes, provide the identity of the source of the waste and a description of the quantity, type and date received for each unmanifested hazardous waste shipment.				✓
	c. Has the facility submitted an unmanifested waste report within 15 days after receiving the waste?				✓
5)	Closure/Post Closure				
	a. Is the closure plan available for inspection? 40 CFR 265.112(a) (HWIMS 390)	✓			
	b. Is the post-closure plan available for inspection? (for disposal facilities only) 40 CFR 265.118(a) (HWIMS 390)				✓
	c. Has the closure cost and post closure cost estimate been revised annually to account for inflation. (329 IAC 3.1-14-3) (HWIMS 400)	✓			

		OK	DF	NI	NA
6)	Operating Record: (HWIMS 370)				
a.	Does owner or operator have a operating record? 40 CFR 265.73(a)	✓			
b.	Does the owner or operator maintain an operating record that contains the following information?				
i.	The method(s) and date(s) of each waste's treatment, storage, or disposal as required in 40 CFR 265 Appendix I (including tanks)? 40 CFR 265.73(b)(1)	✓			

Summarize how the facility tracks the method and date of TSD activity.

FACILITY TRACKS SHIPMENTS INCOMING TO CRACKER - HOWEVER, ONCE CRACKED AND PLACED IN PILES MATERIAL CAN NO LONGER BE SPECIFICALLY TRACKED.

ii.	The location and quantity of each hazardous waste within the facility? (This information shall be cross referenced to a specific manifest number if the waste was accompanied by manifest.) 40 CFR 265.73(b)(2)	✓			

Summarize how the facility tracks the location and quantity of waste.

FACILITY TRACKS QUANTITY, TYPE + ULTIMATE DISPOSITI. OF MATERIAL.

iii.	A map or diagram of each cell or disposal area showing the location and quantity of each hazardous waste? (This information should be cross referenced to specific manifest number, if accompanied by a manifest.) 40 CFR 265.73(b)(2)				✓
iv.	Records and results of all waste analyses, trial tests, monitoring data, and operating inspections? 40 CFR 265.73(b)(3)(5)(6)	✓			
v.	Reports detailing all incidents that required implementation of the Contingency Plan? 40 CFR 265.73(b)(4)				✓
vi.	All closure and post closure costs as applicable? 40 CFR 265.73(b)(7)	✓			

vii. Copies of LDR notifications and certifications?
40 CFR 265.73 b (11)(13)(15) ✓ ___ ___ ___

GROUNDWATER MONITORING

40 CFR Subpart F

Complete this section for facilities that treat, store, or dispose of hazardous waste in landfills, surface impoundments and/or by land treatment.

		OK	DF	NI	NA
1)	Has the owner or operator of the facility implemented a groundwater monitoring system? 40 CFR 265.90(a) (HWIMS 380)	✓			
2)	Has the owner or operator of the facility implemented an alternate groundwater monitoring system as described in 265.90(d)? (HWIMS 380)				✓

APPENDIX GN

Complete this section if the owner or operator of a TSD facility also generates hazardous waste that is subsequently shipped off-site for treatment, storage, or disposal.

Manifest Requirements: (HWIMS 110)	OK	DF	NI	NA
1) Does the operator have copies of the manifest available for review? 40 CFR 262.40 (329 IAC 3.1-7-6)	✓			
2) Examine manifests for shipments in past 6 months. Indicate approximate number of manifested shipments during that period			50	
3) Do the manifest forms examined contain the following information. 40 CFR 262.21 (329 IAC 3.1-7-8)				
a. Manifest document number? EPA ID No. + Unique 5 digit No.? (five digit unique number)	✓			
b. Name, mailing address, telephone number, and EPA ID number of generator?	✓			
c. Name, telephone number (3.1-7-11) and EPA ID Number of Transporter(s)?	✓			
d. Name, Address, telephone number (3.1-7-11) and EPA ID Number of designated permitted facility?	✓			
e. The description of the waste(s) (DOT shipping name, DOT hazard class, DOT identification number)?	✓			
f. The total quantity of waste(s) and the type and number of containers loaded?	✓			
g. Required certification?	✓			
h. Required signatures?	✓			
i. EPA hazardous waste numbers (3.1-7-11)?	✓			
j Handling Codes (3.1-7-11)?	✓			
k. Additional waste numbers included in box J.	✓			

		OK	DF	NI	NA
4)	For hazardous waste shipments to Indiana facilities (or hazardous waste shipments to states that do not supply manifests) has the generator used the Indiana Hazardous Waste Manifest? 329 IAC 3.1-7-4	✓			
5)	Has the generator submitted copies of hazardous waste manifests to the Department within five (5) working days after shipping hazardous waste? (This requirement applies to both Indiana's and other states hazardous waste manifests). 329 IAC 3.1-7-6	✓			

6) Reportable exceptions:
40 CFR 262.42 (HWIMS 180)

a. For manifests examined in (2) (except for shipments within the last 35 days), enter the number of manifests for which the generator has NOT received a signed copy from the designated facility within 35 days of the date of shipment. -0-

b. For manifests indicated in (4a), enter the number for which the generator has submitted exception reports (40 CFR 262.42) to the Commissioner. -0-

INTERNATIONAL SHIPMENTS: (HWIMS 190)

		OK	DF	NI	NA
1)	Has the installation imported or exported hazardous waste? 40 CFR 262.50 (If answered Yes, complete the following as applicable.)				✓
	a. Exporting hazardous waste; has a generator:				
	i. Notified the administrator and OSHWM/IDEM in writing?				
	ii. Obtained the signature of the foreign consignee confirming delivery of the waste(s) in the foreign country?				
	iii. Met the Manifest requirements?				
	b. Importing hazardous waste; has the generator met the manifest requirements?				

LAND BAN NOTIFICATION REQUIREMENTS (HWIMS 700)	OK	DF	NI	NA
1) Does the operator have copies of LDR notifications available for review: 40 CFR 268.7	✓			
2) Does the operator provide a notification to the TSD facility with each shipment, even if waste meets treatment standards? 40 CFR 268.7	✓			
3) Does the notification include the following: (if possible, make copies of, or record information from notification(s) that do not contain the necessary information) 40 CFR 268.7				
a. EPA hazardous waste number	✓			
b. Treatment standards (for wastes other than F001-F005 and F039, treatment standards may be referenced by including sub-category, treatability group, and CFR sections and paragraph where treatment standards appear)	✓			
c. Where treatment standards is specified technology, applicable five-letter treatment code?	✓			
d. Manifest number	✓			
e. If the waste meets treatment standards, or if alternate treatment standards for lab packs are specified, does it have proper certification statement?	✓			
f. Waste analysis data, if available.				✓
TREAT BY TECH BASE STANDARD RLGAD				
4) Has the generator retained on-site a copy of all notices, certifications, and other documentation produced pursuant to 268.7 for at least five (5) years? 268.7(a)(7)	USE KNOWLEDGE OF WASTE ✓			

RECORDKEEPING AND REPORTING

1) Has the generator made a proper hazardous waste determination for all solid wastes generated at the facility, including correct LDR treatability group and treatment standard? 40 CFR 262.11 and 40 CFR 268.2 (HWIMS 100)	✓			

a. If DF, list below:

Assigned Classification	Correct Classification

b. Which of the following methods does the generator employ for waste determination?

a) Knowledge of waste.
b) ~~Analysis. Specify~~ _____

	OK	DF	NI	NA
2) Are all test results and analyses needed for hazardous waste determinations retained for at least three years? 40 CFR 262.40 (HWIMS 180)	✓			

3) Has the generator submitted biennial reports as required? 329 IAC 3.1-7-14) (HWIMS 180) ✓

DRAW A SITE MAP; identify site of all hazardous waste activity, i.e. accumulation areas, storage areas, treatment areas, etc.

Remember to take photos and document as well as possible all violations!!!

5015S

MATERIAL STORAGE BLDG

WASTE PILES

40 CFR 265, Subpart L
329 IAC 3.1-10-1
(HWIMS 440)

	OK	DF	NI	NA
1) Is wind dispersal of hazardous waste managed? 40 CFR 265.251 INSIDE	✓			
2) Is the pile protected from precipitation and run-on by some means (such as being under roof)? 40 CFR 265.253(b) (IF NOT then go to number 4)	✓			
3) Are liquids or wastes containing liquids placed in the pile? 40 CFR 265.253(b)	✓			
4) Does the facility maintain a proper run-on control system? 40 CFR 265.253(a)2		INSIDE		✓
5) Does the facility maintain a proper run-off system? 40 CFR 265.253(a)3		INSIDE		✓
6) Are run-off and run-on collection and holding facilities managed or emptied expeditiously after storms? 40 CFR 265.253(a)4 TREATED IN WWT SYSTEM	✓			
7) If required, are reactive or flammable wastes handled properly? Is 265.17(b) complied with? 40 CFR 265.256 & 257				✓

Please describe the location of the pile including data pertinent to regulatory status (ie. inside, outside)

MATERIAL STORAGE BLDG.

Please describe run-on and run-off control activities.

INSIDE BLDG.

	OK	DF	NI	NA
1) Security - Do security measures include: (If applicable) (HWIMS 300)				
40 CFR 265.14				
a. 24-hour surveillance?	✓			
or				
b. i. Artificial or natural barrier around facility?				✓
and				
ii. Controlled entry?	✓			
c. Danger sign(s) at entrance?	✓			

Preparedness and Prevention:

Part 265 Subpart C

	OK	DF	NI	NA
2) Maintenace and Operation of Facility (HWIMS 340, 810 spill)				
a. Is there any evidence of fire, explosion, or release of hazardous waste or hazardous waste constituent? 40 CFR 265.31				✓
3) If required, does the facility have the following equipment: (HWIMS 340)				
a. Internal communications or alarm systems? 40 CFR 265.32(a)	✓			
b. Telephone or 2-way radios at the scene of operations? 40 CFR 265.32(b)	✓			
c. Portable fire extinguishers, fire control, spill control equipment and decontamination equipment? Are water hoses, foam equipment, automatic spinklers or water spray equipment available? (Please specify) 40 CFR 265.32(c)	✓			

	OK	DF	NI	NA
4) Whenever waste is being handled do all personnel have immediate access to an alarm or communication device (thru another employee if always available)? 40 CFR 265.34(a) (HWIMS 340)	✓			
5) Testing and Maintenace of Emergency Equipment:				
a. Has the owner or operator established testing and maintenace procedures for emergency equipment? 40 CFR 265.33 (HWIMS 340)	✓			
b. Is emergency equipment maintained in operable condition? 40 CFR 265.33 (HWIMS 340)	✓			
6) Does the owner or operator maintain adequate aisle space for the movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment? (This applies to access for this equipment to reach hazardous waste management areas) 40 CFR 265.35 (HWIMS 340)		✓		

LACK SPACE BETWEEN PILES IN WAREHOUSE AREA

5022S

Surface Impoundments

40 CFR 265, Subpart K
329 IAC 3.1-10-1

(HWIMS 430)

	YES	NO	NI	NA
1) Do surface impoundments have at least 60 cm (2 feet) or freeboard? 40 CFR 265.222	✓			
2) Do earthen dikes have protective covers? 40 CFR 265.223	✓	✗ RM		
3) Are reactive & ignitable wastes rendered non-reactive or non-ignitable before storage in a surface impoundment? (If waste is rendered non-reactive or non-ignitable, see treatment requirements.) 40 CFR 265.229				✓
4) Are incompatible wastes stored in different impoundments? (If not, the provisions of 40 CFR 265.17(b) apply.) 40 CFR 265.230				✓
5) If required, are the following special requirements for ignitable, reactive, or incompatible wastes addressed? 40 CFR 265.17				
a. Special handling?				✓
b. No Smoking signs?				✓
c. Separation and protection from ignition sources?				✓

Preparedness and Prevention:

Part 265 Subpart C

2) Maintenance and Operation of Facility (HWIMS 340, 810 spill)

a. Is there any evidence of fire, explosion, or release of hazardous waste or hazardous waste constituent? 40 CFR 265.31				✓

3) If required, does the facility have the following equipment: (HWIMS 340)

	YES	NO	NI	NA
a. Internal communications or alarm systems? 40 CFR 265.32(a)				✓
b. Telephone or 2-way radios at the scene of operations? 40 CFR 265.32(b)	✓			
c. Portable fire extinguishers, fire control, spill control equipment and decontamination equipment? Are water hoses, foam equipment, automatic spinklers or water spray equipment available? (Please specify) 40 CFR 265.32(c)	✓			

4) Whenever waste is being handled do all personnel have immediate access to an alarm or communication device (thru another employee if always available)? 40 CFR 265.34(a) (HWIMS 340) ✓

5) Testing and Maintenance of Emergency Equipment:

a. Has the owner or operator established testing and maintenance procedures for emergency equipment? 40 CFR 265.33 (HWIMS 340) ✓

b. Is emergency equipment maintained in operable condition? 40 CFR 265.33 (HWIMS 340) ✓

6) Does the owner or operator maintain adequate aisle space for the movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment? (This applies to access for this equipment to reach hazardous waste management areas) 40 CFR 265.35 (HWIMS 340) ✓

LAND BAN REQUIREMENTS (HWIMS 700)

	YES	NO	NI	NA
1) Is treatment other than evaporation or dilution occurring in the surface impoundment? 40 CFR 268.3(a) and 268.4(b)		✓		
2) Has the facility submitted to the Agency a waste analysis plan and certification of compliance with minimum technology requirements and groundwater monitoring requirements? 40 CFR 268.4(a)(4)		✓		
3) If the minimum technology requirements have not been met, has a waiver been granted for that unit? 40 CFR 268.4(a)(3)(ii)		✓		
4) Are representative samples of sludge and supernatant from the surface impoundment tested separately, acceptably, and in accordance with the sampling frequency and analyses specified in the waste analysis plan? (Attach test results.) 40 CFR 268.4(a)(2)(i)		✓		
5) Does the operating record adequately document the results of waste analyses performed in accordance with 40 CFR 268.4? 40 CFR 264.73(b)(3) and 265.73(b)(3)				✓
6) Do the treatment residues (sludges or liquids) exceed applicable treatment standards/prohibition levels?				
Sludge			✓	
Supernatant			✓	
7) If sludge residues exceed treatment standards/ prohibition levels, are they removed on an annual basis? 40 CFR 268.4(a)(2)(ii)		✓		
Are residues subsequently managed in another surface impoundment? 40 CFR 268.4(a)(2)(iii)		✓		
8) If supernatant is determined to exceed treatment standards, is annual throughput greater than impoundment volume? 40 CFR 268.4(a)(2)(ii)			✓	

5037S

Revised _____

PREINSPECTION FILES AUDIT
CHECKLIST

DATE: 6/25/92

BY: ROBERT MALONE

COMPANY: REFINED METALS

LOCATION: 3700 SOUTH ARLINGTON
BEECH GROVE, IN 46107

I.D.#: ___/___/___/___

Type of inspection: G----T----TSD----Closure---Complaint---Other(please specify)

A. GENERAL

		YES	NO	NA
1.	FEDERAL NOTIFICATION ON FILE? 8/18/80	✓	—	—
2.	FEDERAL PART A ON FILE?	✓	—	—
3.	CLOSURE PLAN REVIEWED?	—	✓	—
4.	CONTINGENCY PLAN REVIEWED?	—	✓	—
5.	BIENNIAL REPORT REVIEWED?	—	—	—
*6.	PART B PERMIT REVIEWED?	—	—	—

*(Note any Special Permit Conditions)

Comments:

B. NOTIFICATION DATA (Notify type, waste codes listed, etc.)

G - NO WASTE CODES LISTED.

C. LAND DISPOSAL INFORMATION

1. List Waste and Land Disposal Facility

NONE LISTED

D. LIST POSSIBLE WASTE STREAMS NOT LISTED ON BIENNIAL REPORT

E. LIST WASTE MANAGEMENT PRACTICES WHICH MAY REQUIRE A PERMIT

F. FEDERAL PART A (Handling Codes), OR PART B PERMIT

	Code	Amount	Unit of Measure
1.	S03	1600	TONS
2.			
3.			
4.			
5.			

Are there any descrepancies regarding multiple Part A submittals?

G. CLOSURE/POST CLOSURE

1. Any Closed Units: If yes, describe:

H. COMPLIANCE HISTORY

List past two inspections and enforcement actions (CO, NOV, VL, WL)

Date of inspection	Action type	Date of Action
3/28/91	NONE ISSUED -	SENT TO EPA
9/27/90		

ROBERT STEIN-WURTZEL LEAD, ETC. SMELTS

I. LIST UNRESOLVED ENFORCEMENT ACTIONS/VIOLATIONS

STATE AND FEDERAL FORMAL ENFORCEMENT

CLOSE BATTERY STORAGE AREAS

WASTE PILES

J. BRIEFLY SUMMARIZE PREVIOUS VIOLATIONS. NOTE IF THEY ARE REPEATS.

K. LIST ANY ITEMS UNDER COMPLIANCE SCHEDULES WHICH ARE NOT YET COMPLETED OR NEED FIELD VERIFIED

L. COMMENTS

0978M
kaw
8/4/88

U.S. Department of Justice

JCC:DSJ
DJ 90-11-2-469

Washington, D.C. 20530

June 25, 1991
BY FAX AND MAIL

Robert N. Steinwurtzel
Andrews & Kurth
1701 Pennsylvania Avenue, N.W.
Washington, D.C. 20006

re: United States v. Refined Metals Corporation
No. IP 90-2077C (S.D. Indiana)

Dear Mr. Steinwurtzel:

This responds to your letters of May 31, 1991 and June 19, 1991, and should be considered settlement communications in the same vein as those letters.

As we have discussed, provided a suitable settlement could be reached -- and closure of all waste piles completed -- on an expedited basis, we would be inclined to allow Refined Metals to continue operations while it undertakes closure. Continued operation of the material storage building would be conditioned on implementation of additional measures to protect the environment while the building is in use, including storage, in strict adherence to RCRA, of any new waste generated at the facility.

We do not consider the processing of spent batteries from delivery trucks to be acceptable.

We would not oppose off site storage of spent batteries, provided such storage is environmentally sound.

While drosses and sludges are excluded, and scrap metal is exempt from regulation when reclaimed, waste piles of such materials which also contain hazardous waste are regulated. Variances, such as the one you suggest for lead plates and groups, must meet the conditions of 40 C.F.R. § 260.31.

As you are well aware, such a variance would have to be approved by IDEM, as would any closure plan. We do not suggest that you proceed with formal closure without IDEM's approval, but we do suggest that you make every effort to efficiently use the time while the plant is not operating to make it more environmentally sound.

We are available to meet with you further to discuss this matter on Tuesday, July 2, 1991 at 1:00 p.m. in Region V offices in Chicago. We suggest that by July 1 you submit an up-to-date closure plan, both to EPA and IDEM.

Finally, please be advised that while we are willing, as stated above, to allow Refined Metals to continue operations under certain strict conditions to be governed by a consent decree, absent such a decree, negotiated in short order, the United States considers Refined Metals continued operations to be unlawful and sanctionable to the full extent permitted by law.

Sincerely,

Assistant Attorney General
Environment and Natural Resources
Division

By: _____
Daniel S. Jacobs
Trial Attorney
Environmental Enforcement Section

cc: Steven Silverman
Thomas Kieper
Thomas Jacobs
Nicholas Nedeau
Ramiro Llado

MAY 91

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

105 South Meridian Street
P.O. Box 6015
Indianapolis 46206-6015
Telephone 317/232-8603

VIA CERTIFIED MAIL

STATE OF INDIANA)		BEFORE THE INDIANA DEPARTMENT
)	SS:	
COUNTY OF MARION)		OF ENVIRONMENTAL MANAGEMENT
COMMISSIONER, INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, Complainant,	)	
vs.	)	CAUSE NO. N-113
QUEMETCO, INC., Respondent.	)	

RECEIVED
MAY 1 1 1991
OFFICE OF RCRA
Waste Management Division
U.S. EPA REGION

FINAL ORDER OF THE
SOLID WASTE MANAGEMENT BOARD

FINDINGS OF FACT

TO: Bryan Tabler, Esq.
BARNES & THORNBURG
1373 Merchants Bank Building
11 South Meridian Street
Indianapolis, Indiana 46204
No. P 395 654 614

Mathew Scherschel, Esq.
Deputy Attorney General
219 State House
Indianapolis, Indiana 46204
No. 395 654 615

On September 27, 1990, the Solid Waste Management Board ("Board") heard objections presented by both the Complainant and Respondent to the FINDINGS OF FACT, CONCLUSIONS OF LAW AND RECOMMENDED ORDER OF THE ADMINISTRATIVE LAW JUDGE which were filed in this cause. After hearing oral argument, the Board adopted the following as its Final Order in this cause:

1. Quemetco, Inc. ("Quemetco") is a Delaware Corporation with its principal offices at 1111 West Mockingbird Lane, Dallas, Texas 75247.

2. Quemetco operates a lead recovery process at its Indianapolis facility (the "Facility").

3. The major raw material (greater than 95%) for Quemetco's production process is the used lead-acid battery, such as the typical automotive battery. These used batteries are bought and sold on the open metals market as commodities. Other minor raw materials to this process include factory by-products from battery manufacturers, slags from other smelters, and baghouse dusts from battery manufacturers and other smelters. These raw materials are minor in that only small volumes are produced and available. Other occasional raw materials include lead bearing materials amenable to Quemetco's process.

4. The batteries (approximately 20,000 per day) are hand fed to a system which produces: (1) sized and homogeneous lead-bearing materials for smelting; (2) sized polypropylene chips for the plastics extrusion industry; (3) sized hard rubber case materials used as a substitute for coke (a reducing agent in smelting and/or refining); and (4) process waters which include the battery electrolyte (a dilute solution of sulfuric acid).

5. The batteries are not contaminated, nor does contamination render them unfit for their intended purpose.

6. A soft lead is produced in Quemetco's reverberatory smelting furnace, and is used to produce maintenance-free batteries. Slag from the reverberatory furnace is fed to the electric furnace, which produces hard lead, used in the production of batteries requiring maintenance. Semi-hard lead is produced by running slag once more through the reverberatory furnace.

7. Quemetco mixes and blends soft, hard and semi-hard lead to make the specific type of lead requested by its customers, who are primarily battery manufacturers. Lead products from secondary lead refining plants compete equally, both as to quality and quantity, in the lead market with primary refined lead. There is an active commodity market for used lead-acid batteries and for lead battery plates, and these commodities are bought and sold on the open market. All the batteries and plates used as raw material at Quemetco's Facility are purchased by Quemetco for value.

8. No batteries or battery components purchased by Quemetco ever touch the earth or are placed into the waters of the State of Indiana before being reclaimed.

9. No battery is discarded, abandoned or thrown away by Quemetco at the Facility. The only battery component that is discarded is the portion of the hard rubber which Quemetco cannot use in its own smelting process as a reducing agent. Such rubber is landfilled.

10. The polypropylene recovered from the cracked battery cases is in high demand by the plastics extrusion industry and can be recycled several times. Quemetco sells all polypropylene it reclaims.

11. The hard rubber case materials reclaimed by Quemetco contain approximately 80% carbon. Some of the rubber is used as a reducing agent in Quemetco's reverberatory furnace. The rubber is used in the place of the commercial product coke.

12. All rubber is produced directly into a bin outside the east wall of the Facility's building via a screw conveyor. After the rubber is produced into the bin, the decision is made whether to use it in Quemetco's smelting process or to landfill it.

13. The bin is made of stainless steel and is 3-sided, with I-beam supports and a concrete floor underneath the stainless steel floor of the bin. A roof extends only one foot over the bin. The floor of the bin is sloped toward the rear to prevent the escape of liquids.

14. No treatment occurs in the bin.

15. The battery electrolyte is mixed with water and used to separate the lead components from case components by specific gravity difference flotation. After use, the electrolyte is filtered to remove solids and is sent to Quemetco's wastewater treatment plant. At the wastewater treatment plant, the electrolyte's pH is raised to further precipitate out solids, which are returned to Quemetco's reverberatory furnace. After treatment, the water is discharged to the local sanitary sewer.

16. Reclamation of all battery components, including battery cracking, smelting, refining, and casting, is carried out in the main building of the Facility.

17. The staging and process flow equalization of raw materials and intermediate produced materials is accomplished by Quemetco. The technique of staging flow equalization is dependent upon the handling characteristics of the materials within the context of the industrial process. Quemetco schedules the delivery of batteries to minimize any staging of batteries, and components from the wrecked batteries are staged for as brief a period as possible, generally approximately four days.

18. It is not feasible to reclaim the batteries and battery components without any staging between steps in the reclamation process. The temporary staging is a necessary part of the recycling process.

19. The Facility is surrounded by a fence. The only access to the Facility is through a closed gate via a guard house.

20. The Facility is a stationary device, constructed of non-earthen materials which provide structural support. The building at the Facility wherein reclamation of batteries takes place is designed to hold an accumulation of battery components and other lead-bearing materials.

21. The main building of the Facility is constructed of steel and concrete and has a roof over it. The floor of the main building is also made of concrete, slopes toward the middle of the building to prevent the escape of liquid, and is connected to the Facility's wastewater treatment system.

22. All piles of raw materials inside Quemetco's Facility are secured from runoff and rain by the roof and the underlying concrete floor.

23. The main building is surrounded by concrete paving. At the front of the main building, there is a curbline to direct any runoff to the right side. Starting at the right side of the main building, there is a concrete-lined ditch along the fence line all the way around to a concrete sump, from which any runoff is pumped into an 800,000-gallon tank. The concrete apron around the manufacturing building is washed and swept daily, and is maintained in good repair.

24. The main building constitutes a single manufacturing unit.

25. Baghouse dust produced by the Facility's reverberatory furnace is collected from the baghouse cells in a series of hoppers, all of which are connected to a screw conveyor which conveys the dust back to Quemetco's reverberatory furnace without any intervening reclamation.

26. The lead produced by Quemetco is not used to produce a fuel for burning, or to make products that are placed on the land in a manner constituting disposal.

27. The cracking of the batteries is the first step in the reclamation process.

28. The only storage that occurs at Quemetco's Facility before reclamation begins is in the container storage area, located in the northeastern corner of the fenced area of the Facility, for which Quemetco is presently seeking a Part B permit. All other storage occurs during and incidental to reclamation.

29. The piles of material inside Quemetco's building which contain solely sludges and/or by-products that are hazardous by characteristic only are not subject to regulation under the hazardous waste management program.

30. The bin of hard rubber automobile battery casing parts outside the east plant wall constitutes a waste pile subject to regulation under the hazardous waste management program.

31. Quemetco has deposited the rubber casings in such a place and manner as to cause a pollution hazard, in that the bin is not enclosed or completely covered and is susceptible to rain and could leak despite being sloped toward the building.

32. Pursuant to 320 IAC 4-9-2(a), a person who owned or operated a hazardous waste facility in existence on the effective date of that Rule was to submit to the Board an application for a hazardous waste facility operating permit on completed EPA Form 3510-1 and 3510-3 (6-80) within one hundred and twenty (120) days from the effective date of that Rule (November 21, 1981). Based on information gathered by the Division, Respondent has operated a hazardous waste facility by storing hazardous wastes (hard rubber, D008) in waste piles at the facility. Respondent did not make a hazardous waste operating permit application to the Board indicating the storage of hazardous wastes.

33. Pursuant to 320 IAC 4-6 (40 CFR 265.13(a)(1)), now 329 IAC 3-16-4(a)(1), the owner or operator of a hazardous waste facility shall obtain a detailed chemical and physical analysis of each waste. Based on information gathered by the Division, Respondent has not obtained a detailed chemical and physical analysis of each waste.

34. Pursuant to 320 IAC 4-6 (40 CFR 265.13(b)), now 329 IAC 3-16-4(b), the owner or operator of a hazardous waste facility shall have a <u>detailed</u> waste analysis plan on file at the facility. Based on information gathered by the Division, Respondent does not have a <u>detailed</u> waste analysis plan on file at the facility.

35. Pursuant to 320 IAC 4-6 (40 CFR 265.15), now 329 IAC 3-16-6, the owner or operator of a hazardous waste facility shall conduct required inspections. Based on information gathered by the Division, Respondent has not conducted required inspections of container storage areas and surface impoundments.

36. Pursuant to 320 IAC 4-6 (40 CFR 265.15(b)), now 329 IAC 3-16-6(b)(1), the owner or operator of a hazardous waste facility shall include inspections of monitoring equipment in the inspection schedule. Based on information gathered by the Division, Respondent has not included the inspection of monitoring equipment (apparently done but not documented) in the inspection schedule.

37. Pursuant to 320 IAC 4-6 (40 CFR 265.15(b)), now 329 IAC 3-16-6(b)(1), the owner or operator of a hazardous waste facility shall include inspections of security devices in the inspection schedule. Based on information gathered by the Division, Respondent has not included the inspection of security devices (apparently done but not documented) in the inspection schedule.

38. Pursuant to 320 IAC 4-6 (40 CFR 265.15(b)), now 329 IAC 3-16-6(b)(1), the owner or operator of a hazardous waste facility shall conduct inspections of operating and structural devices. Based on information gathered by the Division, Respondent has not included the inspection of operating and structural devices (apparently done but not documented).

39. Pursuant to 320 IAC 4-6 (40 CFR 265.15(b)(4)), now 329 IAC 3-16-6(b)(4), the owner or operator of a hazardous waste facility shall inspect areas subject to spills daily when in use. Based on information gathered by the Division, Respondent has not inspected areas subject to spills daily when in use (apparently done but not documented).

40. Pursuant to 320 IAC 4-6 (40 CFR 265.15(b)(4)), now 329 IAC 3-16-6(b)(40), the frequency of inspection shall be based on the rate of possible deterioration of equipment. Based on information gathered by the Division, Respondent has not based the frequency of inspection on the rate of possible deterioration of equipment.

41. Pursuant to 320 IAC 4-6 (40 CFR 265.5(d)), now 329 IAC 3-16-6(d), the owner or operator of a hazardous waste facility shall record inspections in an inspection log. Based on information gathered by the Division, Respondent has not recorded inspections in an inspection log.

42. Pursuant to 320 IAC 4-6 (40 CFR 265.16), now 329 IAC 3-16-7, the owner or operator of a hazardous waste facility shall maintain personnel training records. Based on information gathered by the Division, Respondent has not maintained personnel training records (as they pertain to RCRA).

43. Pursuant to 320 IAC 4-6 (40 CFR 265.16(d)(1)), now 329 IAC 3-16-7(d)(1), the owner or operator shall maintain job titles and the names of the employees filling the positions. Based on information gathered by the Division, Respondent has not maintained a job title and the name of the employee filling the positions.

44. Pursuant to 320 IAC 4-6 (40 CFR 265.16(d)(3)), now 329 IAC 3-16-7(d)(3), the owner or operator shall maintain a written description of the type and amount of both introductory and continuing training given to each employee. Based on information gathered by the Division, Respondent has not maintained a written description of the type and amount of both introductory and continuing training.

45. Pursuant to 320 IAC 4-6 (40 CFR 265.52(c)), now 329 IAC 3-18-3(c), the contingency plan shall describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams. Based on information

gathered by the Division, Respondent has not described arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams in the contingency plan.

46. Pursuant to 320 IAC 4-6 (40 CFR 265.52(e)), now 329 IAC 3-18-3(e), the contingency plan shall include a list of all emergency equipment at the facility, location of equipment, physical description of each item on the list, and a brief outline of its capabilities. Based on information gathered by the Division, Respondent has not included a list of all emergency equipment at the facility, location of equipment, physical description of each item on the list, and a brief outline of its capabilities in the contingency plan.

47. Pursuant to 320 IAC 4-6 (40 CFR 265.73(a)), now 329 IAC 3-19-4(a), a written operating record shall be maintained as required. Based on information gathered by the Division, Respondent has not maintained a written operating record as required.

48. Pursuant to 320 IAC 4-6 (40 CFR 265.73(b)(7)), now 329 IAC 3-19-4(b)(7), the operating record shall contain all closure and post-closure costs as applicable. Based on information gathered by the Division, Respondent has not included all closure and post-closure costs as applicable in the operating record.

49. As of the June 28, 1985, inspection of the facility, Complainant acknowledges that the Respondent has taken corrective action and has complied with Finding Nos. 36, 37, 38, 39, 40, 42, 43, 44.

CONCLUSIONS OF LAW

1. IDEM's Office of Hearings has jurisdiction over the parties and the subject matter pursuant to IND. CODE §§ 13-7-11 and 4-21.5-1 et seq.

2. IND. CODE § 13-7-1-22 defines "solid waste" as follows:

"Solid waste" means any garbage, refuse, sludge from a waste treatment plant, sludge from a water supply treatment plant, sludge from an air pollution control facility, or other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, or agricultural operations or from community activities. However, the term "solid waste" does not include:

(1) "Solid or dissolved material in domestic sewage or solid or dissolved materials in irrigation return flows or industrial discharges, which are point sources subject to permits under Section 402 of the Federal Water Pollution Control Act Amendments (33 U.S.C. 1342);

(2) Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.); or

(3) Manures or crop residues returned to the soil at the point of generation as fertilizers or soil conditioners as part of a total farm operation. [P.L. 143-1985, § 90.]

This statute is, for all pertinent purposes, identical to the definition of solid waste in the Resource Conservation and Recovery Act, 42 U.S.C. § 6903(27).

3. IND. CODE § 13-7-1-12 defines "hazardous waste" as follows:

"Hazardous waste" means a solid waste or combination of solid wastes that, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may:

(1) Cause or significantly contribute to an increase in mortality or increase in serious irreversible, or incapacitating reversible, illness; or

(2) Pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed. [P.L. 143-1985, § 80.]

4. Under these statutes, in order for a substance to be a hazardous waste, it must first be a solid waste.

5. 329 IAC 3-15-1(b) provides:

The standards in 329 IAC 3-15 through 329 IAC 3-32 apply to owners and operators of facilities which treat, store, or dispose of hazardous waste who have fully complied with the requirements for interim status under 329 IAC 3-38-1, until either a permit is issued and effective under 329 IAC 3-33 through 329 IAC 3-39 or until applicable 329 IAC 3-21 closure and post-closure responsibilities are fulfilled, and to those owners and operators of facilities in existence on November 19, 1980, who have failed to comply with 329 IAC 3-38-1.

6. There is no indication in the record that Quemetco abandoned, discarded, threw away, or disposed of the batteries. In fact, Quemetco accomplishes quite the reverse--its sole business is to recycle spent lead-acid batteries for beneficial reuse. Therefore, the batteries do not constitute solid waste within the meaning of IND. CODE § 13-7-1-22.

7. 329 IAC 3-3-6(a), and its federal counterpart at 40 CFR § 261.6(a)(1), describe the requirements that apply to "recyclable materials." Under the rules, recyclable materials, as

defined, include certain categories of hazardous wastes that, when recycled, are subject to special regulations tailored to meet the perceived hazards associated with recycling operations. Spent lead-acid batteries that are being reclaimed are specifically defined as "recyclable materials" under federal and state rules. See 329 IAC 3-3-6(a)(2)(E); see also 40 CFR § 261.6(a)(2)(v).

8. 329 IAC 3-3-6(c)(1) states that:

Owners or operators of facilities that store recyclable materials before they are recycled are regulated under [virtually all sections of the hazardous waste management rules] except as provided in subsection (a) of this section. (The recycling process itself is exempt from regulation).

See also 40 CFR § 261.6(c)(1). The "subsection (a)" referenced in the above rule specifically provides that spent lead-acid batteries that are being reclaimed are "not subject to the requirements of this section but are regulated under 329 IAC 3-57-1 through 329 IAC 3-57-17 and all applicable provisions in 329 IAC 3-3-6(a)(2); see also 40 CFR § 261.6(a)(2).

9. 329 IAC 3-57-17(b) states that owners and operators of facilities that store and reclaim batteries must satisfy the following requirements:

(b) Owners or operators of facilities that store spent batteries before reclaiming them are subject to the following requirements:

(1) notification requirements under 329 IAC 3-2;

(2) all applicable provisions in 329 IAC 3-40-1 through 329 IAC 3-41-9 [but not 329 IAC 3-41-4 (waste analysis)], 329 IAC 3-42-1 through 329 IAC 3-44-8 [but not 329 IAC 3-44-3 or 329 IAC 3-44-3 (dealing with the use of the manifest and manifest discrepancies)], and 329 IAC 3-45-1 through 329 IAC 3-51-7;

(3) all provisions in 329 IAC 3-15-1 through 329 IAC 3-16-9 [but not 329 IAC 3-16-4 (waste analysis)], 329 IAC 3-17-1 through 329 IAC 3-19-8 [but not 329 IAC 3-19-2 or 329 IAC 3-19-3 (dealing with the use of the manifest and manifest discrepancies)] and 329 IAC 3-20-1 through 329 IAC 3-26-8;

(4) all applicable provisions in 329 IAC 3-33 through 329 IAC 3-39.

See also 40 CFR § 266.80(b).

10. Thus, the temporary staging of materials necessary during and incidental to the recycling process in this case is not subject to regulation. Last sentence of 329 IAC 3-3-6(c)(1).

11. Because Indiana adopted the federal rules without change and because it follows EPA guidance, EPA's interpretation of the controlling rules should be accorded much deference by DEM. Where a state has patterned a statute or rule upon a federal statute or rule, federal case law and treatises interpreting the federal statute or rule have been held relevant in the interpretation of the analogous state rule.

12. For all of the above reasons, the recovered battery components are neither solid nor hazardous waste subject to regulation. Even if they may be considered hazardous when accumulated inside Quemetco's facility, they are an integral part of the recycling process, are not discarded and thus are exempt from RCRA regulation.

It is clear that EPA originally intended to regulate storage only where "incidental treatment" occurs, such as a tank used primarily for storage where some recovery of the product occurs only incidentally. Recovery of the battery components is no "incidental" result. Recovery of the components is the primary and central focus of Quemetco's manufacturing operations. Once the battery components leave the crusher, they have no chance whatsoever of being discarded or entering the environment. This is because the battery components are valuable and are held secure in Quemetco's facility, and because recovery is highly efficient. There is no danger of the releases feared by EPA. Since temporary storage and piling are an integral part of the cracking/recycling process, the components are exempt pursuant to 329 IAC 3-3-6(c)(1).

13. The Amended Complaint at Finding No. 10 alleges that Quemetco operated a hazardous waste facility by storing, receiving, treating, and recovering listed and characteristically hazardous sludges and by-products, namely slag and emission control dust. At the time the violations were alleged to have occurred, the reclamation or recycling of listed wastes and sludges was subject to regulation under RCRA pursuant to former 40 CFR § 261.6(b). This changed EPA and Indiana finally adopted a new rule amending the definition of solid waste in January and July, 1985, respectively. See 50 Fed. Reg. 614; 8 Ind. Reg. 1729, 10 Ind. Reg. 1574. Listed sludges and by-products are presently exempt when recycled in certain ways, or reclaimed for beneficial reuse. See 40 CFR §§ 261.2(e), 261.3(c). Indiana's definition of solid waste mirrors the federal definition. See 329 IAC 3-3-2, 329 IAC 3-3-3(c).

    (a) A court is required to apply the law in effect at the time it renders its decision, unless there is express directive to the contrary or unless application of the new rule would result in

manifest injustice. See Bradley v. Richmond School Board, 416 U.S. 696, 711 (1974); Bush v. State Industries, Inc., 599 F.2d 780 (6th Cir. 1979). See also Thorpe v. Housing Authority of City of Durham, 393 U.S. 268, 282 (1969), where the Court applied the above principle to rules promulgated by an administrative agency pursuant to legislative authority.

(b) Based on the foregoing authority, the new definition of solid waste adopted by DEM after issuance of the Amended Complaint controls the disposition of the issues in this proceeding. Application of the new rule to pending proceedings is neither expressly nor implicitly prohibited in the regulation, nor will it result in manifest injustice to either of the parties hereto. Thus, the current definition of solid waste at 329 IAC 3-3 will be applied in this proceeding.

14. Federal and state hazardous waste regulations specify that "materials are solid wastes if they are recycled, or accumulated, stored, or treated before recycling, [only] as specified in paragraphs (c)(1) through (4) of this section." 329 IAC 3-3-2(c). See also 40 CFR § 261.2(c). Pursuant to 329 IAC 3-3-1(c)(7) and 40 CFR § 261.1(c)(7), a material is recycled if it is used, reused, or reclaimed. Reclamation, and thus recycling, encompasses the processing of used lead-acid batteries. 329 IAC 3-3-1(c)(4) and 40 CFR § 261.1(c)(4) state that a material is reclaimed "if it is processed to recover a usable product, or if it is regenerated. Examples are recovery of lead values from spent batteries." A spent battery, in common parlance, does not equate with a "spent material" under the RCRA rules. See 329 IAC 3-3-1(c)(1) quote infra at § 202.

15. Both federal and state regulations specify certain types of materials that are not solid wastes when reclaimed. Table 1 of 329 IAC 3-3-2 and 40 CFR § 261.2 lists those materials that are considered solid wastes when reclaimed within meaning of 329 IAC 3-3-2(c)(3) (and 40 CFR §261.2(c)(3)]: spent materials, sludges (listed in 40 CFR 261 or 261.32), by-products (listed in 40 CFR Part 261.31 or 261.32), and scrap metal.

(a) None of the recovered battery components (nor the batteries themselves) constitutes a spent material within the meaning of the federal hazardous waste regulations. 329 IAC 3-3-1(c)(1) defines the term as "any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing." The spent battery processing that occurs at Quemetco's plant does no more than recover the battery components. The components are not contaminated with either chemical or physical impurities. See 50 Fed. Reg. at 624. No processing is necessary or in fact occurs at Quemetco's facility to reduce or eliminate any contamination. All of the components are destined for beneficial reuse. Thus, none can be said to be a spent material within the meaning of the regulation.

(b) Most of the battery components cannot be considered scrap metal pursuant to 329 IAC 3-3-1(c)(6), which defines the term as "bits and pieces of metal parts (e.g., bars, turnings, rods, sheets, wire) or metal pieces that may be combined together with bolts or soldering, e.g., radiators, scrap automobiles, railroad box cars, which when worn or superfluous can be recycled." However, battery components which may fall within this definition are exempt from regulation pursuant to 329 IAC 3-3-6(a)(3)(D). See also 40 CFR § 261.6(a)(3)(iv).

c. The slag from Quemetco's reverberatory furnace is a by-product pursuant to 329 IAC 3-3-1(c)(3). The slag contains significant quantities of lead and is a by-product that may exhibit a characteristic of hazardous waste, but which is not a listed hazardous waste. As such it is not a solid waste when reclaimed, for only listed by-products are solid wastes when reclaimed. 329 IAC 3-3-2 (Table 1). Lead values in the primary slag are recovered in the electric arc furnace. Slag from the electric arc furnace is a by-product that does not exhibit any characteristic of hazardous waste.

d. Emission control dust from reverberatory smelting operations is a listed waste K069 if stored in piles prior to recycling or if destined for disposal. This dust is returned as feedstock to the original process that generated it. It is therefore not a solid waste pursuant to 329 IAC 3-3-2(e)(1)(C). Since Quemetco's reverberatory furnace baghouse dust is directly conveyed by screw conveyors from the baghouse back to the reverberatory furnace for reverberatory furnace for recovery of lead values, it is not subject to RCRA regulation.

16. 329 IAC 3-3-2(e) provides:

(e) Materials that are not solid waste when recycled.

(1) Materials are not solid wastes when they can be shown to be recycled by being:

(A) use or reused as ingredients in an industrial process to make a product provided the materials are not being reclaimed: or

(B) used or reused as effective substitutes for commercial products; or

(C) returned to the original process from which they are generated, without first being reclaimed. The material must be returned as a substitute for raw material feedstock, and the process must use raw materials as principal feedstocks.

(2) The following materials are solid wastes, even if the recycling involves use, reuse, or return to the original process (described in clauses (A)--(C) above):

(A) materials used in a manner constituting disposal, or used to produce products that are applied to the land; or

(B) materials burned for energy recovery, used to produce a fuel, or contained in fuels; or

(C) materials accumulated speculatively; or

(D) materials listed in subdivision (d)(1) of this section.

See also 40 CFR § 261.2(e).

a. Several of the battery components are excluded from the definition of solid waste under the above subsection. The battery electrolyte is excluded under (e)(1)(B), for it is used by Quemetco as a substitute for a commercial chemical product to separate all the battery components and to maintain a low pH for water processing.

b. The slag and the emission control dust are both returned to the original process that generated them, within the meaning of subdivision (e)(1)(C). By "returned to the original process," EPA has stated that the material in question must be returned to the same part of the process from which it was generated, but that it "need not be returned to the same unit operation from which it was generated." For example, emission control dust from a zinc smelting furnace can be returned to any part of the process associated with zinc production, but could not be returned to cadmium recovery operations. 50 Fed. Reg. at 640. This focus on returning materials to the same type of process, rather than to the precise originating source, supports the conclusion that emission control dust that Quemetco reclaims is also exempt under this subdivision. Neither the slag nor the emission control dust is reclaimed before being returned to the same type of furnace that generated the dust in the first place. They are returned to Quemetco's smelting furnaces as a substitute for raw material feedstock, the lead values that are customarily smelted there. Finally, it is also evident that neither material is used in a manner constituting disposal, burned for energy recovery, accumulated speculatively, or is listed in paragraph (d)(1) of the rule. Reverberatory furnace slag and emission control dust are therefore exempt under the "closed-loop" exception contained in 329 IAC 3-3-2(e)(1)(C).

17. 329 IAC 3-3-3(c) provides in pertinent part:

> (2)(A) Except as otherwise provided in clause (C)(2)(B) of this section, any solid waste generated from the treatment, storage, or disposal of a hazardous waste, including any sludge, spill residue, ash, emission control dust, or leachate (but not including precipitation run-off) is a hazardous waste. (However, materials that are reclaimed from solid wastes and that are used beneficially are not solid wastes and hence are not hazardous wastes under 329 IAC 3-3 through 329 IAC 3-6 unless the reclaimed material is burned for energy recovery or used in a manner constituting disposal).

See also 40 CFR § 261.3(c). The lead recovered from the cracked batteries is reclaimed and resold to third parties for beneficial reuse, and is neither burned for energy recovery nor used in a manner constituting disposal. Therefore, it cannot be considered a solid or hazardous waste.

18. 329 IAC 3-3-4(c) provides in pertinent part:

A hazardous waste which is generated in a product or raw material storage tank, a product or raw material transport vehicle or vessel, a product or raw material transport vehicle or vessel, a product or raw material pipeline, or in a manufacturing process unit or an associated non-waste-treatment-manufacturing unit, is not subject to regulation under 329 IAC 3-7 through 329 IAC 3-54 until it exits the unit in which it was generated, unless the unit is a surface impoundment, or unless the hazardous waste remains in the unit more than ninety (90) days after the unit ceases to be operated for manufacturing, or for storage or transportation of product or raw materials.

See also 40 CFR § 261.4(c).

> (a) If any of the materials inside Quemetco's Facility constitutes hazardous waste, then the building at Quemetco's facility where the battery cracking and recycling take place fits the definition of a product or raw material storage tank in 329 IAC 3-1-7. It is also a manufacturing process unit. (Hine, Tr. 178-79). That section defines "tank" as "a stationary device, designed to contain an accumulation of hazardous waste which is constructed primarily of non-earthen materials, (e.g., wood, concrete, steel, plastic) which provide structural support." "Storage" is defined as "the handling of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed of, or stored elsewhere."
>
> (b) The building in which the battery reclamation takes place is constructed primarily of steel and concrete, and was designed to contain its contents. The building's construction is such that it would be virtually impossible for any hazardous waste contained in Quemetco's facility to escape from the facility and enter the environment. The facility is not a surface

impoundment, and no hazardous waste will remain at the facility more than 90 days after it ceases to be operated for the storage of product or raw materials. Therefore, 329 IAC 3-3-4(c) requires the conclusion that the battery components reclaimed in Quemetco's battery cracking facility are exempt from regulation under 329 IAC 3-7 through 3-57 until after they leave the plant. The violations alleged in paragraphs 11-33 of the Amended Complaint are therefore inapplicable under the law as it now stands. For the same reasons, it is found as to the raw material piles, that Quemetco has not placed contaminants upon the land at all, much less so as to cause or threaten pollution.

19. Quemetco is also exempted from the requirements of certain regulations since it manages recyclable materials, pursuant to 329 IAC 3-15-1(c)(5), which specifies that:

> (c) The requirements of 329 IAC 3-15 through 329 IAC 3-32 do not apply to:
>
> ***
>
> (5) the owner and operator of a facility managing recyclable materials described in 329 IAC 3-3-6(a)(2) and (3) (except to the extent that requirements of 329 IAC 3-15 through 329 IAC 3-32 are referred to in 329 IAC 3-57).

329 IAC 3-3-6(a)(2)(E) makes specific reference to "spent lead-acid batteries that are being reclaimed." Quemetco's facility manages both the used batteries and the recovered battery components that are a result of the reclamation process.

a. Further, 329 IAC 3-57-17 states:

> (a) This section applies to persons who reclaim spent lead-acid batteries that are recyclable materials ("spent batteries"). Persons who generate, transport, or collect spent batteries, or who store spent batteries but do not reclaim them are not subject to regulation under 329 IAC 3-7 through 329 IAC 3-54, and also are not subject to the requirements of 329 IAC 3-2.
>
> (b) Owners or operators of facilities that store spent batteries before reclaiming them are subject to the following requirements.
>
> (1) notification requirements under 329 IAC 3-2;
>
> (2) all applicable provisions in 329 IAC 3-40-1 through 329 IAC 3-41-9 [(but not 329 IAC 3-41-4 (waste analysis)], 329 IAC 3-42-1 through 329 IAC 3-44-8 [(but not 329 IAC 3-44-2 or IAC 3-44-3 (dealing with the use of the manifest and manifest discrepancies)], and 329 IAC 3-45-1 through 329 IAC 3-51-7.

b. Pursuant to paragraph (b) above, Quemetco has applied for a RCRA Part B permit for the storage area where on occasion it stores used batteries before reclaiming them. There was no evidence or testimony offered to show that Quemetco does not manage stored batteries prior to reclamation in compliance with the referenced rules. The contentions which form the basis of the Amended Complaint are that Quemetco stores or has stored various battery components obtained from batteries that are in the process of being reclaimed. Once the batteries have been cracked, they--as well as their component parts--have entered the process of reclamation, so that subparagraph (b) above is inapplicable to Quemetco's situation.

c. Therefore, pursuant to 329 IAC 3-15-1(c)(5), Quemetco is exempt from regulation under the state law equivalents of Part 264, once the reclamation process has begun.

20. A "totally enclosed treatment facility" is defined in the Indiana regulations as:

[A] facility for the treatment of hazardous waste which is directly connected to an industrial production process and which is constructed and operated in a manner which prevents the release of any hazardous waste or any constituent thereof into the environment during treatment. An example is a pipe in which waste acid is neutralized.

329 IAC 3-1-7. Pursuant to 329 IAC 3-15-1(c)(8), the requirements of 329 IAC 3-15 through 3-32 do not apply to "the owner or operator of a totally enclosed treatment facility, as defined in 329 IAC 3-1-7." See also 40 CFR § 264.1(g)(5). Similarly, 329 IAC 3-33-1(b)(2)(D) and 3-40-1(f)(5) exempt totally enclosed treatment facilities from the permitting requirements of 329 IAC 3-33-1 through -54.

21. Quemetco's Indianapolis plant is both constructed and operated in a manner which prevents the release of any hazardous waste into the environment during treatment. (Hine, Tr. 137-38, 144-46, 151-52, 175-76, 181). Recovered battery components are kept within the buildings on the premises, either containerized or placed in discrete piles secured from loss. (Hine, Tr. id.). There is no chance that the components will be inadvertently discarded or otherwise enter the environment as wastes. Therefore, pursuant to the above provision, Quemetco is exempt form the regulations described above.

22. The piles of materials inside Quemetco's building which do not contain solely sludges and/or byproducts that are hazardous by characteristic only are not subject to regulation under the hazardous waste management program.

23. The bin of hard rubber automobile battery casing parts outside the east plant wall constitutes a waste pile subject to regulation under the hazardous waste management program.

24. Quemetco has, with respect to the rubber bin set out above, deposited contaminants upon the land in a place and manner which creates, or would create, a pollution hazard.

25. Quemetco has been, and continues to, violate the applicable hazardous waste management regulations by the maintenance of the subject bin at its facility in the manner as shown through the regulations and at hearing.

26. Any Findings of Fact hereinabove set forth are, to the extent they constitute conclusions of law, hereby incorporated by reference as additional Conclusions of Law. Any Conclusions of Law hereinabove set forth are, to the extent they constitute findings of fact, hereby incorporated by reference as additional Findings of Fact.

RECOMMENDED ORDER

Following written notice of adoption of this Order by the Board, Respondent shall comply with the following directives/prohibitions within the specified time frames:

1. Respondent shall, within sixty (60) days of receipt of the Order, submit to the Indiana Department of Environmental Management a closure plan (and post-closure plan, if applicable) as per 329 IAC 3-21 and 329 IAC 3-26-8. The purpose of said plan shall be to:

a. Close bin of hard rubber automobile battery casings outside the east plant wall;

b. Assess the degree and extent of contamination of soil and any impact on the groundwater or adjacent waterways on-site and off-site resulting from the bin;

c. Control, minimize, or eliminate, to the extent necessary to protect human health and the environment, present contamination and the future escape of contamination resulting from the bin.

2. Respondent shall, within thirty (30) days of receipt of the notice of approval of the closure plan by the Indiana Department of Environmental Management, implement the closure plan as approved.

3. Respondent shall, upon completion and certification of closure as approved for the facility, implement the post-closure plan (if applicable) as approved.

4. Within thirty (30) days of receipt of the Order, Respondent shall develop a waste analysis plan as required by 329 IAC 4.1-16-4.

5. Within thirty (30) days of receipt of the Order, Respondent shall develop a detailed written inspection schedule and conduct inspections as required by 329 IAC 4.1-16-6.

6. Within thirty (30) days of receipt of the Order, Respondent shall attempt to make arrangements with local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services pursuant to 329 IAC 4.1-17-7.

7. Within thirty (30) days of receipt of the Order, Respondent shall develop a complete operating record as required by 329 IAC 4.1-19-4.

8. Upon receipt of the Order, Respondent shall prepare hazardous waste manifests as required by 329 IAC 4.1-8-2.

9. Complainant and Respondent have reached settlement as to the amount of any penalties that may be due in the event that any of the violations alleged by the Complainant in this proceeding are finally adjudged to have occurred. Therefore, the Presiding Officer does not make findings or recommondations as to penalty amounts.

DIFFERENCES BETWEEN THE FINAL ORDER
OF THE SOLID WASTE MANAGEMENT BOARD
AND THE FINDINGS OF FACT, CONCLUSIONS OF LAW
AND RECOMMENDED ORDER OF THE ADMINISTRATIVE LAW JUDGE

In accordance with IC 4-21.5-3-28(g), you are hereby notified of the following differences between this Final Order and the attached FINDINGS OF FACT, CONCLUSIONS OF LAW AND RECOMMENDED ORDER OF THE ADMINISTRATIVE LAW JUDGE, other than in the caption and title:

1. Conclusion of Law #10 of the Administrative Law Judge, found at page 9 of his proposed findings and order, was deleted.

2. Conclusion of Law #11 of the Administration Law Judge, found at page 9 of his proposed findings and order, was deleted.

3. Conclusion of Law #12 of the Adminstrative Law Judge, found at page 9 of his proposed findings and order, was modified by deleting the term "storage" and inserting in its place the words "staging of materials". The phrase "in this case" was also inserted after the word "process". Finally, the paragraph number assigned to this Conclusion of Law was changed from #12 to #10 to reflect the two previously deleted paragraphs. The following paragraphs were also renumbered.

This Final Order is issued on behalf of the Solid Waste Management Board at Indianapolis, Indiana, this 14TH day of Dec, 1990.

Kathy Prosser

Kathy Prosser
Technical Secretary
Solid Waste Management Board

Attachment

0976H sh 12-11-90

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RECEIVED
MAY 1 1991
OFFICE OF

April 29, 1991

Mr. Jonathon Adenuga
Hazardous Waste Branch
United States Environmental
Protection Agency, Region V
RCRA Enforcement Branch
230 South Dearborn Street
Chicago, Illinois 60604

Re: Disposal of Fixated Blast Furnace Slag

Dear Mr. Adenuga:

On behalf of Refined Metals Corporation (the Company), we are writing with respect to the regulatory status of certain materials handled by Refined Metals. The Company operates a battery recycling facility that recovers lead from a variety of materials. One by-product of the recycling process is flue dust, which is residual lead-bearing dust captured by the baghouse system and recycled through the blast furnace. The flue dust is regulated by EPA as K069. Lead is tapped from the blast furnace into molds, and the waste product of the blast furnace (slag) is captured separately. A question has arisen as to the appropriate regulatory status of blast furnace slag.

Last year, the Company began experimenting with a system to fixate waste slag to render it non-hazardous in accordance with the land disposal restrictions promulgated by EPA. Under this system, the slag is ground to less than 3/8 inches in diameter and mixed with cement and a fixing agent. In anticipation of completing this process, the Company made application to the Indiana Department of Environmental Management (IDEM) for approval to dispose of fixated blast furnace slag as a special waste. The request was denied based on IDEM's determination that because flue dust is recycled through the blast furnace, the slag generated as a by-product of this process would be considered the listed hazardous waste K069, pursuant to the so-called "derived-from" rule. IDEM reached this conclusion even though the fixated slag does not exhibit one or more characteristics of hazardous waste. In discussions with IDEM, we have been informed that the determination is based on communications received from EPA, Region V.

We contend that this application of the derived-from rule produces an unintended result, for several reasons. First, the fixated material does not exhibit a characteristic of hazardous waste. Second, the Company will be required to render the material non-hazardous prior to disposal under the newly promulgated land disposal treatment standards. Those standards require that K069 waste be recycled, while D008 waste such as slag need only be treated to the characteristic level (5.0

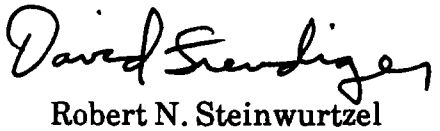
mg/l) prior to land disposal. A policy which withholds authority to dispose of a D008 waste after fixation is inconsistent with the objectives of EPA's Land Disposal Ban. Under IDEM's approach, there was no need for EPA to promulgate a treatment standard for slag under the Land Disposal Ban, since it must be recycled. In fact, officials at EPA national headquarters have characterized the position which IDEM is now taking as an "unintended result."

Arguably, flue dust which is recycled at the same facility that generates it is not even a waste and, therefore, should not be regulated as a hazardous waste. Federal case law supports this contention. In American Mining Congress v. EPA, 824 F.2d 1177 (D.C. Cir. 1987), the court held that materials that are recycled and reused in an ongoing manufacturing or industrial process are **not** solid wastes for regulatory purposes because these materials "have not yet become part of the waste disposal problem; rather they are destined for beneficial reuse or recycling in a continuous process by the generating facility itself." Id. at 1186. Under this analysis, the derived-from rule is inapplicable to the Company's slag because there is no listed hazardous waste introduced to the process.

Under a strict application of the derived-from rule, Refined Metals would be forced to continuously recycle 100% of its blast furnace slag. Such a result is infeasible and puts the Company at a distinct competitive disadvantage with other secondary lead smelters which are currently disposing of their slag. Should Refined Metals be forced to recycle all of its slag, the Company could not continue to operate. Refined Metals needs to resolve this matter immediately and would appreciate your input. We request that this matter be addressed by conference call as soon as possible. We will contact your office to arrange for the conference call.

On behalf of Refined Metals, we appreciate your attention to this matter.

Sincerely,



Robert N. Steinwurtzel
David F. Freudiger

cc: Mr. Joseph M. Boyle
Mr. T. W. Freudiger
Mr. Dennis Zawodni

federal register

Friday
April 12, 1991

Part IV

Environmental Protection Agency

40 CFR Parts 261, 268, and 271
Land Disposal Restrictions for Electric Arc Furnace Dust (K061); Proposed Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 261, 268, and 271

(FRL-3909-8)

Land Disposal Restrictions for Electric Arc Furnace Dust (K061)

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is today proposing treatment standards under the land disposal restrictions program for wastes identified as K061 (electric arc furnace dust) that are nonwastewaters and contain equal to or greater than 15% total zinc (i.e., high zinc subcategory), determined at the point of initial generation. In the First Third rule (53 FR 31162, August 17, 1988), EPA determined that high temperature metals recovery (HTMR) represents the Best Demonstrated Available Technology (BDAT) for these wastes, but established a treatment standard of "no land disposal" based upon the Agency's belief that it lacked authority to regulate the slag residues from the HTMR process as K061 wastes. In a June 26, 1990 decision, the District of Columbia Circuit Court of Appeals (*API* v. *EPA*, 906 F.2d 729 (D.C. Cir. 1990)) invalidated the treatment standard of "no land disposal" and held that EPA is not jurisdictionally barred from promulgating a treatment standard for the slag. The court remanded the case to EPA to determine whether to establish a treatment standard for slag residue from HTMR; the Court did not dispute that HTMR represents BDAT for these wastes. Today's action proposes treatment standards for K061 nonwastewaters in the high zinc subcategory based on the analysis of nonwastewater residues from HTMR processes. The Agency is also proposing to delist HTMR nonwastewater residues, such as slag, if they satisfy certain conditions, provided they do not exhibit one or more of the hazardous waste characteristics.

DATE: Comments on this proposed rule must be submitted on or before (May 13, 1991). Because of the pending lapse of the existing treatment standard, the Agency will not be able to extend the comment period.

ADDRESSES: The public must send an original and two copies of their comments to EPA RCRA Docket F-91-K61P-FFFF, room 2427, 401 M Street SW., Washington, DC 20460. The docket is open from 9 a.m. to 4 p.m., Monday through Friday, except on Federal holidays. Its phone number is (202) 475-9327. An appointment must be made to examine the docket.

FOR FURTHER INFORMATION CONTACT: For general information, contact the RCRA Hotline at (800) 424-9346 (toll free), (703) 920-9810 locally. For general information on the proposed rule, contact Robert Burchard, Office of Solid Waste (OS-322W), U.S. Environmental Protection Agency, 401 M Street SW., Washington DC 20460, (703) 308-8434. For information on the proposed BDAT treatment standard, contact Laura Lopez, Office of Solid Waste (OS-322W), U.S. Environmental Protection Agency, 401 M Street SW., Washington DC 20460, (703) 308-8434.

SUPPLEMENTARY INFORMATION:

Outline

I. Background
- A. Summary of the Hazardous and Solid Waste Amendments of 1984 and the Land Disposal Restrictions Framework
- B. Proposed Rule

II. Detailed Discussion of Proposed Rule
- A. History of K061 Treatment Standards
- B. Proposed Treatment Standards for K061 Nonwastewaters in the High Zinc Subcategory
- C. Delisting of HTMR Nonwastewater Residues
- D. Capacity Determinations

III. State Authority
- A. Applicability of Rule in Authorized States
- B. Effect on State Authorizations
- C. State Implementation

IV. Regulatory Impact
- A. Executive Order 12291
- B. Regulatory Flexibility Act
- C. Paperwork Reduction Act

1. Background

A. Summary of the Hazardous and Solid Waste Amendments of 1984 and the Land Disposal Restrictions Framework

The Hazardous and Solid Waste Amendments (HSWA) to the Resource Conservation and Recovery Act (RCRA), enacted on November 8, 1984, prohibit the land disposal of untreated hazardous wastes. HSWA requires the Agency to set "* * * levels or methods of treatment, if any, which substantially diminish the toxicity of the waste or substantially reduce the likelihood of migration of hazardous constituents from the waste so that short-term and long-term threats to human health and the environment are minimized" (RCRA section 3004(m)(1), 42 U.S.C. 6924(m)(1)). Wastes that meet the treatment standards established by EPA are not prohibited and may be land disposed. In addition, a hazardous waste that does not meet the treatment standard may be land disposed provided the "no migration" demonstration specified in RCRA section 3004(d)(1), (e)(1) and (g)(5) is made. (See 55 FR 22526 for a more detailed discussion of the no migration demonstration.)

For the purposes of the restrictions, HSWA defines land disposal to include, but not be limited to, any placement of such hazardous waste in a landfill, surface impoundment, waste pile, land treatment facility, salt dome formation, salt bed formation, or underground mine or cave (RCRA section 3004(k), 42 U.S.C. 6924(k)). HSWA also defines land disposal to include underground injection wells; therefore, disposal of hazardous wastes in injection wells is subject to the land disposal restrictions.

The land disposal restrictions are effective when promulgated, unless the Administrator grants a national capacity variance from the otherwise-applicable date and establishes a different date (not to exceed two years) based on "* * * the earliest date on which adequate alternative treatment, recovery, or disposal capacity which protects human health and the environment will be available" (RCRA section 3004(h)(2), 42 U.S.C. 6924(h)(2)). The Administrator may also grant a case-by-case extension of the effective date for up to one year, renewable once for up to one additional year, when an applicant successfully makes certain demonstrations (RCRA section 3004(h)(3), 42 U.S.C. 6924(h)(3)). A case-by-case extension can be granted whether or not a national capacity variance has been granted. (See 55 FR 22526 for a more detailed discussion on national capacity and case-by-case extensions.)

In addition to prohibiting the land disposal of hazardous wastes, Congress prohibited storage of any waste which is prohibited from land disposal unless "* * * such storage is solely for the purpose of the accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment or disposal" (RCRA section 3004(j), 42 U.S.C. 6924(j)).

B. Proposed Rule

Today's notice proposes treatment standards for K061 nonwastewaters in the high zinc subcategory, i.e., those wastes containing equal to or greater than 15% total zinc, at the point of initial generation. (K061 wastes are defined in 40 CFR 261.32 as "Emission control dust/sludge from the primary production of steel in electric furnaces".) Wastes in this subcategory currently are subject to an interim standard based upon the performance of stabilization. However, the interim standard will lapse on

August 8, 1991, at which time the waste may no longer be land disposed unless a treatment standard is in place.

The Agency is proposing to establish concentration-based treatment standards for K061 nonwastewaters in the high zinc subcategory based on the analysis of nonwastewater residues from the HTMR processes. (While these residues have been commonly referred to as slag, there is some question whether all nonwastewater residues from HTMR processes are technically defined as slag. Slag is generally considered a residue from a thermal process in which metals have been in a molten mixture. Since this does not necessarily occur in all HTMR processes, the nonwastewater residues would not technically be slags.) The Agency is further proposing that the nonwastewater residues from the HTMR process be delisted from the hazardous waste regulations if they satisfy certain conditions. Moreover, the Agency is proposing to establish concentration-based treatment standards for K061 nonwastewaters that are not only high in zinc, but also high in nickel and/or chromium (i.e., containing greater than 1.5% total chromium and nickel at the point of initial generation). Since these wastes are typically recovered for their chromium/nickel content rather than their zinc content, and since the residuals from this recovery process are expected to achieve a different level of performance for chromium and nickel, the Agency is also proposing to establish an additional subcategory of high zinc K061 nonwastewaters, and to propose treatment standards for it. This subcategory would consist of high zinc K061 nonwastewaters that contain greater than or equal to 1.5% total nickel and chromium. EPA is proposing to reserve the concentration-based treatment standards for nickel and chromium in this subcategory; additional data on the performance of this technology are currently being gathered and treatment standards for nickel and chromium may, thus, be developed.

II. Detailed Discussion of Proposed Rule

A. History of K061 Treatment Standards

EPA first promulgated treatment standards for nonwastewater forms of K061 as part of the First Third final regulation on August 8, 1988 (53 FR 31162–31164, August 17, 1988). The Agency defined two subcategories for nonwastewater forms of K061: the low zinc subcategory (less than 15% total zinc) and the high zinc subcategory (equal to or greater than 15% total zinc). The treatment standard for the low zinc subcategory was based on the performance of stabilization. For the high zinc subcategory, the final standard was expressed as "no land disposal" based on the determination that high temperature metals recovery represents BDAT (53 FR 31221). Due to a shortage in high temperature metals recovery capacity, an interim numerical standard based on the performance of stabilization was established until August 1990.

In the proposed Third Third rule (54 FR 48456–48457), the Agency requested comments on extending the existing interim standard of stabilization for another year. The Agency had information indicating that while there was insufficient high temperature metals recovery capacity at the time of proposal, industry was developing this treatment capacity. Because of the capacity shortage, the Agency decided to extend the interim standard for one additional year.

The Agency also proposed in the Third Third rule to amend the existing treatment standard for the high zinc subcategory K061 wastes to be resmelting in high temperature metal recovery furnace. However, EPA decided not to amend the existing standard in the final rule, as the metals recovery standard was under review by a panel of the District of Columbia Circuit Court of Appeals (*API v. EPA*, No. 88–1606). In a June 26, 1990 decision, the Court remanded the issue to EPA for further consideration.

Although EPA determined in the First Third rulemaking that high temperature metals recovery was BDAT for treating high zinc K061 hazardous wastes, the Agency concluded that it probably lacked the authority to establish any treatment standards for the slag residues resulting from the metals reclamation process. As the Agency explained in the First Third proposed rule, the furnaces used for metals reclamation "are normally * * * essential components of industrial processes, and when they are actually burning secondary materials for material recovery can be involved in the very act of production, an activity normally beyond the Agency's RCRA authority." (53 FR at 11753.) Consequently, the Agency did not consider the K061 to be a "solid waste" within the meaning of RCRA subtitle C once it entered a reclamation furnace where it functioned as, and was similar to, ordinary raw materials customarily processed in the industrial furnace. Slag derived from the reclamation process would not be derived from treating a hazardous waste, and therefore the slag would not be hazardous by virtue of the derived-from-rule. For purposes of the land disposal restrictions program, therefore, the slag would not be covered by the prohibition for K061 waste. The treatment standard of "no land disposal" reflected EPA's belief that residues from HTMR no longer carry the K061 waste code, so that no K061 waste is being disposed.

In its June 1990 decision, the Court found it equally plausible that the K061 remained discarded throughout the waste treatment process and that slag residues from the process could still be classified as K061 (906 F.2d at 740–741). According to the Court, the delivery of K061 waste to a metals reclamation facility is part of a mandatory waste treatment plan specified by EPA, and that EPA can still consider it a solid waste under RCRA. *Id.* Therefore, the Court held that EPA must reconsider its basis for declining to establish a treatment standards for K061 slag. Unless and until the Agency should issue a different interpretation, the slag remains classified as a K061 hazardous waste by virtue of the derived-from-rule. *Id.* and 56 FR at 7144 (Feb. 21, 1991).

In this proposal, the Agency is not dealing with the complicated issues of when secondary material might or might not be solid wastes. EPA prefers to address this issue in a comprehensive fashion. In this proceeding, EPA is acting to close the prospective regulatory gap created by the absence of a treatment standard for nonwastewater residues from processing K061 wastes in the high zinc subcategory which could occur when the interim standard lapses in August, 1991.

B. Proposed Treatment Standards for K061 Nonwastewaters in the High Zinc Subcategory

1. Background on the Development of HTMR as BDAT

In the Land Disposal Restrictions final rule for First Third wastes (53 FR at 31162 (August 17, 1988)), EPA determined that zinc could be recovered on a routine basis from K061 wastes containing equal to or greater than 15% total zinc utilizing a technology identified as high temperature metal recovery (HTMR). Several HTMR systems exist including rotary kilns, flame reactors, electric furnaces, plasma arc furnaces, slag reactors, and rotary hearth furnace/electric furnance combinations or industrial furnaces (as defined in 40 CFR 260.10 (6), (7), and (12)). Although HTMR technologies can recover zinc from some K061 wastes containing less than 15% total zinc, EPA

determined that the 15% level represented a reasonable cutoff concentration for the routine recovery of zinc. Therefore, EPA established this level as the cutoff concentration for distinguishing between two subcategories for K061 wastes identified simply as the high zinc subcategory and the low zinc subcategory.

EPA also determined that pozzolanic or cementitious stabilization was an applicable treatment technology that could achieve a reduction in the mobility of the metal constituents in K061 wastes. In fact, EPA determined that these stabilization processes represent the Best Demonstrated Available Technology (BDAT) for K061 wastes in the low zinc subcategory and promulgated concentration-based treatment standards for wastes in this subcategory. While these stabilization processes are also technically applicable to wastes in the high zinc subcategory, EPA determined that HTMR represented BDAT for these wastes. In the June 26, 1990 decision, the Court did not dispute that HTMR represents BDAT for these wastes.

2. Proposed Concentration-based Standards for K061 High Zinc Subcategory

For the First Third rule, EPA has two sets of TCLP data on the nonwastewater residues resulting from two different HTMR processes that were recovering zinc from K061 wastes in the high zinc subcategory. At that time, EPA chose not to establish concentration-based treatment standards based on these data. One of these HTMR processes consists of a series of Waelz kilns (a Waelz kiln is a type of rotary kiln), while the other was a plasma arc furnace.

In September, 1990, additional TCLP data on residues from the recovery of zinc from K061 wastes in the high zinc subcategory (low in nickel and chromium) were submitted to the Agency by Horsehead Resource Development Company (HRD). This system uses a series of Waelz kilns, generating an iron-rich residue and a crude zinc oxide residue from the first kiln. The iron-rich nonwastewater residue (which EPA referred to as slag in the First Third rule) has been typically used as road aggregate, and the crude zinc oxide is sent to a second kiln for further separation and refining.

Based on the TCLP data from HRD for these iron-rich residues and the two sets of TCLP data submitted for the First Third rule, the Agency developed the concentration-based treatment standards that are proposed today. While the Agency previously regulated only four metals in stabilized K061 wastes, the Agency reconsidered its selection and number of regulated metals in today's proposed standards; therefore, standards have been developed for 14 BDAT list metal constituents. In HTMR processes, the partitioning of metals into products and/or residues is highly dependent, at least in part, upon parameters such as the operating temperature of the various heat zones, composition of metals and other elements in the feed, zone residence times, flow rates and oxidation/reduction conditions. There also appears to be an inherent metallurgical interdependency between certain metals, based on their atomic structure. Such things have led the Agency to the preliminary conclusion that all nonhazardous as well as hazardous metal-bearing materials placed into the HTMR processes could affect the ultimate composition and leachability of metals from the HTMR nonwastewater residues. Thus, Agency is proposing to regulate 14 BDAT list metals as a means of helping to ensure that the HTMR processes, when used to treat K061 wastes, are well-designed and well-operated (i.e., Truly BDAT) with due consideration of all feed materials. (EPA is proposing a treatment standard for zinc even though zinc is not listed on appendix VIII, to ensure proper process operation. Since zinc is the principal metal being recovered, the treatment standard should maximize zinc recovery and hence process efficiency and residue immobility.) Furthermore, the regualtion of these metals under BDAT provides a means of simplifying the delisting of these residues. According to RCRA section 3001(f), in order to delist a waste, it must be demonstrated that the waste is no longer hazardous based on examination of all toxic constituents that might reasonably be expected to be present in the waste. See section II.C. of today's proposed rule for a further discussion on the proposed delisting of K061 nonwastewater residues from HTMR processes.

The Agency is specifically soliciting comment on the relationship of the above issues to the regulation of all 14 metal constituents, including the regulation of 14 metal constituents rather than the four. In addition, the Agency is soliciting data on the leachability of all toxic metals from nonwastewaters residues generated by high temperature metal recovery of K061 nonwastewaters in the high zinc subcategory.

PROPOSED BDAT TREATMENT STANDARDS FOR K061

[Nonwastewaters—High Zinc Subcategory with less than 1.5% chromium/nickel combination]

Regulated constituent	Maximum for any single composite sample, TCLP (mg/l)
Antimony	1.0
Arsenic	0.025
Barium	4.9
Beryllium	0.0031
Cadmium	0.027
Chromium (Total)	0.065
Lead	0.37
Mercury	0.0031
Nickel	0.16
Selenium	0.29
Silver	0.15
Thallium	0.029
Vanadium	0.10
Zinc	0.23

3. Reservation of Nickel and Chromium Standards for K061 Wastes Containing High Zinc and High Chromium/Nickel

Most of the high zinc subcategory K061 wastes are generated from the manufacturing of carbon steel and contain low concentrations of chromium and nickel. However, certain K061 wastes generated from stainless and specialty steel manufacturing, besides having a high zinc content, may also contain recoverable levels of chromium and nickel. The Agency is soliciting comment on the possibility of establishing standards for K061 based on its origin, rather than its metal content (e.g., K061 generated from carbon steel manufacturing, K061 generated from stainless steel manufacturing, K061 generated from specialty steel manufacturing, etc.).

Information submitted to EPA after promulgation of the First Third rule indicates that K061 nonwastewaters (regardless of their zinc content) containing equal to or greater than 1.5% total nickel and chromium in combination can be used to produce a remelt alloy containing nickel, chromium, and iron that can be used as a feedstock for stainless steel production. When using this technology, a zinc-rich portion of the waste can be separated (usually captured in a baghouse) and sent for further zinc recovery in a different HTMR system. The majority of the chromium and nickel is partitioned into the remelt alloy.

The chromium/nickel HTMR recovery process described above achieves a different level of performance than the HTMR processes designed to recover only zinc. This is believed to be due to

the differences in metal concentrations of the feed materials (in particular, higher nickel and chromium) and the inherent differences in design of the respective HTMR processes. Therefore, the Agency is proposing to establish a separate set of treatment standards for the K061 high zinc nonwastewaters that contain recoverable levels of nickel and chromium. EPA is proposing to reserve the concentration-based standards for nickel and chromium until additional data are collected. The Agency is aware of ongoing activities to collect performance data for this nickel/chromium recovery process when it is used to treat K061 nonwastewaters in the low zinc subcategory (that also contain recoverable levels of chromium and nickel), and anticipates developing standards for these constituents based on these tests. However, the Agency is specifically soliciting data and comment on the recovery of chromium and nickel from K061 nonwastewaters in the high zinc subcategory.

PROPOSED BDAT TREATMENT STANDARDS FOR K061

[Nonwastewaters—High Zinc Subcategory with equal to or greater than 1.5% chromium/nickel combination]

Regulated constituent	Maximum for any single composite sample, TCLP (mg/l)
Antimony	1.0
Arsenic	0.028
Barium	4.9
Beryllium	0.0031
Cadmium	0.027
Chromium (Total)	(1)
Lead	0.37
Mercury	0.0031
Nickel	(1)
Selenium	01.29
Silver	0.15
Thallium	0.029
Vanadium	0.10
Zinc	0.23

[1] Reserved.

4. Use of Other Recovery Technologies

The Agency has preliminary information indicating that other non-thermal recovery processes exist that could potentially be used to recover metals from K061 nonwastewaters in both the low zinc and high zinc subcategories. These processes use a series of primarily hydrometallurgical technologies including chemical precipitation, ion exchange, and electrowinning. The process vendors claim that these processes generate no residues for land disposal. However, the Agency currently has no data that verify these claims nor does it have any performance data for these recovery systems. If these recovery processes do not generate any solid waste residues, they will not be precluded from use by today's proposed rule when it is finalized and can be used to recover metals from K061 nonwastewaters provided the wastes are processed in accordance with all other land disposal restrictions. The Agency solicits data on these other recovery technologies.

C. Delisting of HTMR Nonwastewater Residues

1. Introduction

The Agency is also proposing that the nonwastewater residues, such as slag, resulting from HTMR in units identified as rotary kilns, flame reactors, electric furnaces, plasma arc furnaces, slag reactors, and rotary hearth furnace/electric furnace combinations or industrial furnaces (as defined in 40 CFR 260.10 (6), (7), and (12)) be delisted from the hazardous waste regulations provided they satisfy the conditions described below and provided the residues do not exhibit one or more of the hazardous waste characteristics. EPA notes that the issue of the relationship between delisting levels and land disposal restriction treatment standards is a subject of frequent comment. Even though one standard is based on the performance of treatment technology and the other is based on evaluation of risk, it would be desirable to establish some connection between the two, given that the treatment standards minimize a waste's toxicity and mobility and the delisting process evaluates whether a waste is still capable of posing a substantial threat to human health and the environment if it is mismanaged. In this proposal, the Agency is combining the two concepts. EPA is proposing this action in order to encourage the use of HTMR, which EPA regards as the best treatment for K061 wastes because it conserves resources through recovery of metals and substantially immobilizes the metals that are unavailable for recovery.

The Agency is proposing to delist the nonwastewater residues resulting from HTMR processing of K061 waste (both low zinc and high zinc subcategories) provided that these residues meet the promulgated treatment standards for all constituents, and provided the residues do not exhibit hazardous characteristics. As noted earlier, EPA is proposing treatment standards for all of the Appendix VIII metals that might reasonably be expected to be present in the nonwastewater residues from processing K061 wastes by HTMR in order to allow a generic delisting determination. (See RCRA section 3001(f) requiring EPA to evaluate whether toxic constituents in addition to those for which a waste is listed could make a waste hazardous.) The Agency has evaluated the treatment standard levels using its vertical and horizontal spread (VHS) landfill model, which predicts the potential for groundwater contamination from wastes that are landfilled. See 50 FR 7882 (Feb. 26, 1985), 50 FR 48896 (Nov. 27, 1985) and the RCRA public docket for this notice for a detailed description of the VHS model and its parameters. EPA solicits comment on the use of the VHS model for this purpose.

Using the treatment standard levels and a waste volume of greater than 10,000 cubic yards per facility (a worst case estimate for purposes of the VHS model), EPA determined that concentrations of arsenic, barium, beryllium, cadmium, chromium, mercury, nickel, selenium, silver and vanadium in HTMR nonwastewater residues would be below the levels used in delisting decision-making. These levels are presented in the Addendum to the K061 Background Document.

Antimony is an appendix VIII hazardous constituent and has been identified in some samples of nonwastewater residues from the high temperature metals recovery of K061. EPA has data on 11 samples of nonwastewater residues from HTMR which showed antimony to be present in the TCLP extract at a concentration of between less than 0.02 (nondetectable levels) and 0.853 mg/l. These levels would meet the BDAT limit proposed today; however, some of the samples would not be below the levels calculated with the VHS model used in the delisting program. Therefore, the Agency is proposing in the alternative to establish the antimony standard at the level calculated using the VHS model. To arrive at this level, the Agency is using the proposed drinking water maximum contaminant level (MCL) for antimony (see 55 FR 30370) times the predictive dilution and attenuation factor from the VHS model.

The Agency is requesting comment on whether the samples and analytical data the Agency possesses are typical or representative of antimony concentrations in these nonwastewater residues, if there are certain wastes (if any) that would be expected to contain antimony more than others, on the potential process changes that could reduce or eliminate the mobility of antimony in the residues, and on the alternative standards proposed.

In addition to antimony, the levels for lead and thallium calculated using the

of TCLP data

VHS model are lower than the proposed treatment standards; consequently, the Agency is proposing, in the alternative, to establish these levels as the concentration standards for these constituents. However, EPA believes that the BDAT methodology is actually responsible for the proposed standards for lead and thallium being higher than the levels calculated using the VHS model; in fact, all our data for these metals show nondetectable levels that are less than the delisting levels. Following BDAT methodology, however, the Agency calculated today's proposed treatment standards based on the highest reported detection limits from a wide range of detection limits. The Agency is soliciting information on whether it is appropriate to use lower detection limits in the treatment standard calculation for these metals, which would result in treatment standards that would be below the levels used in delisting decision making.

EPA is proposing that nonwastewater K061 residues from HTMR processes be delisted if they meet the concentration-based treatment standards, rather than the levels calculated using the VHS model for lead and thallium, since all our data show nondetectable levels. However, as noted in the preceding paragraph, the ultimate standards for lead and thallium may be lower than those proposed. For antimony, the Agency believes that additional data provided in response to this proposal will demonstrate that a significantly lower treatment standard that also satisfies delisting criteria can be achieved.

EPA solicits further comment on whether the nonwastewater residues from HTMR should also be evaluated for delisting purposes by considering alternative exposure scenarios—that is, other than disposal in a landfill. While the Agency believes that its current delisting criteria are conservative, we believe that other exposure scenarios may be appropriate for these wastes because the majority of the slag is presently not disposed of in landfills or piles, but rather is put to further use, principally as road base material in highway construction, or as an anti-skid agent (i.e., direct application to road surfaces). The situation here thus differs from other delistings the Agency has processed in that the land disposal scenario that the Agency evaluates through modelling is not the primary means of waste management, and, more importantly, may not represent a reasonable worse case situation. Thus, with respect to use of the slag as an anti-skid agent, the pathway of concern could involve direct exposure through surface runoff or from air-blown dust, and the environmental concern would therefore be the total concentration of toxic metals in the slag rather than the leachable fraction. Use of the slag in a road base, on the other hand, may be analogous to a capped landfill, in which case the VHS model is probably an appropriate analytical tool. (Indeed, since it models an uncapped disposal unit, the model may evaluate a more stringent situation than road base usage.)

Consequently, in order to evaluate the appropriateness of delisting the residues when considering their actual disposition, EPA solicits comment on what routes of exposure would be significant and how the use of these residues as anti-skid material could be evaluated. EPA also solicits comment on the use as road-base material and the appropriateness of using the VHS model to evaluate potential hazards posed by this type of management. The Agency will evaluate this information in determining whether to delist these residues, and what the scope of the delisting might be.

2. Proposed Testing Requirements

Both the land disposal restriction and delisting programs typically impose testing requirements in order to verify that regulatory requirements have been satisfied. EPA is proposing here that the land disposal restriction testing requirements also be used to ensure that the residues are properly considered nonhazardous wastes. Under these requirements, treatment facilities must test treated wastes at a frequency specified in their waste analysis plan to determine whether they have satisfied the treatment standard. See Section 268.7(b) and 55 FR at 22669 (June 1, 1990) (treaterstand dispcsers must do some testing to assure treatment standards are met). EPA solicits comment on whether more detailed testing requirements are necessary. For example, EPA solicits comment on requiring that composite samples of the residues be collected and analyzed at least twice a year, twice a quarter, each month, or weekly, and when process inputs change significantly. Please also see the Addendum to the K061 Background Document for an example of an alternative testing frequency.

3. Applicability to Other Types of Treated K061

EPA is proposing that the delisting discussed above for these K061 wastes apply only to those nonwastewater residues generated by HTMR processes. One major reason for this is that the analytical data used to develop the treatment standards are based on analysis of residues of an HTMR process rather than stabilization. A second major reason is that the chemical bonding that occurs in the high temperature and oxidation/reduction conditions within the HTMR units is inherently different than the bonding that forms the basis of cementitious and pozzolanic stabilization. In addition, the kinetics of the reaction forming the bonds in these HTMR processes are vastly superior to the kinetics of bond formation in cementitious reactions. (Cement is not typically considered set until at a minimum of 72 hours and often not considered fully cured until after 28 days.) Stabilization has also been documented as a process that is highly matrix-dependent and prone to chemical interferences. Most commercial stabilization facilities have to develop special mixes for each waste type by selecting additives that will enhance curing time and/or product integrity (often measured by comprehensive strength.)

While the Agency prefers HTMR over stabilization for K061 wastes in the high zinc subcategory, the Agency does support stabilization as an alternative for many metal-bearing wastes. In fact, the Agency is not precluding the use of stabilization by today's proposed rule, and site-specific delisting remains a viable option for stabilized K061 wastes. However, due to the inherent differences between HTMR and stabilization stated above and the fact that insufficient data currently exists to propose a generic delisting for stabilized K061 wastes, the Agency is not proposing that the generic delisting levels for HTMR nonwastewater residues are applicable to stabilized K061 residues that have not undergone HTMR. The Agency believes that more individualized consideration of stabilization processes is warranted before residues from the process are delisted.

In addition, the Agency believes that HTMR is preferred for managing the K061 dust over stabilization technologies, in light of its resource recovery potential, and in light of the large differences in volumes of treated wastes that require disposal versus the generation of a delisted, nonhazardous waste. Nevertheless, the Agency solicits comment on these points.

D. Capacity Determinations

1. Waste Generation

In the First Third rule, EPA used data from the Treatment, Storage, Disposal,

and Recovery (TSDR) survey and estimated the total generation of K061 wastes (both high and low zinc) to be 345,000 tons per year. For the capacity analysis for the high zinc K061 wastes, the Agency assumed that 75 percent of the total K061 volume generated is in the high zinc subcategory (i.e., 260,000 tons). More recent estimates of K061 waste generation data have been submitted by Horsehead Resource Development Company (HRD) and by the American Iron and Steel Institute (AISI). HRD is the primary commercial facility that is currently recovering zinc from K061 wastes in HTMR units. HRD estimates that in 1991, the national generation of high zinc K061 will be approximately 500,000 tons. AISI, a trade organization representing a substantial portion of the generators of all K061 wastes, provides a different estimate of K061 generation. Based on steel production in 1989, AISI estimates that approximately 285,000 tons of high zinc K061 was generated in 1989, which is consistent with data from the TSDR Survey. The Agency recognizes the discrepancy in the estimates of the generation of high zinc K061 and requests additional data on this issue. However, for purposes of this capacity analysis, EPA used the higher estimate of 500,000 tons of high zinc K061.

In the following discussions and capacity analysis, the Agency did not specifically break out the high zinc K061 wastes which also contain a combined nickel/chromium content of greater than 1.5 percent because the Agency believes that they represent a relatively small volume of wastes and because the Agency has no information indicating that there are problems with HTMR capacity for these wastes.

2. Current Management Practices

The Agency has received data indicating that most high zinc K061 (about 90 percent) currently goes through HTMR. The volume of high zinc K061 being stabilized and subsequently land disposed is thus quite low. The Agency believes that this may be due to the existing incentives to recycle high zinc K061. Stabilization and landfilling costs are high, and some states have provided tax incentives not to land dispose. Thus, generators currently are recycling their wastes.

3. Available Capacity

Based on information received by EPA, HTMR capacity for 1991 is estimated to be approximately 553,000 tons. The following facilities account for this capacity:

- Two HRD plants are currently operating with a total annual capacity of 355,000 tons.
- A new HRD facility in Rockwood, Tennessee is adding 80,000 tons to nationwide annual capacity.
- Zia Technology is building a zinc recovery facility capable of processing 60,000 tons per year of K061.
- Laclede Steel Company has contracted with Elkelm to construct a 40,000 tons per year capacity HTMR furnace. This facility will process wastes from Laclede generated on-site and will reduce the demand for commercial HTMR capacity.
- International Mill Services (IMS) is currently operating two thermal dust treatment plants with a combined yearly capacity of 18,000 tons to handle all the electric arc furnace dust generated by IMS. The Florida steel operation is a 6,000 ton per year HTMR facility in Jackson, Tennessee; the facility in Blytheville, Arkansas, which has a capacity of 12,000 tons per year, became operational in the spring of 1989.

In addition to these facilities, Waste Management Inc. (WMI) indicated in comments to the Third Third proposed rule that they had completed a proposal to own and operate a high temperature metals recovery facility in the Jackson, Mississippi area with an annual capacity of 100,000 tons. WMI indicated that they were seeking commitments from generators prior to starting construction on the facility. However, EPA currently has no information on whether WMI is proceeding with this facility.

For the purpose of analyzing alternative capacity, the Agency has also assumed that stabilization for high zinc K061 may be able to meet the proposed concentration-based treatment standards. As of May 8, 1990, there was excess capacity for stabilization of over 1.3 million metric tons.

4. Capacity Implications

Based on the information described above, HTMR capacity is being developed to handle the 1991 demand for K061 recovery, and excess stabilization capacity also is available. Therefore, EPA believes there is sufficient capacity to handle the volumes of high zinc K061 requiring treatment. EPA is requesting comment on this analysis, and the Agency requests any additional data on the generation and management of high zinc K061.

III. State Authority

A. Applicability of Rule in Authorized States

Under section 3006 of RCRA, EPA may authorize qualified States to administer and enforce the RCRA program within the State. Following authorization, EPA retains enforcement authority under sections 3008, 3013, and 7003 of RCRA, although authorized States have primary enforcement responsibility. The standards and requirements for authorization are found in 40 CFR part 271.

Prior to HSWA, a State with final authorization administered its hazardous waste program in lieu of EPA administering the Federal program in that State. The Federal requirements no longer applied in the authorized State, and EPA could not issue permits for any facilities that the State was authorized to permit. When new, more stringent Federal requirements were promulgated or enacted, the State was obliged to enact equivalent authority within specified time frames. New Federal requirements did not take effect in an authorized State until the State adopted the requirements as State law.

In contrast, under RCRA section 3006(g) (42 U.S.C. 6926(g)), new requirements and prohibitions imposed by HSWA take effect in authorized States at the same time that they take effect in nonauthorized States. EPA is directed to carry out these requirements and prohibitions in authorized States, including the issuance of permits, until the State is granted authorization to do so. While States must still adopt HSWA-related provisions as State law to retain final authorization, HSWA applies in authorized States in the interim.

B. Effect on State Authorizations

Today's proposal for treatment standards is proposed pursuant to section 3004(d) of RCRA. Therefore, it will be added to Table 1 in 40 CFR 271.1(j), which identifies the Federal program requirements that are promulgated pursuant to HSWA and take effect in all States, regardless of their authorization status. As noted above, EPA will implement today's proposal in authorized States until their programs are modified to adopt these rules and the modification is approved by EPA. Because the rule is proposed pursuant to HSWA, a State submitting a program modification may apply to receive either interim or final authorization under RCRA section 3006(g)(2) or 3006(b), respectively, on the basis of requirements that are

substantially equivalent or equivalent to EPA's. The procedures and schedule for State program modifications for either interim or final authorization are described in 40 CFR 271.21. The deadline by which the States must modify their programs to adopt today's proposed rule is July 1, 1993. It should be noted that HSWA interim authorization will expire on January 1, 1993 (see 40 CFR 271.24(c)).

With respect to the proposed delisting, today's proposal would not be effective in authorized States since the regulations would not be imposed pursuant to HSWA. Thus, the regulation would be applicable only in those States that do not have interim or final authorization. In authorized States, the regulations would not be applicable until the State revised its program to adopt equivalent regulations under State law.

Section 40 CFR 271.21(e)(2) requires that States that have final authorization must modify their programs to reflect Federal program changes and must subsequently submit the modification to EPA for approval. The deadline by which the State must modify its program to adopt this proposed regulation will be determined by the promulgation of the final rule in accordance with section 40 CFR 271.21(e). These deadlines can be extended in certain cases (see section 40 CFR 271.21(e)(3)). Once EPA approves the modification, the State requirements become subtitle C RCRA requirements.

It should be noted that authorized States are only required to modify their programs when EPA promulgates Federal regulations that are more stringent or broader in scope than the existing Federal regulations. For those Federal program changes that are less stringent or reduce the scope of the Federal program, States are not required to modify their programs. This is a result of section 3009 of RCRA, which allows States to impose regulations in addition to those in the Federal program. The proposed delisting would be considered to be less stringent or would reduce the scope of the existing Federal regulations. Therefore, authorized States would not be required to modify their programs to adopt regulations equivalent or substantially equivalent.

States with authorized RCRA programs may already have requirements similar to those in today's proposal. These State regulations have not been assessed against the Federal regulations being proposed today to determine whether they meet the tests for authorization. Thus, a State is not authorized to implement these requirements in lieu of EPA until the State program modification is approved. Of course, States with existing standards may continue to administer and enforce their standards as a matter of State law. In implementing the Federal program, EPA will work with States under agreements to minimize duplication of efforts. In many cases, EPA will be able to defer to the States in their efforts to implement their programs rather than take separate actions under Federal authority.

States that submit official applications for final authorization less than 12 months after the effective date of these regulations are not required to include standards equivalent to these regulations in their application. However, the State must modify its program by the deadline set forth in section 40 CFR 271.21(e). States that submit official applications for final authorization 12 months after the effective date of these regulations must include standards equivalent to these regulations in their application. The requirements a state must meet when submitting its final authorization application are set forth in 40 CFR 271.3.

C. State Implementation

The Administrator of EPA is solely responsible for granting variances to the effective dates because these determinations must be made on a national basis. In addition, it is clear that RCRA section 3004(h)(3) intends for the Administrator to grant case-by-case extensions after consulting the affected States, on the basis of national concerns which only the Administrator can evaluate. Therefore, States cannot be authorized for this aspect of the program.

Under section 40 CFR 268.44, the Agency may grant waste-specific variances from treatment standards in cases where it can be demonstrated that the physical and/or chemical properties of the wastes differ significantly from wastes analyzed in developing the treatment standards, and the wastes cannot be treated to specified levels or treated by specified methods.

The Agency is solely responsible for granting such variances since the result of such an action may be the establishment of a new waste treatability group. All wastes meeting the criteria of these new waste treatability groups may also be subject to the treatment standard established by the variance. Granting such variances may have national impacts; therefore, this aspect of the program is not delegated to the States at this time.

Under section 40 CFR 268.6, EPA may grant petitions of specific duration to allow land disposal of certain hazardous wastes where it can be demonstrated that there will be no migration of hazardous constituents for as long as the waste remains hazardous. States which have the authority to impose restrictions may be authorized under RCRA section 3006 to grant petitions for exemptions from the restrictions. Decisions on site-specific petitions do not require the national perspective required to restrict wastes or grant extensions. EPA will be handling "no migration" petitions at Headquarters, though the States may be authorized to grant these petitions in the future. The Agency expects to gain valuable experience and information from review of "no migration" petitions which may affect future land disposal restrictions rulemakings. In accordance with RCRA section 3004(i), EPA will publish notice of the Agency's final decision on petitions in the **Federal Register**.

IV. Regulatory Impact

A. Executive Order 12291

Executive Order 12291 requires that the regulatory impact of potential Agency actions be evaluated as part of the process of developing regulations. In addition, Executive Order 12291 requires that regulatory agencies prepare a Regulatory Impact Analysis in connection with major rules (section 3). Major rules are defined in section 1(b) as those which are likely to result in an annual effect on the economy of $100 million or more, a major increase in costs or prices for consumers or individual industries, or significant adverse effects on competition, employment, investment, productivity, innovation, or international trade.

Today's proposed rule establishes treatment standards for a waste originally regulated in the First Third land disposal restrictions rule (53 FR 31162). In the First Third rule, the Agency set a treatment standard of "no land disposal" for the high zinc subcategory of K061 nonwastewaters based on the determination that high temperature metals recovery represents BDAT for the waste. Due to a shortage in high temperature metals recovery capacity, an interim numerical standard based on the performance of stabilization technology was established until August 1990. In the Third Third rule, this interim standard was extended for one year.

The Regulatory Impact Analysis (RIA) for the First Third rule costed the K061 high zinc wastes based on HTMR. The post-regulatory cost for a volume of K061 high zinc waste of approximately 172,000 tons was estimated to be $58 million per year (1987 dollars).

Today's proposed rule establishes numerical treatment standards based on HTMR. Currently, due to construction of additional recovery process capacity, the Agency has determined that there is adequate HTMR capacity for K061 high zinc wastes. The Agency estimates that approximately 500,000 tons of K061 high zinc are generated each year. Of this volume, the Agency estimates approximately 90% to be undergoing treatment by use of HTMR, with the remaining 10% going to stabilization.

Therefore, in the worst case assumption, only 10% of high zinc K061 would be affected by today's rule. If the 10% annual generation portion of high zinc K061 which is now being treated by stabilization was to be treated by HTMR, the incremental cost of this change is estimated to be $1 million per year. This alteration in management practices represents the most severe cost scenario which could be incurred as a result of this rule. However, delisting the slag residue from the HTMR process will spare the industry subtitle C disposal costs and allow them to continue selling the slag as road aggregate: this revenue has not been reflected in the annual incremental cost estimate provided above, and would make the cost lower than the $1 million estimated. Therefore, it is estimated that this proposed rule will not impose a large cost upon industry, and is estimated to be a minor rule according to Executive Order 12291.

This rule has been submitted to the Office of Management and Budget (OMB) for review as required by Executive Order 12291.

B. Regulatory Flexibility Act

Pursuant to the Regulatory Flexibility Act, 5 U.S.C. 601 et seq., whenever an agency is required to issue a general notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a Regulatory Flexibility Analysis which describes the impact of the rule on small entities (i.e., small business, small organizations, and small government jurisdictions). The Administrator may certify, however, that the rule will not have a significant economic impact on a substantial number of small entities. Since the proposed rule would allow the regulated community to continue to use existing management practices, and in the worst case scenario only affects 10% of high zinc K061 waste, the Administrator certifies that this regulation will not have a significant economic impact on a substantial number of small entities, and therefore, does not require a Regulatory Flexibility Analysis.

C. Paperwork Reduction Act

All information collection requirements in this proposed rule were promulgated in previous land disposal restriction rulemakings and approved by the Office of Management and Budget (OMB) at that time. Since there are no new information collection requirements being promulgated today, an Information Collection Request has not been prepared.

List of Subjects in 40 CFR Parts 261, 268, and 271

Hazardous Waste Reporting and Recordkeeping Requirements.

Dated: April 8, 1991.

F. Henry Habicht,

Deputy Administrator.

For the reasons set out in the preamble, title 40, chapter I, of the Code of Federal Regulations is proposed to be amended as follows:

PART 261—IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

1. The authority citation for part 261 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6921, 6922, and 6938.

2. In § 261.3 paragraph (c)(2)(ii)(C) is added to read as follows:

§ 261.3 Definition of hazardous waste.

* * * * *

(c) * * *

(2) * * *

(ii) * * *

(c) Nonwastewater residues, such as slag, resulting from high temperature metals recovery (HTMR) processing of K061 waste (both low zinc and high zinc), in units identified as rotary kilns, flame reactors, electric furnaces, plasma arc furnaces, slag reactors, rotary hearth furnace/electric furnace combinations or industrial furnaces (as defined in 40 CFR 260.10 (6), (7), and (12)), provided that these residues meet part 268 treatment standards for all constituents.

* * * * *

PART 268—LAND DISPOSAL RESTRICTIONS

1. The authority citation for part 268 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6921, and 6924.

2. In § 268.41, Table CCWE is amended by removing the entry for K061 (High Zinc Subcategory—greater than 15% Total Zinc—Effective until August 7th 1991) and by adding entries for K061 (High Zinc Subcategory with less than 1.5% chromium/nickel combination) and K061 (High Zinc Subcategory with greater than 1.5% chromium/nickel combination) to read as follows:

§ 268.41 Treatment standards expressed as concentrations in waste extract.

(a) * * *

TABLE CCWE.—CONSTITUENT CONCENTRATIONS IN WASTE EXTRACT

Waste code	Commercial chemical name	See also	Regulated hazardous constituent	Wastewaters		Nonwastewaters	
				Concentration (mg/l)	Notes	Concentration (mg/kg)	Notes
*	*	*	*	*	*	*	
K061 High zinc subcategory with less than 1.5% chromium/nickel combination.	Electric Arc Furnace Dust.	Table 2 in 268.42, Table CCW in 268.43.	Antimony			1.0	
			Arsenic			0.028	
			Barium			4.9	
			Beryllium			0.0031	
			Cadmium			0.027	
			Chromium (total)			0.065	
			Lead			0.37	
			Mercury			0.0031	
			Nickel			0.16	
			Selenium			0.29	
			Silver			0.15	
			Thallium			0.029	
			Vanadium			0.10	
			Zinc			0.23	
K061 High zinc subcategory with greater than 1.5% chromium/nickel combination.	Electric Arc Furnace Dust	Table 2 in 268.42, Table CCW in 268.43.	Antimony			1.0	
			Arsenic			0.028	
			Barium			4.9	
			Beryllium			0.0031	
			Cadmium			0.027	
			Chromium (total)			Reserved	
			Lead			0.37	
			Mercury			0.0031	
			Nickel			Reserved	
			Selenium			0.29	
			Silver			0.15	
			Thallium			0.029	
			Vanadium			0.10	
			Zinc			0.23	
*	*	*	*	*	*	*	

* * * * *

PART 271—REQUIREMENTS FOR AUTHORIZATION OF STATE HAZARDOUS WASTE PROGRAMS

1. The authority citation for part 271 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), and 6926.

Subpart A—Requirements for Final Authorization

2. Section 271.1(j) is amended by adding the following entry to table 1 in chronological order, and by adding the following entry to table 2 in chronological order:

§ 271.1 Purpose and scope.

* * * * *

(j) * * *

TABLE 1.—REGULATIONS IMPLEMENTING THE HAZARDOUS AND SOLID WASTE AMENDMENTS OF 1984

Promulgation date	Title of regulation	Federal Register reference	Effective date
*	*	*	*
[Insert date of publication of final rule in the Federal Register]	Land disposal restrictions for K061 high zinc subcategory nonwastewaters.	[Insert Federal Register page numbers].	Aug. 8, 1991.
*	*	*	*

* * * * *

TABLE 2.—SELF IMPLEMENTING PROVISIONS OF THE HAZARDOUS AND SOLID WASTE AMENDMENTS OF 1984

Effective date	Self-implementing provision	RCRA citation	Federal Register reference
*	*	*	*
Aug. 8, 1991	Land disposal restrictions on K061 high zinc subcategory.	3004(g)(6)(A)	[Insert date of publication] 55 FR [insert Federal Register page numbers].
*	*	*	*

* * * * *

[FR Doc. 91-8667 Filed 4-11-91; 8:45 am]

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December 6, 1990

Hand Delivered

Daniel S. Jacobs, Esquire
Environment and Natural
Resources Division
U.S. Department of Justice
10th Street & Pennsylvania Avenue, N.W.
Room 1704
Washington, D.C. 20044

Re: United States v. Refined Metals Corporation, Civil Action No. IP902077C

Dear Dan:

As per our telephone discussion, please find enclosed the following documents which relate to the Clean Air Act and RCRA allegations contained in the complaint filed in the above-captioned proceeding:

Clean Air Act

1. The IDEM revisions to the Indiana Lead SIP, preliminarily adopted by the Air Pollution Control Board on October 3, 1990, and the written justification in support thereof which was prepared by IDEM staff.

2. A draft settlement agreement, dated October 1, 1990, which was prepared by the undersigned. IDEM has recently provided me with several proposed revisions to the October 1 draft.

RCRA

1. A letter from IDEM, dated October 9, 1990, confirming that Refined Metals Corporation is acting under "interim status."

2. Several documents relating to the administrative enforcement proceeding (Cause No. N-283) initiated by IDEM.

* * *

On behalf of Refined Metals Corporation, we look forward to meeting with you on December 14 and trust that the meeting will be productive.

Sincerely,

Robert N. Steinwurtzel

Counsel for Refined Metals Corporation

RNS/bao

Enclosures

cc: Mr. David Freudiger (w/o enclosures)

12/6/1990

STATE OF INDIANA)
COUNTY OF MARION) SS:

BEFORE THE INDIANA DEPARTMENT
OF ENVIRONMENTAL MANAGEMENT

IN THE MATTER OF:
COMMISSIONER,
INDIANA DEPARTMENT OF
ENVIRONMENTAL MANAGEMENT,

Complainant,

v.

REFINED METALS CORPORATION
Respondent.

CAUSE NO. N-283

JOINT STATUS REPORT

1. **Appearances of Counsel**

Martin A. McCrory, Esq.

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2. **A statement, subject to later amendment, of the basic issues of fact and law of the cause of action.**

Refined Metals Corporation, Beech Grove, Indiana, is a secondary lead smelter with a captive battery breaker located onsite. Refined Metals Corporation receives whole spent lead-acid batteries, and occasionally receives battery manufacturing plant emission control dust and lead oxide paste/mud from offsite sources. The whole spent lead-acid batteries are crushed in the breaker and all products received are totally recycled onsite into secondary lead. All acid from the batteries is collected in troughs and pipes located under the breaking equipment and deposited into the wastewater treatment system where it is neutralized; any lead dissolved in the acid is precipitated out, and the resulting non-toxic effluent is discharged

into the municipal sewer system. The wastewater treatment unit is excluded from regulation pursuant to 320 IAC 4.1-15-1.

The factual issues involved in the Complaint concern waste pile storage, onsite spillage, wastewater drainage, and possible soil contaminaton. In addition, Respondent submitted an amended Part A permit application and a Part B permit application for the Beech Grove facility prior to November 8, 1988.

The basic legal issues involved in this cause relate to whether Respondent has violated the provisions of the Indiana Waste Management Program pursuant to IC § 13-7-8.5 et seq. and 320 IAC § 4 et seq., as alleged in the Complaint dated December 13, 1985. In addition, the following matters are at issue in this action: whether Respondent should take action as outlined in the proposed final order, whether corrective action is preferable to closure for some or all units at the facility, and whether civil penalties should be assessed.

3. **Any presently contemplated or pending preliminary motions.**

There are no contemplated or pending preliminary motions.

4. **A statement as to all discovery which has been undertaken, including dates filed and dates of response.**

There has been no discovery undertaken as of this date.

5. **A statement as to all discovery which is contemplated and a tentative schedule.**

With the assumption that this matter will be resolved by an Agreed Order, there is no discovery contemplated by either party at this time.

6. **The status of settlement negotiations, including:**

a. **dates of previous settlement negotiations,**

Settlement conferences were held on February 27, 1986; April 27, 1987; July 9, 1987; July 21, 1988; and January 5, 1989. The parties have also conferred several times by telephone and by letter on the case. A draft of a revised Agreed Order was presented by the Respondent to counsel for the Complainant on July 1, 1987, and revisions to the Agreed Order were discussed at the July 21, 1988 settlement conference. A revised Agreed Order was discussed at the January 5, 1989 Settlement Conference.

b. **agreed facts or issues of law,**

There are no issues of fact or law which have been formally agreed to or stipulated, but the Respondent has agreed to make every effort to settle the case and enter into an Agreed Order.

c. **a statement as to all existing disputed issues of fact and law,**

Although several issues of fact and law are in dispute, both Complainant and Respondent are confident that these issues will be resolved through a settlement agreement between the parties.

d. **an assessment of the possibilities of settlement including a time frame for continued negotiations.**

The possibility for settlement is very good. The Respondent is currently focusing upon additional wastewater treatment capabilities, storage capacity, waste analysis, containment, cleanup, and sampling. The Indiana Department of Environmental Management has presented to Respondent a

proposed Agreed Order which incorporates the agreements of both parties. The parties are in the process of finalizing the Agreed Order.

7. **A proposed timetable for further proceedings in the case.**

The Indiana Department of Environmental Management would request sixty (60) additional days to finalize the Agreed Order and sixty (60) days for signatures and filing with the Judge.

Respectfully submitted,

REFINED METALS CORPORATION

By: _____
Robert N. Steinwurtzel
Jeffery S. Hannapel

COUNSEL FOR RESPONDENT

Andrews & Kurth
1701 Pennsylvania Ave., N.W.
Washington, D.C. 20006
Telephone: (202) 662-2700

LINLEY E. PEARSON
Attorney General of Indiana

By: _____
Martin A. McCrory
Deputy Attorney General

COUNSEL FOR COMPLAINANT

Office of Attorney General
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Indianapolis, Indiana 46204
Telephone: (317) 232-6244

CIV 1 (Rev. 10/82)

SUMMONS IN A CIVIL ACTION

United States District Court	DISTRICT Southern District of Indiana
United States of America, Plaintiff, v. Refined Metals Corporation, Defendant.	DOCKET NO. IP 902077C TO: (NAME AND ADDRESS OF DEFENDANT) C.T. Corporation (agent) 1 North Capitol Street Indianapolis, Indiana 46204

YOU ARE HEREBY SUMMONED and required to serve upon

PLAINTIFF'S ATTORNEY (NAME AND ADDRESS)

Thomas E. Kieper
Assistant United States Attorney
United States Attorney's Office
46 E. Ohio Street, 5th Floor
Indianapolis, Indiana 46204

(317) 226-6333

an answer to the complaint which is herewith served upon you, within 20 (twenty) days after service of this summons upon you, exclusive of the day of service. If you fail to do so, judgment by default will be taken against you for the relief demanded in the complaint.

CLERK	DATE
John A. Olaf	~~November 20, 1990~~
DEPUTY CLERK Sherry Miller	NOV 21 1990

FILED
U.S. DISTRICT COURT
INDIANAPOLIS DIVISION
90 NOV 21 AM 10: 05
SOUTHERN DISTRICT
OF INDIANA
JOHN A. O'NEAL
CLERK

SARAH EVANS BARKER
John Paul Godich

UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF INDIANA
INDIANAPOLIS DIVISION

UNITED STATES OF AMERICA, Plaintiff, v. REFINED METALS CORPORATION, Defendant.	)	CIVIL ACTION NO. IP 902077C

COMPLAINT

Plaintiff, the United States of America, by the Attorney General, at the request of the Administrator of the Environmental Protection Agency ("EPA"), alleges the following:

NATURE OF ACTION

1. This is a civil action for injunctive relief and civil penalties brought pursuant to two federal environmental statutes, the Resource Conservation and Recovery Act, as amended (hereinafter "RCRA"), 42 U.S.C. §§ 6928(a), (g), and (h), and the Clean Air Act, (hereinafter "CAA"), 42 U.S.C. § 7413(b). The action results from the defendant's failure to comply with state and federal requirements for hazardous waste facilities and air pollution control regulations contained in the federally-approved and enforceable Indiana State Implementation Plan ("SIP").

2. Defendant has operated a hazardous waste facility without a permit, has violated Indiana regulations governing the operation of hazardous waste facilities, and has allowed the release of hazardous waste into the environment, in violation of RCRA.

3. Defendant has emitted total suspended particulate matter and lead in excess of the limits imposed by the Indiana SIP, in violation of the CAA.

JURISDICTION AND VENUE

4. This court has jurisdiction over this action pursuant to Section 3008(a) of RCRA, 42 U.S.C. § 6928(a), Section 113(b) of the CAA, 42 U.S.C.§ 7413(b) and 28 U.S.C. §§ 1331, 1345 and 1355. Pursuant to Section 3008(a) of RCRA, 42 U.S.C. § 6928(a), Section 113(b) of the CAA, 42 U.S.C. § 7413(b), and 28 U.S.C. § 1391(b), venue is proper in this district because the defendant's facility is located in this district and because the violations occurred in this district.

5. In accordance with Section 3008(a)(2) of RCRA, 42 U.S.C. § 6928(a)(2), and Section 113(b) of the CAA, 42 U.S.C. § 7413(b), the State of Indiana has been notified of the commencement of this action.

DEFENDANT

6. The defendant, Refined Metals Corporation ("RMC" or "defendant"), is a Delaware corporation with headquarters in Tennessee, and owns and operates a lead reclaiming facility (the

"RMC facility"), located at 3700 South Arlington Avenue, Indianapolis, Indiana.

STATUTORY AND REGULATORY AUTHORITY

RCRA

7. RCRA establishes a comprehensive federal regulatory program applicable to the generation, transportation, storage, treatment and disposal of hazardous waste. EPA has promulgated regulations under RCRA to govern the operations of facilities that manage hazardous wastes. These regulations are codified at 40 C.F.R. Parts 260-271.

8. Section 3005 of RCRA, 42 U.S.C. § 6925, generally prohibits the operation of any hazardous waste facility except in accordance with a permit.

9. Section 3005(e) of RCRA, 42 U.S.C. § 6925(e), provides that a hazardous waste facility that was in existence on November 19, 1980, may obtain "interim status" to continue operating until EPA or an authorized state takes final action with respect to the facility's permit application, so long as the facility satisfies certain conditions specified in that section. Those conditions include filing a timely notice under Section 3010, 42 U.S.C. § 6930, that the facility is generating, and treating, storing or disposing of hazardous wastes, and filing an application for a hazardous waste permit.

10. Section 3005(e)(2) of RCRA, 42 U.S.C. § 6925(e)(2), provides that a land disposal facility that was granted interim status automatically loses that status on

November 8, 1985, unless the owner or operator: (a) applies for a final determination of its permit application; and (b) certifies that the facility is in compliance with all applicable groundwater monitoring and financial responsibility requirements.

11. Section 3008(h) of RCRA, 42 U.S.C. § 6928(h), provides that when EPA determines that there is or has been a release of hazardous waste into the environment from a hazardous waste disposal facility authorized to operate under Section 3005(e), 42 U.S.C. § 6925(e), EPA may commence a civil action for appropriate relief, including a temporary or permanent injunction.

12. Section 3006 of RCRA, 42 U.S.C. § 6926, provides that a State may obtain Federal authorization to administer the RCRA hazardous waste management program in that State.

13. On August 18, 1982, EPA granted to the State of Indiana Phase I interim authorization under Section 3006 of RCRA, 42 U.S.C. § 6926, to carry out certain portions of the RCRA hazardous waste management program in Indiana. On January 31, 1986, Indiana received final authority to promulgate such regulations, presently codified at 320 IAC Article 3 (and previously codified at 320 IAC Article 4 and 4.1).

14. Pursuant to Section 3008(a) of RCRA, 42 U.S.C. § 6928(a), the United States is authorized to enforce violations of an authorized state's hazardous waste management program.

<u>CAA</u>

15. Section 109 of the Clean Air Act, 42 U.S.C.

§ 7409, requires EPA to promulgate national ambient air quality standards ("NAAQS") for air pollutants in order to protect the public health and welfare.

16. In order to achieve the NAAQS within established time limits, Section 110 of the CAA, 42 U.S.C. § 7410, requires each state to adopt and submit to EPA for approval a State implementation plan (SIP) which contains procedures and regulations for reducing emissions from sources of air pollution within the State. Upon approval, a SIP is federally enforceable.

17. Section 113(b) of the CAA, 42 U.S.C. § 7413(b), states that the Administrator of EPA shall commence a civil action for an injunction or for the assessment of a civil penalty of up to $25,000 per day of violation, or both, whenever any person operating a major stationary source violates any requirement of an applicable SIP and such violation continues for more than 30 days after the Administrator notifies such person of a violation.

18. On or about July 16, 1982, EPA approved 325 IAC 6-1-12, which then became part of the Indiana SIP. See 47 Fed. Reg. 30972. The rule (subsequently recodified at 325.1 and 326 IAC) limits emissions of total suspended particulate matter from Refined Metals' blast furnace to .003 grams per dry standard cubic foot.

19. On or about April 19, 1988, EPA approved 325 IAC 15-1, part of the Indiana SIP. See 53 Fed. Reg. 12896. The rule

(subsequently recodified at 325.1 and 326 IAC) limits lead emissions from Refined Metals' three baghouse stacks as follows:

M-1 stack	1.132 pounds/hour
M-2 stack	0.015 pounds/hour
M-3 stack	0.005 pounds/hour

20. The federally-approved Indiana SIP, including 326 IAC 6-1-12 and 326 IAC 15-1, is the "applicable implementation plan" within the meaning of Section 113(b) of the Act, 42 U.S.C. § 7413(b), that governs operations at the RMC facility.

GENERAL ALLEGATIONS

21. RMC is a "person" within the meaning of Section 1004(15) of RCRA, 42 U.S.C. § 6903(15), and 40 C.F.R. § 260.10.

22. RMC is a "person" within the meaning of Section 302(e) of the CAA, 42 U.S.C. § 7602(e).

23. At all times relevant hereto, RMC has been the "owner" and/or "operator" of the RMC facility within the meaning of 40 C.F.R. § 260.10 and Section 111(a)(5) of the CAA, 42 U.S.C. § 7411(a)(5).

24. The RMC facility is a "facility" within the meaning of 40 C.F.R. § 260.10.

25. The RMC facility is a "stationary source" within the meaning of Section 113(b) of the CAA, 42 U.S.C. § 7413(b), as defined by Section 111(a)(3) of the CAA, 42 U.S.C. § 7411(a)(3).

26. At times relevant hereto, there has been a "disposal" at the RMC facility, as defined by Section 1004(3) of RCRA, 42 U.S.C. § 6903(3).

27. In the course of the operation of the RMC facility, and at all times relevant hereto, defendant has generated, treated, stored and/or disposed of "hazardous wastes," as defined by Section 1004(5) of RCRA, 42 U.S.C. § 6903(5), and 40 C.F.R. § 261.3. These hazardous wastes include arsenic, cadmium, and lead.

28. At all times relevant hereto, defendant was required by Section 3005 of RCRA, 42 U.S.C. § 6925 and 320 IAC Article 3 (previously codified at 320 IAC Article 4 and 4.11) to have a permit for the treatment, storage, and/or disposal of hazardous waste at the RMC facility.

29. On or about August 14, 1980, defendant notified EPA under Section 3010(a) of RCRA, 42 U.S.C. §6930(a), that the RMC facility was generating hazardous wastes.

30. On or about November 17, 1980, defendant submitted a hazardous waste permit application under Section 3005(a) of RCRA, 42 U.S.C. § 6925(a) (known as the "Part A Application").

31. As a matter of law, defendant attained "interim status" under Section 3005 of RCRA, 42 U.S.C. § 6925, to operate the RMC facility by virtue of the notification to EPA alleged in paragraph above, and the submission of the Part A Application alleged in paragraph above.

32. Defendant has not obtained a final permit under RCRA.

33. Defendant has been bound at all relevant times to comply with 40 C.F.R. Part 265 and 329 IAC Article 3 (previously

codified at 320 IAC Article 4 and 4.1), promulgated pursuant to RCRA.

34. Defendant has been bound at all relevant times to comply with 326 IAC 6-1-12, and 326 IAC 15-1-2, which limit, respectively, particulate matter and lead emissions from the RMC facility, and all other applicable provisions of the Indiana SIP.

35. Defendant failed to meet the requirements of Section 3005(e)(2) of RCRA, 42 U.S.C. § 6925(e)(2), in that it failed to certify, as the statute requires, that it was in compliance with the financial responsibility requirements of the Indiana Hazardous Waste Management Permit Program, as specified in paragraph 40 below. Accordingly, on November 8, 1985, defendants lost "interim status."

FIRST CLAIM FOR RELIEF
(OPERATING WITHOUT A PERMIT AFTER LOSS OF INTERIM STATUS)

36. The United States realleges and incorporates herein paragraphs 1-4, 21-32, and 35 above.

37. From November 8, 1985 through the present time, defendant has treated, stored, and/or disposed of hazardous waste at the RMC facility without a permit, in violation of Section 3005(a) of RCRA, 42 U.S.C. § 6925(a).

38. Under RCRA sections 3008(a) and (g), 42 U.S.C. §§ 6928(a) and (g), defendant is subject to civil penalties not to exceed $25,000.00 for each day that it has operated without a permit, and to injunctive relief to prevent further such violations.

SECOND CLAIM FOR RELIEF
(CLOSURE PLAN AND FINANCIAL RESPONSIBILITY VIOLATIONS)

39. The United States realleges and incorporates by reference paragraphs 1-4, 21-32, and 35 above.

40. At times relevant hereto, defendant has violated the Indiana Hazardous Waste Management Permit Program regulations (IC 13-7-8.5; 329 IAC Article 3 and its previous codifications). These violations include, without limitation, those alleged in paragraphs 41 to 42.

41. Defendant failed to submit required closure plans (329 IAC 3-21-3).

42. Defendants has not been in compliance with the applicable financial responsibility requirements including, in particular, by failing to demonstrate financial assurance for closure and to acquire sudden accident liability insurance (329 IAC 3-22).

43. Each of the violations of the Indiana Hazardous Waste Management Permit Program regulations alleged in paragraphs 41 to 42 constitutes a violation of RCRA.

44. Under RCRA sections 3008(a) and (g), 42 U.S.C. §§ 6928(a) and (g), defendant is subject to civil penalties not to exceed $25,000.00 per day for each violation and to injunctive relief to prevent further such violations.

THIRD CLAIM FOR RELIEF
(OTHER INDIANA HAZARDOUS WASTE MANAGEMENT PROGRAM VIOLATIONS)

45. The United States realleges and incorporates by reference paragraphs 1-4, 21-32, and 35 above.

46. At times relevant hereto, defendant has violated the Indiana Hazardous Waste Management Permit Program regulations (IC 13-7-8.5; 329 IAC Article 3 and its previous codifications). These violations include, without limitation, those alleged in paragraphs 47 to 56.

47. There has been a release of hazardous waste or hazardous waste constituents throughout the premises which could threaten human health or the environment, including spillage in the baghouse area (329 IAC 3-17-2).

? penalty not required

48. Scrap, lead-bearing wastes and materials have been stored so as to allow contaminants to be deposited on the land in a manner which creates a pollution hazard; this scrap has been stored in waste piles without run-on, runoff, or wind dispersal control; wastewater which is used for dust control has been allowed to overflow from the drainage system to a ditch that flows off-site (IC 13-7-4-1(c)).

265.251 - wind
265.253 - Run off

Not familiar with this IDEM citation

49. Defendant has not notified the Indiana Solid Waste Management Board of hazardous waste storage in containers and storage in waste piles (329 IAC 3-2-1-).

management not indicated in the part A
See #37

The part A indicated 503, as revised in 1985

1984 RMC document claimed to have done this.

Pls check referred pkg for this document

50. Defendant has not determined if the waste slag produced in the secondary lead blast furnace and the wastewater that runs through the furnace building are hazardous wastes (329 IAC 3-7-2).

Hazardous waste determination 262.11

51. Defendant does not have a detailed waste analysis plan on file at the facility (329 IAC 3-16-4).

265.13

lumped the following IDEM VOL^n.
265.15
265.16 } ONE VOL^n
265.51

TYPO

52. Defendant has failed to develop and conduct inspections as required (329 IAC 3-16-~~3~~6). 265.15

53. Defendant has not maintained specified personnel training records (329 IAC 3-16-7). 265.16

54. Defendant has not given an annual review of initial training to facility personnel (329 IAC 3-16-7). 265.16(c)

55. Defendant has failed to develop and file the contingency plan required to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or nonsudden release of hazardous waste hazardous waste constituents to air, soil, or surface water (329 IAC 3-18). 265.51

56. Defendant has not provided a description and the quantity of each hazardous waste received, the methods and dates of each waste's treatment, storage, or disposal, and the location and quantity of each hazardous waste within the facility in the operating record (329 IAC 3-19-4). same as #37

57. Each of the violations of the Indiana Hazardous Waste Management Permit Program regulations alleged in paragraphs 47 to 56 constitutes a violation of RCRA.

58. Under RCRA sections 3008(a) and (g), 42 U.S.C. §§ 6928(a) and (g), defendant is subject to civil penalties not to exceed $25,000.00 per day for each violation and to injunctive relief to prevent further such violations.

FOURTH CLAIM FOR RELIEF
(RELEASE REQUIRING CORRECTIVE ACTION)

59. The United States realleges and incorporates

herein by reference paragraphs 1-4, 21-32, and 35 and 39-58 above.

60. At times relevant hereto, defendant has caused hazardous wastes, within the meaning of Section 1004(5) of RCRA, 42 U.S.C. § 6903(5), and 40 C.F.R. 261.30 et seq., have be an released from the RMC facility into the environment.

61. This release of hazardous waste into the environment from the RMC facility has resulted in the contamination of soil in and around the RMC facility and the potential for contamination of nearby groundwater.

62. On or about May 5, 1989, the Regional Administrator of EPA Region V issued a formal "Determination of Release of Hazardous Waste into the Environment from a RCRA Interim Status Facility" with respect to the RMC facility.

63. Under Section 3008(h) of RCRA, 42 U.S.C. § 6928(h), injunctive relief is necessary to require defendant to determine the nature and extent of the contamination in and around the RMC facility and to require it to remedy all such contamination.

FIFTH CLAIM FOR RELIEF
(CLEAN AIR ACT/SIP VIOLATIONS)

64. The United States realleges and incorporates herein by reference paragraphs 1-6, 15-25, and 34 above.

65. On or about November 16, 1988, EPA notified Defendant, pursuant to Section 113(a)(1) of the CAA, 42 U.S.C. § 7413(a)(1), that it had violated the Indiana SIP by exceeding

the limitations on particulate matter and lead emissions. The State of Indiana was also notified of the violations.

66. Despite the issuance of the November 16, 1988 Notice of Violation, defendant has continued for more than 30 days thereafter to exceed the limits set forth in 326 IAC 6-1-12 and 326 IAC 15-1-2, including, without limitation, on or about June 19-20, 1989.

67. Each instance that Defendant has exceeded the limits of the Indiana SIP constitutes a violation of the CAA, rendering RMC liable to a civil penalty of up to $25,000 per day of violation under Section 113(b) of the CAA, 42 U.S.C. § 7413(b).

68. Unless restrained by order of this Court, RMC will continue to violate the Indiana SIP.

RELIEF SOUGHT

WHEREFORE, plaintiff, the United States of America respectfully requests this Court to:

1. Enjoin defendant from violating RCRA and the Indiana RCRA Hazardous Waste Management Program;

2. Enjoin defendant from the treatment, storage, disposal and release of any hazardous wastes at the RMC facility;

3. Order defendant to comply with all applicable financial responsibility and groundwater monitoring requirements of RCRA;

4. Order defendant to submit to EPA for approval an amended closure plan which meets the requirements of 40 C.F.R.

§ 265.112(c)(1) and (d)(3), and 329 IAC Article 3, and to complete closure within 180 days of EPA approval;

5. Order defendant to prepare and implement a plan acceptable to EPA to sample, analyze and study the nature and extent of hazardous waste and hazardous waste constituents released from the RMC facility, and the effects of such hazardous wastes and hazardous waste constituents on the groundwater in and around the RMC facility;

6. Order defendant to prepare and implement a plan acceptable to EPA to take all necessary steps to remedy all contamination in and around the RMC facility resulting from the release of hazardous wastes and hazardous waste constituents, including releases to the groundwater underlying the RMC facility;

7. Direct defendant to pay a civil penalty in an amount not to exceed $25,000.00 for each day of each violation of RCRA and applicable state regulations;

8. Enjoin defendant from violating the CAA and the Indiana SIP;

9. Order defendant to undertake immediately and complete expeditiously all actions necessary to assure that its facility will operate in compliance with 326 IAC 6-12, 326 IAC 15-1 and all other applicable requirements of the CAA and the Indiana SIP;

10. Direct defendant to pay a civil penalty in an

amount not to exceed $25,000 for each day of each violation of the CAA and the Indiana SIP;

11. Award the United States its costs of this action and;

12. Award such further relief as this Court may deem appropriate.

Respectfully submitted,

RICHARD B. STEWART
Assistant Attorney General
Environment & Natural Resources Division
United States Department of Justice
Washington, D.C. 20530

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[United States v. Refined Metals Corporation--Complaint]

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Agency, Region V
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Chicago, Illinois 60604

Refined Metals Corporation (RMC)
IND 000 718 130

The Department of Justice filed suit against Refined Metals Corporation of Indianapolis, Indiana on November 21, 1990, for violations of RCRA and the Clean Air Act. The suit contends that the interim status of RMC's leaden waste pile terminated on November 8, 1985, that release of hazardous waste into the environment from its facility has resulted, and that RMC had violated the Indiana State Implementation plan by exceeding the limitations on total suspended particulate matter and lead emissions. The suit seeks to bar RMC from using its waste piles, close the waste piles, remedy all contamination and pay a civil penalty. On November 26, 1990, a meeting was held between U.S. EPA and RMC to discuss the suite; however, a settlement has not been reached.

REB Contact: Jon Adenuga (6-7954)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

due to Kevin
3/26 - NOON

MAR 19 1991

MEMORANDUM

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

SUBJECT: Enforcement Initiative to Reduce Lead Contamination

FROM: Ginger Freedman Ginger
Training and Guidance Section

TO: Addressees

The purpose of this memo is to request an update on the compliance status of lead smelters. Most of you provided information late last year, but we need to update it now. As you are aware the Agency has established an enforcement initiative as part of the larger Agency Lead Strategy. The joint multi-media filing date will be July 9th. Because we are not sure how many cases there will be, OE has decided to supplement the filing with a list of all enforcement actions that have been taken in the past twelve months involving lead.

Attachment I is a list of the Regional contacts that had either responded to Laxmi Kesari's initial request late last year, or been nominated by the Regional Enforcement Section Chiefs on March 12th. If you no longer are the correct contact, please call me.

Attachment II is a summary sheet of the information that you provided on the 29 smelters. The facilities that are marked with asterisks are those who: appeared to have had recent enforcement actions; were due for a new inspection which could generate action; or were candidates for civil referrals. What we need is an update of that information; a status of what, if any cases, can be filed in July; and a very brief description of the facility, alleged violation and planned enforcement action.

Our previous request for information only concerned the lead smelters. Now we are interested in any RCRA actions involving lead. Attachment III is a list of the facilities in each Region that historically have had large releases of lead. This list may be helpful in identifying facilities that have had or will have enforcement actions.

David Clay of OE-RCRA is identifying the ORC contact at each Region. Hopefully you will be able to work together to avoid duplication of effort. The list of cases is due to OE on April 1st so please respond by phone or fax by March 27th. If you have any questions, please call me at FTS 475-9328. My fax number is 475-8630. David Clay's number is FTS 382-3075.

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Rec'd
10/15/90

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

105 South Meridian Street
P.O. Box 6015
Indianapolis 46206-6015
Telephone 317/232-8603

October 9, 1990

PLEASE

Jeffrey S. Hannapel, Esq.
ANDREWS & KURTH
1701 Pennsylvania Avenue, N.W.
Suite 200
Washington, D.C. 20006

Re: Refined Metals Corporation IND 000718130
Cause No. 89-S-J-254

Dear Mr. Hannapel:

As we discussed on the telephone, staff of the Indiana Department of Environmental Management ("IDEM") has reviewed your most recent submission dated September 18, 1990 and approved the information included therein as sufficient to amend the storage design capacity for lead-acid batteries in the Refined Metals Corporation Part A permit application. This submission should allow us to dispose of the currently pending administrative review embodied in the above mentioned Cause Number. Consequently, with the resolution of the Petition for Administrative Review, the IDEM will approve the interim status increase for battery storage capacity from two hundred (200) cubic yards to four hundred (400) cubic yards.

As we also discussed on the telephone, I will be looking forward to your transmission of a draft Joint Motion for Dismissal of that administrative cause.

Sincerely,

Stanley H. Rorick

Stanley H. Rorick
Office of Legal Counsel

cc: Tom Linson

ANDREWS & KURTH
ATTORNEYS
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TELECOPIER (202) 662-2739
TELEX: 79-1208

October 1, 1990

Via Telecopy

Ms. Winter Bottom
Office of Legal Counsel
Indiana Department of Environmental
Management
105 South Meridian Street
Indianapolis, IN 46206-6015

Re: Commissioner of the Department of Environment Management v. Refined Metals Corporation, Cause No. A-1031

Dear Ms. Bottom:

Please find enclosed a revised draft Agreed Order in the above-captioned matter which reflects the requirements contained in proposed revisions to 326 IAC 15-1-2. The proposed revisions were provided by IDEM staff to the undersigned after I had prepared the draft Agreed Order on September 28, 1990.

The revisions concern paragraphs 9, 10, and 11; specifically, the revisions now reflect the installation schedule contained in proposed 326 IAC 15-1-2.

I look forward to hearing from you regarding this matter as soon as practicable.

Sincerely yours,

Robert N. Steinwurtzel

Robert N. Steinwurtzel

RNS/bao

cc: Mr. T.W. Freudiger
Mr. David Jordan
Mr. Tim Method
Mr. Russell Kemp

BEFORE THE INDIANA DEPARTMENT
OF ENVIRONMENTAL MANAGEMENT

STATE OF INDIANA)
) SS:
COUNTY OF MARION)

COMMISSIONER OF THE DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, *Complainant,* v. REFINED METALS CORPORATION, *Respondent.*	Cause No. A-1031

AGREED ORDER

The parties to this cause now wish to settle and compromise this action without hearing or adjudication of any issue of fact or law, and hereby consent to the following Findings of Fact and Order:

FINDINGS OF FACT

Now, therefore, upon the consent of the parties hereto, the following findings are made:

1. The Complainant is the Commissioner of the Indiana Department of Environmental Management (also referred to as "Commissioner").

2. The Respondent, Refined Metals Corporation, owns and operates a battery recycling operation, located in or near Beech Grove, Indiana.

3. The Department of Environmental Management (hereinafter the "Department") has jurisdiction over both the subject matter and the parties to this action.

4. The Indianapolis Air Pollution Control Division ("IAPCD") reviewed results of Respondent's November 16, 17, and 18, 1987, stack test. The review indicated one alleged violation of TSP emissions (325 IAC 6-1-12), one alleged violation of SO_2 emissions (325 IAC 7-1-9(a)(23)) and three alleged violations of lead emissions (325 IAC 15-1-2.)

5. Pursuant to IC 13-1 and IC 13-7, a Notice of Violation was duly served, via Certified Mail, to:

   Mr. Ron Widner
   Refined Metals
   P.O. Box 188
   Beech Grove, Indiana 46107

6. Additional stack testing was performed for TSP and lead emissions on June 19 and 20, 1989. The results indicate one continuing alleged violation of TSP emission limits, and two continuing alleged violations of lead emission limits.

7. None of the agreements, statements, stipulations, and actions taken by the Respondent shall be deemed an admission by the Respondent of the allegations contained within the Notice of Violation, Agreed Order, or any other document pertaining to this cause of action. The agreements, statements, stipulations, and actions taken are made for the purpose of settling this matter economically and amicably, and they should not be used for any purpose except for proceedings and matters arising under this cause of action.

ORDER

Now, therefore, based upon the Findings of Fact, and upon consent of the parties, it is hereby Ordered that:

1. Respondent shall comply with 325 IAC 6-1-12, 325 IAC 7-1-9(a)(23), and 325 IAC 15-1-2 as recodified in 326 IAC 6-1-12, 326 IAC 7-1-9(a)(23), and 326 IAC 15-1-2, and all other rules of the Indiana Air Pollution Control Board in accordance with the terms of this Agreed Order.

2. The Respondent shall totally enclose the building which houses the blast furnace and dust furnace and ventilate the emissions from those sources to a baghouse (M-4) in accordance with the schedule contained in proposed revisions to 326 IAC 15-1-2.

3. Prior to the installation and compliance demonstration schedules for the blast furnace total enclosure contained in proposed revisions to 326 IAC 15-1-2, Respondent shall submit all

necessary permit application(s) to the Department and to the IAPCD, including required engineering designs, by February 1, 1991.

4. Respondent anticipates constructing and operating a reverberatory furnace. Concurrent with the construction of the reverberatory furnace, Respondent shall install a system to desulfurize lead bearing feed materials in order to reduce sulfur dioxide emissions. The desulfurization system for the reverberatory furnace will be installed by December 31, 1993, unless Respondent determines not to construct and operate a reverberatory furnace.

5. In the event Respondent elects not to construct and operate a reverberatory furnace, Respondent shall investigate alternative processes or controls to achieve a reduction of sulfur dioxide emissions from the existing blast furnace. Respondent shall complete the investigation and submit its determinations to the Department and to the IAPCD by December 31, 1992. The alternative processes or controls shall be installed and operated within one year from the date of approval by the Department.

6. Pending the construction and operation of the reverberatory furnace or the alternative process or control modifications referenced in paragraphs 4 and 5 above, Respondent shall comply with a sulfur dioxide emission limit of 320.7 pounds per hour for the existing blast furnace.

7. Respondent shall achieve compliance with a sulfur dioxide emission limit of 167.7 pounds per hour for the existing blast furnace by either December 31, 1993, if Respondent constructs a reverberatory furnace, or within one year from the date of the Department's approval of an alternative control, referenced in Paragraph 5 above.

8. Within 120 days from the date the Commissioner signs this Agreed Order, the Department shall propose to the Indiana Air Pollution Board ("Board") a revision of the State Implementation Plan (SIP) limit for sulfur dioxide (326 IAC 7-1-9 (a) (23)) for Respondent's existing blast furnace in accordance with paragraphs 6 and 7 above. Upon preliminary adoption by the Board the Department shall process the proposed sulfur dioxide limits as quickly as practicable.

9. The Respondent shall install, operate, and maintain continuous opacity monitor systems ("COMs") in the M-1 and M-4 stacks. The COMs for the M-1 and M-4 stacks shall be installed, operated, and maintained by September 1, 1991.

10. The Respondent shall calibrate and certify the COMs for opacity in accordance with 40 C.F.R. Part 60 Appendix B, EPA Performance Specification I.

The calibration test shall verify the COM zero drift, calibration drift, calibration error, and response time. The test shall be performed by October 1, 1991. Test results shall be submitted to the Commissioner and TAPCD within thirty (30) days after the test.

11. The Respondent shall submit monthly COM reports for opacity to the Commissioner and to the IAPCD for a period of twelve (12) months. Data shall be reported in accordance with 40 C.F.R. Part 60.13. The monthly COM reports shall be submitted to the Commissioner and to the IAPCD within fifteen (15) days after the end of each month, and the reporting shall begin within forty-five (45) days after the Respondent receives certification that the COM's are calibrated and certified.

12. The Respondent shall submit a preventive maintenance plan or a compliance schedule to the Commissioner and to the IAPCD in the event the COM monthly reports indicate possible violations of 326 IAC 5-1-12 (opacity). The plan or schedule shall be submitted within fifteen (15) days after such violations occur.

13. Within 120 days from the date the Commissioner signs this Agreed Order, the Department shall propose revisions to the Indiana Air Pollution Control Board to revise the State Implementation Plan ("SIP") limits for total suspended particulates ("TSP") (326 IAC 6-1-12) as follows:

Source	Proposed Limit (Grains/dscf)
M-1	.01
M-2	.003
M-3	.003

14. The Respondent shall comply with the proposed TSP revised limits, provided in paragraph 12 above, pending the preliminary and final adoption of the limits by the Board.

15. Upon preliminary adoption by the Board, the Department shall process the proposed TSP revised limits, provided in paragraph 12 above, as quickly as practicable.

16. The Respondent shall submit written quarterly reports which describe:

    a) the status of activities encompassed by this Agreed Order;

    b) the achievement of, or failure to achieve, any interim compliance date contained in this Agreed Order; and

    c) the likelihood of compliance with future deadlines.

The Respondent shall mail the quarterly reports by the 30th day following the completion of each calendar quarter.

17. If any event occurs which causes, or may cause, delays in achievement of any provisions of this Agreed Order, the Respondent shall notify the Commissioner in writing within ten (10) days of the delay or anticipated delay, as appropriate, describing the anticipated length of the delay, the cause(s) of the delay, the measure(s) taken or to be taken, and the time required to prevent or minimize the delay. Respondent shall adopt all reasonable measures to prevent or minimize such delay.

    If the delay has been caused by fire, flood, riot, strike, administrative delays by the Department or the IAPCD, or other circumstances beyond the reasonable control of Respondent, then the time for performance hereunder shall be extended for a period no longer than the delay resulting from such circumstances.

18. The Respondent shall pay stipulated penalties to the Department for violations of the requirements of this Agreed Order as follows:

    a. One Hundred Dollars ($100.00) per day for each failure to submit any report or notification required by this Agreed Order.

    b. Three Hundred Dollars ($300.00) per day for each failure to comply with any applicable interim compliance schedule.

    c. The above penalties shall be paid within thirty (30) days after receiving notice of the amount due. One-half (1/2) of the amount due shall be paid to the Environmental Management Special Fund, and one-half (1/2) to the Indianapolis Air Pollution Control Division.

19. Respondent shall make payments in the amount of $7500.00 to the Environmental Management Special Fund and $7500.00 to the Indianapolis City Controller. Said payments shall be due and payable thirty (30) days after Respondent receives notice that the Commissioner has approved the Agreed Order.

20. Respondent shall make an additional payment of $15,000.00, to be divided equally between the Environmental Management Special Fund and the Indianapolis Air Pollution Control Division, by January 31, 1992. This additional payment of $15,000.00 may be reduced or eliminated if Respondent completes installation of the blast furnace total enclosure system, contained in proposed revisions to 326 IAC 15-1-2, prior to December 31, 1991. The additional payment shall be reduced or eliminated if the blast furnace total enclosure system is installed in accordance with the following schedule:

Installation Date	Additional Required Payment	Payment Date
09/31/91	0	-
10/31/91	$5,000	11/31/91
11/30/91	$10,000	12/30/91
12/31/91	$15,000	01/31/92

21. The provisions of this Agreed Order shall apply to Respondent, its agents, successors, employees and assigns, and to all persons, firms, or corporations acting through or for Respondent.

22. This Agreed Order shall have no force or effect until it is approved by the Commissioner. Full and timely compliance with the provisions of this Agreed Order shall constitute a final resolution of this action.

Respondent, by the duly authorized undersigned, hereby consents to the provisions of this Agreed Order and shall be bound by said Order when it is issued by the Commissioner, Department of Environmental Management of the State of Indiana.

TECHNICAL RECOMMENDATION:

By: _____
Edgar F. Stresino, Chief
Enforcement Branch, Office
of Air Management

Date: _____

REFINED METALS CORPORATION

By: _____
T. W. Freudiger
Executive Vice President

Date: _____

APPROVED FOR LEGALITY AND FORM

Linley E. Pearson
Attorney General of Indiana

By: _____
Lee Cloyd
Deputy Attorney General

Date: _____

ATTORNEY FOR RESPONDENT

Andrews & Kurth

By: _____
Robert N. Steinwurtzel

Date: _____

Approved and adopted by the Indiana Department of Environmental Management this ____ day of _____, 1990.

_____
Kathy Prosser
Commissioner

STATE OF INDIANA

INDIANAPOLIS

OFFICES OF ATTORNEY GENERAL

LINLEY E. PEARSON, ATTORNEY GENERAL

219 STATE HOUSE

46204

September 4, 1990

Mr. Robert Steinwurtzel
Ms. Susan Panzik
Andrews & Kurth
1701 Pennsylvania Ave., N.W.
Washington, D.C. 20006

Re: DEM v. Refined Metals
Administrative Cause No. N-283

Dear Mr. Steinwurtzel and Ms. Panzik:

Enclosed please find the Department of Environmental Management's ("IDEM") revised Agreed Order in the above-referenced action. Since the last proposal by the IDEM, which, if you will recall, was countered by you for your client, there has been a decision made to alter the relief sought through settlement of this action. Please review the enclosed and contact me. I am sorry for the delay in our responding to your counter-proposal, but it has simply taken this long to get a definite position from the IDEM.

If the terms of the enclosed are acceptable and you could obtain the necessary signatures, followed by return to me, it would be greatly appreciated. Thank you for your cooperation and assistance.

Sincerely,

Mathew S. Scherschel

Mathew S. Scherschel
Deputy Attorney General

MSS/kc:8151W

Enclosure

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

105 South Meridian Street
P.O. Box 6015
Indianapolis 46206-6015
Telephone 317/232-8603

STATE OF INDIANA)		BEFORE THE INDIANA DEPARTMENT OF
) SS:		
COUNTY OF MARION)		ENVIRONMENTAL MANAGEMENT
IN THE MATTER OF THE:	)	
COMMISSIONER, INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT	)	
Complainant	)	
vs.	)	CAUSE NO. N-283
REFINED METALS CORPORATION	)	
Respondent	)	

AGREED ORDER

Come now the parties to this cause and, being desirous of settling and compromising this action without hearing or adjudication of any issue of fact or law, hereby consent to the following FINDINGS and ORDER. This document shall not constitute any evidence or admission by any party hereto (which could be used by any third person, nonparty in any other action), but shall be solely for the purposes of settling this action.

FINDINGS

NOW, THEREFORE, upon the consent of the parties hereto, and for the purposes of this cause only, the following FINDINGS are made:

1. The Complainant is the Commissioner of the Indiana Department of Environmental Management (hereinafter referred to as "the Commissioner").

2. The Indiana Department of Environmental Management (hereinafter referred to as the "Department") has jurisdiction over both the parties and the subject matter of this action.

3. Respondent, Refined Metals Corporation, is a company authorized to do business in Indiana and operates a place of business at 3700 South Arlington Avenue, Indianapolis.

4. On August 18, 1980, Refined Metals Corporation submitted notification of hazardous waste activity as a generator only.

5. On November 19, 1980, Refined Metals Corporation submitted a Part A permit application to the U.S. Environmental Protection Agency (EPA). This application did not include any process codes and design capacities.

6. On December 18, 1981, an inspection was conducted at Refined Metals Corporation to determine compliance with the applicable generator requirements.

7. On January 22, 1982, a referral from the Generator and Transporter Section (Department) was sent to the Treatment, Storage, and Disposal Section of the Department requesting that a treatment, storage, and disposal (TSD) inspection of Refined Metals Corporation be conducted.

8. On February 26, 1982, a TSD facility inspection was conducted at Refined Metals Corporation to determine compliance with the applicable facility requirements.

9. On April 13, 1983, an informal Notice of Violation was sent to Refined Metals Corporation. This notice cited violations discovered during the February 26, 1982, inspection.

10. On March 30, 1984, EPA received a request from Refined Metals Corporation to withdraw their Part A application, so as to function solely as a generator of hazardous waste.

11. On April 24, 1984, EPA responded to Refined Metals Corporation's request. The response stated that Refined Metals Corporation was required to close pursuant to 320 IAC 4-7 in order to become a generator only. Additionally, they were instructed that they would have to comply with 320 IAC 4-6 if they did not pursue closure.

12. On July 13, 1984, a pre-closure inspection was conducted at Refined Metals Corporation. Subsequent to this inspection, a memo was sent to the Compliance Monitoring Section recommending that a compliance inspection be conducted.

13. On May 15, 1985, a complaint was received from Emergency Response, Division of Water Pollution Control of the Indiana State Board of Health. Information received in this complaint indicated that in response to a spill, Emergency Response had detected possible soil contamination of hazardous waste.

14. Based upon an investigation of the facility on June 18, 1985, by the Office of Solid and Hazardous Waste Management (hereinafter referred to as the "OSHWM") of the Department, the Department contends that the following violations were in existence or observed at the time of the inspection.

a. Pursuant to 320 IAC 4-6 (40 CFR 265.31), the owner or operator shall manage hazardous wastes to prevent fire, explosion, or release of hazardous waste or hazardous waste constituents on premises which could threaten human health or the environment. Based on information gathered by the Department, there has been a release of hazardous waste or hazardous waste constituents throughout the premises which could threaten human health or the environment. Spillage had occurred in the baghouse area.

b. Pursuant to IC 13-7-4-1(c), no person shall deposit any contaminants upon the land in such place and manner which creates, or which would create, a pollution hazard. Scrap lead-bearing wastes and material had been stored so as to allow contaminants to be deposited on the land in a manner which creates a pollution hazard. This scrap had been stored in waste piles without run-on, run-off, or wind dispersal control. Additionally, wastewater which is used for dust control had been allowed to overflow from the drainage system to a ditch that flows off-site.

c. Pursuant to 320 IAC 4-2-1, the owner or operator of a hazardous waste storage, treatment, disposal, or recovery facility shall notify the Board of such activities. Based on information gathered by the Department, Respondent had not notified the Board of hazardous waste storage in containers and storage in waste piles.

d. Pursuant to 320 IAC 4-4 (40 CFR 262.11), a generator is required to determine if his waste is hazardous. Based on information gathered by the Department, Respondent had not determined if the waste slag produced in the secondary lead blast furnace and the wastewater that runs through the furnace building are hazardous wastes.

e. Pursuant to 320 IAC 4-6 (40 CFR 265.13(b)), the owner or operator shall have a detailed waste analysis plan on file at the facility. Based on information gathered by the Department, Respondent did not have a detailed waste analysis plan file at the facility.

f. Pursuant to 320 IAC 4-6 (40 CFR 265.15(b)), the owner or operator shall develop and follow a written schedule for inspection of security devices. Based on information gathered by the Department, Respondent had not developed and had not followed a written schedule for inspection of security devices.

g. Pursuant to 320 IAC 4-6 (40 CFR 265.15(b)(4)), the owner or operator shall inspect areas subject to spills daily when in use. Based on information gathered by the Department, Respondent had not inspected areas subject to spills daily when in use.

h. Pursuant to 320 IAC 4-6 (40 CFR 265.15(b)(4)), the frequency of inspection shall be based on the rate of possible deterioration of equipment. Based on information gathered by the Department, Respondent had not based the frequency of inspection on the rate of possible deterioration of equipment.

i. Pursuant to 320 IAC 4-6 (40 CFR 265.15(b)), the owner or operator shall develop and follow a written schedule for inspection. Based on information gathered by the Department, Respondent had not followed the written schedule for inspections.

j. Pursuant to 320 IAC 4-6 (40 CFR 265.15(d)), the inspection log shall contain the date and time of inspection. Based on information gathered by the Department, Respondent had not documented the time of inspections in the inspection log.

k. Pursuant to 320 IAC 4-6 (40 CFR 265.15(d)), the inspection log shall contain the date and nature of any repairs or remedial actions. Based on information gathered by the department, Respondent had not documented the time and nature of any repairs or remedial actions in the inspection log.

l. Pursuant to 320 IAC 4-6 (40 CFR 265.16(d)(1)), the owner or operator shall maintain job titles and the names of the employees filling the positions in the personnel training records. Based on information gathered by the Department, Respondent had not maintained the name of the employees filling the positions in the personnel training records.

m. Pursuant to 320 IAC 4-6 (40 CFR 265.16(c)), facility personnel shall participate in an annual review of initial training. Based on information gathered by the Department, Respondent had not given an annual review of initial training to facility personnel.

n. Pursuant to 320 IAC 4-6 (40 CFR 265.52(c)), the contingency plan shall describe arrangements agreed to by local police departments, fire departments, hospitals contractors, and State and local emergency response teams. Based on information gathered by the Department, Respondent had not described arrangements agreed to by local police departments, hospitals, contractors, and State and local emergency response teams in the contingency plan.

o. Pursuant to 320 IAC 4-6 (40 CFR 265.52(e)), the contingency plan shall include a list of all emergency equipment at the facility, location of equipment, physical description of each item on the list, and a brief outline of its capabilities. Based on information gathered by the Department, respondent had not

included the location of equipment, physical description of each item on the list, and a brief outline of its capabilities in the contingency plan.

p. Pursuant to 320 IAC 4-6 (40 CFR 265.52(f)), the contingency plan shall include an evacuation plan for facility personnel. Based on information gathered by the Department, Respondent had not included an evacuation plan for facility personnel in the contingency plan.

q. Pursuant to 320 IAC 4-6 (40 CFR 265.55), the emergency coordinator listed in the contingency plan must have the authority to commit the resources needed to carry out the contingency plan. Based on information gathered by the Department, respondent had listed as an emergency coordinator a person who does not have the authority to carry out the contingency plan. The alternate coordinator listed had left the employ of the Respondent.

r. Pursuant to 320 IAC 4-6 (40 CFR 265.53), copies of the contingency plan shall be on file at the site, State, and local emergency organizations. Based on information gathered by the Department, Respondent had not maintained copies of the contingency plan on file at local emergency organizations.

s. Pursuant to 320 IAC 4-6 (40 CFR 265.73(1)), the operating record shall contain a description and the quantity of each hazardous waste received and the method(s) and date(s) of each waste's treatment, storage or disposal. Based on information gathered by the Department, Respondent had not provided a description and the quantity of each hazardous waste received and the methods and dates of each waste's treatment, storage, or disposal in the operating record.

t. Pursuant to 320 IAC 4-6 (40 CFR 265.73(b)(2)), the location and quantity of each hazardous waste within the facility shall be maintained in the operating record. Based on information gathered by the Department, Respondent had not maintained the location and quantity of each hazardous waste within the facility in the operating record.

u. Pursuant to IC 4-22-1-4, settlement conferences were held on February 27, 1986; July 21, 1988; and January 5, 1989; and settlement of the claims arising out of the Complaint was discussed.

v. The Respondent submitted documents relative to allegations contained in the Complaint to the Department on March 14, 1986, for review. Based on this review, Refined Metals has achieved compliance with paragraph j. above.

ORDER

WHEREFORE, based upon the above FINDINGS and upon the consent of the parties, it is hereby ORDERED that:

1. Upon the effective date of the Order, Respondent shall cease storing hazardous waste in waste piles.

2. Within thirty (30) days of the effective date of the Order, Respondent shall submit to the Department for approval, a closure plan as specified in 329 IAC 3-21 for the area where the hazardous waste is stored in waste piles.

3. Upon notice of approval of the closure plan by the Department, Respondent shall implement the plan as approved and in accordance with the time frames contained therein.

4. Within thirty (30) days of the effective date of the Order, Respondent shall determine if the slag and the furnace building wastewater are hazardous as defined by 329 IAC 3-5-1 through 329 IAC 3-5-1 through 329 IAC 3-6-4.

5. Within forty-five (45) days of the effective date of the Order, Respondent shall submit the results of the determinations (analysis) on the slag and the furnace building wastewater to the Department.

6. Within thirty (30) days of the effective date of the Order, Respondent shall amend the personnel training records to include:

   a. The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job;

   b. A written job description of each position listed in paragraph (a) above; and

   c. Records that document that the training has been given.

7. Within thirty (30) days of the effective date of the Order, Respondent shall conduct an annual review of the initial training for all facility personnel involved in hazardous waste training.

8. Within forty-five (45) days of the effective date of the Order, Respondent shall submit the amended personnel training records which include the annual review of training to the Department for approval.

9. Within thirty (30) days of the effective date of the Order, Respondent shall amend their contingency plan to include the following items:

a. A description of the arrangements agreed to by police departments, hospitals, contractors, site and local emergency response teams;

b. The name, addresses, and phone numbers (office and home) of all persons qualified to act as alternate emergency coordinator;

c. The location of emergency equipment; and

d. An evacuation plan for facility personnel as specified in 329 IAC 3-18-3(f).

10. Within forty-five (45) days of the effective date of the Order, Respondent shall submit a copy of the amended contingency plan to the Department for approval.

11. Within ten (10) days of the notice of approval of the contingency plan by the Department, Respondent shall submit copies of the plan to all local police departments, fire departments, hospitals, and State and local emergency response teams.

12. Within forty-five (45) days of the effective date of the Order, Respondent shall submit a workplan to the Department for review and comment. This workplan shall address the construction and installation of devices to control influent to and effluent from the storm-water retention pond. The workplan shall include the design of diversion and collection devices to effect run-on/run-off control. These devices can consist of but are not limited to: dikes and berms, ditches, diversions, waterways, bench terraces, chutes and down pipes. Design criteria shall consider one hundred (100)-year precipitation events and floods, volume, area and flow rates. The workplan shall include and be supported by an engineering analyses that includes:

a. Interim Measures Objectives

The workplan shall specify the objectives of the interim measures, demonstrate how the interim measures will abate releases and threatened releases and, to the extent possible, be consistent and integrated with any long term solution at the facility. The Interim Measures Workplan will include a discussion of the technical approach , engineering design, engineering plans, schedules, budget, and personnel. The workplan will also include a description of qualification of personnel performing or directing the interim measures, including contractor personnel. This plan shall also document the overall management approach to the interim measures.

b. Design Plans and Specifications

The Respondent shall develop clear and comprehensive design plans and specifications which include but are not limited to the following:

i. Discussion of the design strategy and the design basis, including:

a) Compliance with all applicable or relevant environmental and public health standards; and

b) Minimization of environmental and public impacts.

ii. Discussion of the technical factors of importance including:

a) Use of currently accepted environmental control measures and technologies;

b) The constructability of the design; and

c) Use of currently acceptable construction practices and techniques.

iii. Description of assumptions made and detailed justification of these assumptions.

iv. Discussion of the possible sources of error and references to possible operation and maintenance problems.

v. Detailed drawings of the proposed design including:

a) Qualitative flow sheets;

b) Qualitive flow sheets;

c) Facility layout; and

d) Utility locations.

vi. Tables listing materials, equipment and specifications.

vii. Tables giving material balances.

viii. Appendices including:

a) Sample calculations (one example presented and explained clearly for significant or unique design calculations);

b) Derivation of equations essential to understanding the report; and

c) Results of laboratory of field tests.

General correlation between drawings and technical specification is a basic requirement of any set of working construction plan and specifications. Before submitting the project specification, the Respondent shall coordinate and cross-check the specifications and drawings and complete the proofing of the edited specifications and required cross-checking of all drawings and specification.

c. Operation and Maintenance Plan

The Respondent shall prepare an Operation and Maintenance Plan to cover both implementation and long-term maintenance of the interim measure. The plan shall be composed of the following elements:

i. Equipment start-up and operator training:

The Respondent shall prepare, and include in the technical specification governing treatment systems, contractor requirements for providing appropriate service visits by experienced personnel to supervise the installation, adjustment, startup and operation of the treatment systems, and training covering appropriate operational procedures once the startup has been successfully accomplished.

ii. Description of normal operation and maintenance (O&M):

a. Description of tasks for operation;

b. Description of tasks for maintenance;

c. Schedule showing frequency of each O&M task; and

d. Common and/or anticipated remedies.

iii. Description of routine monitoring and laboratory testing:

a) Description of monitoring and laboratory testing;

b) Description of required laboratory tests and their interpretation;

c) Required QA/QC; and

d) Schedule of monitoring frequency and date, if appropriate, when monitoring may cease.

iv. Description of equipment:

a. Equipment identification;

b. Installation of monitoring components;

c. Maintenance of site equipment; and

d. Replacement schedule for equipment and installed components.

v. Records and reporting mechanisms required:

a. Daily operating logs;

b. Laboratory records;

c. Mechanism for reporting emergencies;

d. Personnel and maintenance records; and

e) Monthly/annually reports to Federal/State agencies.

The Operation and Maintenance Plan shall be submitted with the Final Design Documents.

d. Project Schedule

The Respondent shall develop a detailed Project Schedule for construction and implementation of the interim measure(s) which identifies timing for initiation and completion of all critical path tasks. Respondent shall specifically identify dates for completion of the project and major interim milestones which are enforceable terms of this Order. A Project Schedule shall be submitted simultaneously with the Final Design Documents.

e. Final Design Documents

The Final Design Documents shall consist of the Final Design Plans and Specification (100% complete), the Final Draft Operation and Maintenance Plan, and Project Schedule. The Respondent shall submit the final documents one hundred percent (100%) complete with reproducible drawings and specification. The quality of the design documents should be such that the Respondent would be able to include them in a bid package and invite contractors to submit bids for the construction project.

f. Construction Quality Assurance (CQA) Objectives

In the CQA plan, the Respondent shall identify and document the objectives and framework for the development of a construction quality assurance program including, but not limited to, the following: responsibility and authority; personnel qualifications; inspection activities sampling requirements; and documentation. The responsibility and authority of all organizations (i.e., technical consultants, construction firms, etc.) and key personnel involved in the construction of the interim measure shall be described fully in the CQA plan. The Respondent must identify a CQA officer and the necessary supporting inspection staff.

g. Inspection Activities

The observations and test that will be used to monitor the construction and/or installation of the components of the interim measure(s) shall be summarized in the CQA plan. The plan shall include the scope and frequency of each type of plan shall include the scope and frequency of each type of inspection. Inspections shall verify compliance with all environmental requirements and include, but not limited to, air quality and emissions monitoring records, waste disposal records (e.g., RCRA transportation manifest), etc. The inspection should also ensure compliance with all health and safety procedures. In addition to oversight inspections, the Respondent shall conduct the following activities.

i. Preconstruction inspection and meeting

The Respondent shall conduct a preconstruction inspection and meeting to:

a) Review methods for documenting and reporting inspection data;

b) Review methods for distributing and storing documents and reports;

c) Review work area security and safety protocol;

d) Discuss any appropriate modifications of the construction quality assurance plan to ensure that site-specific considerations are addressed; and

e) Conduct a site walk-around to verify that the design criteria, plans, and specifications are understood and to review material and equipment storage locations.

The preconstruction inspection and meeting shall be documented by a designed person and minutes should be transmitted to all parties.

ii. Prefinal inspection

Upon preliminary project completion, Respondent shall notify the department for the purposes of conducting a prefinal inspection. The prefinal inspection will consist of a walk-through of the entire project site. The inspection is to determine whether the project is complete and consistent with the contract documents and the Department approved interim measure. any outstanding construction items discovered during the inspection will be identified and noted. Additionally, treatment equipment will be operationally tested by the Respondent. The Respondent will certify that the equipment has performed to meeting the purpose and intent of the specification. Retesting will be completed where deficiencies are revealed. The prefinal inspection report should outline the outstanding construction items, actions required to resolve items, completion date for these times, and date for final inspection.

iii. Final inspection

Upon completion of any outstanding construction items, the Respondent shall notify the Department for the purpose of conducting a final inspection. The final inspection will consist of a walk-through inspection of the project site. The prefinal inspection report will be used as a checklist with the final inspection focusing on the outstanding construction items identified in the prefinal inspection. Confirmation shall be made that outstanding items have been resolved.

h. Sampling Requirements

The sampling and testing activities, sample size, sample and test locations, frequency of testing, acceptance and rejection criteria, and plans for correcting problems should be presented in the CQA plan.

i. Documentation

Reporting requirements for CQA activities shall be described in the CQA plan. This plan shall include such items as daily summary reports, inspection data sheets, problem identification and interim measures reports, design acceptance reports, and final documentation. Provisions for final storage of all records shall be presented in the CQA plan.

j. Progress

The Respondent shall, at a minimum, provide the Department with signed, monthly progress reports containing;

i. A description and estimate of the percentage of the interim measures completed;

ii. Summaries of all findings;

iii. Summaries of all changes made in the interim measures during the reporting period;

iv. Summaries of all contracts with representatives of the local community, public interest groups or State government during the reporting period;

v. Summaries of all problems or potential problems encountered during the reporting period;

vi. Actions being taken to rectify problems;

vii. Changes in personnel during the reporting period;

viii. Projected work for the next reporting period; and

ix. Copies of daily reports, inspection reports, laboratory/monitoring data, etc.

k. Draft Interim Measures Report

At the "completion" of the construction of the project (except for long term operation, maintenance and monitoring), the Respondent shall submit an Interim Measures Implementation Report to the Department. The report shall document that the project is consistent with the design specification, and that the interim measures are performing adequately. The Report shall include, but not be limited to, the following elements:

i. Synopsis of the interim measures and certification of the design and construction;

ii. Explanation of any modifications to the plans and why these were necessary for the project;

iii. Listing of the criteria, established before the interim measures were initiated, for judging the functioning of the interim measures and also explaining any modification to these criteria;

iv. Results of facility monitoring, indicating that the interim measures will meet or exceed the performance criteria; and

v. Explanation of the operation and maintenance (including monitoring) to be undertaken at the facility.

The report shall include of the inspection summary reports, inspection data sheets, problem identification and corrective measure reports, block evaluation reports, photographic reporting data sheets, design engineers' acceptance reports, deviation from design and material specifications (with justifying documentation), and as-built drawings.

1. Final Interim Measures Report

The Respondent shall finalize the Interim Measures Workplan and the Interim Measures Implementation Report incorporating comments received on draft submissions.

13. Respondent shall include in their Part B permit application, provisions for corrective action for all releases (on-site and off-site) of hazardous wastes or constituents from any solid waste management unit and from any hazardous waste management unit. This shall include, but not be limited to, the storm-water retention pond and the discharge (on-site and off-site) from this pond and the releases noted in paragraph 17 of the FINDINGS in this AGREED ORDER.

14. Within thirty (30) days of the effective date of the Order, Respondent shall pay a civil penalty of $19,750 to the Indiana Environmental Management Special Fund . This shall be addressed to the Office of Solid and Hazardous Waste Management, Attention: Cashier.

15. In addition to the civil penalty set out above, the Respondent shall pay an additional civil penalty of $250 per day for each day of noncompliance with the time limits set out in this ORDER.

16. The provisions of this AGREED ORDER will apply to the Respondent, its agents, servants, employees, successors, and assigns, and to all persons, firms, or corporations acting through or for the Respondent.

17. This AGREED ORDER will have no force or effect until it is approved by the Commissioner, and timely compliance with the terms of this AGREED ORDER shall constitute a final resolution of this cause.

18. Respondent, by the duly authorized undersigned, hereby consents to the provisions of this FINDINGS and ORDER and agrees to be bound by said ORDER when issued by the Commissioner.

TECHNICAL RECOMMENDATION

BY: Dennis M. Zawodzi
Dennis M. Zawodzi, Chief
Enforcement Section

DATE: August 27, 1990

REFINED METALS CORPORATION

BY: _____
Richard Swain
President

DATE: _____

APPROVED FOR LEGALITY AND FORM

LINLEY E. PEARSON
Attorney General of Indiana

BY: _____
Mathew S. Scherschel
Deputy Attorney General

DATE: _____

ATTORNEY FOR RESPONDENT

BY: _____
Robert N. Steinwurtzel
Andrews and Kurth

DATE: _____

APPROVED AND ADOPTED BY THE INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

this _____ day of _____, 1990.

_____
Kathy Prosser
Commissioner

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

SEP 4 1990

Certified Mail
Return Receipt Requested

Mr. T. William Freudiger
Refined Metals Corporation
257 West Mallory Avenue
Memphis, TN 38109

Re: Complaint and Compliance Order
Docket No: 90-01-R
EPA ID No: TND 067 690 040

Dear Mr. Freudiger:

Enclosed please find a Complaint and Compliance Order which specifies this Agency's determination of certain violations by your company of the Resource Conservation and Recovery Act (RCRA or the Act), 42 U.S.C. 6901 et seq., as amended. The Compliance Order states the reasons for such a determination. This Compliance Order is issued pursuant to Section 3008 (a)(1) of RCRA (42 U.S.C. Section 6928(a)(1)).

In essence, Refined Metals Corporation has failed to properly manage the hazardous waste generated at its secondary lead smelting facility. A penalty of $354,650.00 is proposed in the Compliance Order.

Accompanying the Complaint and Compliance Order is a copy of the applicable "Consolidated Rules of Practice Governing Administrative Assessment of Civil Penalties and the Revocation and Suspension of Permits", 40 CFR Part 22 and a Notice of Opportunity for Hearing. The Consolidated Rules of Practice found at 40 CFR Part 22 govern formal administrative proceedings for the assessment of civil penalties. Should you desire to contest the Complaint and Compliance Order, a written answer and request for a hearing is required to be filed with the Hearing Clerk at this address within 30 days from receipt of this Complaint and Compliance Order. A copy of your answer and hearing request should also be sent to Ramiro Llado, Assistant Regional Counsel, at this address. In addition, you may request an informal settlement conference with the Agency as outlined in the Order. Such a conference would be the appropriate time for the presentation and submission of documentation pertaining to any mitigating circumstances or the company's ability to pay the proposed civil penalty. A request for an informal settlement conference does not stay the 30-day period for filing an answer and hearing request.

Mr. Freudiger
Refined Metals Corporation

If you have any questions or desire to request an informal conference for the purpose of settlement, please contact John Dickinson at (404) 347-7603.

Sincerely yours,

Patrick M Tobin

Patrick M. Tobin, Director
Waste Management Division

Enclosures

cc with enclosure: Tom Tiesler, TDHE
Paul Patterson, TDHE

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF:

Refined Metals Corporation Memphis, Tennessee EPA ID No.: TND 067 690 040 Respondent	) Resource Conservation and) Recovery Act) Section 3008(a)(1)) 42 U.S.C. Section 6928(a)(1)) Docket No.: 90-01-R

COMPLAINT AND COMPLIANCE ORDER

This Complaint and Compliance Order is filed pursuant to Section 3008(a)(1) of the Resource Conversation and Recovery Act, (RCRA), 42 U.S.C. Section 6928(a)(1), and the United States Environmental Protection Agency's Consolidated Rules of Practice Governing Administrative Assessment of Civil Penalties and the Revocation or Suspension of Permits, 40 CFR Part 22. Complainant is the Director, Waste Management Division, Region IV, United States Environmental Protection Agency (hereinafter EPA). Respondent is Refined Metals Corporation, a company doing business in Memphis, Tennessee. Refined Metals is the owner and operator of a secondary lead smelting facility located at 257 West Mallory Street, in Memphis, Tennessee.

In accordance with Section 3008(a)(2) of RCRA, 42 U.S.C. Section 6928(a)(2), EPA has given the State of Tennessee prior notice of this action. This action is brought by EPA to enforce provisions of the Resource Conservation and Recovery Act of 1976 (RCRA), Pub. L. 94-580, 90 Stat. 95 (1976), 42 U.S.C. Sections 6901, et seq., as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA), Pub. L. 98-616, 98 Stat. 3224 (1984), and to enforce provisions of Regulations adopted by EPA under RCRA.

FINDINGS OF FACT

1. Refined Metals Corporation is a company doing business in the State of Tennessee and is a person as defined by Section 1004(15) of RCRA, 42 U.S.C. Section 6903(15). Said company owns and operates an existing hazardous waste management facility as defined in Chapter 1200-1-11 et. seq. of the Rules of the Tennessee Department of Health and Environment (TDHE), Division of Solid Waste Management, Tennessee Rule (TR) 1200-1-11-.01(2)(a) (40 CFR 260.10).

2. Refined Metals generates and stores hazardous waste as these terms are defined by TR 1200-1-11-.01(2)(a) (40 CFR 260.10).

3. Refined Metals operates a secondary lead smelter for the manufacturing of refined lead alloys through the smelting and refining of lead bearing scrap materials. The primary raw material used for this process is spent lead acid batteries. Automotive and industrial batteries account for approximately seventy five (75) percent of the raw material processed. The remaining twenty five (25) percent consists of other lead bearing materials such as plant scrap, battery plates and miscellaneous metals.

4. Pursuant to TR 1200-1-11-.07(1) (40 CFR 270.1) and § 3005 of RCRA, 42 U.S.C. § 6925, each person owning or operating a facility for the treatment, storage or disposal of hazardous waste must have a permit. The regulations governing the issuance of such permits became effective on November 19, 1980, and are codified at TR 1200-1-11-.07 (40 CFR 270).

5. The regulations which establish the standards for the operation of interim status and permitted facilities are found at TR 1200-1-11-.05 and 1200-1-11-.06 (40 CFR 265 and 264), respectively.

6. On July 16, 1981, the State of Tennessee was granted Phase I interim authorization to operate a hazardous waste program in lieu of Phase I of the federal hazardous waste program pursuant to Section 3006(c) of RCRA, 42 U.S.C. Section 6926(c). Final State authorization for Phase I was granted on February 5, 1985.

7. TR 1200-1-11-.07(3) (40 CFR 270 Subpart G) and Section 3005(e) of RCRA, 42 U.S.C. Section 6925(e), provide that an owner or operator of a facility shall be treated as having been issued a permit pending final administrative disposition of his/her permit application provided that: (1) the facility was in existence on November 19, 1980, (2) the requirements of Section 3010(a) of RCRA, 42 U.S.C. 6930(a), concerning notification of hazardous waste activity have been complied with, and (3) application for a permit has been made. The statutory authority to operate is known as interim status. Regulations implementing these provisions are found at TR 1200-1-11-.07 (40 CFR 270).

8. In a letter dated April 2, 1985, Refined Metals notified EPA of its storage of spent lead-acid batteries prior to reclamation, as required by the Revised Definition of Solid Waste as outlined in the January 4, 1985 Federal Register. This modification became effective in Tennessee on February 2, 1986. The Part A of the RCRA Hazardous permit application for the spent batteries storage area was submitted in July, 1985; therefore, Refined Metals achieved interim for this area.

9. In a letter dated January 10, 1986, the State documented analytical results from samples collected from the off-site drainage ditch and the waste blast furnace slag pile at Refined Metals. The samples exhibited the characteristic of Extraction Procedure (E.P.) Toxicity for lead. The State subsequently prohibited disposal of the waste slag at the Browning-Ferris Industries sanitary landfill in Millington, Tennessee.

10. In a letter dated March 20, 1986, the State requested that Refined Metals provide written documentation from Southern Spectographic Laboratory describing: (1) lab methods and procedures for extraction at different levels of breakage, (2) documentation on how Refined Metals' slag samples were broken and which portions were used in testing each sample, and (3) documentation of acid addition and pH adjustment at different time intervals. The information was to be used for data comparison with State lab results.

11. In a letter dated June 11, 1986, Refined Metals requested the State's permission to ship their blast furnace slag to the Shelby County Landfill instead of the Browning-Ferris Landfill. The State approved the request on June 17, 1986.

12. On September 28, 1988, personnel from the State conducted a Compliance Evaluation Inspection at Refined Metals to determine compliance with the interim status standards outlined in the Rules Governing Hazardous Waste Management in Tennessee. Eleven (11) violations of the rules were observed during the inspection. The violations were as follows:

- Failure to maintain records and documents at the facility containing job titles of each position related to hazardous waste management and the name of the employee filling the position,
- Failure to maintain documents and records at the facility which contain a written job description for each position,
- Failure to report unmanifested waste to the Commissioner,
- Failure to keep a written operating record at the facility,
- Failure to maintain records of each hazardous waste received

for treatment, storage, or disposal,

- Failure to record the location of each hazardous waste within the facility and the quantity in each location, and include cross-references to specific manifest document numbers if the waste was accompanied by a manifest,
- Storage of hazardous waste without a permit (spent lead-acid batteries and hazardous waste can be stored only in designated areas),
- Transportation of hazardous waste without a permit,
- Failure to use the Department assigned installation identification number on manifests and other official documents,
- Failure to maintain the transportation permit on-site, and
- Failure to deliver the generator's entire quantity of hazardous waste to the designated facility listed on the manifest.

13. In a Notice of Violation (NOV) dated October 14, 1988, the State documented the results of the inspection.

14. In a letter dated October 25, 1988, the State requested Refined Metals' compliance with the financial requirements pursuant to TR 1200-1-11-.05(8)(d) and (n). These rules require hazardous waste management facilities to demonstrate financial assurance for closure and liability coverage for sudden accidental occurances.

15. On November 4, 1988, the State sent an NOV to Refined Metals documenting a review of the interim status information submitted by Refined Metals on September 15, 1988. Twenty (20) violations of the regulations were noted during the review. A summary of the violations

included:

- Failure to post "danger" signs,
- Failure to adequately describe in the contingency plan the arrangements with local authorities, the list of all emergency equipment, and the emergency coordinator's emergency procedures,
- Failure to describe in the closure plan details of the steps necessary to close the facility and to include a detailed closure cost estimate, and
- Failure to demonstrate financial responsibility by maintaining liability coverage for sudden accidental occurrences.

16. On December 6, 1988, personnel from EPA conducted a RCRA Investigation at Refined Metals. The purpose of the investigation was to determine if the molten slag and slag pile material were E.P. Toxic for lead. Four samples were collected and analyzed for total metals and E.P. Toxicity. All samples collected from the facility exceeded the E.P. Toxicity limit for lead of 5.0 mg/l; therefore, the slag is considered a characteristic hazardous waste. The results, which were transmitted to Refined Metals on June 28, 1989, were as follows:

SAMPLE	TOTAL LEAD	E.P. TOXICITY/LEAD
R-1	50,000	200
R-2	53,000	760
R-3	110,000	890
R-4	150,000	2,700

17. In a letter dated December 21, 1988, the State documented a review of interim status information submitted by Refined Metals on November 8, 1988. The State found that the submittal adequately addressed

interim status requirements and that appropriate corrections had been made. The same letter stated that financial assurance for closure and certification of liability coverage must be submitted by December 30, 1988, and that financial assurance must equal the amount of the closure cost estimate.

18. On December 21, 1988, the State issued Refined Metals a Formal Notice of Violation for failure to demonstrate, with a properly worded certificate or endorsement of insurance, financial responsibility for bodily injury and property damage to third parties caused by sudden accidental occurrences arising from operations at the facility.

19. On January 20, 1989, the State issued Refined Metals a second NOV for failure to comply with liability coverage requirements.

20. On February 6, 1989, the State issued Refined Metals a Continued NOV for failure to comply with liability coverage requirements.

21. On February 22, 1989, the State issued Refined Metals a follow-up to the second NOV for continued failure to comply with liability coverage requirements.

22. In a letter dated March 10, 1989, a law firm responded on behalf of Refined Metals to the State's NOVs which cited failure to demonstrate financial responsibility. The letter described the difficulties Refined Metals was having in obtaining liability insurance and requested a meeting with the State to discuss the matter.

23. In a letter dated May 12, 1989, from EPA to the Director of TDHE Division of Solid Waste Management, EPA clarified sample preparation procedures for blast furnace slag to eliminate inconsistencies in procedures used to test blast furnace slag generated at secondary lead smelters in the southeast. EPA required all slag samples to be ground,

crushed, or cut into small particles which can pass through a 9.5 mm (0.375 in) sieve. The samples should be representative of the average size of slag chunks on the pile. All facilities which had not tested their slag in this manner should resample according to the procedures described in the letter and in 40 CFR Part 261, Appendix II.

24. In a letter dated June 29, 1989, EPA informed Refined Metals of the results of EPA's RCRA Investigation. In addition, EPA notified Refined Metals that, based on analyses results, the furnace blast slag is regulated under RCRA as a D008 waste.

25. In a letter dated July 13, 1989, EPA notified the State that blast furnace slag at Refined Metals was a RCRA regulated waste based on analytical results showing the slag to be E.P. Toxic for lead. The letter referred violations related to the slag (disposal in an unpermitted landfill and storage in an unpermitted slag waste pile) to the State for appropriate enforcement action per the Memorandum of Agreement.

26. In a letter dated August 9, 1989, EPA notified the State of their intention to take formal enforcement action against Refined Metals because the State failed to initiate appropriate enforcement action.

27. On August 24, 1989, personnel from CDM, representing EPA, conducted a Compliance Evaluation Inspection of Refined Metals to document the Facility's compliance with RCRA regulations. After an evaluation of CDM's inspection report and the facility's file, EPA determined that Refined Metals was in violation of the following requirements:

a. TR 1200-1-11-.03(1)(b) (40 CFR 262.11) requires that a person who generates a solid waste determine if that waste is a hazardous waste by testing the waste according to methods set forth in TR 1200-1-11-.02(3) (Subpart C of 40

CFR 261) or according to an equivalent method approved by the Commissioner of the TDHE (EPA's Administrator). Refined Metals failed to use appropriate methods of sampling and analysis in making its hazardous waste determination for the blast furnace. Specifically, based on improper sampling and sample preparation procedures, Refined Metals incorrectly determined that the blast furnace slag was not regulated under RCRA.

b. TR 1200-1-11-.07(1)(b)1(ii) (40 CFR 270.1(b)) prohibits the treatment, storage or disposal of hazardous waste without a permit or interim status. Refined Metals has failed to obtain the proper permits for storage of the blast slag and K069 waste piles. Past sampling of the blast furnace slag by EPA has confirmed that the waste slag exceeds the E.P. toxicity limits for lead and is therefore a regulated characteristic hazardous waste, D008. Also, Refined Metals generates a baghouse dust listed in TR 1200-1-11-.02(4)(c) (40 CFR 261.32) as K069, which is then melted down in a dust furnace to produce a slag. The slag, which remains a listed hazardous waste, K069 , is stored in the blast furnace slag waste pile prior to recycling in the blast furnace.

c. TR 1200-1-11-.07(2)(b) (40 CFR 270.10(e)) requires owners or operators of existing hazardous waste management facilities to submit Part A of their hazardous waste permit application no later than six months after the date of publication of

regulations which first require them to comply with TR 1200-1-11-.05 or .09 (40 CFR Parts 265 or 266); or 30 days after the date they first became subject to the standards set forth in TR 1200-1-11-.05 or .06 (40 CFR Parts 265 or 266). Refined Metals operates hazardous waste management units for which they have failed to submit Part A of a hazardous waste permit application including the waste piles used for storage of the blast slag and K069 slag. Even though Refined Metals failed to achieve interim status for its waste piles, Refined Metals' waste pile are subject to TR 1200-1-11-.05 (40 CFR 265) applicable to owners and operators of existing hazardous waste management facilities which have achieved interim status.

d. TR 1200-1-11-.05(7)(c) (40 CFR 265.112) requires that by May 19, 1981, the owner or operator of a hazardous waste management facility have a written closure plan identifying the steps necessary to perform closure of the facility. Refined Metals has failed to develop a closure plan for the slag waste piles.

e. TR 1200-1-11-.05(8)(d) (40 CFR 265.143) requires that within ninety (90) days after the effective date of these regulations, an owner or operator of each facility file and maintain with the Division Director financial assurance for closure of the facility in accordance with the rules. Refined Metals has failed to establish financial assurance for closure of the slag piles.

f. TR 1200-1-11-.05(8)(c) (40 CFR 265.142) requires that the owner or operator have a detailed written estimate in current dollars of the cost of closing the facility in accordance with the applicable closure requirements. The estimate must equal the cost of final closure when most expensive, based on third party costs, and not incorporate any salvage value realized by the sale of hazardous waste. Refined Metals has failed to develop a closure cost estimate for the waste slag piles.

g. TR 1200-1-11-.05(8)(n)1 (40 CFR 265.147(a)) requires that within ninety (90) days after the effective date of these regulations, an owner or operator of a hazardous waste treatment, storage or disposal facility demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental occurrences in the amount of $1 million per occurrence with an annual aggregate of $2 million, exclusive of legal defense costs. Refined Metals has failed to demonstrate the required liability coverage for the two hazardous waste management units.

h. TR 1200-1-11-.05(12)(b) (40 CFR 265.251) requires that the owner or operator of a waste pile, containing hazardous waste which could be subject to dispersal by wind, cover or otherwise manage the waste pile so that wind dispersal is controlled. Refined Metals has failed to cover or otherwise manage the outside blast furnace slag hazardous waste pile to control wind dispersal.

i. TR 1200-1-11-.05(2)(f)2.(i) (40 CFR 265.15(b)(1)) requires that the owner or operator of hazardous waste piles develop and follow a written schedule for inspecting monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment. Refined Metals has failed to follow the written inspection schedule for inspecting all emergency equipment. Specifically, Refined Metals has failed to inventory the caustic soda stored near the lead-acid battery storage area.

j. TR 1200-1-11-.05(2)(f)2.(iv) (40 CFR 265.15(b)(4)) requires that areas subject to spills, such as loading and unloading areas, be inspected daily when in use. Refined Metals has failed to inspect daily the battery unloading area at the battery breaking operations building.

k. TR 1200-1-11-.03(1)(c)3 (40 CFR 262.12(c)) prohibits a generator from offering hazardous wastes to transporters who do not have valid permits from the State; or to treatment, storage, or disposal facilities that have not received an EPA identification number. Refined Metals has offered hazardous waste to an unpermitted transporter and disposed of blast furnace slag at an unpermitted landfill (Shelby County Landfill).

l. TR 1200-1-11-.03(3)(a)1 (40 CFR 262.20(a)) requires that a generator who transports, or offers for transportation, hazardous waste for off-site treatment, storage, or disposal prepare a manifest before transporting the waste off-site utilizing the EPA Uniform Hazardous Waste Manifest. Refined

Metals has shipped blast furnace slag off-site without manifests.

m. TR 1200-1-11-.05(2)(f)1 (40 CFR 265.15(a)) requires that the owner or operator inspect his facility often enough to identify problems in time to correct them before they harm public health or the environment. Refined Metals failed to inspect the waste piles containing D008 characteristic hazardous waste and K069 listed hazardous waste.

n. TR 1200-1-11-.05(2)(g)2 (40 CFR 265.16(b)) requires that all personnel managing hazardous waste successfully complete the training program as outlined in TR 1200-1-11-.05(2)(g)1(iii) (40 CFR 265.16(a)(3)) within six (6) months of their employment. TR 1200-1-11-.05(2)(g)4(iv) (40 CFR 265.16(d)(4)) requires that Refined Metals maintain records documentating that the required training has been given. Refined Metals failed to produce documentation that employees were trained within six (6) months.

o. TR 1200-1-11-.05(2)(e)2(ii)(I) (40 CFR 265.14(b)(2)(i)) requires that the owner or operator prevent unknowing entry and minimize unauthorized entry onto the facility with an artificial or natural barrier (e.g., a fence in good repair) which completely surrounds the active portion of the facility. Refined Metals has failed to maintain a fence, in good repair, which completely surrounds the facility.

28. On January 31, 1990, the State issued a Commissioner's Order to Refined Metals because of its failure to provide and mantain liability insurance as required by TR 1200-1-11-.05(8)(n)1 (40 CFR 265.147(a)).

II

ORDER

Based upon the foregoing, Refined Metals is hereby ordered to do the following acts pursuant to Section 3008(a) of RCRA, 42 U.S.C. Section 6928(a):

1. Immediately upon receipt of this Complaint and Compliance Order, Refined Metals must cease and desist adding hazardous waste (K069 and blast slag) to the waste pile.

2. Immediately upon receipt of this Complaint and Compliance Order, Refined Metals shall cease offering hazardous waste for disposal to unpermitted landfills via unpermitted transporters in accordance with TR 1200-1-11-.03(1)(c)3 (40 CFR 262.12(c)).

3. Immediately upon receipt of this Complaint and Compliance Order, Refined Metals must begin to ship the accumulated blast slag and the blast slag that is currently generated to a facility authorized to receive hazardous waste via a permitted transporter.

4. Immediately upon receipt of this Complaint and Compliance Order, Refined Metals shall prepare manifests for all hazardous waste, before transporting the waste off-site as required by TR 1200-1-11-.03(3)(a)1 (40 CFR 262.20(a)).

5. Within thirty (30) days after receipt of this Complaint and Compliance Order, Refined Metals shall submit documentation verifying that solid wastes generated at the facility (blast furnace slag) have been tested according to methods set forth in TR 1200-1-11-.02(3) (40 CFR 261 Subpart C).

6. Within thirty (30) days after receipt of this Complaint and Compliance Order, Refined Metals shall submit a closure plan for the blast slag waste pile per the requirements of TR 1200-1-11-.05(7) (40 CFR 265 Subpart G).

7. Within thirty (30) days after receipt of this Complaint and Compliance Order, Refined Metals shall submit a detailed written estimate in current dollars of the cost of closing the blast slag waste pile in accordance with applicable closure requirements contained in TR 1200-1-11-.05(8)(c) (40 CFR 265.142). The estimate must equal the cost of final closure when most expensive, based on third party costs, and not incorporate any salvage value realized by the sale of hazardous waste.

8. Within thirty (30) days after receipt of this Complaint and Compliance Order, Refined Metals shall fully fund and submit as specified below, all financial assurance instruments necessary to provide financial assurance for closure in accordance with TR 1200-1-11-.06(8)(p) (40 CFR 264.151) and as required by TR 1200-1-11-.05(8)(d) (40 CFR 265.143).

9. Within thirty (30) days after receipt of this Complaint and Compliance Order, Refined Metals shall fully fund and submit as specified below, all instruments necessary to demonstrate full liability coverage or financial responsibility for bodily injury and property damage to third parties caused by sudden accidental occurrences arising from the operation of the facility in accordance with TR 1200-1-11-.05(8)(n)1 (40 CFR 265.147.(a)).

10. Refined Metals shall submit originally signed duplicates of financial responsibility documents ordered in Paragraphs 8, and 9 above and copies of all others documents to:

Tom Tiesler, Director
Division of Solid Waste Management
Tennessee Department of Health and
Environment
Customs House, 4th Floor
701 Broadway
Nashville, Tennessee 37219

11. Within thirty (30) days after receipt of this Complaint and Compliance Order, Refined Metals shall submit documentation of procedures used to control wind dispersal of hazardous waste stored in waste piles as required by TR 1200-1-11-.05(12)(b) (40 CFR 265.251).

12. Within thirty (30) days after receipt of this Complaint and Compliance Order, Refined Metals shall prepare and submit a written inspection schedule addressing all regulated units and keep a log to document the results of the inspections as required by TR 1200-1-11-.05(2)(f) (40 CFR 265.15).

13. Within thirty (30) days after receipt of this Complaint and Compliance Order, Refined Metals shall implement procedures to ensure that all personnel managing hazardous waste successfully complete the personnel training program within six (6) months of their employment as required by TR 1200-1-11-.05(g)2 (40 CFR 265.16(b)).

14. Within thirty (30) days after receipt of this Complaint and Compliance Order, Refined Metals shall repair the fence which surrounds the facility as required by TR 1200-1-11-.05(2)(e)2 (40 CFR 265.14(b)).

15. Within thirty (30) days after receipt of this Complaint and Compliance Order, Refined Metals shall pay to EPA a civil penalty of $354,650.00.

16. Refined Metals shall submit copies of all documents and information ordered herein to:

James H. Scarbrough, P.E.
Chief, RCRA Branch
U.S. EPA Region IV
345 Courtland Street
Atlanta, GA 30365

Notwithstanding any other provision of this Order, an enforcement action may be brought pursuant to Section 7003 of RCRA, 42 U.S.C. Section 6973, or other statutory authority should the EPA find that handling, storage, treatment, transportation or disposal of solid waste or hazardous waste at the facility presents an imminent and substantial endangerment to human health or environment.

III

PROPOSED CIVIL PENALTY

Section 3008(a) of RCRA, 42 U.S.C. Section 6928(c), authorizes the assessment of a civil penalty of up to TWENTY-FIVE THOUSAND DOLLARS ($25,000) per day for each violation of RCRA and the regulations promulgated thereunder. Based upon the facts alleged in this Complaint, and to the extent known, upon the following factors:

a. the potential for harm to human health or environment,
b. the extent to which the conduct of Refined Metals has deviated from regulatory requirements,
c. the maximum monetary amount that can be assessed under RCRA,
d. the presence or absence of multiple violations,
e. the number of days over which the violations occurred,
f. any actual damage to human health or the environment,
g. any economic benefits accruing to Refined Metals resulting from noncompliance,
h. any extraordinary efforts on the part of Refined Metals to comply,
i. any voluntary efforts on the part of Refined Metals to

rectify damage to human health or the environment,resulting from the noncompliance.

j. the absence or presence or circumstances outside the control of Refined Metals that resulted in the noncompliance,

k. the absence or presence of recalcitrance on the part of Refined Metals,

l. the history of noncompliance on the part of Refined Metals,

m. the absence or presence of willful noncompliance,

n. the effect of the penalty on Refined Metals' ability to continue to do business.

Complainant proposes to assess a civil penalty of $354,650.00 against Refined Metals Corporation.

IV

POTENTIAL CONSEQUENCES OF FAILURE

TO COMPLY WITH COMPLIANCE ORDER

If Refined Metals fails to comply with any requirement of this Compliance Order or any regulation promulgated pursuant to RCRA, Refined Metals shall be subject to liability through the imposition of additional penalties of up to TWENTY-FIVE THOUSAND DOLLARS (25,000) for each day of noncompliance in accordance with Section 3008 of RCRA, 42 U.S.C. Section 6928, and may be subject to further enforcement action including injunction from any other treatment, storage, or disposal of hazardous waste and such other further relief as may be necessary to achieve compliance with RCRA.

V

OPPORTUNITY TO REQUEST A HEARING

As provided in Section 3008(b) of RCRA, 42 U.S.C. Section 6928(b), Refined Metals has the right to request a formal hearing to

contest any material fact set forth in this Complaint or the appropriateness of the assessed penalty. To avoid being found in default under 40 CFR 22.17, Refined Metals must file a written answer with the Regional Hearing Clerk within thirty (30) days of receipt of this Complaint and Compliance Order. The answer must (1) clearly and directly admit, deny, or explain each of the factual allegations contained in this Complaint, (2) briefly state all facts and circumstances, if any, which constitute grounds for a defense, and (3) specifically request any administrative hearing (if desired). Failure to deny, admit or explain any of the material factual allegations in this Complaint will constitute an admission of the undenied allegations. The answer should be sent to:

Julia Mooney Region IV Hearing Clerk United States Environmental Protection Agency 345 Courtland Street, NE Atlanta, Georgia 30365	Ramiro Llado Assistant Regional Counsel United States Environmental Protection Agency 345 Courtland Street NE Atlanta, Georgia 30365

Hearings held on the appropriateness of civil penalties under RCRA will be conducted in accordance with the provisions of the Administrative Procedure Act (5 U.S.C. Section 552, et. seq.), and the Consolidated Rules of Practice Governing Administrative Assessment of Civil Penalties and the Revocation of Suspension of Permits, 40 CFR Part 22.

For purposes of this action, "default under 40 CFR 22.17" constitutes an admission of all facts alleged in the Order and a waiver of your right to a hearing under Section 3008 of RCRA on factual allegations. A "Default Judgement" may thereafter be issued by the Regional Administrator and the civil penalty proposed herein may be assessed without further proceedings.

VI

INFORMAL SETTLEMENT CONFERENCE

Whether or not Refined Metals requests a hearing, the EPA encourages settlement of the proceeding consistent with the provisions of RCRA. At an informal conference, Refined Metals may comment on the allegations and provide whatever additional information it feels is relevant to the disposition of this matter, including (1) actions it has taken to correct the violation, (2) any other special circumstances Respondent chooses to raise. Any request for an informal conference and any other questions regarding this Complaint should be directed to:

Ramiro Llado
Assistant Regional Counsel
U.S. Environmental Protection Agency
Region IV
345 Courtland Street NE
Atlanta, Georgia 30365

THE SCHEDULING OF AN INFORMAL CONFERENCE WILL NOT RELIEVE REFINED METALS OF THE NEED TO FILE A WRITTEN ANSWER IF RESPONDENT WISHES TO REQUEST A HEARING.

If Refined Metals has neither effected a settlement by informal conference nor requested a hearing within the 30-day time period cited above, the assessed penalty will be imposed without further proceedings. A request for an informal conference call does not extend the 30-day period within which a written answer and request for a hearing must be submitted. The informal conference may be pursued simultaneously with a request for a hearing.

VII

PAYMENT OF PENALTY

Instead of filing an answer, requesting a hearing or requesting an informal conference, Refined Metals may choose to pay the proposed penalty. Such a payment should be made by sending to the Regional Hearing Clerk, EPA, Region IV, Post Office Box 100142, Atlanta, Georgia 30365, a cashier's or certified check in the amount of the penalty assessed in the Complaint. The check should be payable to the United States of America. It should be noted that payment of the proposed penalty does not relieve Refined Metals of its responsibility to comply with the requirements of the Compliance Order. Failure by Refined Metals to meet the schedule set forth in Section II of the Compliance Order above would subject Refined Metals to continued liability as set forth in Section IV of the Compliance Order above.

UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY, REGION IV

Complainant

BY:

Patrick M Tobin

Patrick M. Tobin, Director
Waste Management Division
United States Environmental Protection Agency
Region IV

Dated:

CERTIFICATE OF SERVICE

I hereby certify that I have caused a copy of the foregoing Complaint and Compliance Order to be served upon the person designated below on the date below, by causing said copy to be deposited in the U.S. Main, First Class (certified mail: return receipt requested) addressed to:

Mr. T. William Freudiger
Vice President and Plant Manager
Refined Metals Corporation
257 West Mallory Avenue
Memphis, Tennessee 38109

I have further caused the original and one copy of the Complaint and Compliance Order and this certification of service to be filed with the Regional Hearing Clerk, United States Environmental Protection Agency, Region IV, 345 Courtland Street, N.E., Atlanta, Georgia 30365 on the date specified below.

These are said person's last known addresses to the subscriber. Dated this 4th day of September, 1990.

Annette Woods-Greene
Annette Woods-Greene
Waste Management Division

ANDREWS & KURTH
ATTORNEYS
1701 PENNSYLVANIA AVENUE, N.W.
SUITE 200
WASHINGTON, D.C. 20006

OTHER OFFICES:
HOUSTON
DALLAS
LOS ANGELES

TELEPHONE:(202) 662-2700
TELECOPIER:(202) 662-2739
TELEX:79-1200

October 4, 1990

VIA FEDERAL EXPRESS

Ms. Julia Mooney
Region IV Hearing Clerk
U.S. Environmental Protection Agency
345 Courtland Street, N.E.
Atlanta, Georgia 30365

Re: Refined Metals Corporation
Docket No. 90-01-R

Dear Ms. Mooney:

Enclosed please find the original and two copies of Refined Metals Corporation's Answer to the Complaint and Compliance Order in the above-referrenced matter. We request that a stamped copy be returned to us. For your convenience, a self-addressed envelope with postage has been included.

On behalf of Refined Metals Corporation we also request an administrative hearing regarding this matter. In addition, an informal settlement conference has been requested with EPA through Mr. Ramiro Llado and has been tentatively scheduled for October 19, 1990.

If you have any questions regarding the enclosed materials, please contact us.

Sincerely,

Robert N. Steinwurtzel
Jeffery S. Hannapel

JSH/rh

Enclosures

cc: Ramiro Llado, Esq.
David Freudiger, Esq.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

In the Matter of: REFINED METALS CORPORATION MEMPHIS, TENNESSEE EPA I.D. No. TND 067 690 040 Respondent	Resource Conservation and Recovery Act § 3008(a)(1) (42 U.S.C. § 6928(a)(1)) Docket No. 90-01-R

REFINED METALS' ANSWER AND REQUEST FOR AN ADMINISTRATIVE HEARING

Respondent Refined Metals Corporation ("Refined Metals"), through its undersigned counsel, answers the Complaint and Compliance Order in the above-captioned matter as follows:

COMPLAINT AND COMPLIANCE ORDER

Refined Metals admits that EPA has filed the Complaint and Compliance Order pursuant to Section 3008 (a)(1) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6928 (a)(1), and the United States Environmental Protection Agency's Consolidated Rules of Practice Governing Administrative Assessment of Civil Penalties and the Revocation or Suspension of Permits, 40 C.F.R. Part 22. Refined Metals admits that the complainant is the Director, Waste Management Division, Region IV, United States Environmental Protection Agency ("EPA"). Refined Metals admits that it is a company that operates a battery recycling facility located at 257 West Mallory Street in Memphis, Tennessee.

Refined Metals is without sufficient knowledge to admit or to deny the allegations in the first sentence of the second paragraph. The remaining allegations in this paragraph are legal conclusions to which no response is required. To the

extent that a response is required, Refined Metals denies the allegations contained in this paragraph.

FINDINGS OF FACTS

1. Refined Metals admits that it is a company doing business in the State of Tennessee. The remaining allegations contained in paragraph 1 are legal conclusions to which no response is required. To the extent that a response is required, Refined Metals denies the allegations contained in this paragraph.

2. The allegations contained in paragraph 2 are legal conclusions to which no response is required. To the extent that a response is required, Refined Metals denies the allegations contained in this paragraph.

3. Refined Metals admits that it recycles lead primarily from spent lead-acid batteries. Refined Metals also recycles lead from other lead-bearing materials such as plant scrap and battery plates. Refined Metals denies all other allegations contained in paragraph 3.

4. The allegations contained in the first sentence of paragraph 4 are legal conclusions to which no response is required. To the extent that a response is required, Refined Metals denies the allegations contained in this paragraph. Refined Metals is without sufficient information to admit or to deny whether the regulations governing the issuance of permits became effective on November 19, 1980. Refined Metals admits that these regulations are codified at TR 1200-1-11-.07 (40 C.F.R. Part 270).

5. Admit.

6. Refined Metals is without sufficient information to admit or to deny the allegations contained in paragraph 6.

7. The allegations contained in the first two sentences of paragraph 7 are legal conclusions to which no response is required. To the extent that a response is required, Refined Metals denies these allegations. Refined Metals admits the third sentence of this paragraph.

8. Refined Metals admits that it notified EPA of its storage of spent lead-acid batteries prior to reclamation and that it submitted a Part A RCRA permit application for the spent batteries storage area. Refined Metals is without sufficient information to admit or to deny the allegations in the second sentence of this paragraph. The remaining allegations in this paragraph are legal conclusions to which no response is required. To the extent that a response is required, Refined Metals denies these allegations.

9. Refined Metals is without sufficient information to admit or to deny the specific allegations contained in this paragraph.

10. Refined Metals is without sufficient information to admit or to deny the specific allegations contained in this paragraph.

11. Admit.

12. Refined Metals admits that TDSW conducted a inspection on September 28, 1988 and that the allegations contained in the third sentence of this paragraph generally summarize the violations that TDSW allegedly observed during the inspection. Refined Metals denies all other allegations contained in this paragraph.

13. Refined Metals admits that TDSW issued a NOV to Refined Metals on October 14, 1988 and attached to the NOV was a copy of the inspection report that summarized the September 28, 1988 inspection.

14. Admit.

15. Refined Metals admits that TDSW issued a NOV to Refined Metals on November 4, 1988 and that the allegations contained in this paragraph generally summarize the violations that TDSW alleged in this NOV.

16. Refined Metals denies the allegation in the fourth sentence of this paragraph that slag is considered a characteristic hazardous waste. Refined Metals admits that the remaining allegations in this paragraph generally summarize the inspection, the sampling, and the testing conducted by EPA with respect to EPA's December 6, 1988 inspection.

17. Admit.

18. Admit.

19. Admit.

20. Admit.

21. Admit.

22. Refined Metals admits that a law firm representing Refined Metals submitted to TDSW a correspondence dated March 10, 1989 and that this correspondence contained a description of the difficulties Refined Metals was having obtaining liability insurance for sudden accidental occurences and a request for a meeting with TDSW to discuss the matter. Refined Metals denies the remaining allegations in this paragraph.

23. Refined Metals admits that EPA sent to TDSW a correspondence dated May 12, 1989 and that this paragraph generally summarizes EPA's position in that correspondence.

24. Admit.

25. Refined Metals admits that EPA sent to TDSW a correspondence dated July 13, 1989 and that this paragraph generally summarizes EPA's position in that correspondence.

26. Refined Metals is without sufficient information to admit or to deny the allegations contained in this paragraph.

27. Refined Metals admits that CDM, representing EPA, conducted an inspection of Refined Metals on August 24, 1989. Refined Metals is without sufficient

information to admit or to deny the allegations contained in paragraphs 27a through o.

28. Admit.

ORDER

Paragraphs 1 through 16, inclusive, set forth EPA's proposed remedy and penalty for which no response is required. To the extent that a response is required, Refined Metals denies the allegations contained in these paragraphs.

PROPOSED CIVIL PENALTY

Refined Metals admits that section 3008(a) of RCRA, 42 U.S.C. § 6928(a), authorizes the assessment of a civil penalty of up to $25,000 per day for each violation of RCRA and that EPA has proposed to assess a civil penalty of $354,650.00 against Refined Metals. The remaining allegations contained in this paragraph are legal conclusions to which no response is required. To the extent that a response is required, Refined Metals denies these allegations.

POTENTIAL CONSEQUENCE OF FAILURE TO COMPLY WITH COMPLIANCE ORDER

The allegations contained in this paragraph are legal conclusions to which no response is required. To the extent that a response is required, Refined Metals denies the allegations contained in this paragraph.

OPPORTUNITY TO REQUEST A HEARING

Refined Metals requests a formal hearing to contest material facts set forth in the Complaint and Compliance Order and to present evidence on the facts asserted in this Answer. The remaining allegations contained in these paragraphs are legal conclusions to which no response is required. To the extent that a response is required, Refined Metals denies the allegations contained in these paragraphs.

INFORMAL SETTLEMENT CONFERENCE

Refined Metals requests an informal settlement conference with EPA to discuss the allegations contained in the Complaint and Compliance Order and other information relevant to these allegations. The remaining allegations contained in these paragraphs are legal conclusions to which no response is required. To the extent that a response is required, Refined Metals denies these allegations in these paragraphs.

PAYMENT OF PENALTY

The allegations contained in this paragraph are legal conclusions to which no response is required. To the extent that a response is required, Refined Metals denies the allegations contained in this paragraph.

DEFENSES AND FACTUAL CONTENTIONS

1. The Complaint fails to state a claim upon which relief can be granted.

2. The Complaint and Compliance Order are barred by laches.

3. The Complaint and Compliance Order are barred by estoppel.

4. The Complaint and Compliance Order are barred by waiver.

5. The Complaint and Compliance Order are barred by the statute of limitations.

6. The Complaint and Compliance Order are barred by accord and satisfaction.

7. Refined Metals has complied with all applicable federal and state laws, as well as the applicable regulations promulgated pursuant thereto.

8. At all times material thereto, Refined Metals acted reasonably and in good faith, with due care for the rights and safety of others and their property.

9. At all times material hereto, Refined Metals took precautions in the handling and management of wastes and other materials consistent with the state of the art, trade customs, and industry practices.

10. At all times material hereto, Refined Metals has taken all reasonable measures to mitigate damages.

11. The Complaint and Compliance Order seek to enforce requirements that are not feasible, and if enforced, would be a violation of the Constitution and laws of the United States.

12. Refined Metals acted reasonably in light of the regulatory and enforcement positions taken by federal and state regulations.

13. The Complaint and Compliance Order seek to apply statutes and regulations retroactively to conduct of Refined Metals.

14. The Complaint and Compliance Order fail to provide any specific calculations for the proposed civil penalty or any statement explaining the reasoning behind the proposed penalty.

15. EPA failed to issue a notice of violation to Refined Metals for allegations contained in the Complaint and Compliance Order prior to issuance of the Complaint and Compliance Order.

16. Slag generated by Refined Metals is not a hazardous waste subject to the statutory and regulatory requirements of RCRA because it does not exhibit characteristics of hazardous waste.

17. The Structural Integrity Procedure is an acceptable testing procedure under the applicable regulations to determine whether slag is a hazardous waste for regulatory purposes.

18. Samples from Refined Metals collected by EPA and the State of Tennessee were not collected or analyzed properly.

19. The allegations asserted in the Complaint and Compliance Order regarding the procedures for determining whether slag is a hazardous waste are barred by the Administrative Procedure Act, 5 U.S.C. § 553, because EPA failed to provide notice and comment.

20. The State of Tennessee authorized Refined Metals to dispose of its slag in off-site industrial waste landfills.

21. Slag generated by Refined Metals is not a hazardous waste subject to the statutory and regulatory requirements of RCRA because it is a waste from the extraction, beneficiation, or processing of ores and minerals pursuant to § 3004(x) of RCRA, 42 U.S.C. § 6924(x).

22. EPA has no authority to enforce the statutory and regulatory requirements promulgated by the State of Tennessee.

23. Refined Metals' efforts to implement management and handling procedures for its wastes consistent with requests from EPA and TDSW have been impaired by TDSW's delays in reviewing and processing permit applications, variance requests, and other regulatory approvals and authorizations.

24. TDSW informed Refined Metals that it could store slag on-site pending the final resolution of the proper sampling and testing procedures to determine whether slag is a hazardous waste.

25. EPA has never informed Refined Metals that the sampling and testing procedures that Refined Metals has used to determine whether its slag is a hazardous waste are or were contrary to the applicable regulations.

26. Until December 15, 1989, TDSW has maintained that the slag generated by Refined Metals is non-hazardous.

27. The listed hazardous waste, K069, was never placed on the waste pile at the facility.

28. The Complaint and Compliance Order are barred by *res judicata*.

29. The Complaint and Compliance Order are barred by collateral estoppel.

WHEREFORE, having fully answered the Complaint and Compliance Order, Refined Metals prays that the relief sought in the Complaint and Compliance Order be denied, that the Complaint and Compliance Order be dismissed and that Refined Metals be awarded its costs and attorneys' fees, and such other relief as the Agency may deem just and proper.

Dated: October 4, 1990

Respectfully submitted,

Robert N. Steinwurtzel
Jeffery S. Hannapel
Andrews & Kurth
1701 Pennsylvania Avenue N.W.
Washington, D.C. 20006
(202) 662-2700

Attorneys for Respondent

CERTIFICATE OF SERVICE

I hereby certify that on this 4th day of October, 1990, I caused a true and correct copy of the foregoing to be served by regular mail, postage prepaid, upon the following:

Ramiro Llado, Esq.
Assistant Regional Counsel
United States Environmental Protection Agency
345 Courtland Street, N. E.
Atlanta, Georgia 30365

6/5/1990

STATE OF INDIANA)		BEFORE THE INDIANA DEPARTMENT
) SS:		
COUNTY OF MARION)		OF ENVIRONMENTAL MANAGEMENT

COMMISSIONER, INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT	)	CAUSE NO. N-283
vs.	)	
REFINED METALS, INC.	)	

STATUS REPORT

Comes now the Complainant, by counsel, and, in response to the Administrative Law Judge's Order Requesting Status Report, files the following:

1. As set out in the previously filed Joint Status Report, negotiations have been on-going in this action. The current status of those negotiations is that the Respondent has submitted a proposal for settlement which the Complainant is considering. As soon as sufficient review has occurred, the Complainant will then respond, as needed.

2. Counsel for the Complainant has discussed the contents of this Status Report with the Respondent's Counsel, who concurs herewith.

3. It seems appropriate to reschedule another Status Report to be filed in approximately sixty days.

WHEREFORE, the Complainant, by counsel, submits this Status Report and respectfully suggests that another Status Report be ordered to be filed in approximately sixty days.

Respectfully submitted,

LINLEY E. PEARSON
Attorney General of Indiana

By: Mathew S. Scherschel
Mathew S. Scherschel
Deputy Attorney General

CERTIFICATE OF SERVICE

I do hereby certify that a copy of the foregoing STATUS REPORT has been duly served upon all counsel of record listed below, by United States mail, first-class postage prepaid, on this 5th day of June, 1990:

Robert Steinwurtzel
1701 Pennsylvania Avenue, N.W.
Washington, D.C. 20006

Mathew S. Scherschel
Mathew S. Scherschel
Deputy Attorney General

Office of Attorney General
219 State House
Indianapolis, IN 46204-2794
Telephone: (317) 232-6241
pw:7716W

ANDREWS & KURTH
ATTORNEYS
1701 PENNSYLVANIA AVENUE, N.W.
SUITE 200
WASHINGTON, D.C. 20006

OTHER OFFICES:
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LOS ANGELES

TELEPHONE: (202) 662-2700
TELECOPIER: (202) 662-2739
TELEX: 79-1208

November 14, 1989

VIA FEDERAL EXPRESS

Mathew S. Scherschel, Esq.
Deputy Attorney General
Office of Attorney General
219 State House
Indianapolis, Indiana 46204

Re: Refined Metals Corporation
Cause No. N-283

Dear Mr. Scherschel:

On behalf of Refined Metals Corporation, enclosed please find a draft Agreed Order for the above referenced case. We have proposed some changes to the draft that your office had submitted to us several months ago. A brief discussion of these changes is provided below.

First, we have deleted paragraphs 16 through 35 of the "Findings" because these paragraphs are allegations found in the complaint and are not appropriate as "Findings" in this matter. The relevant regulatory issues in the deleted paragraphs are, however, addressed in the "Order" section of this document. Accordingly, this deletion does not affect Refined Metals' obligations under the proposed Agreed Order.

Second, construction of the water collection and treatment system has been substantially completed and is now operational. Refined Metals proceeded with the construction and installation of this system because such measures were needed to protect the environment. Consequently, we have proposed to replace paragraph 12 of the draft Agreed Order that your office submitted to us with paragraph 13 of the enclosed draft. Specifically, we propose to submit to IDEM, for its review, workplans only for the work that remains to be completed at the facility. Furthermore, Refined Metals intends to continue its efforts to complete the water collection and treatment system at the facility pending the final resolution of this matter.

Finally, Refined Metals has included a force majeure provision (paragraph 17) and a dispute resolution provision (paragraph 18) in the enclosed draft. These provisions are intended to provide additional clarification of the rights and obligations of the parties under the Agreed Order.

If you have any questions regarding the enclosed document or other issues, please do not hesitate to contact us. After you have had an opportunity to

review the enclosed draft Agreed Order, please contact us to arrange a meeting to discuss this matter. A prompt resolution of this matter is in the best interests of both parties.

On behalf of Refined Metals Corporation, we look forward to hearing from you and to working with you to resolve this matter.

Sincerely,

Robert N. Steinwurtzel
Jeffery S. Hannapel
Counsel for Refined Metals Corporation

Attachments

JSH/ram

cc: Mr. T.W. Freudiger
Mr. Ron Widner

DRAFT

STATE OF INDIANA)		BEFORE THE INDIANA DEPARTMENT OF
)	SS:	
COUNTY OF MARION)		ENVIRONMENTAL MANAGEMENT

IN THE MATTER OF THE:	)	
COMMISSIONER, INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT,	)	
Complainant,	)	CAUSE NO. N-283
vs.	)	
REFINED METALS CORPORATION,	)	
Respondent.	)	

AGREED ORDER

Come now the parties to this cause and, being desirous of settling and compromising this action without hearing or adjudication of any issue of fact or law, thereby consent to the following FINDINGS and ORDER. This document shall not constitute any evidence or admission by any party hereto (which could be used by any third person in any other action), but shall be solely for the purpose of settling this action.

FINDINGS

NOW, THEREFORE, upon the consent of the parties hereto, and for the purposes of this cause only, the following FINDINGS are made:

1. The Complaint is the Commissioner of the Indiana Department of Environmental Management (hereinafter referred to as "the Commissioner") (formerly the Technical Secretary of the Indiana Environmental Management Board).

2. The Indiana Department of Environmental Management (hereinafter referred to as the "Department") has jurisdiction over both the parties and the subject matter of this action.

3. Respondent, Refined Metals Corporation, is a company authorized to do business in Indiana and operates a place of business at 3700 South Arlington Avenue, Indianapolis.

4. On August 18, 1980, Refined Metals Corporation submitted notification of hazardous waste activity.

5. On November 19, 1980, Refined Metals Corporation submitted a Part A application to the U.S. Environmental Protection Agency (EPA).

6. On December 18, 1981, an inspection was conducted at Refined Metals Corporation to determine compliance with the applicable generator requirements.

7. On January 22, 1982, a referral from the Generator and Transporter Section of the Department was sent to the Treatment, Storage, and Disposal Section of the Department requesting that a treatment, storage, and disposal (TSD) facility inspection be conducted.

8. On February 26, 1982, a TSD facility inspection was conducted to determine compliance with the applicable facility requirements.

9. On April 13, 1983, a Notice of Violation was sent to Refined Metals Corporation. This notice cited violations discovered during the February 26, 1982 inspection.

10. On March 30, 1984, EPA received a request from Refined Metals Corporation to withdraw their Part A application, so as to function solely as a generator of hazardous waste.

11. On April 24, 1984, EPA responded to Refined Metals Corporation's request. The response stated that Refined Metals Corporation was required to close pursuant to 320 IAC 4-7 in order to become a generator only. Additionally, they were instructed that they would have to comply with 320 IAC 4-6 if they did not pursue closure.

12. On July 13, 1984, a pre-closure inspection was conducted at Refined Metals Corporation. Subsequent to this inspection, a memo was sent to the Compliance Monitoring Section of the Department recommending that a compliance inspection be conducted.

13. On May 15, 1985, a complaint was received from Emergency Response, Division of Water Pollution Control of the Indiana State Board of Health. Information received in this complaint indicated that in response to a spill, Emergency Response had detected possible soil contamination of hazardous waste.

14. An inspection of Refined Metals Corporation was conducted by representatives of the Department on June 18, 1985, and a report alleging several regulatory violations was prepared by the Department.

15. Pursuant to IC 13-7-11 and IC 4-22-1-6, a Complaint and Notice of Opportunity for Hearing and Proposed Final Order were served on December 23, 1985, upon:

Mr. Richard L. Swain, President Refined Metals Corporation 257 West Mallory Memphis, Tennessee 38109	C.T. Corporation Resident Agent for Refined Metals Corporation One North Capitol Indianapolis, Indiana 46204

16. On January 20, 1986, Respondent requested administrative review of the Commissioner's Final Order.

17. On November 8, 1988, Respondent submitted a Part B permit application.

18. Pursuant to IC 4-22-1-4, settlement conferences were held on February 27, 1986; July 21, 1988; and January 5, 1989.

ORDER

WHEREFORE, based upon the above FINDINGS and upon the consent of the parties, it is hereby ORDERED that:

1. Within sixty (60) days of the effective date of the Order, Respondent shall submit to the Department for approval, a closure plan as specified in 329 IAC 3-21 for the area where K069 dust was stored in a waste pile.

2. Upon notice of approval of the closure plan by the Department, Respondent shall implement the plan as approved and in accordance with the time frames contained therein.

3. Within thirty (30) days of the effective date of the Order, Respondent shall manage all containers and waste piles as required by 329 IAC 3-15 through 329 IAC 3-26-7.

4. Within thirty (30) days of the effective date of the Order, Respondent shall determine if the slag is hazardous as defined by 329 IAC 3-5-1 through 329 IAC 3-6-4 by conducting an analysis of the slag.

5. Within forty-five (45) days of the effective date of the Order, Respondent shall submit to the Department the results of the determinations (analyses) on the slag.

6. Upon the effective date of the Order, Respondent shall not generate any furnace building wastewater.

7. Within thirty (30) days of the effective date of the Order, Respondent shall amend the personnel training records to include:

   a. The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job;

b. A written job description for each position listed in paragraph (a) above; and

c. Records that document that the training has been given.

8. Within thirty (30) days of the effective date of the Order, Respondent shall conduct an annual review of the initial training for all facility personnel involved in hazardous waste training.

9. Within forty-five (45) days of the effective date of the Order, Respondent shall submit to the Department for approval the amended personnel training records which include the annual review of training.

10. Within thirty (30) days of the effective date of the Order, Respondent shall amend its contingency plan to include the following items:

a. A description of the arrangements agreed to by police departments, hospitals, contractors, and State and local emergency response teams;

b. The name, addresses, and phone numbers (office and home) of all persons qualified to act as alternate emergency coordinator;

c. The location of emergency equipment; and

d. An evacuation plan for facility personnel as specified in 329 IAC 3-18-3(f).

11. Within forty-five (45) days of the effective date of the Order, Respondent shall submit to the Department for approval a copy of the amended contingency plan.

12. Within ten (10) days of the notice of approval of the contingency plan by the Department, Respondent shall submit copies of the plan to all local police departments, fire departments, hospitals, and State and local emergency response teams.

13. Within ninety (90) days of the effective date of the Order, Respondent shall submit to the Department for review the design plans for the following activities that remain to be completed for the waste water collection and treatment system at the facility:

a. the installation of a wheel wash system for trucks prior to leaving the facility grounds;

b. the installation of a sump on the southwest corner of the plant site to collect surface water runoff and the water from the wheel washing operation;

c. the installation of a sump at the southeast corner of the plant site to collect surface water runoff, <u>or alternatively</u>, the grading of the

plant property to direct runoff water to the sump to be installed in the southwest corner of the plant site; and

d. the remaining concrete work at the facility that is necessary to complete the water collection and treatment system.

14. Respondent shall include in its Part B permit application provisions for corrective action for releases of hazardous wastes into the environment from the facility.

15. Respondent shall pay $19,750 to the Indiana Environmental Management Special Fund within thirty (30) days of the effective date of the Order. This payment shall be addressed to the Office of Solid and Hazardous Waste Management, Attention: Cashier.

16. Subject to the provisions of paragraph 17 below, the Respondent shall pay a penalty of $250 per day for each day of noncompliance with the time limits set out in this AGREED ORDER.

17. During the effectiveness of this Order, the following Force Majeure provisions shall control.

    a. Respondent shall perform the requirements of this Order within the time limits set forth herein, unless the performance is prevented or delayed by events which constitute a force majeure. A force majeure is defined as any event arising from causes not foreseeable and beyond the reasonable control of Respondent and which delays or prevents performance by a date required by this Order.

    b. Respondent shall notify the Department in writing within ten (10) days after it becomes aware of events which Respondent knows constitute a force majeure. Such notice shall estimate the anticipated length of delay, including necessary demobilization and remobilization, its cause, measures taken or to be taken to minimize the delay, and an estimated time table for implementation of these measures.

    c. If the delay has been or will be caused by circumstances not foreseeable and beyond Respondent's reasonable control, the time for performance for that particular activity shall be extended for a period equal to the delay resulting from such circumstances.

18. With respect to the terms and conditions of this Agreed Order, the settling parties agree to use their best efforts to resolve all disputes and differences of opinion informally and in good faith.

19. This AGREED ORDER will apply to the Respondent, its agents, servants, employees, successors, and assigns, and to all persons, firms, or corporations acting through or for the Respondent.

20. This AGREED ORDER will have no force or effect until it is approved by the Commissioner. Compliance with the terms of this AGREED ORDER shall constitute a final resolution of all violations alleged against Respondent in the Complaint issued by Complainant on December 23, 1985.

21. Respondent, by the duly authorized undersigned, hereby consents to the provisions of the FINDINGS and ORDER and agrees to be bound by said ORDER when issued by the Commissioner.

TECHNICAL RECOMMENDATION

By: _____
Dennis M. Zawodni, Chief
Enforcement Section

Date: _____

REFINED METALS CORPORATION

By: _____
T.W. Freudiger, Vice President

Date: _____

APPROVED FOR LEGALITY AND FORM:

LINLEY E. PEARSON
Attorney General of Indiana

By: _____
Mathew S. Scherschel
Deputy Attorney General

Date: _____

COUNSEL FOR COMPLAINANT

ANDREWS & KURTH

By: _____
Robert N. Steinwurtzel
Jeffery S. Hannapel

Date: _____

COUNSEL FOR RESPONDENT

APPROVED AND ADOPTED BY THE INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT this _____ day of _____, 1989.

_____
Commissioner

5712W

FILE

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

105 South Meridian Street
P.O. Box 6015
Indianapolis 46206-6015
Telephone 317-232-8603

RECEIVED
SEP 25 1989
OFFICE OF RCRA
WASTE MANAGEMENT DIVISION
EPA, REGION V

VIA CERTIFIED MAIL - P730-167-587

September 20, 1989

Mr. T. William Freudiger, Vice President
Refined Metals Corporation
P.O. Box 9009
Memphis, Tennessee 38109

Re: Interim Status Expansion Request
Refined Metals Corporation
Beech Grove, Indiana
IND 000718130

Dear Mr. Freudiger:

On May 8, 1989, the Indiana Department of Environmental Management (IDEM) received your letter concerning Refined Metal's justification for increasing the battery storage capacity from two hundred (200) cubic yards to four hundred (400) cubic yards.

In previous letters submitted by Refined Metals dated November 1, 1988, and January 23, 1989, no justification or demonstration of the lack of other hazardous waste management facilities was made. On the May 8, 1989, a justification was provided, however, there has been no demonstration of a lack of available treatment, storage, recovery or disposal capacity at other hazardous waste management facilities as requested pursuant to 329 IAC 3-38-3(b).

Since Refined Metals has failed to demonstrate the lack of available treatment, storage, recovery or disposal capacity at other hazardous waste management facilities, IDEM denies Refined Metals request to increase interim status battery storage capacity. The battery storage capacity shall remain at two hundred (200) cubic yards.

If you wish to challenge this decision, IC 13-7-10-2.5 and IC 4-21.5-3-7 require that you file a Petition for Administrative Review. If you seek to have the effectiveness of the decision stayed during the administrative review, you must also file a Petition for Stay. The petition(s) must be submitted to the Commissioner at the above address within fifteen (15) days after your receipt of this notice. The petition(s) must include facts demonstrating that you are either the applicant, a person aggrieved or other wise adversely affected by the decision, or other wise entitled to review by law. Additionally, IC 13-7-10-2.5 requires that a Petition for Administrative Review must include:

1. The name and address of the person making the request.

2. The interest of the person making the request.

3. Identification of any persons represented by the person making the request.

4. The reasons, with particularity, for the request.

5. The issues, with particularity, proposed for consideration at the hearing.

6. Identification of the terms of the decision which, in the judgement of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing licenses of the type granted or denied by the Commissioner.

Pursuant to IC 14-21.5-3-1(f), any document serving as a petition for review or review and stay must be filed with Kathy Prosser, Technical Secretary of the Solid Waste Management Board. Filing of such a document is complete on the earliest of the following dates:

1. the date on which the petition is delivered to the Office of the Technical Secretary of the Solid Waste Management Board, located at 105 South Meridian Street, Fifth Floor, Indianapolis, Indiana 46225;

2. the date of the postmark on the envelope containing the petition, if the petition is mailed by United States mail; or

3. the date on which the petition is deposited with a private carrier, as shown by a receipt issued by the carrier, if the petition is sent by private carrier.

If you have any questions regarding this matter, please contact Mr. Phil Perry at AC 317/232-3220.

Sincerely,

Bruce H Palin

Bruce H. Palin
Acting Assistant Commissioner for
Solid and Hazardous Waste Management

cc: Mr. Hak Cho, U.S. EPA, Region V
Ms. Fayola Wright, U.S. EPA, Region V
Mr. David Berrey, IDEM
Mr. Dennis Zawodni, IDEM

IN DATE Statement Date: MAR 31 1989

DUNS: 03-800-9866
IDE CORPORATION

BOX 14205
READING PA 19612
645 PENN ST
AND BRANCH(ES) OR DIVISION(S)
READING PA 19601
TEL: 215 378-0500

CHIEF EXECUTIVE: ARTHUR M HAWKINS, PRES

DATE PRINTED
OCT 26 1989

MFG LEAD ACID
STORAGE BATTERIES
SIC NO.
36 91

SUMMARY

RATING	--
STARTED	1983
PAYMENTS	SEE BELOW
SALES F	$725,295,000
WORTH F	$(57,551,000)
EMPLOYS	5,000-6,555 (400 HERE)
HISTORY	CLEAR
FINANCING	SEC-UNSEC
CONDITION	UNBALANCED
TREND	DOWN

SPECIAL EVENTS

10/05/89 Effective Aug 31 1989, EC Acquisition Inc, a holding company, acquired all issued and outstanding shares of the company's common stock. EC Acquisition Inc's common equity interest after such acquisition is as follows: Wilmington Securities Inc (a wholly-owned subsidiary of the Hillman Company) 43.6%; Chemical Fund Investments Inc 4.4%; Continuing Management Group 29.5%; Management Partnership 9.0%; Management Trust 6.0%; and Prior Non-Management Stockholders 7.5%. Immediately after the foregoing transactions, ECA Acquisition Inc contributed all of the company's common stock to its wholly-owned subsidiary EC Merger Inc.

In connection with the above transaction, the company received a substantial infusion of cash equity, and repaid the outstanding borrowings under the amended credit agreement with the proceeds of a new credit agreement which provides up to an aggregate total of $245 million in term loan, standby credit, revolving credit and letter of credit facilities. Such proceeds will also be used to redeem all of the outstanding increasing rate notes. In order to provide additional working capital, the company also entered a $1killion receivables purchase facility.

07/06/89 In a Company release dated Jul 6 1989, it was reported that an affiliate of The Hillman Company, Pittsburgh, PA, has offered to purchase all of the Exide common stock held by parties other than management, or approximately 70% of the common stock issued and outstanding. Exide's Board of Directors and the holders of the majority of the common stock have indicated their approval of the transaction.

The transaction, which is subject to certain conditions, is expected to be consummated during the first part of August 1989.

Separately, Exide reported because preliminary results of its annual physical inventory indicate that adjustments will be required, the Company has not filed its annual report on Form 10-K for the fiscal year ended Mar 31 1989. The amounts of such adjustments are still being determined, and it is anticipated that the filing will be made in late Jul 1989. The adjustments may also result in certain

covenant defaults under Exide's bank credit agreement.

It was further reported that in connection with the acquisition transaction, the Hillman affiliate expects to arrange for the refinancing of Exide's senior debt and to arrange significant contributions to Exide's working capital.

PAYMENTS (Amounts may be rounded to nearest figure in prescribed ranges)

REPORTED	PAYING RECORD	HIGH CREDIT	NOW OWES	PAST DUE	SELLING TERMS	LAST SALE WITHIN
10/89	Ppt	15000	250	250		2-3 Mos
	Ppt	1000	100	-0-		4-5 Mos
	Ppt	250	250	-0-		1 Mo
	Ppt	100	100	-0-		1 Mo
	Ppt-Slow 30	2500	250	-0-		4-5 Mos
	Ppt-Slow 60	1000	500	-0-	N30	1 Mo
	Ppt-Slow 90	5000	-0-	-0-	N30	6-12 Mos
	Ppt-Slow 90	2500	2500	-0-	N30	1 Mo
	Ppt-Slow 90	1000	-0-	-0-	N30	6-12 Mos
	Ppt-Slow 90	250	50	50		4-5 Mos
	Slow 5	100	100	100		2-3 Mos
	Slow 15	750	50	-0-		1 Mo
	Slow 20	250	-0-	-0-		4-5 Mos
	Slow 30	5000	100	-0-		1 Mo
	Slow 30	250	-0-	-0-	N15	1 Mo
	Slow 35	100	100	100		1 Mo
	Slow 30-90	25000	15000	5000	Prox	1 Mo
	Slow 90	500	100	-0-	N10	1 Mo
	Slow 15-100 (020)	7500	1000	-0-		1 Mo
	Placed for collection.					
09/89	Disc	1000	1000	-0-		1 Mo
	Disc	500	-0-	-0-		4-5 Mos
	Disc	50	50	-0-	2 10 N30	1 Mo
	Ppt	25000	10000	-0-		1 Mo
	Ppt	7500	2500	500		1 Mo
	Ppt	2500	1000	50	1 10 N30	1 Mo
	Ppt	2500	250		1 10 N30	1 Mo
	Ppt	2500	2500	-0-		1 Mo
	Ppt	2500	1000	-0-		1 Mo
	Ppt	2500				6-12 Mos
	Ppt	2500	2500	-0-	Regular terms	1 Mo
	Ppt	1000	250	-0-		1 Mo
	Ppt	1000	1000	-0-		1 Mo
	Ppt	1000	1000	-0-		1 Mo
	Ppt	1000	1000	-0-	N30	1 Mo
	Ppt	750	750	-0-	N30	1 Mo
	Ppt	750	-0-	-0-		1 Mo
	Ppt	500	500	-0-		1 Mo
	Ppt	500	500	-0-		1 Mo
	Ppt	500	500	500		2-3 Mos
	Ppt	500	100	-0-		2-3 Mos
	Ppt	500	250	-0-	N30	
	Ppt	250	-0-	-0-		2-3 Mos

	Ppt	250	250	-0-		1 Mo
	Ppt	250	250	-0-	N60	1 Mo
	Ppt	250	250	-0-		1 Mo
	Ppt	250	-0-	-0-		2-3 Mos
	Ppt	100	-0-	-0-		2-3 Mos
	Ppt	100				2-3 Mos
	Ppt-Slow 15	1000	1000	500		1 Mo
	Ppt-Slow 30	15000	15000	5000		1 Mo
	Ppt-Slow 30	2500	2500	250		1 Mo
	Ppt-Slow 30	2500	2500	500	2 10 N30	1 Mo
	Ppt-Slow 30	1000	1000	-0-		1 Mo
	Ppt-Slow 30	250	250	250		1 Mo
	Ppt-Slow 30	100	50	-0-		1 Mo
	Ppt-Slow 60	50000	-0-	-0-		1 Mo
	Ppt-Slow 60	15000	-0-	-0-	N30	2-3 Mos
	Ppt-Slow 60	750	750	-0-	N30	1 Mo
	Ppt-Slow 60	50	50	50	N30	4-5 Mos
	Ppt-Slow 90	2500	-0-	-0-		4-5 Mos
	Slow 5	1000	1000	1000		1 Mo
	Slow 15	750	750	750	N30	6-12 Mos
	Slow 30	100	100	100		1 Mo
	Slow 30	50	-0-	-0-	N30	1 Mo
	Slow 40	2500	-0-	-0-		2-3 Mos
	Slow 30-60	25000	5000	5000	N30	1 Mo
	Slow 30-60	1000	1000	1000		1 Mo
	Slow 15-70	250	-0-	-0-	N30	2-3 Mos
	Slow 70		-0-	-0-		6-12 Mos
	Slow 15-90	2500	1000	500	N30	1 Mo
	Slow 70-90	2500	1000	1000	N30	1 Mo
08/89	Ppt-Slow 30	100	100	50	N30	1 Mo
	Ppt-Slow 60	20000	250	50	N30	2-3 Mos
	Ppt-Slow 60	7500	2500	2500	N30	1 Mo
	Slow 30	5000	-0-	-0-		6-12 Mos
	Slow 30-60	15000	100	100	N30	6-12 Mos
	Slow 15-100	10000	2500	750		1 Mo
	(079)				Sales COD	
07/89	(080)	250	-0-	-0-	Cash our request	1 Mo

Placed for collection.

* Accounts are sometimes placed for collection even though the existence or amount of the debt is disputed.

* Payment experiences reflect how bills are met in relation to the terms granted. In some instances payment beyond terms can be the result of disputes over merchandise, skipped invoices etc.

* Each experience shown represents a separate account reported by a supplier. Updated trade experiences replace those previously reported.

STATEMENT UPDATE

09/20/89 IN THE INTEREST OF SPEED, SUPPLEMENTAL FINANCIAL STATEMENTS ARE ISSUED AS RECEIVED WITHOUT REVIEW. THE FIGURES WILL BE REVIEWED AGAINST THE RATING AT A SUBSEQUENT DATE.

Fiscal Consolidated statement dated MAR 31 1989:

Cash	$ 1,283,000	Accts Pay	$ 83,808,000
Accts Rec	120,886,000	Accruals	45,783,000

Inventory	144,768,000	L.T. Liab-(1yr)	2,757,000
Other Curr Assets	6,453,000		
Curr Assets	273,390,000	Curr Liabs	132,348,000
Fixt & Equip	126,108,000	Long-Term Debt	315,491,000
Investments-Other	15,217,000	Redeemable Preferred Stock	33,672,000
Intangibles	46,425,000	L.T. Liab-Other	6,380,000
Other Assets	15,625,000	COMMON STOCK	1,000
		ADDIT. PD.-IN CAP	3,549,000
		NOTES REC	(525,000)
		RETAINED EARNINGS	(14,084,000)
		TREASURY STOCK	(67,000)
Total Assets	476,765,000	Total	476,765,000

From APR 01 1988 to MAR 31 1989 sales $725,295,000; cost of goods sold $612,287,000. Gross profit $113,008,000; operating expenses $87,278,000. Operating income $25,730,000; other income $3,127,000; other expenses $39,877,000; net income before taxes (11,020,000); Federal income tax $236,000; extraordinary charge $5,388,000. (net loss) (16,644,000). Retained earnings at start $5,383,000. Net loss $16,644,000; dividends $2,823,000; retained earnings at end (14,084,000).

Statement received by mail SEP 20 1989. Prepared from statement(s) by Accountant: Arthur Andersen & Co.

ACCOUNTANTS OPINION: "A review of the accountant's opinion indicates the financial statements meet generally accepted accounting principles and that the audit contains no qualifications".

--0--

Accounts receivable shown net less $9,095,000 allowance. Item worth shown in the summary section was computed after deduction of intangibles excess acquisition costs $36,456,000 and deferred financing costs $9,969,000 totaling $46,425,000. Fixed assets shown net less $64,834,000 depreciation.

FINANCE

A CONSULTING SERVICE IS AVAILABLE TO ASSIST YOU IN REVIEWING THIS ACCOUNT FURTHER. PLEASE CALL (800) 223 - 0141 TO SPEAK WITH A DUNS ACCOUNT CONSULTANT.

04/26/89

	Fiscal Consolidated Mar 31 1986	Fiscal Consolidated Mar 31 1987	Fiscal Consolidated Mar 31 1988
Curr Assets	101,658,000	122,895,000	280,179,000
Curr Liabs	51,345,000	56,418,000	126,665,000
Current Ratio	1.97	2.18	2.21
Working Capital	50,313,000	66,477,000	153,514,000
Other Assets	54,783,000	60,366,000	132,967,000
Long-Term Liabs	141,345,000	136,347,000	323,538,000
Worth	(9,249,000)	(9,504,000)	(37,057,000)
Sales	233,834,000	277,940,000	652,168,000
Net Income	1,132,000	2,239,000	20,110,000
Depreciation & Amor	7,399,000	8,472,000	19,862,000
Interest Expense	8,189,000	10,780,000	30,661,000

Capital Outlays	11,515,000	15,727,000	17,274,000

Fiscal Consolidated statement dated MAR 31 1988:

Cash	$ 121,000	Accts Pay	$ 64,869,000
Accts Rec	127,017,000	Bank Overdraft	4,185,000
Inventory	147,678,000	Accruals	51,299,000
Prepaid Expenses	5,363,000	L.T. Liab-(lyr)	1,275,000
		Warranty Reserve	5,037,000
Curr Assets	280,179,000	Curr Liabs	126,665,000
Fixt & Equip	114,734,000	Long-Term Debt	287,275,000
Investments-Other	12,255,000	Redeemable	
Intangibles	45,398,000	Preferred Stock	30,849,000
Other Assets	5,978,000	L.T. Liab-Other	5,414,000
		COMMON STOCK	1,000
		ADDIT. PD.-IN CAP	3,360,000
		NOTES REC	(345,000)
		RETAINED EARNINGS	5,383,000
		TREASURY STOCK	(58,000)
Total Assets	458,544,000	Total	458,544,000

From APR 01 1987 to MAR 31 1988 sales $652,168,000; cost of goods sold $523,087,000. Gross profit $129,081,000; operating expenses $76,604,000. Operating income $52,477,000; other income $1,947,000; other expenses $32,686,000; net income before taxes $21,738,000; Federal income tax $6,724,000. Net income $20,110,000. Extraordinary credit $5,096,000. Retained earnings at start ($12,454,000). Net income $20,110,000; dividends $2,273,000; retained earnings at end $5,383,000.

Prepared from statement(s) by Accountant: Arthur Andersen & Co.

ACCOUNTANTS OPINION: "A review of the accountant's opinion indicates that the financial statements meet generally accepted accounting principles and the audit contains no qualifications".

--0--

Item worth shown in summary section was computed after deduction of intangibles, principally excess acquisition costs, totaling $45,398,000. Accounts receivable shown net less $8,361,000 allowance. Fixed assets shown net less $47,700,000 depreciation.

-----BALANCE SHEET ITEMS EXPLANATION (000'S OMITTED)-----.

INVESTMENTS-OTHER: Consist of the company's equity investment in its joint ventures.

OTHER ASSETS: Consist of miscellaneous assets, no intangibles.

LONG-TERM DEBT:.

Credit Agreement	$134,085.
Senior Subordinated Notes	134,027.
Capital Lease Obligations	20,438.
Less Current Portion	1,275.

Annual principal payments required under long-term debt obligations as of Mar 31 1988 are as follows: 1989-$1,275; 1990-$10,160; 1991-$37445; 1992-$41414; 1993-$42250; 1994 and thereafter-$156,006.

CREDIT AGREEMENT: At Mar 31 1988, the company had an amended and restated credit agreement which provided for borrowings up to $180,000, declining in quarterly increments to zero through May 1994.

This credit agreement is secured by substantially all of the assets of the company. In addition, there are numerous business and financial covenants.

The senior subordinated notes are due Jun 15 1997. The notes require annual sinking fund payments of $27,000 on Jun 15 1995 and 1996 calculated to retire 40% of the issue prior to maturity.

LONG-TERM LIABILITIES-OTHER: Consist principally of pension liabilities.

REDEEMABLE PREFERRED STOCK: Consists of 29,139,000 shares of series C senior cumulative preferred stock. The terms of the senior preferred stock limit the company's ability to repurchase shares of its common stock or declare common stock dividends. The terms also require mandatory redemption of 50% of the then outstanding shares on Mar 31 1998 and the remaining 50% on Mar 31 1999.

Due to the mandatory redemption requirements, this preferred stock is considered debt and has been excluded from calculating tangible net worth.

-----INCOME STATEMENT ITEMS EXPLANATION-----.

OTHER INCOME: Consists of equity in earnings of joint ventures.

OTHER EXPENSES: Consist principally of interest expense.

EXTRAORDINARY CREDIT: Represent the utilization of net operating loss carryforwards.

COMMITMENTS AND CONTINGENCIES: The company has purchase commitments with one supplier expiring May 1 1990 for plastic battery containers and covers. The commitments require the company to purchase a significant portion of its plastic battery container and cover requirements from the supplier. The price of the purchases will be the vendor's general list prices, less the standard discount for other customers who purchase similar products of like grade, quality and volume.

The company has guaranteed repayment of its share of $3,244,000 of long-term debt incurred by a joint venture. Payments of this debt are guaranteed by the company in proportion to its 49% equity interest in this joint venture.

The company and its subsidiaries are involved in various legal proceedings and litigation arising in the ordinary course of business. The company is vigorously defending all proceedings, and managemnet believes that ultimately none of these actions will have a material adverse effect on its consolidated financial condition.

On APR 19 1989 P Michael Ehlerman, ex v pres-cfo, referred to the above figures.

Management submitted the following interim figures dated JAN 01 1989:

Cash	$ -0-	Accts Pay	$ 75,229,000
Accts Rec	165,741,000	Long-Term Debt	315,519,000
Mdse	163,299,000		
Fixed Assets	125,764,000		

In addition: Other current assets $5,553,000; intangible assets $46,201,000; investments $14,794,000; other assets $7,651,000; current maturities of long-term debt $38,849,000; accrued expenses $44,264,000; redeemable preferred stock $32,950,000; and other long-term liabilities $6,490,000.

----------RECONCILIATIONS (000'S OMITTED)----------.

TANGIBLE NET WORTH: At Mar 31 1988, the company's deficit

tangible net worth increased $27,553 due to an increase in intangible assets $45,398; plus a slight decrease in paid in capital due to shares purchased for the treasury $15; less a decrease in notes receivable from the sale of class B common stock $23; and less earnings retained $ 17,837.

WORKING CAPITAL: At Mar 31 1988, the company's working capital position increased $87,037 due to an increase in long-term liabilities $187,191; less an increase in noncurrent assets $72,601; and less an increase in the company's deficit tangible net worth position $27,553.

Both long-term liabilities and noncurrent assets increased primarily due to the acquisition of General Battery Corporation in May 1987.

----------SELECTED OPERATING INFORMATION----------.

	1987	1988.
Sales - % Increases	18.9	134.6.
Gross Profit Margin - % of Sales	19.5	19.8.
Operating Expenses - % of Sales	14.6	11.7.
Net Income - % of Sales	0.8	3.1.

The substantial increase in sales for fiscal 1988 was attributed primarily to the results of General Battery Corporation acquired in May 1987.

Excluding the effects of this acquisition, the company's net sales increased 23.2%, or $64.4 million. Increased volume, higher selling prices resulting from higher lead markets, and billings related to a construction project for a Southern California utility were the primary reasons for this increase in sales.

The increase in net income was attributed to the increase in sales. The company's gross profit margin improved by $75.0 million, with $67.8 million attributed to the General Battery Corporation acquisition.

Net income was negatively impacted by an increase in interest expense of $19.9 million due to debt associated with the acquisition of General Battery Corporation. Net income was favorably impacted by the utilization of net loss carryforwards.

----------CURRENT OPERATING RESULTS----------.

Sales for the 9 months ended Jan 1 1989 were $561,674,000 and net income $9,462,000 compared to the 9 months ended Jan 3 1988 sales $478,977 and net income $16,201,000.

The increase in sales for this period was attributed to the acquisition of General Battery Corporation which added $42.8 million in net sales compared to the corresponding period. The additional increase of $39.9 million was due to higher automotive unit volume and increased lead prices, partially offset by lower unit pricing due to intense competition pressures in the automotive battery market.

The decrease in net income for this period was attributed primarily to a decrease in the company's gross profit margin from 19.8% in fiscal 1988 to 19.0% in fiscal 1989. In addition, net income was negatively impacted by a $6.4 million increase in interest expense due to increased borrowings to fund inventory increases and higher capital spending levels associated with the company's goal of increasing market share in the automotive battery market.

In addition, an extraordinary charge to earnings of $3.6 million,

net of taxes, was recorded in the 9 months ended Jan 1 1989. This charge was associated with a judgement for activities which occurred when the company was owned by Inco Limited.

----------ANALYST'S COMMENTS----------.

Trend is regarded as down at Jan 1 1989 due to a 49% decrease in net income compared to the corresponding period in fiscal 1988.

The company expanded its operations in fiscal 1988 with the acquisition of General Battery Corporation. Due to this acquisition, significant intangible assets exsist (principally excess acquisition costs) and a deficit tangible net worth is noted at Mar 31 1988 and at Jan 1 1989.

A limited working capital position is apparent as noted in the company's generally slow payment record. Management acknowledged slowness and stated that excess cash balances are being utilized to reduce borrowings under the company's revolving credit agreement. Management futher stated that the company has recently renegotiated its revolving credit agreement and on Apr 17 1989 issued $40 million in senior notes in a private placement. Proceeds from the senior notes are to be used to support working capital.

PUBLIC FILINGS

04/26/89 On Apr 10 1989, a suit in the amount of $93,957 was filed against Exide Corporation by Price Waterhouse (Docket #01626-S) in Philadelphia, PA. Cause of action was civil. This filing is taken from public record bulletin of Apr 14 1989.

04/26/89

Numerous financing statements have been filed listing Exide Corporation as debtor and collateral consisting of substantially all of the assets of the company.

The public record items reported above under "PUBLIC FILINGS" and "UCC FILINGS" may have been paid, terminated, vacated or released prior to the date this report was printed.

BANKING

09/89 Account maintained.
09/89 (Same bank)Account maintained.
09/89 (Same bank)Account maintained.
09/89 (Same bank)Account maintained.
09/89 (Same bank)Account maintained.
09/89 Loans granted to medium 5 figures. Matures in 1 to 5 years.

(4-89) According to the company's quarterly report for Jan 1 1989, no cash or equivalent amount was reported, as excess cash balances are used to reduce borrowings under the company's revolving credit agreement. The company has recently renegotiated its revolving credit agreement providing for borrowings up to $175 million, with $130 million currently outstanding. This facility is secured by substantially all of the assets of the company. The company has recently issued $40 million in unsecured senior notes.

HISTORY

04/26/89

ARTHUR M HAWKINS, PRES-CEO+
ANDREW G GALEF, CHB+
RAYMOND J KENNY, EX V PRES-INDUSTRIAL
P MICHAEL EHLERMAN, EX V PRES-CFO
DOUGLAS N PEARSON, EX V PRES+
SAMUEL FRIED, V PRES-SEC-GENERAL

COUNSEL

DIRECTOR(S): The officers identified by (+) and Thomas J Cook, James E Fowler, Paul J Finnegan and Bruce D Henderson.

Incorporated Delaware Nov 23 1966. Authorized capital consists of 305,000 shares common stock, $.01 par value.

Common stock consists of 105,000 class A common shares; 100,000 class B common shares; and 100,000 class C common shares.

OUTSTANDING CAPITAL STOCK: At Mar 31 1988 there were 76,825 shares of Class B common stock issued at a stated value of $1,000. At the same date, there were 9.975 shares of Class B common stock held in the treasury at a cost of $58,000 and additional paid in capital was $3,360,000.

BACKGROUND/OWNERSHIP: The company was formed in 1888 as The Electric Storage Battery Company. In 1974 it was acquired by INCO Limited. In 1983 principals of The Spectrum Group Inc, along with other investors, acquired the company from INCO Limited for approximately $100 million in cash and securities.

There is no public market for the company's common stock. As of Mar 31 1988 there were 44 stockholders of record. As of Mar 31 1988, officers and directors as a group beneficially owned 95.40 % of the common stock, with the balance owned by outside investors.

RECENT EVENTS (Acquisitions): In May 1987 the company acquired General Battery Corporation from Fruit of the Loom Inc for approximately $143 million in cash and notes.

In 1987 the company acquired a 50% interest in Battronics Inc, Maple, Ontario, Canada in exchange for all its ownership in its Canadian subsidiary, Exide Canada Corp, plus approximately $11 million of Exide Canada Corp indebtedness to Exide Corporation.

----------MANAGEMENT BACKGROUND----------.

ARTHUR M HAWKINS born 1943. Graduated 1965 Windsor College of Engineering. Michigan State University, MBA. Prior to 1983 Tenneco Corp, New York, NY as a senior vice president of their Automotive Division, general manager of Walker Manufacturing Co Division and vice president-operations of Monroe Automotive Equipment. Prior to joining Tenneco Corp employed by Chrysler Corporation, Detroit, MI. 1983-1985 ITT Corporation, group executive officer worldwide automotive operations. 1985-present Exide Corporation, president and chief executive officer.

ANDREW G GALEF born 1932. 1953-1967 employed by Mordy & Company, as financial consultant. 1967-1978 employed by Grisanli & Galef Inc, as vice president. 1978 to present employed by The Spectrum Group Inc, as president. 1986 to present employed by Warnaco Inc, as chairman. 1986 to present employed by Exide Corporation, as chairman.

RAYMOND J KENNY born 1927. Graduated Wisconsin Institute of Technology, BS. 1956-1977 ESB International Corporation. 1977-present Exide Corporation, various management positions, 1981 vice president materials and international operations, 1982 senior vice president/general manager industrial, 1983 executive vice president responsible for the company's industrial operations.

P MICHAEL EHLERMAN born 1938. Graduated University of Notre Dame. 1960-1965 General Electric Company. 1965-1968 U.S. Gypsum. 1968-1975 Northwest Industries. 1975-present Exide Corporation, various management positions, 1984 senior vice president

administration, 1987 executive vice president and chief financial officer.

DOUGLAS N PEARSON born 1944. Graduated 1966 Saint Peters College. Graduate of The Harvard Business School, Advanced Management Program. Prior to 1985 Tenneco Corp, Automotive Division, including regional sales manager, vice president national account sales, vice president corporate planning, development and Far East operations. 1985-present Exide Corporation, executive vice president primarily responsible for the automotive operations.

SAMUEL FRIED born 1951. Graduated Boston University, LLM and JD. Washington University, AB. 1974-1977 Warner & Stackpole. 1977-1981 The Bendix Corporation. 1981-1987 Clevite Industries. 1987-present Exide Corporation, vice president, secretary and general counsel.

----------OUTSIDE DIRECTORS----------.

THOMAS J COOK. Retired chairman and chief executive officer of the automotive division, Tenneco Inc.

JAMES E FOWLER. President, Inco Battery Holdings Inc.

PAUL J FINNEGAN. Senior investment manager, First Chicago Investment Corporation.

BRUCE D HENDERSON. Chairman emeritus, Boston Consulting Group Inc.

ADDITIONAL OFFICERS: LELAND E COULTER, vice president and treasurer; and WILLIAM K HOUSER, controller.

JOINT VENTURES:

(1) Battronics Inc, Maple, Ontario, Canada (50% owned). Wholesales batteries.

(2) Yuasa Exide Battery Corp, Reading, PA (49% owned). Active in the manufacture of motorcycle batteries. The company has guaranteed repayment of its share of $3,244,000 of long-term debt incurred by this joint venture.

Intercompany relations consist primarily of merchandise transactions settled as agreed.

RELATED COMPANIES: Andrew G Galef also appears as an officer in the following companies.

(1) The Spectrum Group Inc, (CA 1978), located Los Angeles, CA and operates as a management consulting firm. Intercompany relations consist of a management agreement for consulting services payable on an annual basis.

(2) Warnaco Inc, (CT 1961), located Bridgeport, CT and operates as an international apparel company. No intercompany relations.

OPERATION

04/26/89 The company is engaged in only one industry segment, namely, the manufacture of lead acid storage batteries. Batteries produced are primarily for automobiles and for commercial applications including trucks, farm equipment, tractors and other off-road vehicles as well as speciality and industrial batteries.

Terms vary and include net 30 and 60 days. Has 10,000 accounts.

Sells to automobile industry and commercial and industrial accounts.

Territory : United States and Canada.

Season peaks Sep-Dec. Business slow Jan-Aug.

EMPLOYEES: 5,000-6,555 including officers. 400 employed here. Employees peak to 6,555 during Sep-Dec and drop to 5,000 during Jan-Aug.

FACILITIES: Leases 150,000 sq. ft. in multi story limestone building in good condition.

LOCATION: Downtown section on main street.

BRANCHES: The company maintains numerous manufacturing, distribution, sales and service facilities in the United States.

SUBSIDIARIES: The company has the following principal wholly-owned subsidiaries.

(1) General Battery Corporation, Reading, PA (DE 1973), manufactures lead acid storage batteries.

(2) Dikie Metals Company (Inc) (DE 1975), Dallas, TX and is engaged in secondary lead smelting.

(3) General Battery International Corp (Puerto Ricco 1972), Carolina, Puerto Rico and is engaged in the sale of storage batteries.

Intercompany relations consist of merchandise transactions and loans settled on a regular basis.

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STATE OF INDIANA)
) SS:
COUNTY OF MARION)

BEFORE THE ENVIRONMENTAL MANAGEMENT BOARD OF THE STATE OF INDIANA

RECEIVED
JAN 22 1986
U.S. EPA, REGION V
WASTE MANAGEMENT DIVISION
HAZARDOUS WASTE ENFORCEMENT BRANCH

IN THE MATTER OF THE ENVIRONMENTAL MANAGEMENT BOARD OF THE STATE OF INDIANA,	)	
Complainant,	)	
vs.	)	CAUSE NO. N-283
REFINED METALS CORPORATION	)	
Respondent.	)	

ANSWER TO FINDINGS AND OBJECTIONS TO THE IMPOSITION OF THE PROPOSED FINAL ORDER

Comes now Refined Metals Corporation (hereinafter "Refined"), by counsel, and hereby submits its Answer to Findings and Objections to the Final Order proposed to be adopted by the Environmental Management Board of the State of Indiana (hereinafter "Board") as such is contained in the "Complaint, Notice of Opportunity for Hearing, and Proposed Final Order", served upon Refined on December 24, 1985.

In support of its Answer to Findings and Objections to the Proposed Final Order, Refined would respectfully submit the following:

GENERAL ANSWER AND OBJECTIONS

1. Refined denies that it is in violation of the Indiana Hazardous Waste Management Program, IC 13-7-8.5, and 320 IAC 4 and 320 IAC 4.1.

2. Refined is exempt from RCRA regulation and the Indiana Hazardous Waste Management Permit Program and Related Hazardous Waste Management Requirements as such regulation relates to the

inspections conducted by representatives of the Land Pollution Control Division (hereinafter "Division"), and as such inspections are reflected in the subject Complaint, Notice of Opportunity for Hearing and Proposed Final Order.

3. Refined denies that it is now or was at any time relevant to these proceedings, a generator of hazardous waste not exempted from RCRA regulation and the Indiana Hazardous Waste Management Program and Related Hazardous Waste Management Requirements.

4. Refined denies that it now or at any time relevant to these proceedings has either owned or operated a hazardous waste facility.

5. Refined denies that it has deposited any contaminants upon the land in such a place and manner which creates, or which would create a pollution hazard.

6. Refined denies that currently or at any time relevant to these proceedings it has inappropriately stored or mishandled any lead bearing materials in such a manner as to cause a pollution hazard.

7. Refined states that it is in compliance with all applicable hazardous waste management rules and regulations and is neither currently nor at any relevant time has it engaged in any prohibited acts.

8. Refined objects to the Proposed Final Order with respect to the proposed imposition of requirements, rules or regulations which are inapplicable to Refined, and, further specifically objects to the proposed civil penalty in the amount of Nineteen Thousand Seven Hundred Fifty Dollars ($19,750.00) as being

unreasonable, excessive and as constituting a manifest abuse of discretion.

9. The Final Order as proposed is: based upon incorrect or inaccurate findings and inapplicable standards, rules and/or regulations; contrary to law; unreasonable in terms of its requirements; constitutes a manifest abuse of discretion; invalid in that it inappropriately classifies certain of Refined's products as hazardous wastes; and, predicated upon alleged violations of RCRA and the Indiana Hazardous Waste Management Program and Related Hazardous Waste Management Requirements at times when Refined was not subject to, or, was exempted from such regulation.

ANSWER TO FINDINGS

FINDING 1:

On or about August 18, 1980, Refined submitted EPA Form 8700-12(6-80) NOTIFICATION OF HAZARDOUS WASTE ACTIVITY advising that it was a generator listing K069 as a specified hazardous waste. At such point in time, Refined was uncertain as to which rules and regulations were indeed applicable to its operations, and, to Refined's knowledge, no one in the secondary lead smelting industry, simliarly situated, was cognizant of exactly what was required. Refined realized the necessity of initiating procedures to secure interim status and was equally aware of the fact that inasmuch as businesses in general were not necessarily familiar with what was actually required in terms of compliance, no one would deal with a business which did not possess an EPA Identification Number.

To the best information of Refined, the continuous processing and reprocessing of K069 as an integrated part of the smelting process would relieve Refined from regulation under RCRA. Simply put, Refined was informed that if there were a question in terms of whether such document should be filed or not, it was better to file.

FINDING 2:

Refined admits that on or about November 19, 1980, it submitted its Part A Application to U.S. EPA. An error was made vis-a-vis inappropriately identifying the facility as one which treats, stores or disposes of hazardous wastes. Such error subsequently was brought to the attention of U.S. EPA by letter from Refined dated March 26, 1984. The submitted Part A Application and in particular at page 4 of 5, sought to explain the operations of Refined which did not conveniently fall into any well defined category. The process codes and design capacities were not inserted as they are applicable only to a TSD facility. Refined contends that it was not then and is not now a TSD facility. In other words, although the Part A Application contained an error which later was sought to be corrected, a review of the Application itself and the information contained therein would show that Refined was not in fact a TSD facility, and should not be regulated as such.

FINDING 3:

Refined admits that on or about December 18, 1981, an inspection was conducted at Refined. Refined does not have sufficient information to either admit or deny the remaining

material allegations as contained in this Finding. It is the understanding of Refined that the gentleman who conducted this inspection, Mr. Terry Gray, did confirm that all K069 was reused on site, and, that lead products were stored on concrete floors in a building.

FINDING 4:

Refined is without sufficient information to either admit or deny the material allegations as contained in this Finding. Refined, however, denies that at any relevant time was it a TSD facility.

FINDING 5:

Refined admits that on or about February 26, 1982, an inspection was conducted at its facility; but, is without sufficient information to either admit or deny the remaining material allegations as contained in this Finding.

FINDING 6:

Although the date of April 13, 1983, is referred to in this Finding, Refined believes that on or about April 13, 1982, a letter from Ralph C. Pickard, Technical Secretary to the Environmental Management Board was sent to Refined alleging violations of RCRA and 320 IAC 4.

FINDING 7:

Refined admits that by letter dated March 26, 1984, to U.S. EPA, a modification was requested of the Part A Application previously submitted so as to in effect allow Refined, as a true reflection of its actual operations, to be categorized as a generator only. Refined further requested permission to retain

its EPA Identification Number. Refined clearly expressed in its written submission that it did not treat, store or dispose of hazardous waste as a function of its operations.

FINDING 8:

1. Refined admits that on or about April 27, 1984, it received from U.S. EPA a letter dated April 24, 1984. Refined is of the opinion that the position of U.S. EPA as reflected in this letter was based upon information from the Division which incorrectly characterized Refined as a TSD. Refined, however, would point out that as early as September 15, 1981, it was advised by U.S. EPA Region 5, that it was not necessary to even submit a Hazardous Waste Permit Application since the K069 was generated and disposed of as a part of production. It should also be noted that based upon information submitted, it appeared to U.S. EPA in September, 1982, that Refined used, reused, recycled or reclaimed its waste as described in 40 CFR Part 261.6. Refined contends that at all relevant times it qualified as a recycler and that a permit was not required and that the permit application indeed should have been withdrawn. The processing of necessary documentation in terms of appropriate changes in classification was inordinately delayed as a result of the file of Refined being misplaced at U.S. EPA for a period of time. It should also be noted that in February, 1982, upon being informed that K069 was being reprocessed, the State of Indiana opined that it no longer was interested in this material, and, the only item the State had an interest in, in terms of regulation, was the maintenance unit which used solvent for cleaning dirty parts.

FINDING 9:

1. Refined is without sufficient information to either admit or deny the material allegations as contained in this Finding.

FINDING 10:

Refined has no knowledge of any complaint from Emergency Response, Division of Water Pollution Control of the Indiana State Board of Health. Refined has been unable to locate any information concerning the alleged "spill". Accordingly, Refined is without sufficient information to either admit or deny the material allegations as contained in this Finding.

FINDING 11:

Refined admits that on or about June 18, 1985, an inspection was conducted at the Refined facility in Beech Grove, Indiana.

(a) Refined denies that there has been a release of hazardous waste or hazardous waste constituents throughout the premises which could threaten human health or the environment. Without more specific information, Refined is unable to admit or deny the allegation that "spillage has occurred in the bag house area."

(b) Refined denies that scrap lead bearing wastes and materials have been stored so as to allow contaminants to be deposited on the land in a manner which creates a pollution hazard. On one occasion non-hazardous materials were stored temporarily on concrete. The pile has since been removed. The topography would allow any

run-off to be appropriately channeled so as to prevent off-site contamination.

(c) Refined has provided all appropriate notifications, and denies the existence of waste piles in the context of a TSD facility or otherwise.

(d) Refined denies that it has failed to determine if the slag is a hazardous waste. Refined is unclear as to what is meant by "waste water that runs through the furnace building". In point of fact, the files of the Indiana State Board of Health will reflect the analysis of the slag and permission to dispose of the slag at the Kentucky Avenue landfill.

(e) Refined denies that it does not have a detailed waste analysis plan on file at the facility, although as a generator it is not obligated to do so.

(f) As a generator, Refined denies that it is obligated to develop or follow a written schedule for inspection of security devices. However, Refined employs a security service twenty-four hours a day which inspects security devices daily.

(g) Refined denies that it has failed to inspect areas subject to spills daily, whether such areas are in use or not.

(h) Refined denies that it has failed to base the frequency of inspections on the rate of possible deterioration of equipment. Refined states affirmatively that all equipment is inspected on a daily, if not a shift basis.

(i) Refined denies that as a generator it is obligated to follow a written schedule for inspections. This is notwithstanding the fact that, as stated above, inspections are conducted on a daily, if not a shift basis.

(j) As a generator, Refined denies that it is obligated to document the time of inspections in an inspection log.

(k) Refined denies that as a generator it has an obligation to document the time and nature of any repairs or remedial actions in an inspection log. However, there is information retained concerning the nature of repairs and/or remedial actions.

(l) Refined denies that it has failed to maintain the name of the employee filling the position in the personnel training records, although not required to do so.

(m) Refined denies that it has failed to provide an annual review of initial training to facility personnel.

(n) Although not so obligated as a generator, Refined denies that it has not described arrangements agreed to by appropriate emergency response teams in its contingency plan, also not required.

(o) Refined denies that as a generator, it is obligated to provide the location of equipment, physical description of each item on the list and a brief outline of its capabilities in its contingency plan. Nevertheless, Refined has provided all relevant information concerning emergency equipment at the facility.

(p) Refined has provided an evacuation plan for facility personnel although as a generator, such is not required.

(q) Refined, although having no obligation to do so as a generator, denies that it has failed to list as an emergency coordinator a person who has the authority to carry out the contingency plan, which as stated above, is not required. Further, an alternate coordinator has been identified and listed.

(r) As a generator, Refined is not obligated to maintain copies of the contingency plan on file at local emergency organization(s). Refined would, however, state that agreements are in existence with appropriate local authorities.

(s) Although not so obligated, Refined possesses a description and quantity of each material received and denies that it receives any hazardous waste. Refined further denies that it treats, stores or disposes of any hazardous waste. The location and quantity of K069 previously has been made known to the Division.

With respect to all of the documentary or other requirements under RCRA or under IC 13-7-8.5 and 320 IAC 4 and 320 IAD 4.1, which relate to TSD facilities and not generators, Refined is exempt from any such requirements.

OBJECTIONS TO THE PROPOSED FINAL ORDER

Refined Hereby Objects To The Proposed Final Order As Follows:

1. Refined heretofore has submitted to the Division an appropriate and sufficient closure plan which is on file with the Division. Refined denies the requirement of submitting any further documentation with respect to closure or post-closure and

specifically denies that there has been any contamination of soil and any impact on the ground water or adjacent waterways, on site and off site. Refined denies that there has been any contamination creating a pollution hazard and states that there is no present or future risk of contamination and that all reasonable actions and precautions have been taken to protect human health and the environment. There is no evidence of probative value demonstrating any hazard to human health or the environment. Refined further objects to being required to proceed with the implementation of a closure plan or post-closure plan as proposed, as there is no evidence of probative value supporting such requirement(s).

2. Refined objects to being required to implement the closure plan as proposed and further objects to the necessity of implementing a post-closure plan.

3. Refined alleges that there are no waste piles to be managed.

4. Refined heretofore has provided evidence that the slag is not hazardous. Refined is uncertain as to what is meant by "furnace building water" and accordingly is unable to respond to such request.

5. See objection to number 4 above. Refined is uncertain as to what is meant by "furnace building wastes".

6. Refined objects to this section of the proposed order in that Refined heretofore has developed and followed a written waste analysis plan although not required, and no further information or documentation is required. Further, no hazardous waste

is received from off-site and any suggested requirements with respect to such off-site facilities are inapplicable.

7. As stated above, a waste analysis plan previously was submitted which is adequate.

8. Refined does follow an inspection protocol which meets all applicable requirements.

9. Refined is not required to keep a record of the time of inspections and the nature of repairs or remedial actions. However, there is information retained concerning such repairs and remedial actions.

10. Refined believes that it heretofore has submitted a copy of the inspection log format although not required to do so.

11. Refined heretofore has appropriately amended the personnel training records to include the names of the employees filling each position.

12. Refined does conduct an annual review of the initial training for all facility personnel involved in the operation of the facility.

13. Refined believes that it heretofore has provided the Division all necessary information concerning training and the annual review of training.

14. Refined submits that its contingency plan, although not required, is adequate as previously submitted.

15. See response to 14 above.

16. See response to 14 above. See also answer to Finding 11(r).

17. Refined denies that it receives any hazardous waste.

18. Refined denies that it conducts any storage activities at the facility which would cause Refined to be considered a TSD facility, necessitating a revised Part A Application being submitted.

19. See response to 18 above.

20. Refined objects to and contests the civil penalty in the amount of Nineteen Thousand Seven Hundred Fifty Dollars ($19,750.00) and alleges that there should be no civil penalty assessed based upon the facts.

Notwithstanding the position of Refined as set forth hereinabove, Refined immediately commenced voluntary actions to eliminate even the possibility of contamination and currently is in the process of implementing additional safety measures to further preclude the possibility of run-off. Refined would further state that historically it has endeavored to cooperate fully with all regulatory agencies with respect to the environmental management of its operations, and is confident that the records of the Indiana State Board of Health will reflect efforts which Refined has made at any time concerns were raised by the Indiana State Board of Health. More important is the fact that, based upon information previously provided by U.S. EPA, Refined was and remains of the opinion that its continuous processing of K069 on-site exempts Refined from RCRA regulation. However, and as evidence of its abiding good faith, Refined has instructed its engineering consultants to immediately develop a procedure for placing in tanks all K069 notwithstanding the fact that the current processing configuration of the K069, in the judgment of Refined, and which received support from U.S. EPA, did not render Refined a TSD facility. Further, and notwithstanding the fact

that the outside temporary storage of lead product was on concrete and which product has been fully removed, Refined no longer will store any product in a manner which causes legitimate concern to the Division in terms of run-on and run-off control.

Contemporaneously herewith, and in recognition of the concern of the Division, Refined is addressing from an engineering perspective methodologies which will totally eliminate even the possibility of off-site contamination. Also, and although every reasonable effort has been made in connection with general "housekeeping", Refined is redoubling its efforts in this regard.

Refined has operated the subject facility for only a period of approximately two years. In that period of time Refined has spent or has committed to expend tens of thousands of dollars voluntarily on environmentally related matters including the installation of a furnace to process the K069 material. Even if we were to assume that certain RCRA and/or the Indiana Hazardous Waste Management Permit Program and Related Hazardous Waste Management Requirements regulations would be applicable to the operations of Refined, the time constraints imposed in terms of compliance are exceedingly short. Once again, assuming arguendo, that RCRA and/or the Indiana Hazardous Waste Management Permit Program and Related Hazardous Waste Management Requirements regulations would apply, extensions of time to effect compliance are reasonably required under the circumstances. Compliance with even a portion of the requirements will be incredibly expensive and quite time consuming.

Refined wishes to cooperate fully and voluntarily. Refined believes in good faith that RCRA and/or the Indiana Hazardous

Waste Management Permit Program and Related Hazardous Waste Management Requirements do not apply to its operations and that an attempt to obligate Refined to comply with inapplicable laws, rules and regulations is an abuse of discretion and contrary to law. At the same time, Refined has an obligation as a good corporate citizen to respond in an appropriate manner to the concerns of regulatory agencies whose primary function is the protection of the health of the population and the environment. Conversely, the same regulatory agencies have a reciprocal obligation to fairly and equitably treat its corporate citizens and not attempt to arbitrarily impose standards which do not apply. Refined neither receives nor accepts any hazardous waste. No hazardous waste leaves the site and the K069 is continuously processed. Although K069 is a specified or a designated hazardous waste, Refined neither stores nor transports such material and therefore is exempt from RCRA regulation and the Indiana Hazardous Waste Management Permit Program and Related Hazardous Waste Management Requirements.

For the foregoing reasons, Refined, as Respondent, respectfully prays the Board to reject the Proposed Final Order, and for all further, just and proper relief.

Respectfully submitted,

HARRISON & MOBERLY

By _____
Jay Michael Brodey

By _____
Judith E. Overturf

Jay M. Brodey, Esq.
Judith E. Overturf
HARRISON & MOBERLY
777 Chamber of Commerce
320 North Meridian Street
Indianapolis, Indiana 46204
(317) 639-4511
Attorneys for Respondent

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing has been served upon the following by United State Mail, first-class postage prepaid, this 20th day of January, 1986.

Mr. James M. Garrettson
Hearing Officer
Environmental Management Board
1330 West Michigan Street
P.O. Box 1964
Indianapolis, Indiana 46204-1964

Ms. Deborah E. Albright
Office of the Attorney General
219 State House
Indianapolis, Indiana 46204

Ms. Sally Swanson
U.S. EPA, Region V
230 South Dearborn
Chicago, ILlinois 60604

Marion Co. Public Health Division
Marion Co. Health & Hospital Corp.
222 East Ohio Street
Indianapolis, Indiana 46204

Mr. Thomas Russell
Board of Health
1330 West Michigan Street
P.O. Box 1964
Indianpaolis, Indiana 46206-1964

Mr. Verl Myers
Board of Health
1330 West Michigan Street
P.O. Box 1964
Indianapolis, Indiana 46204-1964

Mr. David Koepper
Board of Health
1330 West Michigan Street
P.O. Box 1964
Indianapolis, Indiana 46204-1964

Mr. Ralph C. Pickard
Technical Secretary
Board of Health
1330 West Michigan Street
P.O. Box 1964
Indianapolis, Indiana 46206-1964

Jay M. Brodey

Judith E. Overturf

Jay Michael Brodey
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320 North Meridian Street
Indianapolis, Indiana 46204
(317) 639-4511

Attorneys for Respondent

No TSD Copy -/ No Copy to stat
What Happen? why voided

DNR
MICHIGAN DEPARTMENT OF NATURAL RESOURCES

DO NOT WRITE IN THIS SPACE
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Required under authority of Act 64, P.A. 1979, as amended and Act 136, P.A. 1969.

Failure to file is punishable under section 299.548 MCL or Section 10 of Act 136, P.A. 1969.

Please print or type.

Form Approved. OMB No. 2050-0039 Expires 9-30-9

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: IND000718130 — Manifest Document No.:

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
REFINED METALS CORP.
3700 S. ARLINGTON, INDIANAPOLIS, IN 46107

4. Generator's Phone ( )

A. State Manifest Document Number: MI 4151590

B. State Generator's ID:

5. Transporter 1 Company Name: INLAND WATERS

6. US EPA ID Number: MID982606287

C. State Transporter's ID:

D. Transporter's Phone: 313-841-5800

7. Transporter 2 Company Name:

8. US EPA ID Number:

E. State Transporter's ID:

F. Transporter's Phone:

9. Designated Facility Name and Site Address
CITY ENVIRONMENTAL
1550 HARPER
DETROIT, MI 48211

10. US EPA ID Number: MID054683479

G. State Facility's ID:

H. Facility's Phone: 313-923-0080

	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID NUMBER). HM		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.	N/H
a.	X	RQ, WASTE HAZARDOUS SUBSTANCE, SOLID, N.O.S. (LEAD, ASH) 9, UN3077, PGII	001	DT		Y	D008	H
b.								
c.								
d.								

J. Additional Descriptions for Materials Listed Above
APPROVAL NO. 13276H

K. Handling Codes for Wastes Listed Above: a/ / b/ / c/ / d/ /

15. Special Handling Instructions and Additional Information
24 HOUR EMERGENCY CONTACT INFOTRAC 1-800-535-5053

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR; if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name | Signature | Date (Month Day Year)

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Date (Month Day Year)

VOID

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Date (Month Day Year)

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name | Signature | Date (Month Day Year)

GENERATOR — TRANSPORTER — FACILITY

ALL SPILLS MUST BE REPORTED TO THE MICHIGAN POLLUTION EMERGENCY ALERTING SYSTEM, IN MICHIGAN AT 1-800-292-4706 OR OUT OF STATE AT 517-373-7660 AND THE NATIONAL RESPONSE CENTER AT 1-80[illegible]-8802 24 HOURS PER DAY.

Fax

DNR
MICHIGAN DEPARTMENT OF NATURAL RESOURCES

DO NOT WRITE IN THIS SPACE
ATT. ☐ DIS. ☐ REJ. ☐ PR. ☐

1979, as amended and Act 136, P.A. 1969.

Failure to file is punishable under section 299.548 MCL or Section 10 of Act 136, P.A. 1969.

Please print or type.

Form Approved. OMB No. 2050-0039 Expires 9-30-96

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. IND000718130 Manifest Document No. 95114

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
REFINED METALS CORP.
3700 S. ARLINGTON, INDIANAPOLIS, IN 46107

A. State Manifest Document Number MI 4151590

B. State Generator's ID

4. Generator's Phone ( )

5. Transporter 1 Company Name
INLAND WATERS

6. US EPA ID Number MID982606287

C. State Transporter's ID

D. Transporter's Phone 313-841-5800

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
CITY ENVIRONMENTAL
1550 HARPER
DETROIT, MI 48211

10. US EPA ID Number MID054683479

G. State Facility's ID

H. Facility's Phone 313-923-0080

	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID NUMBER).	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.	N/H
a.	X RQ, WASTE HAZARDOUS SUBSTANCE, SOLID, N.O.S. (LEAD, ASH) 9, UN3077, PGII	001	DT	00020	Y	D008	H
b.							
c.							
d.							

J. Additional Descriptions for Materials Listed Above
APPROVAL NO. 13276H

K. Handling Codes for Wastes Listed Above
a/ /
b/ /
c/ /
d/ /

15. Special Handling Instructions and Additional Information
24 HOUR EMERGENCY CONTACT INFOTRAC 1-800-535-5053

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR; if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: BEVERLY EVERLING-REFINED METALS CORP.
Signature: Beverly Everling
Date: Month 05 Day 08 Year 95

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: TED WILLIAMS - DRIVER
Signature: [illegible]
Date: Month 05 Day 08 Year 95

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name:
Signature:
Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name:
Signature:
Date: Month Day Year

GENERATOR
TRANSPORTER
FACILITY

ALL SPILLS MUST BE REPORTED TO THE MICHIGAN POLLUTION EMERGENCY ALERTING SYSTEM, IN MICHIGAN AT 1-800-292-4706 OR OUT OF STATE AT 517-373-7660 AND THE NATIONAL RESPONSE CENTER AT 1-800-424-8802 24 HOURS PER DAY.

Detroit, MI 48211
(313) 923-0060
(313) 923-0217 (FAX)

<NOTICE>

FROM GENERATOR FOR WASTES THAT DO NOT MEET LAND DISPOSAL TREATMENT STANDARDS

The wastes identified on manifest number MI4151590 and bearing the EPA Hazardous Waste Number(s) _____ are subject to the land disposal restrictions of 40 CFR Part 268. The wastes do not meet the treatment standards specified in Part 268 Subpart D or do not meet the prohibitions specified in 268.32 or RCRA section 3004(d). The treatment standards or prohibition levels applicable to each waste are identified below:

(Check all boxes that apply.)

- ☐ This shipment includes F001-F005 spent solvents, as identified on the attached sheet. (3)
- ☐ This shipment includes F039 multi-source leachate, as identified on the attached sheet(s). (4)
- ☐ This shipment includes D001 (5) and/or D002 wastes prohibited under §268.37, as identified below. (1)
- ☐ This shipment includes RCRA Section 3004(d) California list wastes, as identified on the attached sheet. (2)
- ☒ This shipment includes one or more TC metals D004-D011 identified below.
- ☐ This shipment includes one or more TC organics D012-D043 identified below. (1)

Hazardous Waste No.	Subcategory[6]	Treatability group[7]	CFR reference for treatment standard	Five-letter code(s)
D008	N/A	N.W.W	268.40	N/A

(1) Must include form B (UTS)
(2) Must include form C (California list)
(3) Must include form D (F001-F005)
(4) Must include form E (F039)
(5) Subcategory for D001 reference by letter A & B.
(A) Ignitable wastes based on 40 CFR 261.21 (except for 261.21 (a) (1) high TOC subcategory, managed in Non-CWA / Non-CWA equivalent / Non Class I SDWA Systems. L 10% to C.
(B) Ignitable wastes base on 40 CFR 261.21 (except for 261.21 (a) (1) high TOC subcategory), managed in CWA / CWA equivalent / Class I SDWA Systems. L 10% to C.
(6) Subcategory (if any) can be determined from 40 CFR 268, subpart D.
(7) Treatability group is either "wastewater" or "nonwastewater."

Mike Miloy / BE
Plant Manager
Refined Metals
Authorized Signature

FORM A

INLAND WATERS

TO: Beverly

FROM: Jeff S.

RE: Manifests

NUMBER OF PAGES: 8 total

COMMENTS: Sign all pages and have our driver do the same. Keep your copies and send the rest with the load

Thanks for your help!

IF YOU HAVE QUESTIONS REGARDING THE ABOVE FAX, PLEASE CONTACT MIKE REGAN OR JEFF SOKOLOWSKI
PHONE (313)841-5800 FAX (313)841-6459

2021 South Schaefer Highway
Detroit, Michigan 48217
313•841•5800 (24 hour service)
800•992•9118

I[illegible]AND WATERS
POLLUTION CONTROL INC.

13174

DAILY JOB REPORT

DAY Monday DATE 5-8-95

BILLING INFORMATION	JOB LOCATION
NAME: Refined Metals	NAME: Same
ADDRESS:	ADDRESS:
PHONE:	PHONE:
CONTACT:	SEE:
P.O.: Mileage 606	JOB DESCRIPTION: Loading Hazardous
RELEASE/SUB #:	Waste Solid
SCAT:	Mileage 606
JOB #: 5271325 WORK ORDER#:	

TYPE OF EQUIPMENT	EQ#	EMPL #	OPERATOR LABORER	PHASE	TIME IN	TIME OUT	TOTAL HOURS	PRE POST TRIP	TRAVEL/ DOWN TIME	BILLING HOURS
Tractor	20531	6859	[illegible]		am pm	am pm				
Trailer	30315				am pm	am pm				
					am pm	am pm				
					am pm	am pm				

DETENTION RECORD LOADING

ON SITE

	DATE	TIME AM PM
1. Customer notified of arrival of vehicle		
2. Loading started		
3. Loading completed		
4. Vehicle released to depart		

5. Was vehicle tendered under a prearranged schedule for loading? ☐ Yes ☐ No Time: Date:

6. Customer Signature _____

DETENTION RECORD UNLOADING

ON SITE

	DATE	TIME AM PM
1. Customer notified of arrival of vehicle		
2. Unloading started		
3. Unloading completed		
4. Vehicle released to depart		

5. Was vehicle tendered under a prearranged schedule for unloading? ☐ Yes ☐ No Time: Date:

6. Facility Signature _____

SUPPLIES USED

PART #	DESCRIPTION	QTY.	UNIT
	Disposal		

SUPPLIES USED

PART #	DESCRIPTION	QTY.	UNIT

DISPOSAL SITE City Environmental

MANIFEST #_____ GALS./YDS. _____

#_____ DRUMS [illegible]

#_____

COMMENTS: _____

CUSTOMER SIGNATURE: [illegible]

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT
P.O. Box 7035
Indianapolis, IN 46207-7035

PLEASE PRINT OR TYPE (Form designed for use on elite (12-pitch typewriter.) Form approved. OMB No. 2050-0039. Expires 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. I.N.D.0.0.0.7.1.8.1.3.0 Manifest Document No. 0.5.9.4.4
2. Page 1 of 1 — Information in the shaded areas is not required by Federal law, but items D, F, H, I and K are required by State law.

3. Generator's Name and Mailing Address
Refined Metals Corp.
P O Box 188,
Beech Grove, Indiana 46107
3700 S. Arlington Ave
Indianapolis, In. 46203

A. State Manifest Document Number INA 1025958

4. Generator's Phone (317) 787-6364

B. State Generator's ID

5. Transporter 1 Company Name: Refined Metals Corporation
6. US EPA ID Number: T N D 0 6 7 6 9 0 0 4 0

C. State Transporter's ID

D. Transporter's Phone 901-775-3772

7. Transporter 2 Company Name
8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Refined Metals Corporation
257 West Mallory Avenue
Memphis, Tennessee 38109
10. US EPA ID Number: T N D 0 6 7 6 9 0 0 4 0

G. State Facility's ID

H. Facility's Phone

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol.	I. Waste No.
a Batteries, wet filled with acid, electric storage, UN2794m, D008	0.0.4	C.W	0.9.3.5.0	P	D002 D008
b					
c					
d					

J. Additional Descriptions for Materials Listed Above
24 HR. EMERGENCY NO:
Mike Meloy - Plant Manager 1-317-375-8148
David Knight - Treatment Supv: 1-317-862-5769

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Beverly Everling-Refined Metals Corp. Signature: Beverly Everling Date: Month 0 5 Day 0 3 Year 9 5

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: William Jones - Driver Signature: Wm Jones Date: Month 0 5 Day 0 3 Year 9 5

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name Signature Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted item 19.
Printed/Typed Name Signature Date: Month Day Year

In case of a spill call the Indiana Office of Environmental Response at 317/241-4336 (day or night) and the National Response Center at 800/424-8802 or 202/426-2675.

INA 1025958

EPA Form 8700-22
Previous editions are obsolete
State Form 11865 (R2 / 1-94)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT
P.O. Box 7035
Indianapolis, IN 46207-7035

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UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No.: IN D0007181 30 | Manifest Document No.: 0 3 9 4 8

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but items D, F, H, I and K are required by State law.

3. Generator's Name and Mailing Address
Refined Metals Corp.
P O Box 188
Beech Grove, In. 46107
3700 S. Arlington Avenue
Indianapolis, In. 46203

4. Generator's Phone (317) 787-6364

A. State Manifest Document Number: INA 1025959

B. State Generator's ID

5. Transporter 1 Company Name: Refined Metals Corporation

6. US EPA ID Number: T.N.D.0.6.7.6.9.0.0.4.0

C. State Transporter's ID

D. Transporter's Phone (901)775-3772

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Refined Metals Corporation
257 West Mallory Avenue
Memphis, Tennessee 38109

10. US EPA ID Number: T.N.D.0.6.7.6.9.0.0.4.0

G. State Facility's ID

H. Facility's Phone (901)775-3770

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol.	I. Waste No.
a Batteries, Wet filled with acid, Electric Storage UN2794, D008	0 1 9	C W	4 4 2 7 0	P	D002 D008
b					
c					
d					

J. Additional Descriptions for Materials Listed Above: 24 HR. EMERGENCY NO:
Mike Meloy - Plant Manager: 1-317-375-8148
David Knight - Treatment Supervisor: 1-317-862-5769

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

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Printed/Typed Name: Beverly Everling-Refined Metals Corp. | Signature: Beverly Everling | Date: Month 05 Day 05 Year 95

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Daniel T. Williams - Driver | Signature | Date: Month 05 Day 08 Year 95

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted item 19.
Printed/Typed Name | Signature | Date: Month Day Year

GENERATOR

TRANSPORTER

FACILITY

In case of a spill call the Indiana Office of Environmental Response at 317/241-4336 (day or night) and the National Response Center at 800/424-8802 or 202/426-2675.

INA 1025959

EPA Form 8700-22

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT
P.O. Box 7035
Indianapolis, IN 46207-7035

PLEASE PRINT OR TYPE (Form designed for use on elite (12-pitch typewriter.) Form approved. OMB No. 2050-0039. Expires 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. I.N.D.0.0.0.7.1.8.1.3.0 Manifest Document No. 0.5.9.5.2
2. Page 1 1 of
Information in the shaded areas is not required by Federal law, but Items D, F, H, I and K are required by State law.

3. Generator's Name and Mailing Address
Refined Metals Corp.
P O Box 188
Beech Grove, In 46107
3700 S. Arlington Avenue
Indianapolis, In. 46203
4. Generator's Phone (317) 787-6364

A. State Manifest Document Number INA 1025961
B. State Generator's ID

5. Transporter 1 Company Name: Refined Metals Corporation
6. US EPA ID Number: T N D 0 6 7 6 9 0 0 4 0
C. State Transporter's ID
D. Transporter's Phone (901)775-3772

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
Refined Metals Corporation
257 West Mallory Avenue
Memphis, Tennessee 38109
10. US EPA ID Number: T N D 0 6 7 6 9 0 0 4 0
G. State Facility's ID
H. Facility's Phone (901)775-3770

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol.	I. Waste No.
a Batteries, Wet filled with acid, Electric Storage, UN2794, D008	0·2·1	C·W	4·3·0·1·0	P	D002 D008
b					
c					
d					

J. Additional Descriptions for Materials Listed Above
24 Hr. Emergency No:
Mike Meloy - Plant Manager: 1-317-375-8148
David Knight - Treatment Supervisor: 1-317-862-5769

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

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GENERATOR

Printed/Typed Name: Beverly Everling-Refined Metals Corp. Signature: Beverly Everling Date: Month 0·5 Day 0·5 Year 9·5

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Willia Jones [redacted] DRIVER Signature: Willia Jones Date: Month 0·5 Day 0·8 Year 9·5

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name Signature Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted item 19.
Printed/Typed Name Signature Date: Month Day Year

INA 1025961

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EPA Form 8700-22
Previous editions are obsolete
State Form 11865 (R2 / 1-94)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT
P.O. Box 7035
Indianapolis, IN 46207-7035

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UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. I.N.D.0.0.0.7.1.8.1.3.0 Manifest Document No. 0.5.9.5.7

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law, but items D, F, H, I and K are required by State law.

3. Generator's Name and Mailing Address
Refined Metals Corp.
P O Box 188
Beach Grove, In. 46107
3700 S Arlington Avenue
Indianapolis, Indiana 46203

4. Generator's Phone 317) 787-6364

A. State Manifest Document Number INA 1025962

B. State Generator's ID

5. Transporter 1 Company Name: Refined Metals Corporation

6. US EPA ID Number: T N D 0 6 7 6 9 0 0 4 0

C. State Transporter's ID

D. Transporter's Phone (901)775-3772

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Refined Metals Corporation
257 West Mallory Avenue
Memphis, Tennessee 38109

10. US EPA ID Number: T N D 0 6 7 6 9 0 0 4 0

G. State Facility's ID

H. Facility's Phone (901)775-3770

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol.	I. Waste No.
a Batteries, Wet filled with Acid, Electric Storage, UN2794, D008	0 2 3	C W	4 5 9 7 0	P	D002 D008
b					
c					
d					

J. Additional Descriptions for Materials Listed Above
24 Hr. Emergency No:
Mike Maley - Plant Manager: 1-317-375-8148
David Knight - Treatment Supervisor: 1-317-862-5769

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

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Printed/Typed Name: BEVERLY EVERLING-REFINED METALS CORP. Signature: Date: Month 0 5 Day 0 9 Year 9 5

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name Signature Date: Month 0 5 Day 0 9 Year 9 5

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name Signature Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted item 19.
Printed/Typed Name Signature Date: Month Day Year

In case of a spill call the Indiana Office of Environmental Response at 317/241-4336 (day or night) and the National Response Center at 800/424-8802 or 202/426-2675.

INA 1025962

EPA Form 8700-22

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT
P.O. Box 7035
Indianapolis, IN 46207-7035

PLEASE PRINT OR TYPE (Form designed for use on elite (12-pitch typewriter.) Form approved. OMB No. 2050-0039. Expires 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No.: I N D 0 0 0 7 1 8 1 3 0
Manifest Document No.: 0 5 9 5 9
2. Page 1 of 1
Information in the shaded areas is not required by Federal law, but items D, F, H, I and K are required by State law.

3. Generator's Name and Mailing Address
REFINED METALS CORP.
P O BOX 188
BEECH GROVE, IN 46107
3700 S Arlington Avenue
INDIANAPOLIS, IN. 46203

4. Generator's Phone (317) 787-6364

A. State Manifest Document Number: INA 1025963
B. State Generator's ID:

5. Transporter 1 Company Name: REFINED METALS CORP.
6. US EPA ID Number: T N D 0 6 7 6 9 0 0 4 0
C. State Transporter's ID:
D. Transporter's Phone (901)775-3772

7. Transporter 2 Company Name:
8. US EPA ID Number:
E. State Transporter's ID:
F. Transporter's Phone:

9. Designated Facility Name and Site Address
REFINED METALS CORPORATION
257 WEST MALLORY AVENUE
MEMPHIS, TENNESSEE 38109
10. US EPA ID Number: T.N.D.0.6.7.6.9.0.0.4.0
G. State Facility's ID:
H. Facility's Phone (901)775-3770

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol.	I. Waste No.
a Batteries, Wet filled with Acid, Electric Storage, UN2794, D008	0 0 7	C W	1 6 5 4 2	P	D002 D008
b					
c					
d					

J. Additional Descriptions for Materials Listed Above
24 Hr. Emergency No:
MIKE MELOY Plant Manager: 1-317-375-8148
DAVID KNIGHT - Treatment Supervisor : 1-317-862-5769

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

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Printed/Typed Name: BEVERLY EVERLING-REFINED METALS CORP.
Signature: Beverly Everling
Date: Month 0 5 Day 0 9 Year 9 5

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: William Jones - Driver
Signature: [signature]
Date: Month 0 5 Day 1 2 Year 9 5

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name:
Signature:
Date: Month Day Year

19. Discrepancy Indication Space
To be Rec.

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted item 19.
Printed/Typed Name: [illegible]
Signature: [signature]
Date: Month Day Year

GENERATOR

TRANSPORTER

FACILITY

In case of a spill call the Indiana Office of Environmental Response at 317/241-4336 (day or night) and the National Response Center at 800/424-8802 or 202/426-2675.

INA 1025963

EPA Form 8700-22

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT
P.O. Box 7035
Indianapolis, IN 46207-7035

PLEASE PRINT OR TYPE (Form designed for use on elite (12-pitch typewriter.) Form approved. OMB No. 2050-0039. Expires 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. IND000718130 Manifest Document No. 05964

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law, but items D, F, H, I and K are required by State law.

3. Generator's Name and Mailing Address
REFINED METALS CORP.
P O Box 188
Beech Grove, In. 46107
3700 S Arlington Avenue
Indianapolis, In. 46203

4. Generator's Phone (317) 787-6364

A. State Manifest Document Number: INA 1025964

B. State Generator's ID

5. Transporter 1 Company Name: Refined Metals Corporation

6. US EPA ID Number: TND067690040

C. State Transporter's ID

D. Transporter's Phone (901)775-3772

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Refined Metals Corporation
257 West Mallory Avenue
Memphis, Tennessee 38109

10. US EPA ID Number: TND067690040

G. State Facility's ID

H. Facility's Phone (901)775-3770

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol.	I. Waste No.
a Batteries, Wet filled with acid, Electric Storage UN2794, D008	006	CW	09350	P	D002 D008
b					
c					
d					

J. Additional Descriptions for Materials Listed Above
24 HOUR EMERGENCY NO:
Mike Meloy Plant Manager: 1-317-375-8148
David Knight-Treatment Supervisor: 1-317-862-5769

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

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Printed/Typed Name: Beverly Everling - Refined Metals Corp. Signature: Beverly Everling Date: Month 05 Day 12 Year 95

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Robert Hard Signature: [illegible] Date: Month 05 Day 15 Year 95

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: Signature: Date: Month Day Year

19. Discrepancy Indication Space
To be Rec

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted item 19.
Printed/Typed Name: Frank White Signature: [illegible] Date: Month Day Year

GENERATOR — TRANSPORTER — FACILITY

In case of a spill call the Indiana Office of Environmental Response at 317/241-4336 (day or night) and the National Response Center at 800/424-8802 or 202/426-2675.

INA 1025964

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT
P.O. Box 7035
Indianapolis, IN 46207-7035

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UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. I N D 0 0 0 7 1 8 1 3 0
Manifest Document No. 0 5 9 6 7
2. Page 1 of 1
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3. Generator's Name and Mailing Address
Refined Metals Corp.
P O Box 188
Beech Grove, In 46107
3700 S Arlington Avenue
Indianapolis, In 46203

A. State Manifest Document Number INA 1025965
B. State Generator's ID

4. Generator's Phone (317) 787-6364

5. Transporter 1 Company Name: Refined MEtals Corporation
6. US EPA ID Number: T N D 0 6 7 6 9 0 0 4 0
C. State Transporter's ID
D. Transporter's Phone (901)775-3772

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
Refined Metals Corporation
257 West Mallory Avenue
Memphis, Tennessee 38109
10. US EPA ID Number: T N D 0 6 7 6 9 0 0 4 0
G. State Facility's ID
H. Facility's Phone (901)775-3770

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol.	I. Waste No.
a Batteries, Wet filled with Acid, Electric Storage, UN2794, D008	021	CW	44750	P	D002 D008
b					
c					
d					

J. Additional Descriptions for Materials Listed Above
24 Hr. Emergency No:
Mike Meloy - Plant Manager 1-317-375-8148
David Knight - Treatment Supv 1-317-862-5769

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed/Typed Name: Beverly Everling-Refined MEtals Corp.
Signature: Beverly Everling
Date: Month 05 Day 16 Year 95

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Daniel T. Williams
Signature: Daniel T. Williams
Date: Month 05 Day 18 Year 95

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name
Signature
Date: Month Day Year

FACILITY

19. Discrepancy Indication Space
To be Rec.

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted item 19.
Printed/Typed Name: Earnest Wade
Signature
Date: Month Day Year

In case of a spill call the Indiana Office of Environmental Response at 317/241-4336 (day or night) and the National Response Center at 800/424-8802 or 202/426-2675.

INA 1025965

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT
P.O. Box 7035
Indianapolis, IN 46207-7035

PLEASE PRINT OR TYPE (Form designed for use on elite (12-pitch typewriter.) Form approved. OMB No. 2050-0039. Expires 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. IND000718130 Manifest Document No. 05972

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but items D, F, H, I and K are required by State law.

3. Generator's Name and Mailing Address
Refined Metals Corp.
PO Box 188
Beech Grove, In. 46107
3700 S. Arlington Avenue
Indianapolis, In 46203

4. Generator's Phone (317)787-6364

A. State Manifest Document Number INA 1025967

B. State Generator's ID

5. Transporter 1 Company Name: Refined Metals Corporation

6. US EPA ID Number: T.N.D.0.6.7.6.9.0.0.4.0

C. State Transporter's ID

D. Transporter's Phone (901)775-3772

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Refined Metals Corporation
257 West Mallory Avenue
Memphis, Tennessee 38109

10. US EPA ID Number: T.N.D.0.6.7.6.9.0.0.4.0

G. State Facility's ID

H. Facility's Phone (901)775-3770

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol.	I. Waste No.
a Batteries, Wet Filled with Acid, Electric Storage, UN2794, D008	021	CW	44180	P	D002 D008
b					
c					
d					

J. Additional Descriptions for Materials Listed Above
24 Hr. Emergency No:
Mike Meley - Plant Manager 1-317-375-8148
David Knight-Treatment Supv. 1-317-862-5769

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Beverly Everling-Refined Metals Corp
Signature: Beverly Everling
Date: Month 05 Day 19 Year 95

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Joey Pierce - Driver
Signature
Date: Month 05 Day 19 Year 95

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name
Signature
Date: Month . Day . Year .

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted item 19.
Printed/Typed Name
Signature
Date: Month . Day . Year .

GENERATOR

In case of a spill call the Indiana Office of Environmental Response at 317/241-4336 (day or night) and the National Response Center at 800/424-8802 or 202/426-2675.

INA 1025967

EPA Form 8700-22

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT
P.O. Box 7035
Indianapolis, IN 46207-7035

PLEASE PRINT OR TYPE (Form designed for use on elite (12-pitch typewriter.) Form approved. OMB No. 2050-0039. Expires 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No.: IND000718130 — Manifest Document No.: 05975
2. Page 1 of 1 — Information in the shaded areas is not required by Federal law, but items D, F, H, I and K are required by State law.

3. Generator's Name and Mailing Address
Refined Metals Corp.
P O Box 188
Beech Grove, In 46107
3700 S Arlington Avenue
Indianapolis, In. 46203

4. Generator's Phone (317) 787-6364

A. State Manifest Document Number: INA 1025968
B. State Generator's ID:
C. State Transporter's ID:
D. Transporter's Phone: (901)775-3772
E. State Transporter's ID:
F. Transporter's Phone:
G. State Facility's ID:
H. Facility's Phone: (901)775-3770

5. Transporter 1 Company Name: Refined Metals Corporation
6. US EPA ID Number: T·N·D·0·6·7·6·9·0·0·4·0
7. Transporter 2 Company Name:
8. US EPA ID Number:
9. Designated Facility Name and Site Address: Refined Metals Corporation, 257 West Mallory Avenue, Memphis, Tennessee 38109
10. US EPA ID Number: T·N·D·0·6·7·6·9·0·0·4·0

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol.	I. Waste No.
a Batteries, Wet filled with Acid, Electric Storage, UN2794, D008	010	CW	25578	P	D002 D008
b					
c					
d					

J. Additional Descriptions for Materials Listed Above
24 Hr. Emergency No:
Mike Meloy - Plant Manager 1-317-375-8148
Dave Knight- Treatment Supv 1-317-862-5769

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Beverly Everling-Refined Metals Corp. — Signature: Beverly Everling — Date: Month 05 Day 19 Year 95

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Eddie Moore - Driver — Signature: [illegible] — Date: Month 05 Day 19 Year 95

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: — Signature: — Date: Month Day Year

19. Discrepancy Indication Space
To be Rec.

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted item 19.
Printed/Typed Name: Earnest Ware — Signature: Earnest Ware — Date: Month Day Year

GENERATOR — TRANSPORTER — FACILITY

In case of a spill call the Indiana Office of Environmental Response at 317/241-4336 (day or night) and the National Response Center at 800/424-8802 or 202/426-2675.

INA 1025968

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT
P.O. Box 7035
Indianapolis, IN 46207-7035

PLEASE PRINT OR TYPE (Form designed for use on elite (12-pitch typewriter.) Form approved. OMB No. 2050-0039. Expires 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. I.N.D.0.0.0.7.1.8.1.3.0 Manifest Document No. 0.0.0.1.1
2. Page 1 of 1 — Information in the shaded areas is not required by Federal law, but Items D, F, H, I and K are required by State law.

3. Generator's Name and Mailing Address
Refined Metals Corp., PO Box 188, Beech Grove, IN 46107
3700 S. Arlington Ave., Indianapolis, IN 46203
4. Generator's Phone (317) 787-6364

A. State Manifest Document Number INA 1025979
B. State Generator's ID

5. Transporter 1 Company Name: Beelman Trucking
6. US EPA ID Number: I.L.D.0.0.7.8.1.4.8.2.5
C. State Transporter's ID
D. Transporter's Phone 1-800-851-8854

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
Refined Metals Corporation
257 West Mallory Avenue
Memphis, Tennessee 38109
10. US EPA ID Number: T.N.D.0.6.7.6.9.0.0.4.0
G. State Facility's ID
H. Facility's Phone 1-901-775-3770

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol.	I. Waste No.
a Hazardous Waste Solid NOS Lead D008 NA 3077 Class 9 Packing Group 3	0.0.1	D.T	7	P	D008
b					
c					
d					

J. Additional Descriptions for Materials Listed Above
24 Hr. Emergency #
Refined Metals Beech Grove Plant: 1-317-787-6364
Mike Meloy Plant Manager: 1-317-375-8148
David Knight Treatment Supervisor: 1-317-862-5769

K. Handling Codes for Wastes Listed Above
T 66
Lead Reclaimation

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.

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Printed/Typed Name: Mike Meloy — Signature — Date: Month 0.6 Day 1.3 Year 9.5

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Date: Month 0.6 Day 1.3 Year 9.5

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted item 19.
Printed/Typed Name — Signature — Date: Month Day Year

In case of a spill call the Indiana Office of Environmental Response at 317/241-4336 (day or night) and the National Response Center at 800/424-8802 or 202/426-2675.

INA1025979

EPA Form 8700-22
Previous editions are obsolete
State Form 11865 (R2 / 1-94)

COPY 8 - GENERATOR COPY

SIGNATURE AND INFORMATION *MUST* BE LEGIBLE ON ALL COPIES

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT
P.O. Box 7035
Indianapolis, IN 46207-7035

PLEASE PRINT OR TYPE *(Form designed for use on elite (12-pitch typewriter.)* *Form approved. OMB No. 2050-0039. Expires 9-30-94*

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No.: I.N.D.0.0.0.7.1.7 8.1.3.0
Manifest Document No.: . . . .
2. Page 1 of 1
Information in the shaded areas is not required by Federal law, but items D, F, H, I and K are required by State law.

3. Generator's Name and Mailing Address
Refined Metals Corp., PO Box 188, Beech Grove, IN 46107
3700 E. Arlington Avenue, Indianapolis, IN 46203
4. Generator's Phone (317) 787-6364

A. State Manifest Document Number: INA 1025978
B. State Generator's ID:

5. Transporter 1 Company Name: Beelman Trucking
6. US EPA ID Number: I.L.D.0.0.7.8.1.4.8.2.5
C. State Transporter's ID:
D. Transporter's Phone: 1-800-651-4625

7. Transporter 2 Company Name:
8. US EPA ID Number: . . . . . .
E. State Transporter's ID:
F. Transporter's Phone:

9. Designated Facility Name and Site Address
Refined Metals Corp.
257 West Mallory Avenue
Memphis, Tennessee 38109
10. US EPA ID Number: T.N.D.0.6.7.6.9.0.0.4.0
G. State Facility's ID:
H. Facility's Phone: 901-775-3770

11. US DOT Description *(Including Proper Shipping Name, Hazard Class, and ID Number)*	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol.	I. Waste No.
a Hazardous Waste Solid NOS Lead D008 RQ 3077 Class (9) Packing Group 3	0.0.1	D.T	4.9.5.2.0	P	D008
b	. .	.	. . . . .		
c	. .	.	. . . . .		
d	. .	.	. . . . .		

J. Additional Descriptions for Materials Listed Above: 24 HR Emergency #
Mike Maloy Plant Manager: 317-375-8148
George Ordel Asst. Mgr. 317-856-3470
Refined Metals Beech Grove Plant: 317-787-6364

K. Handling Codes for Wastes Listed Above:
T 66
Lead Recycling

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.

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Printed/Typed Name: George Ordel
Signature: George Ordel
Date: Month 0 6 Day 1 2 Year 9 5

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Jimmy Crafton
Signature:
Date: Month 0 6 Day 1 2 Year 9 5

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name:
Signature:
Date: Month . Day . Year .

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted item 19.
Printed/Typed Name:
Signature:
Date: Month . Day . Year .

INA1025978

In case of a spill call the Indiana Office of Environmental Response at 317/241-4336 (day or night) and the National Response Center at 800/424-8802 or 202/426-2675.

EPA Form 8700-22
Previous editions are obsolete
State Form 11865 (R2 / 1-94)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT
P.O. Box 7035
Indianapolis, IN 46207-7035

PLEASE PRINT OR TYPE *(Form designed for use on elite (12-pitch typewriter.)* *Form approved. OMB No. 2050-0039. Expires 9-30-94*

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No.: I N D 0 0 0 7 1 8 1 3 0
Manifest Document No.: 0 9 9 9 8
2. Page 1 of 1
Information in the shaded areas is not required by Federal law, but items D, F, H, I and K are required by State law.

3. Generator's Name and Mailing Address
Refined Metals Corp., PO Box 188, Beech Grove, IN 46107
3700 Arlington Avenue., Indianapolis, IN 46203

4. Generator's Phone (317) 787-6364

A. State Manifest Document Number: INA 1025977
B. State Generator's ID:

5. Transporter 1 Company Name: Beelman Trucking
6. US EPA ID Number: I L D 0 0 7 8 1 4 8 2 5
C. State Transporter's ID:
D. Transporter's Phone: 1-800-851-4825

7. Transporter 2 Company Name:
8. US EPA ID Number:
E. State Transporter's ID:
F. Transporter's Phone:

9. Designated Facility Name and Site Address
General Smelting
8444 Horton Hwy
College Grove, TN 37046
10. US EPA ID Number: T N D 0 0 4 0 4 8 6 9 0
G. State Facility's ID:
H. Facility's Phone: 1-615-368-7125

11. US DOT Description *(Including Proper Shipping Name, Hazard Class, and ID Number)*	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol.	I. Waste No.
a. Hazardous Waste Solid NOS Lead D008 NA 3077 Class (9) Packing Group 3	0 0 1	D T	4 9 1 4 0	P	D008
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above: 24 HR Emergency #
Mike Meloy Plant Manager: 317-375-8148
George Ordel Asst. Mgr.: 317-862-3470
Refined Metals Beech Grove Plant: 317-787-6364

K. Handling Codes for Wastes Listed Above: T 66 Lead Recycling

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.**

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Mike Meloy
Signature: [signature]
Date: Month / Day / Year

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name:
Signature:
Date: Month / Day / Year

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name:
Signature:
Date: Month / Day / Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted item 19.
Printed/Typed Name:
Signature:
Date: Month / Day / Year

GENERATOR / TRANSPORTER / FACILITY

In case of a spill call the Indiana Office of Environmental Response at 317/241-4336 (day or night) and the National Response Center at 800/424-8802 or 202/426-2675.

INA 1025977

EPA Form 8700-22
Previous editions are obsolete
State Form 11865 (R2 / 1-94)

COPY 2 - GENERATOR COPY

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT
P.O. Box 7035
Indianapolis, IN 46207-7035

PLEASE PRINT OR TYPE (Form designed for use on elite (12-pitch typewriter.) Form approved. OMB No. 2050-0039. Expires 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. I N D 0 0 0 7 1 8 1 3 0 0 Manifest Document No.
2. Page 1 of 1
Information in the shaded areas is not required by Federal law, but items D, F, H, I and K are required by State law.

3. Generator's Name and Mailing Address
Refined Metals Corp., P.O. Box 188, Beech Grove, IN 46107
8700 Arlington Ave., Indianapolis, IN 46203

4. Generator's Phone 317 787-6364

A. State Manifest Document Number INA 1025973
B. State Generator's ID

5. Transporter 1 Company Name
Beelman Trucking

6. US EPA ID Number I L D 0 0 7 8 1 4 8 2 5

C. State Transporter's ID
D. Transporter's Phone 1-800-851-8854

7. Transporter 2 Company Name
8. US EPA ID Number

E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
General Smelting
8444 Horton Hwy
College Grove, TN 37046

10. US EPA ID Number T. N. D. 0 0 0 4 0 4 8 6 9 0

G. State Facility's ID
H. Facility's Phone 1-615-368-7125

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol.	I. Waste No.
a Hazardous Waste Solid NOS Lead D008 NA 3077 Class (9) Packing Group 3	0 0 1	D T	4 7 7 8 0	P	D008
b					
c					
d					

J. Additional Descriptions for Materials Listed Above
24 HR Emergency #
Refined Metals Beech Grove Plant: 1-317-787-6364
Mike Meloy Plant Manager: 1-317-375-8148
George Ordel Asst. Mgr.: 1-317-862-3470

K. Handling Codes for Wastes Listed Above
T 66
Lead Recycling

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.

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Printed/Typed Name: Mike Meloy
Signature:
Date: Month Day Year

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name:
Signature:
Date: Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name:
Signature:
Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted item 19.
Printed/Typed Name:
Signature:
Date: Month Day Year

GENERATOR
TRANSPORTER
FACILITY

In case of a spill call the Indiana Office of Environmental Response at 317/241-4336 (day or night) and the National Response Center at 800/424-8802 or 202/426-2675.

INA1025973

EPA Form 8700-22
Previous editions are obsolete
State Form 11865 (R2 / 1-94)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT
P.O. Box 7035
Indianapolis, IN 46207-7035

PLEASE PRINT OR TYPE (Form designed for use on elite (12-pitch typewriter.) Form approved, OMB No. 2050-0039. Expires 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. I.N.D.0.0.0.7.1.8.1.3.0 Manifest Document No. 0.5.9.9.3
2. Page 1 1 of 1
Information in the shaded areas is not required by Federal law, but items D, F, H, I and K are required by State law.

3. Generator's Name and Mailing Address
Refined Metals Corp., PO Box 188, Beech Grove, IN 46107
3700 S. Arlington Ave., Indianapolis, IN 46203
4. Generator's Phone (317 787-6364

A. State Manifest Document Number INA 1025972
B. State Generator's ID

5. Transporter 1 Company Name: Beelman Trucking
6. US EPA ID Number: I L D 0 0 7 8 1 4 8 2 5
C. State Transporter's ID
D. Transporter's Phone 1-800-351-3854

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
Refined Metals Corporation
257 West Mallory Avenue
Memphis, Tennessee
10. US EPA ID Number: T N D 0 6 7 6 9 0 0 4 0
G. State Facility's ID
H. Facility's Phone 901-775-3770

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol.	I. Waste No.
a Hazardous Waste Solid NOS Lead D008 NA 3077 Class (9) Packing Group 3	0.0.1	D.T	5.0.2.8.0	P	D008
b					
c					
d					

J. Additional Descriptions for Materials Listed Above 24 HR EMERGENCY #
Mike Heloy Plant Manager: 1-317-375-8148
George Prdel Asst. Mgr.: 1-317-862-3470
Refined Metals Beech Grove Plant: 1-317-787-6364

K. Handling Codes for Wastes Listed Above
T 66
Lead Recycling

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Mike Heloy | Signature | Date Month Day Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Date Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Date Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted item 19.
Printed/Typed Name | Signature | Date Month Day Year

GENERATOR

In case of a spill call the Indiana Office of Environmental Response at 317/241-4336 (day or night) and the National Response Center at 800/424-8802 or 202/426-2675.

INA1025972

EPA Form 8700-22
Previous editions are obsolete
State Form 11865 (R2 / 1-94)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT
P.O. Box 7035
Indianapolis, IN 46207-7035

PLEASE PRINT OR TYPE *(Form designed for use on elite (12-pitch typewriter.)* *Form approved. OMB No. 2050-0039. Expires 9-30-94*

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No.: I N D 0 0 0 7 1 8 1 3 0 | Manifest Document No.: 0 5 4 9 2 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law, but items D, F, H, I and K are required by State law.

3. Generator's Name and Mailing Address
Refined Metals Corp., PO Box 188, Beech Grove, IN 46107
3700 S. Arlington Ave., Indianapolis, IN 46203

4. Generator's Phone (317) 787-6364

A. State Manifest Document Number: INA 1025971

B. State Generator's ID:

5. Transporter 1 Company Name: Beelman Trucking

6. US EPA ID Number: I L D 0 0 7 8 1 4 8 2 5

C. State Transporter's ID:

D. Transporter's Phone: 1-800-861-3854

7. Transporter 2 Company Name:

8. US EPA ID Number:

E. State Transporter's ID:

F. Transporter's Phone:

9. Designated Facility Name and Site Address
Refined Metals Corporation
257 West Mallory Avenue
Memphis, Tennessee 38109

10. US EPA ID Number: T N D 0 6 7 6 9 0 0 4 0

G. State Facility's ID:

H. Facility's Phone: 901-775-3770

11. US DOT Description *(Including Proper Shipping Name, Hazard Class, and ID Number)*	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol.	I. Waste No.
a Hazardous Waste Solid NOS Lead D008 NA 3077 Class 9 Packing Group 3	0 0 1	D T	[illegible]	P	D008
b					
c					
d					

J. Additional Descriptions for Materials Listed Above
24 Hr. EMERGENCY #
Refined Metals Beech Grove Plant: 1-317-787-6364
Mike Meloy Plant Manager: 1-317-375-8148
David Knight Treatment Supervisor: 1-317-862-5769

K. Handling Codes for Wastes Listed Above
T 66
Lead Reclaimation

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.**

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Printed/Typed Name: Mike Meloy | Signature: [signature] | Date: Month 0 6 Day 0 1 Year 9 5

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: | Signature: | Date: Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: | Signature: | Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted item 19.
Printed/Typed Name: | Signature: | Date: Month Day Year

GENERATOR / TRANSPORTER / FACILITY

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INA1025971

EPA Form 8700-22
Previous editions are obsolete
State Form 11865 (R2 / 1-94)

COPY 3 - GENERATOR COPY

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT
P.O. Box 7035
Indianapolis, IN 46207-7035

PLEASE PRINT OR TYPE (Form designed for use on elite (12-pitch typewriter.) Form approved. OMB No. 2050-0039. Expires 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No.: IND000718130 | Manifest Document No.: 0000 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law, but items D, F, H, I and K are required by State law.

3. Generator's Name and Mailing Address
Refined Metals Corp., PO Box 188, Beech Grove, IN 46107
3700 S Arlington Ave., Indianapolis, IN 46203

4. Generator's Phone (317 787-6364

A. State Manifest Document Number: INA 1025970

B. State Generator's ID:

5. Transporter 1 Company Name: Beelman Trucking

6. US EPA ID Number: ILD007814825

C. State Transporter's ID:

D. Transporter's Phone: 1-800-851-8854

7. Transporter 2 Company Name:

8. US EPA ID Number:

E. State Transporter's ID:

F. Transporter's Phone:

9. Designated Facility Name and Site Address
Refined Metals Corporation
257 west Hallory Avenue
Memphis, Tennessee 38109

10. US EPA ID Number: TND067690040

G. State Facility's ID:

H. Facility's Phone: 901-775-3770

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol.	I. Waste No.
a Hazardous Waste Solid NOS Lead D008 NA 3077 Class 9 Packing Group 3	001	DT	49300	P	D008
b					
c					
d					

J. Additional Descriptions for Materials Listed Above: 24 HR EMERGENCY #
Refined Metals Beech Grove Plant: 1-317-787-6364
Mike Meloy Plant Manager: 1-317-375-8148

K. Handling Codes for Wastes Listed Above: T 66 Lead Reclaimation

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.

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Printed/Typed Name: Mike Meloy Refined Metals Corp. | Signature: | Date: Month 05 Day 31 Year 95

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Date: Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted item 19.
Printed/Typed Name | Signature | Date: Month Day Year

GENERATOR

TRANSPORTER

FACILITY

In case of a spill call the Indiana Office of Environmental Response at 317/241-4336 (day or night) and the National Response Center at 800/424-8802 or 202/426-2675.

INA1025970

EPA Form 8700-22
Previous editions are obsolete
State Form 11865 (R2 / 1-94)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT
P.O. Box 7035
Indianapolis, IN 46207-7035

PLEASE PRINT OR TYPE *(Form designed for use on elite (12-pitch typewriter.)* *Form approved. OMB No. 2050-0039. Expires 9-30-94*

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No.: IND000718130 | Manifest Document No.: 5989 | 2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but items D, F, H, I and K are required by State law.

3. Generator's Name and Mailing Address
Refined Metals Corp., PO Box 188, Beech Grove, IN 46107
3700 S Arlington Ave., Indianapolis, IN 46203

4. Generator's Phone (317 787-6364

A. State Manifest Document Number: INA 1025969

B. State Generator's ID:

5. Transporter 1 Company Name: Beelman Trucking

6. US EPA ID Number: ILD007814825

C. State Transporter's ID:

D. Transporter's Phone: 1-800-851-8854

7. Transporter 2 Company Name:

8. US EPA ID Number:

E. State Transporter's ID:

F. Transporter's Phone:

9. Designated Facility Name and Site Address
Refined Metals Corporation
257 West Mallory Avenue
Memphis, Tennessee 38109

10. US EPA ID Number: TND067690040

G. State Facility's ID:

H. Facility's Phone: 901-775-3770

11. US DOT Description *(Including Proper Shipping Name, Hazard Class, and ID Number)*	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol.	I. Waste No.
a Hazardous Waste Solid ~~Battery Parts (subsorted, unwashed)~~ NOS Lead D008 Na 3077	001	DT		P	D008 ~~Reef~~
b					
c					
d					

J. Additional Descriptions for Materials Listed Above: 24 HR Emergency #
Refined Metals Beech Grove Plant: 1-317-787-6364
Mike Meloy Plant Manager: 1-317-375-8148
David Knight Treatment Supervisor: 1-317-862-5769

K. Handling Codes for Wastes Listed Above: T 66 Lead Reclamation

15. Special Handling Instructions and Additional Information

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Printed/Typed Name: Mike Meloy Refined Metals Corp. | Signature: [signature] | Date: Month 05 Day 3.0 Year 9.5

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: | Signature: | Date: Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: | Signature: | Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted item 19.
Printed/Typed Name: | Signature: | Date: Month Day Year

GENERATOR / TRANSPORTER / FACILITY

In case of a spill call the Indiana Office of Environmental Response at 317/241-4336 (day or night) and the National Response Center at 800/424-8802 or 202/426-2675.

INA1025969

EPA Form 8700-22
Previous editions are obsolete
State Form 11865 (R2 / 1-94)

DNR
MICHIGAN DEPARTMENT OF NATURAL RESOURCES

DO NOT WRITE IN THIS SPACE
ATT. ☐ DIS. ☐ REJ. ☐ PR. ☐

Required under authority of Act 64, P.A. 1979, as amended and Act 136, P.A. 1969.

Failure to file is punishable under section 299.548 MCL or Section 10 of Act 136, P.A. 1969.

Please print or type.

Form Approved. OMB No. 2050-0039 Expires 9-30-96

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: IND000718130 — Manifest Document No.:

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Refined Metals Corp.
3700 S. Arlington, Indianapolis, IN 46107

4. Generator's Phone (317) 782-3470

A. State Manifest Document Number: MI 4139847

B. State Generator's ID:

5. Transporter 1 Company Name: Inland Waters Pollution Control

6. US EPA ID Number: MID982606287

C. State Transporter's ID:

D. Transporter's Phone: (313)841-5800

7. Transporter 2 Company Name:

8. US EPA ID Number:

E. State Transporter's ID:

F. Transporter's Phone:

9. Designated Facility Name and Site Address
City Environmental Inc.
1550 Harper
Detroit, MI 48211

10. US EPA ID Number: MID054683479

G. State Facility's ID:

H. Facility's Phone: (313)923-0080

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID NUMBER). HM		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.	N/H
a. X	RQ, Hazardous Waste Solid, n.o.s. Class 9, PGII, UN3077 (Lead, Ash)	001	D	TS/57/120	P 4	D008	H
b.				22.6	T		
c.							
d.							

J. Additional Descriptions for Materials Listed Above
Approval #13276H. ERG# 31

K. Handling Codes for Wastes Listed Above: a/ / b/ / c/ / d/ /

15. Special Handling Instructions and Additional Information
Emergency 24hr. phone 1-800-535-5053. Land Ban is attached

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name: George Ordel — Signature: George Ordel — Date (Month Day Year): 06 06 95

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Tev Williams — Signature: [signature] — Date (Month Day Year): 06 06 95

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: — Signature: — Date (Month Day Year):

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: James Tily — Signature: [signature] — Date (Month Day Year): 06 06 95

GENERATOR — TRANSPORTER — FACILITY

ALL SPILLS MUST BE REPORTED TO THE MICHIGAN POLLUTION EMERGENCY ALERTING SYSTEM, IN MICHIGAN AT 1-800-292-4706 OR OUT OF STATE AT 517-373-7660 AND THE NATIONAL RESPONSE CENTER AT 1-800-424-8802 24 HOURS PER DAY.

EPA Form 8700-22 (Rev. 9/88) PR 5110 Rev. 10/94

DNR

MICHIGAN DEPARTMENT OF NATURAL RESOURCES

DO NOT WRITE IN THIS SPACE

ATT. ☐ DIS. ☐ REJ. ☐ PR. ☐

Required under authority of Act 64, P.A. 1979, as amended and Act 136, P.A. 1969.

Failure to file is punishable under section 299.548 MCL or Section 10 of Act 136, P.A. 1969.

Please print or type.

Form Approved. OMB No. 2050-0039 Expires 9-30-96

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. IND007181360 Manifest Document No. 95115

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
REFINED METALS CORP.
3700 S. ARLINGTON, INDIANAPOLIS, INDIANA 46107

4. Generator's Phone (317) 787-6364

A. State Manifest Document Number MI 4151581

B. State Generator's ID

5. Transporter 1 Company Name: INLAND WATERS

6. US EPA ID Number: MTH000666667

C. State Transporter's ID

D. Transporter's Phone 313-841-5800

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
CITY ENVIRONMENTAL
1550 HARPER
DETROIT, MI 48211

10. US EPA ID Number: MTH000566676

G. State Facility's ID

H. Facility's Phone 313-921-0080

	11. US DOT Description (including Proper Shipping Name, Hazard Class, and HM ID NUMBER).	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.	N/H
a.	X RQ, WASTE HAZARDOUS SUBSTANCE, SOLID, N.O.S. (LEAD, ASH) 9, UN3077, PGII	001	DT	43560	P	D008	H
b.				21108	T		
c.							
d.							

J. Additional Descriptions for Materials Listed Above
APPROVAL NO. 13276H, (ERG #31)

K. Handling Codes for Wastes Listed Above
a/ /
b/ /
c/ /
d/ /

15. Special Handling Instructions and Additional Information
24 HOUR EMERGENCY CONTACT INFOTRAC 1-800-535-5053

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name: BEVERLY EVERLING-REFINED METALS CORP. Signature: Beverly Everling Date (Month Day Year): 05 10 95

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: TED WILLIAMS - DRIVER Signature: Ted Williams Date (Month Day Year): 05 10 95

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: Signature: Date (Month Day Year):

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: Rick Gylant Signature: Date (Month Day Year): 05 11 95

GENERATOR

TRANSPORTER

FACILITY

ALL SPILLS MUST BE REPORTED TO THE MICHIGAN POLLUTION EMERGENCY ALERTING SYSTEM, IN MICHIGAN AT 1-800-292-4706 OR OUT OF STATE AT 517-373-7660 AND THE NATIONAL RESPONSE CENTER AT 1-800-424-8802 24 HOURS PER DAY.

EPA Form 8700-22 (Rev. 9/88)

GENERATOR 2nd COPY

PR 5110 Rev. 10/94

DNR
MICHIGAN DEPARTMENT OF NATURAL RESOURCES

DO NOT WRITE IN THIS SPACE
ATT. ☐ DIS. ☐ REJ. ☐ PR. ☐

Required under authority of Act 64, P.A. 1979, as amended and Act 136, P.A. 1969.

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Please print or type.

Form Approved. OMB No. 2050-0039 Expires 9-30-96

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: IND000718130 — Manifest Document No.:
2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
REFINED METALS CORP.
3700 S. ARLINGTON, INDIANAPOLIS, IN 46107

4. Generator's Phone ( )

A. State Manifest Document Number: MI 4151582
B. State Generator's ID:

5. Transporter 1 Company Name: INLAND WATERS
6. US EPA ID Number: MID982660628 7
C. State Transporter's ID:
D. Transporter's Phone: 313-841-5800

7. Transporter 2 Company Name:
8. US EPA ID Number:
E. State Transporter's ID:
F. Transporter's Phone:

9. Designated Facility Name and Site Address
CITY ENVIRONMENTAL
1550 HARPER
DETROIT, MI 48211

10. US EPA ID Number: MID054683479
G. State Facility's ID:
H. Facility's Phone: 313-923-0080

	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID NUMBER). HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.	N/H
a.	X RQ, WASTE HAZARDOUS SUBSTANCE, SOLID, N.O.S. (LEAD, ASH) 9, UN3077, PGII	001	DT	42140	Y	D008	H
b.				214			
c.							
d.							

J. Additional Descriptions for Materials Listed Above
APPROVAL NO. 13276H

K. Handling Codes for Wastes Listed Above
a/ /
b/ /
c/ /
d/ /

15. Special Handling Instructions and Additional Information
24 HOUR EMERGENCY CONTACT INFOTRAC 1-800-535-5053

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name: Mike Melot — Signature: [signature] — Date (Month Day Year): 05 30 95

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: [illegible] Williams — Signature: [signature] — Date (Month Day Year): 05 30 95

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: — Signature: — Date (Month Day Year):

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Rick Orchard — Signature: [signature] — Date (Month Day Year): 05 30 95

GENERATOR

TRANSPORTER

FACILITY

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DNR
MICHIGAN DEPARTMENT OF NATURAL RESOURCES

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Please print or type.

Form Approved. OMB No. 2050-0039 Expires 9-30-96

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: IND000718130 — Manifest Document No.:
2. Page 1 of 1

Information in the shaded area is not required by Federal law.

3. Generator's Name and Mailing Address
REFINED METALS CORP.
3700 S. ARLINGTON, INDIANAPOLIS, IN 46107

4. Generator's Phone ( )

A. State Manifest Document Number: MI 4151583
B. State Generator's ID:

5. Transporter 1 Company Name: INLAND WATERS
6. US EPA ID Number: MID982606287
C. State Transporter's ID:
D. Transporter's Phone: 313-841-5800

7. Transporter 2 Company Name:
8. US EPA ID Number:
E. State Transporter's ID:
F. Transporter's Phone:

9. Designated Facility Name and Site Address
CITY ENVIRONMENTAL
1550 HARPER
DETROIT, MI 48211

10. US EPA ID Number: MID054683479
G. State Facility's ID:
H. Facility's Phone: 313-923-0080

	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID NUMBER). HM		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.	N/H
a.	X	RQ, WASTE HAZARDOUS SUBSTANCE, SOLID, N.O.S. (LEAD, ASH) 9, UN3077, PGII	001	DT	45400	Y	D008	H
b.					227	25 Tons		
c.								
d.								

J. Additional Descriptions for Materials Listed Above
APPROVAL NO. 13276H

K. Handling Codes for Wastes Listed Above
a/ /
b/ /
c/ /
d/ /

15. Special Handling Instructions and Additional Information
24 HOUR EMERGENCY CONTACT INFOTRAC 1-800-535-5053

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by *proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway* according to applicable international and national government regulations.

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Printed/Typed Name: Mike Meier — Signature: [signature] — Date (Month Day Year): 06 01 95

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Tim Williams — Signature: [signature] — Date (Month Day Year): 06 01 95

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: — Signature: — Date (Month Day Year):

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Rick Gutierrez — Signature: [signature] — Date (Month Day Year): 06 01 95

GENERATOR — TRANSPORTER — FACILITY

ALL SPILLS MUST BE REPORTED TO THE MICHIGAN POLLUTION EMERGENCY ALERTING SYSTEM, IN MICHIGAN AT 1-800-292-4706 OR OUT OF STATE AT 517-373-7660 AND THE NATIONAL RESPONSE CENTER AT 1-800-424-8802 24 HOURS PER DAY.

EPA Form 8700-22 (Rev. 9/88) PR 5110

DNR
MICHIGAN DEPARTMENT OF NATURAL RESOURCES

DO NOT WRITE IN THIS SPACE
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Required under authority of Act 64, P.A. 1979, as amended and Act 136, P.A. 1969.

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Please print or type.

Form Approved. OMB No. 2050-0039 Expires 9-30-96

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: IND000718130 — Manifest Document No.: 4151584
2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
REFINED METALS CORP.
3700 S. ARLINGTON, INDIANAPOLIS, IN 46107

4. Generator's Phone ( )

A. State Manifest Document Number: MI 4151584
B. State Generator's ID:

5. Transporter 1 Company Name: INLAND WATERS
6. US EPA ID Number: MID982606287
C. State Transporter's ID:
D. Transporter's Phone: 313-841-5800

7. Transporter 2 Company Name:
8. US EPA ID Number:
E. State Transporter's ID:
F. Transporter's Phone:

9. Designated Facility Name and Site Address
CITY ENVIRONMENTAL
1550 HARPER
DETROIT, MI 48211

10. US EPA ID Number: MID054683479
G. State Facility's ID:
H. Facility's Phone: 313-923-0080

	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID NUMBER). HM		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.	N/H
a.	X	RQ, WASTE HAZARDOUS SUBSTANCE, SOLID, N.O.S. (LEAD, ASH) 9, UN3077, PGII	001	DT	44860	Y	D008	H
b.					22413	T		
c.								
d.								

J. Additional Descriptions for Materials Listed Above
APPROVAL NO. 13276H

K. Handling Codes for Wastes Listed Above: a/ / b/ / c/ / d/ /

15. Special Handling Instructions and Additional Information
24 HOUR EMERGENCY CONTACT INFOTRAC 1-800-535-5053

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR; if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Mike Melo — Signature: [signature] — Date: Month Day Year 06 05 95

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Ted Williams — Signature: [signature] — Date: Month Day Year 06 05 95

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: — Signature: — Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Rick Brukeart — Signature: [signature] — Date: Month Day Year 06 05 95

GENERATOR — TRANSPORTER — FACILITY

ALL SPILLS MUST BE REPORTED TO THE MICHIGAN POLLUTION EMERGENCY ALERTING SYSTEM, IN MICHIGAN AT 1-800-292-4706 OR OUT OF STATE AT 517-373-7660 AND THE NATIONAL RESPONSE CENTER AT 1-800-424-8802 24 HOURS PER DAY.

EPA Form 8700-22 (Rev. 9/88) PR 5110

DNR
MICHIGAN DEPARTMENT OF NATURAL RESOURCES

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Form Approved. OMB No. 2050-0039 Expires 9-30-96

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. IND000718130 Manifest Document No. 95119

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
REFINED METALS CORP.
3700 S. ARLINGTON, INDIANAPOLIS, IN 46107

4. Generator's Phone ( )

A. State Manifest Document Number MI 4151586

B. State Generator's ID

5. Transporter 1 Company Name INLAND WATERS

6. US EPA ID Number MID982606287

C. State Transporter's ID

D. Transporter's Phone 313-841-5800

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
CITY ENVIRONMENTAL
1550 HARPER
DETROIT, MI 48211

10. US EPA ID Number MID054683479

G. State Facility's ID

H. Facility's Phone 313-923-0080

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID NUMBER). HM		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.	N/H
a. X	RQ, WASTE HAZARDOUS SUBSTANCE, SOLID, N.O.S. (LEAD, ASH) 9, UN3077, PGII	001	DT	44940	P XX	D008	H
b.				22	T		
c.							
d.							

J. Additional Descriptions for Materials Listed Above
APPROVAL NO. 13276H

K. Handling Codes for Wastes Listed Above
a/ /
b/ /
c/ /
d/ /

15. Special Handling Instructions and Additional Information
24 HOUR EMERGENCY CONTACT INFOTRAC 1-800-535-5053

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Printed/Typed Name: BEVERLY EVERLING-REFINED METALS CORP. Signature: Beverly Everling Date: Month Day Year 05 24 95

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: TED WILLIAMS - DRIVER Signature: [signature] Date: Month Day Year 05 24 95

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name Signature Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Rick Graham Signature: [signature] Date: Month Day Year 05 24 95

GENERATOR

TRANSPORTER

FACILITY

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EPA Form 8700-22 (Rev. 9/88)

PR 5110 Rev. 10/94

GENERATOR 2nd COPY

DNR
MICHIGAN DEPARTMENT OF NATURAL RESOURCES

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Please print or type.

Form Approved. OMB No. 2050-0039 Expires 9-30-96

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: IND000718130 — Manifest Document No.: ~~51587~~ 95116

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
REFINED METALS CORP.
3700 S. ARLINGTON, INDIANAPOLIS, IN 46107

4. Generator's Phone ( )

A. State Manifest Document Number: MI 4151587

B. State Generator's ID

5. Transporter 1 Company Name: INLAND WATERS

6. US EPA ID Number: MID982606287

C. State Transporter's ID

D. Transporter's Phone: 313-841-5800

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
CITY ENVIRONMENTAL
1550 HARPER
DETROIT, MI 48211

10. US EPA ID Number: MID054683470

G. State Facility's ID

H. Facility's Phone: 313-923-0080

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID NUMBER). HM		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.	N/H
a. X	RQ, WASTE HAZARDOUS SUBSTANCE, SOLID, N.O.S. (LEAD, ASH) 9, UN3077, PGII	001	DT	45840	Y	D008	H
b.				2292 (RS)	T		
c.							
d.							

J. Additional Descriptions for Materials Listed Above
APPROVAL NO. 13276H

K. Handling Codes for Wastes Listed Above
a/ /
b/ /
c/ /
d/ /

15. Special Handling Instructions and Additional Information
24 HOUR EMERGENCY CONTACT INFOTRAC 1-800-535-5053

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Printed/Typed Name: MIKE MELOY — Signature: [signature] — Date (Month Day Year): 05 15 95

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: [illegible] — Signature: [signature] — Date (Month Day Year): 05 15 95

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Date (Month Day Year)

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Rick [illegible] — Signature: [signature] — Date (Month Day Year): 05 15 95

GENERATOR

TRANSPORTER

FACILITY

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EPA Form 8700-22 (Rev. 9/88) PR 5110 Rev. 10/9

DNR

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Form Approved. OMB No. 2050-0039 Expires 9-30-9

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. IND000718130 Manifest Document No. 95117

2. Page 1 of 1

Information in the shaded areas is not required by Fe[redacted] law.

3. Generator's Name and Mailing Address
REFINED METALS CORP.
3700 S. ARLINGTON, INDIANAPOLIS, IN 46107

4. Generator's Phone ( )

A. State Manifest Document Number MI 4151588

B. State Generator's ID

5. Transporter 1 Company Name: INLAND WATERS

6. US EPA ID Number: MID982606287

C. State Transporter's ID

D. Transporter's Phone 313-841-5800

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
CITY ENVIRONMENTAL
1550 HARPER
DETROIT, MI 48211

10. US EPA ID Number: MID054583479

G. State Facility's ID

H. Facility's Phone 313-[redacted]-0080

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID NUMBER).	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.	
a. X RQ, WASTE HAZARDOUS SUBSTANCE, SOLID, N.O.S. (LEAD, ASH) 9, UN3077, PGII	001	DT	44400	P	D008	H
b.				T		
c.						
d.						

J. Additional Descriptions for Materials Listed Above
APPROVAL NO. 13276H

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
24 HOUR EMERGENCY CONTACT INFOTRAC 1-800-535-5053

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Printed/Typed Name: BEVERLY EVERLING-REFINED METALS CORP. Signature: Beverly Everling Date: Month 05 Day 16 Year 95

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: TED WILLIAMS - DRIVER Signature: [illegible] Date: Month 05 Day 16 Year 95

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: Signature: Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: [illegible] Signature: [illegible] Date: Month Day Year [illegible]

GENERATOR

TRANSPORTER

FACILITY

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EPA Form 8700-22 (Rev. 9/88)

GENERATOR 2nd COPY

PR 5110 Rev. 10/9

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Form Approved. OMB No. 2050-0039 Expires 9-30-96

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. IND000718130 Manifest Document No. 95119

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
REFINED METALS CORP.
3700 S. ARLINGTON, INDIANAPOLIS, IN 46107

4. Generator's Phone ( )

A. State Manifest Document Number MI 4151589

B. State Generator's ID

5. Transporter 1 Company Name INLAND WATERS

6. US EPA ID Number MID982606287

C. State Transporter's ID

D. Transporter's Phone 313-841-5800

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
CITY ENVIRONMENTAL
1550 HARPER
DETROIT, MI 48211

10. US EPA ID Number MID054683479

G. State Facility's ID

H. Facility's Phone 313-923-0080

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID NUMBER).	HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.	N/H
a. RQ, WASTE HAZARDOUS SUBSTANCE, SOLID, N.O.S. (LEAD, ASH) 9, UN3077, PGII	X	001	DT	41560	P X	D008	H
b.							
c.							
d.							

J. Additional Descriptions for Materials Listed Above
APPROVAL NO. 13276H

K. Handling Codes for Wastes Listed Above
a/ /
b/ /
c/ /
d/ /

15. Special Handling Instructions and Additional Information
24 HOUR EMERGENCY CONTACT INFOTRAC 1-800-535-5053

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Printed/Typed Name: BEVERLY EVERLING-REFINED METALS CORP. Signature: Beverly Everling Date: Month Day Year 05 22 95

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: TED WILLIAMS - DRIVER Signature: [illegible] Date: Month Day Year 05 22 95

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: Signature: Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: Rick Gaylord Signature: [illegible] Date: Month Day Year 05 22 95

GENERATOR

TRANSPORTER

FACILITY

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EPA Form 8700-22 (Rev. 9/88)

PR 5110 Rev. 10/9

DNR
MICHIGAN DEPARTMENT OF NATURAL RESOURCES

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UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: IND000718130 — Manifest Document No.: 951113
2. Page 1 of 1
Information in the shaded a[illegible] is not required by Fe[illegible] law.

3. Generator's Name and Mailing Address
REFINED METALS CORP.
3700 S. ARLINGTON, INDIANAPOLIS, IN 46107

4. Generator's Phone ( )

A. State Manifest Document Number: MI 4151591
B. State Generator's ID:
C. State Transporter's ID:
D. Transporter's Phone: 313-841-5800
E. State Transporter's ID:
F. Transporter's Phone:
G. State Facility's ID:
H. Facility's Phone: 313-923-0080

5. Transporter 1 Company Name: INLAND WATERS
6. US EPA ID Number: MID982606287
7. Transporter 2 Company Name:
8. US EPA ID Number:
9. Designated Facility Name and Site Address
CITY ENVIRONMENTAL
1550 HARPER
DETROIT, MI 48211
10. US EPA ID Number: MID056683470

	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID NUMBER). HM		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.	N/H
a.	X	RQ, WASTE HAZARDOUS SUBSTANCE, SOLID, N.O.S. (LEAD, ASH) 9, UN3077, PGII	001	DT	42360	P	0008	H
b.					21	T		
c.								
d.								

J. Additional Descriptions for Materials Listed Above
APPROVAL NO. 13276H

K. Handling Codes for Wastes Listed Above: a/ b/ c/ d/

15. Special Handling Instructions and Additional Information
24 HOUR EMERGENCY CONTACT INFOTRAC 1-800-535-5053

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Printed/Typed Name: BEVERLY EVERLING-REFINED METALS CORP. — Signature: Beverly Everling — Date (Month Day Year): 050295

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: TED WILLIAMS - DRIVER — Signature: [signature] — Date (Month Day Year): 050295

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: — Signature: — Date (Month Day Year):

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Rick Gryhorst — Signature: [signature] — Date (Month Day Year): 050295

GENERATOR / TRANSPORTER / FACILITY

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EPA Form 8700-22 (Rev. 9/88) PR 5110 Rev. 10/94

DNR

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Form Approved. OMB No. 2050-0039 Expires 9-30-96

print or type.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. IND000718130 Manifest Document No. 94724

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Refined Metals Corp.
3700 S. Arlington, Indianapolis, IN 46107

4. Generator's Phone (317) 782-3470

A. State Manifest Document Number MI 4139829

B. State Generator's ID

5. Transporter 1 Company Name: Inland Waters Pollution Control

6. US EPA ID Number: MID982606287

C. State Transporter's ID

D. Transporter's Phone (313)841-5800

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
City Environmental Inc.
1550 Harper
Detroit, MI 48211

10. US EPA ID Number: MID054683479

G. State Facility's ID

H. Facility's Phone (313)923-0080

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID NUMBER). HM		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.	N/H
a. X	RQ, Hazardous Waste Solid, n.o.s. Class 9, PGII, UN3077 (Lead, Ash)	001	DT	45460	Y	D008	H
b.							
c.							
d.							

J. Additional Descriptions for Materials Listed Above
Approval #13276H. ERG# 31

K. Handling Codes for Wastes Listed Above
a/ /
b/ /
c/ /
d/ /

15. Special Handling Instructions and Additional Information
Emergency 24hr. phone 1-800-535-5053. Land Ban is attached

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name: Mike Metcalf | Signature: [signature] | Date: Month Day Year 06 [illegible] 95

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: [illegible] | Signature: [signature] | Date: Month Day Year 06 [illegible] 95

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name | Signature | Date: Month Day Year

GENERATOR

TRANSPORTER

FACILITY

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PR 5110

DNR
MICHIGAN DEPARTMENT OF NATURAL RESOURCES

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ATT. ☐ DIS. ☐ REJ. ☐ PR. ☐

Required under authority of Act 641, P.A. 1979, as amended and Act 136, P.A. 1969.
Failure to file is punishable under section 299.548 MCL or Section 10 of Act 136, P.A. 1969.

OFFICE OF RCRA
WASTE MANAGEMENT
EPA REGION V

Please print or type.

Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: I N D 0 0 0 7 1 8 1 3 0 — Manifest Document No.: [illegible]
2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Refined Metals Corp.
3700 S. Arlington, Indianapolis, IN 46107

4. Generator's Phone (317) 782-3470

A. State Manifest Document Number: MI 4139828
B. State Generator's ID:

5. Transporter 1 Company Name: Inland Waters Pollution Control
6. US EPA ID Number: M I D 9 8 2 6 0 6 2 8 7
C. State Transporter's ID:
D. Transporter's Phone: (313)841-5800

7. Transporter 2 Company Name:
8. US EPA ID Number:
E. State Transporter's ID:
F. Transporter's Phone:

9. Designated Facility Name and Site Address
City Environmental Inc.
1550 Harper
Detroit, MI 48211

10. US EPA ID Number: M I D 0 5 4 6 8 3 4 7 9
G. State Facility's ID:
H. Facility's Phone: (313)923-0080

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID NUMBER). HM		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.	N/H
a. X	RQ, Hazardous Waste Solid, n.o.s. Class 9, PGII, UN3077 (Lead, Ash)	0 0 1	D T	4 5 0 6 6	Y	[illegible]	[illegible]
b.							
c.							
d.							

J. Additional Descriptions for Materials Listed Above
Approval #13276H. ERG# 31

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Emergency 24hr. phone 1-800-535-5053. Land Ban is attached

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR; if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: [illegible] — Signature: [illegible] — Date: Month Day Year: 06 12 85

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: [illegible] — Signature: [illegible] — Date: Month Day Year: 06 12 85

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: — Signature: — Date: Month Day Year:

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: — Signature: — Date: Month Day Year:

GENERATOR — TRANSPORTER — FACILITY

ALL SPILLS MUST BE REPORTED TO THE MICHIGAN POLLUTION EMERGENCY ALERTING SYSTEM, IN MICHIGAN AT 1-800-292-4706 OR OUT OF STATE AT 517-373-7660 AND THE NATIONAL RESPONSE CENTER AT 1-800-424-8802 24 HOURS PER DAY.

EPA Form 8700-22 (Rev. 9/88)
PR 5110 Rev. 10/9