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RESPONSES TO THE U.S. ENVIRONMENTAL PROTECTION AGENCY'S COMMENTS ON THE PLANT 7 LEAD DECONTAMINATION AND RECYCLING ENGINEERING STUDY

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RESPONSES

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Department of Energy

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OCT 1 3 1996

DOE-0049-97

Mr. James A. Saric, Remedial Project Director
U.S. Environmental Protection Agency
Region V - 5HSF-5J
77 W. Jackson Boulevard
Chicago, Illinois 60604-3590

Dear Mr. Saric:

RESPONSES TO THE U.S. ENVIRONMENTAL PROTECTION AGENCY'S COMMENTS ON THE PLANT 7 LEAD DECONTAMINATION AND RECYCLING ENGINEERING STUDY

The purpose of this letter is to provide responses to the U.S. Environmental Protection Agency's (U.S. EPA) comments on the Plant 7 Lead Decontamination and Recycling Engineering Study. The pages of the report which were revised in response to your comments are enclosed in this letter. The following comment responses are provided:

General Comment #1: The report contains no information regarding management of the primary waste returned to the Fernald Environmental Management Project (FEMP). The report should be revised to include information regarding the storage location and duration and ultimate disposition of the primary waste returned to FEMP.

Response: Agree; the text has been revised to include the following information. Change pages are also enclosed with this letter. The incidental concrete, insulation, and other debris are stored at the FEMP and will be repackaged for shipment to the Nevada Test Site (NTS) during Fiscal Year (FY) 1997. The lead is currently located in a Resource Conservation and Recovery Act (RCRA) Storage Area and will be shipped to Envirocare, encapsulated, and buried at the Envirocare Facility consistent with the Site Treatment Plan, during FY 1997. The water was consumed by the Liquid Mixed Waste Project - Waste Water Treatment at the FEMP on August 14, 1996.

General Comment #2: The report provides information regarding the submittal of subcontract deliverables, including the off-site processing work plan, the health and safety plan, the transportation plan, and

Recycled and Recyclable

the Quality Assurance Project Plan (QAPP). It is recommended that in the future, the scope of such deliverables be modified to address the management of material that will not be decontaminated and primary waste that is returned to FEMP for future recycling projects.

Response: Agree; as a lesson learned, future Request for Proposals (RFP) will address waste streams and will be returned to the FEMP in accordance with the FEMP Waste Acceptance Criteria (WAC). The Scrap Copper Engineering Study Statement of Work (SOW) in the RFP includes this provision.

Specific Comment #1: The text in this section summarizes the waste processing, treatment, and disposition activities for the lead recycling project. The text in the section should be revised to include information regarding the management of primary waste returned to FEMP.

Response: See response to General Comment #1.

If you should have any questions, please contact John Trygier at (513) 648-3154.

Sincerely,

Johnny W. Reising
Fernald Remedial Action
Project Manager

FEMP:Hall

Enclosure: As Stated

cc w/enc:

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Net Weight Material Received:	7.320 tons
Lead free-released for recycled:	6.230 tons
Lead not compatible with process (Excessively crumpled):	0.320 tons
Water:	0.150 tons
Incidental concrete, insulation, etc.:	0.100 tons
Fines, dust, and sweepings:	0.080 tons
Airborne losses to HEPA (estimated):	0.005 tons
Losses to chemical process:	0.429 tons
Difference FERMCO Scale & SEG Scale	0.234 tons

5.0 LESSONS LEARNED

The major success was that all lead processed was cleaned to the required level of unrestricted release for recycling. The decontamination activities were completed on schedule.

One problem was that the shipment from the FEMP contained some materials other than lead sheets. The corrective action will be to ensure future material segregation functions are implemented more thoroughly with oversight performed in the field as verification. The incidental concrete, insulation and other debris is stored at the FEMP and will be repackaged for shipment to NTS during FY97. The water was consumed by the Liquid Mixed Waste Project - Waste Water Treatment at the FEMP on August 14, 1996.

Processing of some of the lead was complicated by severe deformation. This deformation was a result of bending, folding, and compaction of the lead sheets during containerization at the FEMP. Virtually every piece was crumpled and required manual straightening before it could be cut to size. Straightening was accomplished by repetitive pounding with hammers. The most crumpled sheets, 641 lbs., were determined to be too deformed for such flattening and processing and were set aside. The crumpled lead sheets were returned to the FEMP as primary waste. The lead is currently located in a RCRA Storage area and will be shipped to Envirocare, encapsulated, and buried at the Envirocare Facility during FY 97. Future projects for recycling of lead should implement a plan that considers packaging to preserve the integrity of the material so that optimum recycling may occur. Due to the "soft" nature of the metal, the deformation problem may always exist unless significant efforts are taken resulting in a higher labor cost to carefully store and containerize the metal. Future RFPs will also address the waste streams that may be returned to the FEMP and managed as primary waste.

A tar-like substance and a blue fixative film were encountered on many of the sheets which were not removed during the chemical decon process and apparently attracted and/or held particulate contaminates. Contamination associated with these materials was successfully removed with a hand held disk sander in a lead preparation room of the P-4 Decon Facility. Fixative should not be applied to materials destined for recycle if avoidable, since additional efforts are required to remove the fixative.

6.0 CONCLUSIONS AND RECOMMENDATIONS

This engineering study has been success for DOE, FERMCO, and SEG by demonstrating technology that can be implemented on a larger scale. The cost to decontaminate and recycle the 7.548 tons or 15,096 lbs of lead was $76,257. The salvage value credited for sale of the scrap lead to a scrap metal dealer was $2,565. Due to the small volume of lead generated from Plant 7 D&D, the cost to recycle is high. Utilization of the these cost for larger volumes of lead should be discounted.

Attachment II provides additional information about the cost. It is currently estimated that there is 17.5 tons of lead flashing that will be generated during D&D at the FEMP. The lessons learned in this study will be beneficial to the FEMP in future recycling efforts.