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RESPONSE TO FERNALD CITIZENS TASK FORCE COMMENTS ON INTERMODAL TRANSPORT OF FERNALD WASTE

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DOE-FEMP DR WAGNER
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RESPONSE

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Dr. Thomas E. Wagner
Fernald Citizens Task Force
P.O. Box 544
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Dear Dr. Wagner:

RESPONSE TO FERNALD CITIZENS TASK FORCE COMMENTS ON INTERMODAL TRANSPORT OF FERNALD WASTE

Reference: Memo from Tom Wagner to Jack Craig, "Intermodal Transport of Fernald Waste," dated October 31, 1996.

Currently, approximately 50,000 cubic yards of Fernald Environmental Management Project (FEMP) waste material are scheduled to be shipped to the Nevada Test Site (NTS) for disposal. Over 60 percent of this waste material will be treated material from the remediation of residues in the Operable Unit 4 Silos 1, 2, and 3. As part of the recent evaluation of alternatives for Silo 3 residues, intermodal transport was evaluated against direct truck transport of waste. Since the majority of waste material going to the NTS will be comprised of treated material resulting from remediation of the residues in Silos 1, 2, and 3, the intermodal transportation evaluation conducted for the Silo 3 residues is being used as a representative basis for the transportation of other FEMP waste material scheduled for disposal at the NTS.

The following provides information regarding intermodal transport involving transfer at a point around the Envirocare's disposal facility in Utah for waste going to the NTS for final disposal. Initial discussions with Envirocare, Inc. have indicated an openness to discuss the capabilities of using their disposal facility as a transfer point for some Department of Energy (DOE) waste generated at Fernald. However, they have recently stated that they are not in the market of being a transfer station and had no interest in building a transfer station outside the confines of their facility. In addition, although Envirocare, Inc. has expressed an openness to discuss the capabilities of using Envirocare's disposal facility as a transfer station, based on current information available to DOE-FEMP, intermodal transport of waste to the NTS does not offer any risk or cost benefits.

As part of the evaluation of alternatives for Silo 3 residues, intermodal transport was evaluated against direct truck transport of waste. The comparison of transport options involved an evaluation of risks to workers and the public, as well as an evaluation of costs associated with both alternatives. The following table provides a comparison of the transportation risks of injuries and fatalities to the public and transportation workers of intermodal and direct truck shipments.

Comparison of Transportation Risks to Workers and the Public Resulting from Transport of Silo 3 Residues to the NTS

	Intermodal Shipments	Direct Truck Shipments
Public Injury	0.2	0.1
Public Fatality	0.04	0.01
Occupational Injury	0.09	0.05
Occupational Fatality	0.001	0.002

These values represent the estimated number of fatalities and injuries to occupational employees and the public resulting from potential accidents during transportation of cement stabilized Silo 3 residues from Fernald, Ohio to the NTS.

Direct truck shipments assume 2,160 containers of treated Silo 3 residues being shipped to the NTS with four containers per shipment resulting in 540 shipments. The total distance to the NTS by direct truck is estimated to be 2,065 miles. Intermodal shipments assumes the same 2,160 containers being shipped with four containers being placed in a Sea/Land container and three Sea/Land containers being placed on each railcar. Later, each Sea/Land container would be transferred to a truck for shipment to the NTS. Only four containers would be placed in a Sea/Land container due to weight limitations on truck shipments.

It is assumed that rail shipments of the stabilized Silo 3 residues would be added on to the Operable Unit 1 waste shipments going to Envirocare, Inc. It is assumed that nine rail shipments of 20 railcars each would be needed to ship treated Silo 3 residues. Rail shipments would go to Salt Lake City, Utah and from there each Sea/Land container would be transferred to truck for the remaining trip to the NTS. As with direct truck, 540 truck shipments would be needed for the final leg of the trip. The total distance to Salt Lake City, Utah by rail is estimated to be 2,000 miles and the total distance by truck to the NTS from Salt Lake City, Utah is estimated to be 500 miles.

Based on current information, the cost for direct truck shipments to the NTS is approximately $3,200 per shipment. A shipment by truck would consist of four containers for a total of 540 shipments and approximate cost of $1,728,000. In comparison, the cost for intermodal shipment to the NTS is approximately $3,750 per shipment. One intermodal

shipment consists of four containers in a Sea/Land container going from Fernald, Ohio to Salt Lake City, Utah by rail for approximately $2,580 and from Salt Lake City, Utah to the NTS by truck for $1,170. The total cost for intermodal shipments is estimated to be $2,025,000.

Truck shipments are still proposed to go to the NTS through Las Vegas, Nevada. Interstate 15 is a major artery that connects Salt Lake City, Utah and Los Angeles, California. Interstate 15 is maintained to keep it open to commercial traffic, that includes other hazardous materials shipped in commerce, traveling between Salt Lake City, Utah and Los Angeles, California. Although there are routes to the NTS that would avoid Las Vegas, Nevada, these alternate routes could present additional road hazards to the transporter, since these routes would not be maintained on the same level as Interstate 15.

The evaluation of intermodal transport of Silo 3 residues in Volume 1 of the "Draft Final Evaluation of Silo 3 Residues Alternatives," December 1996 report, and restated above, presents an adequate evaluation of intermodal transport of other potential wastes going to the NTS. It assumed the use of a transfer facility in Salt Lake City, Utah, because of the uncertainty regarding use of Envirocare, Inc. as a transfer facility. Due to the close proximity between Salt Lake City, Utah and Envirocare, Inc. there would be a minimal difference in risk and cost numbers for intermodal transport. DOE-FEMP will continue to evaluate the different transportation options as new information becomes available to resolve the safest transportation mode and route, as well as the most cost-effective means for transporting Silo 3 residues to an off-site disposal facility.

In addition, changing conditions over time will require that DOE-FEMP continue to revisit all options to determine the safest, most cost-effective means of transporting appropriate Fernald wastes to the NTS. Only recently, DOE-Nevada (DOE-NV) and DOE-FEMP have begun to consider conducting a pilot intermodal transport study for these wastes, with the possibility of incorporating a new transfer point much closer to the NTS. The basic approach would be to send waste containers from a currently approved waste stream (most likely construction rubble, which is already stored in International Shipping Organization containers) to the NTS via rail, using a transfer point in Nevada which has yet to be identified. Discussions concerning this potential pilot study are still in the earliest phases. Basic action items include the actual identification of a transfer point (to be provided by DOE-NV) and the development of an initial project plan, which would include a communications plan to deliver information to all affected stakeholders (to be provided by DOE-FEMP in joint cooperation with DOE-NV). Both parties are scheduled to examine the status of the action items during the week beginning February 3, 1997.

If you have any questions, please contact David Rast at (513) 648-3138.

Sincerely,

Jack R. Craig
Director

FEMP:Rast

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