

277

2-209.7  
1

**TRANSMITTAL OF RESPONSE TO COMMENTS FOR THE HAUL ROAD AND  
REROUTED NORTH ENTRANCE ROAD DESIGN CRITERIA PACKAGE**

**05/17/95**

**DOE-0916-96  
DOE-FN        EPAS  
11  
RESPONSES**



Department of Energy

Ohio Field Office  
Fernald Area Office

P. O. Box 538705  
Cincinnati, Ohio 45253-8705  
(513) 648-3155



MAY 17 1996

DOE-0916-96

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

Mr. Tom Schneider, Project Manager  
Ohio Environmental Protection Agency  
401 East 5th Street  
Dayton, Ohio 45402-2911

Dear Mr. Saric and Mr. Schneider:

**TRANSMITTAL OF RESPONSE TO COMMENTS FOR THE HAUL ROAD AND REROUTED  
NORTH ENTRANCE ROAD DESIGN CRITERIA PACKAGE**

The U.S. Department of Energy (U.S. DOE) is pleased to submit the enclosed Response to Comments for the Haul Road and Rerouted North Entrance Road Design Criteria Package. The enclosed comments response package details the U.S. Environmental Protection Agency (U.S. EPA) and the Ohio Environmental Protection Agency (OEPA) comments, the DOE response, and associated action needed.

If you have any questions regarding the enclosed documents, please contact Rod Warner at (513) 648-3156.

Sincerely,

Johnny W. Reising  
Fernald Remedial Action  
Project Manager

FN:Jalovec

Enclosure: As Stated

cc w/enc:

R. L. Nace, EM-423/GTN  
G. Jablonowski, USEPA-V, 5HRE-8J  
Manager, TPSS/DERR, OEPA-Columbus  
F. Bell, ATSDR  
D. S. Ward, GeoTrans  
R. Vandegrift, ODOH  
S. McLellan, PRC  
T. Hagen, FERMCO/65-2  
J. Harmon, FERMCO/90  
AR Coordinator/78

cc w/o enc:

J. Patterson, EM-423/GTN  
S. Peterman, DOE-FN  
J. Reising, DOE-FN  
R. Warner, DOE-FN  
S. Garland, FERMCO/52-2  
J. Jenkins, FERMCO/52-2  
C. Little, FERMCO/2  
N. Weatherup, FERMCO/52-2  
M. Yates, FERMCO/9



Commenting Organization: Ohio EPA  
Section #: 2.3.1 Pg. #: 2-11  
Original Specific Comment #: 2

Commentor: OFFO  
Line #: Code: C

Comment: The first two paragraphs on page 2-11 discussing the pavement design of the haul road and north entrance road seem to contradict the typical section category listed on page 2-8. For example, page 2-8 indicates that an aggregate sub-base will be used for both roads, yet according to the haul road specification on page 2-11, an aggregate sub-base will not be used. Also this same contradiction exists for the use of a non-woven geotextile. Page 2-8 claims it will be used for both roads, yet page 2-11 claims only the haul road will be constructed using non-woven geotextile. Is the use of geotextile even beneficial to be used since these roads are to be paved with bituminous asphalt. Please clarify.

Response: During establishment of the design objectives for the Haul Road design, DOE desired to minimize the road thickness by maximizing the use of asphalt in lieu of aggregate sub-base. This design objective is a result of the Haul Road being constructed in an area of the plant which is not conducive to "clean closure" (i.e., to FRLs) in advance of road construction. However, an aggregate gravel drainage layer was determined to be needed to mitigate frost/freeze heave. The Design Criteria Package will be clarified accordingly.

The geotextile is recommended to reduce the risk of cross contamination on the Haul Road, i.e., since the Haul Road is being constructed "dirty", the fabric separates the existing dirty soil in the controlled area from the sub-base material. In addition, the geofabric prevents fines from fouling the sub-base materials on both the Haul Road and Relocated North Entrance Road. Road maintenance costs are also expected to be significantly reduced as a result of enhanced subgrade performance.

Action: Revise Design Criteria page 2-11, second paragraph to state, "To reduce the risk of cross contamination, a non-woven geotextile will be used along with an aggregate sub-base."

TECHNICAL REVIEW COMMENTS ON THE PRELIMINARY DESIGN PACKAGE (30 PERCENT) FOR THE HAUL ROAD AND REROUTED NORTH ENTRANCE ROAD FERNALD ENVIRONMENTAL MANAGEMENT PROJECT, FERNALD, OHIO

SPECIFIC COMMENTS

DESIGN CRITERIA PACKAGE (DCP)

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 1.4 Pg. #: 1-5 Line #: NA Code: C
Original General Comment #: 1

Comment: Item No. 11 in this section states that an Operable Unit 5 (OU5) construction contractor will remove contaminated soil until remaining soil meets final remediation level (FRL) requirements before North Entrance Road area construction begins. The text further states that PARSONS will recommend locations for stockpiling contaminated soil and that disposal of the contaminated soil is beyond the scope of work for this project.

It is not sufficient to only state that an OU5 construction contractor will remove contaminated soil and that PARSONS' will recommend the stockpiling locations for contaminated soil. Approved OU5 and Removal Action 17 (RvA17) documents are available that outline procedures for soil removal and stockpiling activities. The text should be revised to state that contaminated soil removal activities to facilitate construction of the north entrance road will be completed under the provisions outlined in the final OU5 Record of Decision (ROD) dated January 1996. Any soil requiring removal will be managed under the provisions of the RvA 17 Work Plan, Revision 3. The DCP should also provide a schedule of contaminated soil removal activities in relation to the activities associated with the construction of the north entrance road.

Response: Agree with the exception that the OU5 Soil Remediation Project Remedial Action Work Plan; Area 1, Phase 1 (note: informal draft document submitted to EPA/OEPA April 1996) will be used as the mechanism to detail the location, size, and tentative removal schedule of interim soil stockpiles associated with the North Entrance Road.

Action: Revise to state: "Contaminated soil removal activities to facilitate construction of the north entrance road will be completed in advance of road construction under the provisions outlined in the final OU5 Record of Decision (ROD) dated January 1996 as further defined in the Final Soil Remediation Project Remedial Action Work Plan for Area 1, Phase 1. The location of the interim contaminated soil stockpile shall be coordinated with the design of the On-site Disposal Facility (OSDF) and shown on the appropriate OSDF and North Entrance design drawings.

FERMCO currently estimates that only the top 6 inches of soil is contaminated and subject to advance removal of subject construction."

Commenting Organization: U.S. EPA Commentor: Saric  
 Section #: 2.1.1 Pg. #: 2-1 Line #: N/A Code: C  
 Original Specific Comment #: 2

Comment: The text states that the "use of rock for base will be avoided to minimize contaminated rocks to be disposed of at the OSDF." The term "rock" should be defined. It is unclear whether this term includes the 3-inch diameter aggregate material proposed for use as subgrade or if it only refers to materials larger than the 3-inch diameter aggregate. Also, the use of "rock" is proposed in the construction specifications and is shown to be used in the haul road design. This statement should be revised to state that the use of "rock" will be "minimized" instead of "avoided."

Response: Agree. The correct description should be "aggregate base material". The ODOT Specifications define the required aggregate gradation.

Action: Revise Paragraph 2.1.1 to state "the use of aggregate base material shall be minimized since it will ultimately be placed in the OSDF".

Commenting Organization: U.S. EPA Commentor: Saric  
 Section #: 2.3.1 Pg. #: 2-11 Line #: NA Code:  
 Original Specific Comment #: 3

Comment: The text states that the haul road will consist of full depth bituminous pavement and that an aggregate base will not be used. The calculations and the drawings indicate that the top layer consists of 10.5 inches of asphalt concrete and that the layer below consists of a 3-inch thick aggregate base. This discrepancy should be resolved so that the text is consistent with all calculations and drawings.

Response: During establishment of the design objectives for the Haul Road design, DOE desired to minimize the road thickness by maximizing the use of asphalt in lieu of aggregate sub-base. This design objective is a result of the Haul Road being constructed in an area of the plant which is not conducive to "clean closure" (i.e., to FRLs) in advance of road construction. However, an aggregate gravel drainage layer was determined to be needed to mitigate frost/freeze heave. The Design Criteria Package will be clarified accordingly.

Action: Revise Design Criteria page 2-11, second paragraph to state, "To reduce the risk of cross contamination, a non-woven geotextile will be used along with an aggregate subbase."

Commenting Organization: U.S. EPA  
Section #: 2.3.1 Pg. #: 2-11  
Original Specific Comment #: 4

Commentor: Saric  
Line #: N/A Code: C

277

Comment: The excavation and disposal of contaminated materials section states that FERMCO or the "construction contractor," as appropriate, will (1) remove contaminated soil so that remaining soil meets FRLs and (2) stockpile the soil at a designated on-site area. The term "construction contractor" should be clarified. It is not clear whether the "OU5 construction contractor" referred in section 1.4, Page 1-4, of this document is referred to here or whether the haul road and north entrance contractor is referred to. In addition, the text should be revised to state that contaminated soil removal will be completed under provisions outlined in the final OU5 ROD dated January 1996 and that any soil removed will be managed under the provisions of RvA 17 Work Plan, - Revision 3.

Response: Agree with the exception that contaminated soil removal will be managed under the Final Soil Remediation Project Remedial Action Work Plan for Area 1, Phase 1 (informal draft document submitted to EPA/OEPA, April 1996).

Action: Revise to state: "Contaminated soils will be removed by OU5 in advance of North Entrance Road construction and completed under the provisions outlined in the final OU5 ROD dated January 1996. Contaminated soil removal will be managed under the Final Soil Remediation Project Remedial Action Work Plan for Area 1, Phase 1. Subsection 2.3.5 herein provides further discussion on soil management associated with road construction."

Commenting Organization: U.S. EPA  
Section #: 2.3.5 Pg. #: 2-16  
Original Specific Comment #: 5

Commentor: Saric  
Line #: NA Code:

Comment: The haul road soil remediation section states that the haul road is considered a temporary unit under the Resource Conservation and Recovery Act (RCRA) Corrective Action Management Unit (CAMU) rule because it will be located in a contaminated area and because it is to be removed after construction of the on-site disposal facility (OSDF). The text states that cleanup guidelines established in the RvA 17 Work Plan will apply. The text should be revised to also state the cleanup guidelines and procedures established in the final OU5 ROD dated January 1996 will also apply, and the reference to the RvA 17 Work Plan should be revised to specify that the RvA 17 Work Plan is Revision 3.

Response: Agree with the exception that subsequent haul road removal will be managed under the Soil Remediation Project Remedial Action Work Plans for Area 2, Phase II; Area 3; Area 6; and Area 7; as appropriate (see draft OU5 Remedial Design Work Plan for Remedial Actions at Operable Unit 5, April 1996).







## DESIGN AND CONSTRUCTION CALCULATIONS

Commenting Organization: U.S. EPA Commentor: Saric  
 Section #: Haul Road Pavement Design Sheet #: 1 of 2 Pg. #: Line #: Code:  
 Original Specific Comment #: 12

Comment: The calculations sheet refers the reader to Figure 701-12 and 701-13 to calculate the design structural number (SN). Figure 701-12, however, is missing from this report and without this figure, it is difficult to determine if the correct SN was selected to calculate the pavement thickness for the Haul Road. Figure 701-12 should be included in the next submittal.

Response: Agree. Figures 701-12 and 701-13 are a double sided document that did not get copied correctly.

Action: Ensure incorporation of both Figures at the draft final submittal.

Commenting Organization: U.S. EPA Commentor: Saric  
 Section #: 304-2000 Haul Road Aggregate Base Quantities Sheet #: 1 of 1 Line #: NA  
 Original Specific Comment #: 13

Comment: The aggregate base quantities for the haul road also include quantities for the aggregate shoulder. The two 5-foot wide shoulders are indicated in the calculations as having an aggregate depth of 10.5 inches. Drawing #G-00184 does not indicate an aggregate thickness for the shoulder (see Specific Comment #8), but the drawing would indicate a thickness of 13.5 inches for the aggregate, which is the combined depth of the 10.5 inch asphalt concrete base and the 3-inch aggregate base beneath the asphalt concrete. This discrepancy should be resolved so that the calculations are consistent with the drawings.

Response: Agree. Detailed estimated quantities shall be established with the draft final submittal and coordinated with the drawings.

Action: Ensure incorporation of estimated quantities into the draft final Design and Construction Calculations consistent with the drawings.