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**RESPONSES TO OPERABLE UNIT 4 REMEDIAL
INVESTIGATION REPORT ORIGINAL
COMMENTS #12, #13 AND #19**

10/28/93

**DOE-0182-94
DOE-FN/EPA
4
RESPONSES**



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Department of Energy
Fernald Environmental Management Project
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OCT 28 1993

DOE-0182-94

Mr. James A. Saric, Remedial Project Director
U.S. Environmental Protection Agency
Region V - 5HRE-8J
77 W. Jackson Boulevard
Chicago, Illinois 60604-3590

Mr. Graham E. Mitchell, Project Manager
Ohio Environmental Protection Agency
40 South Main Street
Dayton, Ohio 45402-2086

Dear Mr. Saric and Mr. Mitchell:

**RESPONSES TO OPERABLE UNIT 4 REMEDIAL INVESTIGATION REPORT ORIGINAL COMMENTS
#12, #13 AND #19**

The purpose of this letter is to confirm the Department of Energy's (DOE) understanding of the agreed upon approach for addressing three comments on the Operable Unit (OU) 4 Remedial Investigation (RI) Report (original comments 12, 13 and 19). These comments were discussed during the October 13, 1993 meeting between the DOE, the United States Environmental Protection Agency (U.S. EPA), Ohio Environmental Protection Agency (OEPA), and Fernald Environmental Restoration Management Corporation (FERMCO). A formal Comment Response Document which is currently being prepared to respond to all the U.S. EPA and OEPA comments, and will be submitted with the Final OU 4 RI on or before November 11, 1993.

In response to Original Comment #12: Regarding the use of surface area RME values, the DOE will provide additional text clarification in the summary and conclusions section. This section will be expanded to include text that will describe the risks as specifically related to the use of Central Tendency (CT) (mean) surface area values for dermal contact in the soil/sediments pathway. The text will include a comparative description of how the risk values would be affected if the RME values were used in the calculations. The DOE will provide the necessary calculations to include the RME risk values in the tables. All future documents will describe risks from dermal exposure using RME and CT values for skin surface area as provided in OSWER Directive 9285.6-03 and the EPA Dermal Exposure Assessment Report (January 1992) guidance documents.

In response to Original Comment #13: The OU 4 risk assessment protocol considers use of 480 mg/day as the prescribed parameter value for the occupational scenario. However, it is included in the average lifetime value for the on-site farmer scenario as part of the occupational age adjusted value. This scenario assumes the on-site farmer builds his own house (one time) and also farms the land. He receives a greater level of soil exposure; however, it occurs only once during home building. The additional occupational exposure level (480 mg/day) is included for the time period when the farmer plows and discs the soil prior to seeding and during harvest time. Accordingly, the occupational exposure is included in the on-site resident farmer's average lifetime exposure. The RI Report will provide additional text to explain this usage.

In response to Original Comment #19: DOE submitted a list of chemicals to the EPA, requesting oral and dermal efficiency values required to prepare the OU 4 RI. The DOE thanks and appreciates the Regional EPA Office efforts for their assistance in processing our request for these needed values. However, in response to our request, the ECAO office provided specific values for only part of the list of required oral and dermal efficiency values; the values received were used in the OU 4 RI risk calculations. However, ECAO did not provide any specific resource or guidance for deriving the other values. Therefore, the EPA guidance and recommendations were followed (RAGS Vol 1. HHE, Appendix A, pages 2 and 3). The list of chemicals submitted and the values which we received is attached.

If additional EPA guidance is not forthcoming or if ECAO values are unavailable, we will use available authoritative documents in accordance with RAGS guidance. Forthcoming ECAO values, if made available in a timely fashion, will be incorporated into the OU 2, OU 3, and OU 5 RIs.

The final OU 4 RI is currently being revised in accordance with the above understandings. Therefore, if you are in disagreement with our proposed resolutions or have any additional questions, please contact Randi Allen at (513) 648-3102, at your earliest convenience.

Sincerely,

Johnny Reising

for

J. R. Craig
Fernald Remedial Action
Project Manager

FN:Allen

Attachment: As Stated

cc w/att:

K. A. Chaney, EM-424, TREV
D. R. Kozlowski, EM-424 TREV
G. Jablonowski, USEPA-V, AT-18J
J. Kwasniewski, OEPA-Columbus
P. Harris, OEPA-Dayton
M. Proffitt, OEPA-Dayton
T. Schneider, OEPA-Dayton
J. Michaels, PRC
L. August, GeoTrans
K. L. Alkema, FERMC0
P. F. Clay, FERMC0/19
F. Bell, ATSDR
AR Coordinator, FERMC0

cc w/o att:

R. L. Glenn, Parsons
J. W. Thiesing, FERMC0/2

ATTACHMENT I

The total list of chemicals for which information was submitted is listed below. In July 1993, ECAO provided values for some chemicals in the original submitted list; these chemicals are in Item 1. ECAO indicated they did not undertake any additional research for the other chemicals; they are listed in Item 2.

Item 1: Chemicals for which oral and/or dermal information was received.

Acetone	Anthracene
Arsenic	Barium
Benz[a]anthracene	Benzo[a]pyrene
Benzo[b]fluoranthene	Beryllium
Bis(2-ethylhexyl)phthalate	2-Butanone
Cadmium	Carbon tetrachloride
Chrysene	Copper
Cyanide	DDT
Dibenzo[a,h]anthracene	Indeno[1,2,3-cd]pyrene
Manganese	Mercury
Nickel	

Item 2: Chemicals for which oral and/or dermal information is required.

Ammonia	Antimony
Boron	Cobalt
Fluoride	Manganese
Molybdenum	Phosphorous
Selenium	Thallium
Uranium	Vanadium
2-Hexanone	4-Methyl-2-pentanone
Methylene chloride	Tetrachloroethane
Acenaphthalene	Aldrin
Benzo (g,h,i) perylene	Benzoic acid
Bis-2-ethyl-hexyl-phthalate	Di-n-butyl phthalate
Di-n-octyl phthalate	Dimethyl phthalate
Fluoranthene	2-Nitrophenol
4-Nitrophenol	N-nitroso-di-n-propylamine
Pyrene	Tri-butyl-phosphate
PCB's	Dieldrin
Endosulfan	Endrin
Heptachlor epoxide	Diethyl phthalate.