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THORIUM/PLANT 9 COMPLEX IMPLEMENTATION PLAN

02/13/97

USEPA DOE-FEMP
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COMMENTS



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

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Feb 14 12 00 PM '97
6446.4

REPLY TO THE ATTENTION OF:

FEB 13 1997

Mr. Johnny W. Reising
United States Department of Energy
Feed Materials Production Center
P.O. Box 398705
Cincinnati, Ohio 45239-8705

SRF-5J

RE: Thorium/Plant 9
Complex Implementation
Plan

Dear Mr. Reising:

The United States Environmental Protection Agency (U.S. EPA) has completed its review of the United States Department of Energy's (U.S. DOE) draft Thorium/Plant 9 Complex implementation plan for above-grade Decontamination and Dismantlement (D and D).

Several deficiencies were noted during review of this implementation plan. The document provides insufficient detail regarding environmental monitoring activities, the reporting of environmental monitoring results, interim storage, and material tracking associated with the Thorium/Plant 9 Complex.

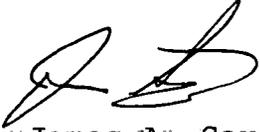
Therefore, U.S. EPA disapproves the Thorium/Plant 9 Complex implementation plan pending receipt of adequate responses to comments and a revised document incorporating those changes. U.S. DOE must submit responses to comments and a revised implementation plan within thirty (30) day receipt of this letter.

(murphy(a)
partial
action response
to doe-0376-97
(10223)

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Please contact me at (312) 886-0992 if you have any questions regarding this matter.

Sincerely,



James A. Saric
Remedial Project Manager
Federal Facilities Section
SFD Remedial Response Branch #2

Enclosure

cc: Tom Schneider, OEPA-SWDO
Jack Baublitz, U.S. DOE-HDQ
John Bradburne, FERMCO
Charles Little, FERMCO
Terry Hagen, FERMCO
Tom Walsh, FERMCO

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ENCLOSURE

TECHNICAL REVIEW COMMENTS ON THE "THORIUM/PLANT 9 COMPLEX
IMPLEMENTATION PLAN FOR ABOVE-GRADE DECONTAMINATION AND
DISMANTLEMENT"
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

GENERAL COMMENT

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 2.3.4 Page #: Not Applicable (NA) Line #: NA
Original General Comment #: 1

Comment: The text in this section provides information regarding material management associated with the Thorium/Plant 9 Complex. However, limited information is provided regarding the planned interim storage locations and planned duration of interim storage for the Thorium/Plant 9 Complex materials (see Original Specific Comment 9). The text also contains limited information on the tracking of Thorium/Plant 9 material before final disposition and the reporting of information on the material using the Sitewide Waste Information, Forecasting and Tracking System (SWIFTS) database (see Original Specific Comment 10). The text in this section should be revised to address these issues.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: 2.4 Page #: NA Line #: NA
Original General Comment #: 2

Comment: The Thorium/Plant 9 Complex implementation plan does not address how specific environmental monitoring results will be presented in the project completion report to be submitted for U.S. Environmental Protection Agency (U.S. EPA) review (see Original Specific Comment 11). The implementation plan also contains insufficient detail regarding environmental monitoring activities associated with decontamination and dismantlement (D&D) of the complex (see Original Specific Comment 12). The text in this section should be revised to address these issues.

Commenting Organization: U.S. EPA Commentor: Saric
Section #: NA Page #: NA Line #: NA
Original General Comment #: 3

Comment: The Thorium/Plant 9 Complex components discussed in the text and shown in the drawings in Appendix D do not clarify if any of the buildings to be demolished have basements. The text should be revised to clarify if any of the buildings have basements. If basements are present, the text should include plans for D&D activities associated with the basements. Information regarding sealing entrances to the basements should also be included. The issue of

basements should also be addressed in implementation plans for other complexes.

SPECIFIC COMMENTS

Commenting Organization: U.S. EPA
 Section #: 1.2 and Figure 1-1 Page #: 2
 Original Specific Comment #: 1
 Commentor: Saric
 Lines #: 20 - 22
 Comment: The text lists railroad tracks, process trailers, and pipe bridges as components of the Thorium/Plant 9 Complex. However, these components are not clearly shown in Figure 1-1. Figure 1-1 should be revised to show all components of the Thorium/Plant 9 Complex.

Commenting Organization: U.S. EPA
 Section #: 1.2 Page #: 3
 Original Specific Comment #: 2
 Commentor: Saric
 Lines #: 27, 28
 Comment: The text states that substantive changes in the scope or intent of the implementation plan will require U.S. EPA and Ohio Environmental Protection Agency (OEPA) notification and approval before implementation. However, the text does not clarify the type of change in the scope or intent of the implementation plan that can be considered substantive. The text should be revised to provide some examples of substantive changes in the scope or intent of the implementation plan.

Commenting Organization: U.S. EPA
 Section #: 1.4 Page #: 4
 Original Specific Comment #: 3
 Commentor: Saric
 Line #: NA
 Comment: Section 1.4 ends on Page 4, which is followed by Figure 1-1 and Page 7, indicating that Page 6 is missing. The document should be revised to include the missing page.

Commenting Organization: U.S. EPA
 Figure 1-1 Page #: 5
 Original Specific Comment #: 4
 Commentor: Saric
 Line #: NA
 Comment: Figure 1-1 shows a site plan of the Thorium/Plant 9 Complex. Area F-3 of Figure 1-1 shows a cylindrical shed near the southwest corner of Building 9A and a building entitled "Building 9E" south of the southwest corner of Building 9A. However, the list of Thorium/Plant 9 Complex components on Page 2, Line 11, lists "Building 9E - Plant 9 Cylinder Shed," indicating that Building 9E and the cylindrical shed are the same. Either the text or Figure 1-1 should be revised to resolve this discrepancy.

Commenting Organization: U.S. EPA
 Figure 1-1 Page #: 5
 Original Specific Comment #: 5
 Commentor: Saric
 Line #: NA

Comment: Area F-3 of Figure 1-1 shows a structure entitled "Tank Curb & Stairs" that is to be demolished. However, this structure is not listed on Page 2 as a component of the Thorium/Plant 9 Complex. Either the text or figure should be revised to resolve this discrepancy.

Commenting Organization: U.S. EPA
 Section #: 2.1
 Original Specific Comment #: 6

Commentor: Saric
 Line #: NA

Page #: 7

Comment: Section 2.1 discusses the remediation sequence.

However, the sequence for remediating general components of the Thorium/Plant 9 Complex, such as the railroad tracks and process trailers, is not discussed in Section 2.1. Section 2.1 should be revised to include the remediation sequence for general components of the Thorium/Plant 9 Complex.

Commenting Organization: U.S. EPA
 Section #: 2.3.2
 Original Specific Comment #: 7

Commentor: Saric
 Lines #: 13, 14

Page #: 11

Comment: The text states that water used for dust suppression will be disposed of in the storm sewer. The dust-containing water may be considered a hazardous or radioactive waste, depending on the concentrations of contaminants adsorbed onto the dust particles. The text should be revised to provide more detail regarding the management of the dust-containing water.

Commenting Organization: U.S. EPA
 Section #: 2.3.4
 Original Specific Comment #: 8

Commentor: Saric
 Lines #: 6 - 8

Page #: 13

Comment: The text indicates that the locations of satellite accumulation areas (SAA) for hazardous wastes are to be determined. Because SAAs for hazardous wastes can be potential sources of contamination, their locations and construction details should be included in the revised implementation plan for U.S. EPA review.

Commenting Organization: U.S. EPA
 Section #: 2.3.4
 Original Specific Comment #: 9

Commentor: Saric
 Lines #: 1 - 4

Page #: 17

Comment: The text states that the Plant 1 storage pad, other existing storage pads, and foundations of dismantled buildings will be used for interim storage of Thorium/Plant 9 Complex material. The text should be revised to specifically identify the locations to be used for interim storage of the Thorium/Plant 9 Complex material and the expected duration of interim storage for the material.

Commenting Organization: U.S. EPA
 Section #: 2.3.4

Commentor: Saric
 Lines #: NA

Page #: NA

Original Specific Comment #: 10

Comment: The text in this section provides limited information on the tracking of Thorium/Plant 9 material before final disposition and the reporting of information on the material using the Sitewide Waste Information, Forecasting and Tracking System (SWIFTS) database. The text in this section should be revised to address this issue.

Commenting Organization: U.S. EPA

Commentor: Saric

Section #: 2.4

Page #: 17

Lines #: 1 - 4

Original Specific Comment #: 11

Comment: The text in this section provides information regarding environmental monitoring activities to be conducted as part of the Thorium/Plant 9 Complex D&D project. The text provides no information regarding how results of environmental monitoring activities will be incorporated in the project completion report to be submitted for U.S. EPA review. The text in this section should be revised to provide this information.

Commenting Organization: U.S. EPA

Commentor: Saric

Section #: 2.4

Page #: 17

Lines #: 19 - 21

Original Specific Comment #: 12

Comment: The text states that Thorium/Plant 9 Complex surface water and groundwater monitoring is addressed in the Operable Unit (OU) 3 Integrated Remedial Design/Remedial Action (RD/RA) Work Plan. No additional information is provided regarding surface water and groundwater monitoring for the D&D of this complex. The text should be revised to provide detailed information regarding monitoring activities that will be conducted to ensure that the generation and management of wash water, wastewater, and storm water do not adversely impact groundwater and nearby surface water.

Section #: 2.4

Page #: 17

Lines #: 21 - 24

Original Specific Comment #: 13

Comment: The text refers to the current site-wide air monitoring program as it is discussed in Section 3.6.2.1 of the OU 3 Integrated RD/RA Work Plan. The current site-wide air monitoring program is undergoing review and modification and the changes will be incorporated in the revised Integrated Environmental Monitoring Plan to be submitted for U.S. EPA review in the near future. The text should be revised to address this issue.

Commenting Organization: U.S. EPA

Commentor: Saric

Section #: 2.4

Page #: 18

Lines #: 1 - 9

Original Specific Comment #: 14

Comment: The text states that computer modeling results of potential emissions from the Thorium/Plant 9 Complex area were used to determine the location of maximally exposed individuals. However, the text does not provide details

concerning the computer modeling, nor does it refer to a document that contains such details. The implementation plan should be revised to either provide computer modeling details or to refer to a document that contains such details.

Commenting Organization: U.S. EPA
Section #: 2.4
Original Specific Comment #: 15

Commentor: Saric
Page #: 18
Lines #: 10 and 11

Comment: The text states that five optimal project emissions receptor locations were identified for supplemental air monitoring. However, the text does not discuss the basis for selecting these locations. The text should be revised to provide justification for the locations selected.

Commenting Organization: U.S. EPA
Section #: 2.4
Original Specific Comment #: 16

Commentor: Saric
Page #: 18
Lines #: 11 - 15

Comment: The test data collected from the Plant 1, 4, and 7 Complex Phase I D & D projects provide justification for selecting only five supplemental air monitoring locations. However, the text does not include the actual data, nature and method of data analysis, analysis results or a reference to a document containing such information. The implementation plan should be revised to either summarize this information or provide a reference to at least one document containing such information.

Commenting Organization: U.S. EPA
Section #: 2.4
Original Specific Comment #: 17

Commentor: Saric
Page #: 18
Lines #: 15 - 26

Comment: The text provides information regarding air sampling activities associated with the D&D of the Thorium/Plant 9 Complex. The text seems to imply that total suspended particulate samples will be collected and analyzed for total uranium. The text should be revised to confirm the type of samples to be collected, provide the complete list of parameters to be analyzed for, and justify the use of total uranium as the indicator parameter.

Commenting Organization: U.S. EPA
Section #: 2.4
Original Specific Comment #: 17

Commentor: Saric
Page #: 18
Lines #: 22 - 26

Comment: Line 22 states that the supplemental air monitors will be operated continuously. However, the text does not specify the total duration of supplemental air monitoring, including the monitoring period before remediation begins (referred to as the "representative period" in Line 24. The text should be revised to provide the total and background supplemental air monitoring durations.

Commenting Organization: U.S. EPA

Commentor: Saric

Figure 2-1 Page #: 19 Line #: NA
 Original Specific Comment #: 18
 Comment: Figure 2-1 shows the proposed supplemental air monitoring locations for the Thorium/Plant 9 Complex. Figure 2-1 shows that no air monitoring location is present along the western side of the Thorium/Plant 9 Complex. The implementation plan should be revised to explain why no air monitors will be located along the western side of the Thorium/Plant 9 Complex.

Commenting Organization: U.S. EPA Commentor: Saric
 Section #: 2.4 Page #: 20 Lines #: 2 - 6
 Original Specific Comment #: 19
 Comment: The text states that if radiological levels from 4 consecutive weeks of air monitoring are at least twice as high as baseline levels, D&D activities will be reviewed to determine the effectiveness of engineering controls during remediation. The text should be revised to explain the rationale behind this criterion. In addition, if radiological levels are detected at least twice as high as baseline levels for 4 consecutive weeks, the text should be revised to clarify the timeframe associated with evaluating the effectiveness of engineering controls.

Commenting Organization: U.S. EPA Commentor: Saric
 Appendix A Page #: A-1 Lines #: 19 and 20
 Original Specific Comment #: 20
 Comment: The text refers to "Those sampled for total Uranium and U-235." The text is incomplete and should be revised.

Commenting Organization: U.S. EPA Commentor: Saric
 Appendix D Page #: Figure D-2 Lines #: NA
 Original Specific Comment #: 21
 Comment: Figure D-2 identifies the buildings and structures to be demolished with a cross-hatched pattern. Building 9E, a gas cylinder storage shed located south of Building 9D, is not identified as a structure that will be demolished. The figure should be revised to include a cross-hatched pattern for Building 9E.