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**SUBMITTAL OF THE DRAFT FINAL BOILER PLANT/WATER PLANT
IMPLEMENTATION PLAN AND COMMENT RESPONSE - (DRAFT FINAL PLA
LOCATED IN 3-402.11, ONLY RESPONSES LOCATED WITHIN THIS
DOCUMENT)**

12/04/96

DOE-0264-97
DOE-FEMP EPAS
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RESPONSES

**Department of Energy****Ohio Field Office
Fernald Area Office****P. O. Box 538705
Cincinnati, Ohio 45253-8705
(513) 648-3155****DEC 04 1996****DOE-0264-97**

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

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

Dear Mr. Saric and Mr. Schneider:

**SUBMITTAL OF THE DRAFT FINAL BOILER PLANT/WATER PLANT IMPLEMENTATION PLAN
AND COMMENT RESPONSE**

The purpose of this letter is to transmit to the U.S. Environmental Protection Agency (U.S. EPA) and the Ohio Environmental Protection Agency (OEPA) the enclosed version of the Draft Final Boiler Plant/Water Plant (BP/WP) Implementation Plan for Above-Grade Decontamination and Dismantlement and comment response.

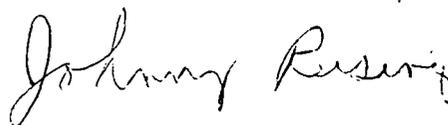
As discussed during our November 19, 1996, conference call, the Draft Final BP/WP Implementation Plan has been developed based on the Remedial Design/Remedial Action (RD/RA) Work Plan for Interim Remedial Action (March 1995). Therefore, it addresses demolition and interim storage and does not specifically include an analysis of the final disposition options. The final disposition decisions for the BP/WP waste materials will be developed and implemented consistent with the Operable Unit 3 (OU3) Integrated RD/RA Work Plan, which you are currently reviewing for approval. Furthermore, the activities outlined in the Implementation Plan will be competitively bid and performance based. Consequently, details on demolition techniques and methods will be provided for the Department of Energy (DOE) approval after contract award by the bidder selected.

Several changes have been made to the BP/WP Implementation Plan from the original draft.
The Draft Final Boiler Plant/Water Plant Implementation Plan:

- incorporates revisions resulting from comment resolution;
- includes a copy of the BP/WP D&D specifications as supplied in the bid package;
- incorporates a revised project schedule, also in the bid package; and,
- Includes text revisions reflecting readability enhancements, incorporation of additional details, and the latest information available on the project.

If you have questions or comments concerning this document, please contact John Trygier at (513) 648-3154.

Sincerely,



Johnny W. Reising
Fernald Remedial Action
Project Manager

FEMP:Yockman

Enclosure: As stated

cc w/enc:

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Responses to General U.S. EPA Comments on the
Draft OU3 Boiler Plant/Water Plant Complex Implementation Plan

General Comment #1

As above-grade dismantlement of many buildings and other structures will occur, the text should discuss the demolition procedures to be used. In addition, detailed demolition drawings with applicable specifications should be submitted for review by U.S. Environmental Protection Agency (U.S. EPA).

Response: Sections 3.3.5 and 3.3.6 of the Operable Unit 3 (OU3) Remedial Design/Remedial Action (RD/RA) Work Plan for Interim Remedial Action (Final, March 1995) discuss the strategies for implementing decontamination and dismantlement (D&D) methods. The remediation subcontractor is required to adhere to performance-based D&D specifications in planning project-specific D&D methods. As discussed in Section 4.5 of the OU3 RD/RA Work Plan for Interim Remedial Action, detailed demolition procedures, including applicable drawings, are prepared by the subcontractor pursuant to the performance specifications and submitted to DOE for approval. This occurs subsequent to approval of the project-specific implementation plan. Please note that, based on U.S. EPA's Specific Comment #1, the generic performance specifications have been included in Appendix B of the Boiler Plant/Water Plant (BP/WP) Complex Implementation Plan and will also be included within the OU3 Integrated RD/RA Work Plan (Draft, November 1996).

General Comment #2

The text should specify that asbestos removal activities will be managed under the provisions of Removal Action No. 26.

Response: Removal Action (RvA) 26 is the governing guideline for asbestos removal activities at the FEMP. Specification Section 01516 incorporates and discusses the implementation of applicable requirements of RvA 26 that the remediation subcontractor must meet (including certifications, notifications, and plans) to perform asbestos removals. This information has been incorporated into Section 2.5.4, as requested.

**Responses to Specific U.S. EPA Comments on the
Draft OU3 Boiler Plant/Water Plant Complex Implementation Plan**

Specific Comment #1

Section 1.2, Page 3, Lines 11-12. The text states that "the performance specifications developed for the BP/WP Complex are identical to the performance specifications included in the OU3 RD/RA Work Plan." However, some differences exist between these specifications. The following specifications listed in the Boiler Plant/Water Plant (BP/WP) Complex Implementation Plan are not included in the Operable Unit 3 (OU3) Remedial Design/Remedial Action (RD/RA) Work Plan:

- 01518 *Surface Removal of Concrete*
- 04225 *Masonry Removal*

Also, only the table of contents for the performance specification is included in the BP/WP Complex implementation plan. The specifications themselves should be submitted for review by U.S. EPA.

Response: Agree. The current version of the generic performance specifications have been added to Appendix B of the BP/WP Complex Implementation Plan. The text in Section 1.2 has been modified to read "The BP/WP Complex remedial design has been prepared using performance-based specifications as described in Section 4.5 of the OU3 RD/RA Work Plan. These performance specifications, included in Appendix B of this implementation plan, meet the remedial objectives stated in the IROD [i.e., the OU3 Record of Decision for Interim Remedial Action] and were used as the basis for developing the remediation approach presented in this document." Section 01518 (Surface Removal of Concrete) is the only generic specification that is not applicable to this project and has, therefore, not been included in Appendix B.

Specific Comment #2

Section 1.2, Page 3, Line 12. The text states that "the performance specifications are included in Appendix B of the OU3 RD/RA Work Plan." However, the performance specifications are located in Appendix C of the OU3 RD/RA Work Plan. The text should be revised accordingly.

Response: As discussed in the response to Specific Comment #1, the text in Section 1.2 has been modified to specifically refer to Appendix B of the BP/WP Complex Implementation Plan.

Responses to Specific U.S. EPA Comments on the
Draft OU3 Boiler Plant/Water Plant Complex Implementation Plan

Specific Comment #3

Section 2.3.2, Page 11, Lines 22-25. *The text states that "since the BP/WP Complex was not a uranium production facility, nor was it ever used as a warehouse for nuclear material, it is anticipated that all demolition debris generated from this project will be eligible for either free release/recycling or placement in the on-site disposal facility (OSDF)." The text should discuss how the particular method of disposal for the demolition debris will be determined.*

Response: Final disposition decisions for OU3 materials have been issued in the OU3 Record of Decision (ROD) for Final Remedial Action. However, since the submittal of the draft BP/WP Complex Implementation Plan preceded the development and submittal of the draft OU3 Integrated RD/RA Work Plan, the BP/WP Complex Implementation Plan was developed in accordance with the existing OU3 RD/RA Work Plan for Interim Remedial Action. In other words, the scope of this implementation plan was limited to OU3 interim remedial action activities (namely decontamination and dismantlement) and excluded OU3 final remedial action activities (namely disposition), similar to the approach used for the Building 4A Implementation Plan and the Plant 1 (Phase I) Implementation Plan.

Currently, DOE is applying the "Decision Methodology for Fernald Scrap Metal Disposition Alternatives" to Category A materials (i.e., structural steel) generated during the D&D of Building 4A. This application is designed to result in a determination of the most appropriate way to disposition the steel (e.g., decontaminate to free-release levels, recycle, on-site disposal, off-site disposal, etc.). The disposition decision for BP/WP structural steel will be based on a disposition methodology evaluation similar to that employed for Building 4A. This decision will be noted in the Project Completion Report, with prior consultation with the Agencies.

A discussion has been added to Section 2.3.5 that states "Since the BP/WP Complex is located inside the radiologically controlled area, all of the material is considered to be radiologically contaminated until proven otherwise using DOE Order 5400.5 free-release standards. The FEMP will take the necessary measures to track and segregate this material to facilitate any potential for free release, recycling, or reuse. For example, Accessible Metals (structural steel) from the BP/WP Complex will not be commingled with metals from other D&D projects while in interim storage in case the decision to recycle or reuse the metal

**Responses to Specific U.S. EPA Comments on the
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ultimately results from implementing the OU3 final remedial action in accordance with the OU3 Integrated RD/RA Work Plan, once approved."

A discussion has also been added to Section 2.5.6 that states "Although a recycling contract does not yet exist for the materials to be generated from this project, potentially recyclable materials will be handled in a manner compatible with recycling until final disposition decisions can be made for these materials. It should be emphasized that recycling of materials may still be employed at a later phase in the project. In the event that recycling is identified as the preferred disposition alternative for BP/WP accessible metals, material dismantlement and sizing requirements within the subcontract would be modified accordingly to ensure that materials are properly prepared for recycling."

Although the quoted sentence may be applicable to some primary materials (e.g., Category A metals), it is not applicable to secondary wastes and has, therefore, been deleted from Section 2.3.2.

Specific Comment #4

Section 4.0, Page 41, Line 5. The phrase "inadequate funding" should be revised to read "adequate funding."

Response: Agree. The text has been revised accordingly.

Specific Comment #5

Section 4.0, Page 42. The remediation schedule in Figure 4.1 shows a start date of February 13, 1997, for dismantlement of the BP/WP Complex. This date is less than 4 months from now, and the plan and specifications still must be submitted for review by U.S. EPA. Therefore, the schedule should be revised to reflect a more realistic start date (see General Comment #1).

Response: See the response to General Comment 1. Additionally, the schedule has been revised to reflect current anticipated project dates.

Responses to Specific U.S. EPA Comments on the
Draft OU3 Boiler Plant/Water Plant Complex Implementation Plan

Specific Comment #6

Appendix B, Page B-1, Lines 3-4. The text states that "the performance specifications listed on the following page identifies Revision 3 to the specifications that were prepared during the remedial design of the BP/WP Complex." However, the performance specifications indicated identify Revision 1, not Revision 3. This discrepancy should be resolved.

Response: Agree. As discussed in the response to Specific Comment #1, the revised D&D performance specifications associated with the BP/WP Complex have been added to Appendix B and will be submitted to the U.S. EPA and Ohio EPA for their review and approval as part of the OU3 Integrated RD/RA Work Plan.

Specific Comment #7

Appendix B, Page B-3. Demolition and applicable site work specifications should be listed in the table of contents and included with the performance specifications (see General Comment #1).

In addition, the following items should be considered for applicable performance specifications and included in Appendix B:

- *Lead base coating*
- *Air emissions*
- *Waste disposal treatment*
- *Waste disposal disposition*

Response: As discussed in the response to Specific Comment #1, the revised D&D performance specifications associated with the BP/WP Complex have been incorporated into Appendix B.

In regard to the suggestion to incorporate additional generic performance specifications, concerns related to lead-based coatings are covered by various subparts within several different specifications. For example, Section 05126 (Structural Steel Dismantlement), Section 15065 (Equipment Dismantlement), and Section 15066 (Interior Dismantlement) all include a requirement that states: "Prior to torch-cutting any material that has a lead-based coating, an 8-inch strip of paint shall be removed at the area of the cut." Section 05126 also requires that "lead-based paint chips and debris, released during structural steel

**Responses to Specific U.S. EPA Comments on the
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dismantlement, shall be collected and managed in accordance with Section 01120 [Debris/Waste Handling Criteria] of this specification package."

The requirements for controlling air emissions are primarily contained in Section 15067 (Ventilation and Containment), but are also scattered throughout other sections. For example, Section 01517 (Removing/Fixing Radiological Contamination) requires that "the Subcontractor shall maintain the integrity of the local containment or building enclosure until contamination has been removed and/or fixed within the levels identified in this Specification Section and the Radiological Requirements Plan."

Waste treatment and disposition are addressed in two ways. The responsibilities of the remediation Subcontractor, as they pertain to waste handling, are discussed in Section 01120, which specifically addresses waste handling requirements for segregation, containerization, and interim storage as required under the OU3 RD/RA Work Plan for Interim Remedial Action. Final treatment and disposition activities are not within the scope of the remediation subcontract and are, therefore, not addressed in project performance specifications. Rather, once approved, the OU3 Integrated RD/RA Work Plan will govern the final treatment and disposition of OU3 materials.

Specific Comment #8

Appendix C, Page C-1. An index of 22 design drawings is shown on Page C-1. These drawings are designated in the index as Figures C-1 through C-22. However, these figure numbers are not shown on the drawings. The appropriate figure number should be placed on each drawing. Also, demolition drawings should be included rather than the old construction drawings.

Response: Figure numbers and page numbers have been placed on the construction drawings in Appendix C. For response to demolition versus construction drawings, please see the response to General Comment #1.

Responses to Ohio EPA Comments on the
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Comment #1

Section 2.2, Page 8, Line 20. Please provide additional clarification within the text as to why concrete samples which exceed 20 times the TCLP level for chromium are not to be classified as RCRA material.

Response: As requested, the following clarified discussion has been incorporated into Section 2.2: "In addition to localized radiological contamination, inorganic contamination was found in some components. The highest levels of contamination found in concrete and masonry media was chromium. Two concrete samples from the Boiler Plant exceeded 20 times the TCLP level for chromium. However, the leachate rate of chromium in a concrete matrix was demonstrated to be less than four percent (refer to Table A.II-4 in the OU3 RI/FS Report). These characterization samples were collected during the remedial investigation phase of the OU3 final remediation. As noted in the OU3 RI/FS Report, these samples were taken from "hot spots" and were not representative of the actual waste stream, but rather offered a worst case scenario for decision-making purposes. Based on the very conservative nature of the sampling program and the low leach rate of chromium from concrete, the waste stream would be well below the standards to qualify as a RCRA material. Therefore, this concrete will not be handled as a RCRA material."

Comment #2

Section 2.2, Page 9, Line 5. Please explain in further detail why the majority of the equipment and structures will be managed as containing lead based paint, yet steel with lead based paint (page 8, line 25) will not be managed as such.

Response: Please note that the text states that equipment and steel with lead-based paint will not be considered a **RCRA material** (emphasis added). However, due to concerns with potential lead exposure, all painted surfaces will be dismantled and managed as lead-based to assure that there are no worker exposures to airborne lead.

The text within Section 2.2 has been modified for clarity to read: "Based on the information from the OU3 RI/FS Report, paint from painted surfaces within the components of the BP/WP Complex was screened for lead using a portable X-ray fluorescence analyzer. Fifty-five

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samples were taken from surfaces in the Boiler Plant (10A) and 12 samples were taken from surfaces in the Water Plant (20B). The results of the XRF survey indicate that the majority of the equipment and structures in these two buildings have been painted with lead-based paint. As a result, all painted surfaces will be dismantled and handled as lead-based to aid in controlling worker lead exposures. For example, in order to minimize airborne lead exposure to workers, the D&D performance specifications require that at least an 8-inch wide band of paint must be removed prior to torch cutting. Although lead-based paint has associated health concerns, equipment and steel with lead-base paint do not exhibit the toxicity characteristic under RCRA. Therefore, these painted materials are not considered to be RCRA materials (refer to Section 2.6.2 of Attachment A.III, Appendix A of the OU3 RI/FS Report)."

Comment #3

General. The OU3 ROD identified the Implementation Plans as the mechanism to appraise and evaluate new technologies for recycle and reuse of OU3 materials generated from D&D activities. It was Ohio EPA's understanding that the Implementation Plans would contain a specific section that would summarize these efforts. It was also our understanding that the draft Decision Methodology for Fernald Scrap Metal Disposition Alternatives would be incorporated into this section. Please incorporate these commitments into the revised document.

Response: As discussed in the response to U.S. EPA's Specific Comment #3, since the submittal of the draft BP/WP Complex Implementation Plan preceded the development and submittal of the draft OU3 Integrated RD/RA Work Plan, the BP/WP Complex Implementation Plan was developed in accordance with the existing OU3 RD/RA Work Plan for Interim Remedial Action. In other words, the scope of this implementation plan was limited to OU3 interim remedial action activities (namely D&D), similar to the approach used for the Building 4A Implementation Plan and the Plant 1 (Phase I) Implementation Plan.

Once the OU3 Integrated RD/RA Work Plan is approved, subsequent implementation plans would contain the results of applying the "Decision Methodology for Fernald Scrap Metal Disposition Alternatives." As appropriate (where cost and/or safety improvements are expected), new technologies and/or disposition alternatives would be included in the evaluation.

Responses to Ohio EPA Comments on the
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Comment #4

Section 2.3.4, Page 16. In light of general comment #3 above, please elaborate on the storage methods that will be used to segregate uncontaminated materials from this complex from contaminated materials from other D&D actions. The very general description of storage in this section does not appear to prevent the contamination or mingling of clean Boiler Plant/Water Plant materials from other materials on the storage pads.

Response: As stated in the response to U.S. EPA's Specific Comment #3, the following discussion has been incorporated into Section 2.3.5: "Since the BP/WP Complex is located inside the radiologically controlled area, all of the material is considered to be radiologically contaminated until proven otherwise using DOE Order 5400.5 free-release standards. The FEMP will take the necessary measures to track and segregate this material to facilitate any potential for free release, recycling, or reuse. For example, Accessible Metals (structural steel) from the BP/WP Complex will not be commingled with metals from other D&D projects while in interim storage in case the decision to recycle or reuse the metal ultimately results from implementing the OU3 final remedial action in accordance with the OU3 Integrated RD/RA Work Plan, once approved."

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