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 Richland Operations Office
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0068679

JAN 19 2006

06-AMCP-0061

Ms. Jane A. Hedges
 Cleanup Section Manager
 Nuclear Waste Program
 State of Washington
 Department of Ecology
 3100 Port of Benton Boulevard
 Richland, Washington 99354

RECEIVED
 FEB 22 2006
 EDMC

Dear Ms. Hedges:

ACTION MEMORANDUM AND RESPONSIVENESS SUMMARY FOR THE 224-T
 PLUTONIUM CONCENTRATION FACILITY ENGINEERING EVALUATION/COST
 ANALYSIS

Thank you for your comments on the Engineering Evaluation/Cost Analysis for the 224-T
 Plutonium Concentration Facility. Responses to those comments are enclosed. Also enclosed is
 a copy of the Action Memorandum and the Responsiveness Summary that addresses the
 comments received during the public comment period.

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Due to a focus on higher priority cleanups, the Tri-Parties agreed to put off the implementation of
 the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) non-
 time critical removal action for the 224-T Facility. Therefore, since the CERCLA removal action
 is on hold, high priority was not given to responding immediately to the comments on the
 EE/CA.

If there are any questions, please contact me, or you may contact Matt McCormick, Assistant
 Manager for the Central Plateau, on (509) 373-9971.

Sincerely,

Keith A. Klein
 Manager

AMCP:LDR

Enclosures

cc: See Page 2

Ms. Jane A. Hedges
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cc w/encls:

G. Bohnee, NPT

F. W. Bond, Ecology

N. Ceto, EPA

L. D. Crass, FHI

L. J. Cusack, Ecology

S. Harris, CTUIR

R. Jim, YN

T. M. Martin, HAB

R. D. Morrison, FHI

K. Niles, ODOE

R. E. Piippo, FHI

M. A. Wilson, Ecology

B. K. Wise, FHI

Administrative Record

Environmental Portal

**ACTION MEMORANDUM AND RESPONSIVENESS SUMMARY FOR THE 224-T PLUTONIUM
CONCENTRATION FACILITY ENGINEERING EVALUATION/COST ANALYSIS
COMMENT RESPONSES**

Comment 1: The State of Washington Department of Ecology (Ecology) has reviewed the "Engineering Evaluation/Cost Analysis (EE/CA) for the 224-T Plutonium Concentration Facility, DOE/RL-2003-62, Revision 1." Based on our thorough review, the following issues still need to be addressed in the EE/CA:

The EE/CA does not adequately address activities that will be performed in preparation for the removal action (e.g., facility characterization).

Response to Comment 1: Characterization activities will be performed in accordance with Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) requirements. A Data Quality Objectives (DQO) process was performed for the 224-T removal action, and Ecology representatives were involved in that process. The DQO process identifies such key factors as contaminants of concern, number of samples required to adequately characterize, and locations where samples should be taken. The results of that process will be incorporated into a sampling and analysis plan that will undergo review and approval by regulatory authorities.

Comment 2: Some portions of the Transuranic Waste Storage and Assay Facility (TRUSAF) (hot cells, pipe gallery, tanks, centrifuges, etc.) have not been adequately characterized to determine if they contain dangerous waste.

Response to Comment 2: The 224-T Facility including the TRUSAF will be characterized in accordance with the DQO and the Sampling and Analysis Plan (SAP) as described above. (For clarification, the hot cells, pipe gallery, tanks, centrifuges, etc., are not a part of TRUSAF.)

Comment 3: Because TRUSAF operated as a Resource Conservation and Recovery Act (RCRA) treatment, storage and disposal (TSD) facility, a closure plan must be prepared and submitted to Ecology for approval. Attachment 1 does not comply with the Washington Administrative Code (WAC) 173-303-610(3) requirements for a closure plan.

Response to Comment 3: You are correct that TRUSAF is a RCRA unit. In accordance with precedent set by other CERCLA actions taken at the Hanford Site implementing guidance in DOE/RL-98-28, and pursuant to the Hanford Federal Facility Agreement and Consent Order, the Tri-Parties (DOE, Ecology, and U.S. Environmental Protection Agency [EPA]) agreed to integrate the requirements of RCRA and CERCLA for CERCLA response actions taken at Hanford. The closure plan has been updated and is consistent with WAC 173-303-610 and the Hanford Facility RCRA Permit requirements for a closure plan. However, in the Action Memorandum (AM) for the Non-Time-Critical Removal Action for the 224-T Plutonium Concentration Facility (DOE/RL-2004-68), Attachment 1 (TRUSAF RCRA Closure Plan) was removed. A CERCLA removal action will be taken that also will satisfy the requirements of the RCRA Closure Plan. After the CERCLA action is complete, RCRA closure will be evaluated and certified per WAC 173-610(6)

Comment 4: Since environmental sampling to assess whether cleanup and stabilization objectives have been achieved will be conducted in conjunction with, or following, decontamination and demolition activities, Chapter 173-340 of the Washington Administrative Code must be added as an applicable or relevant and appropriate requirement to Section 5.0 and Table 5-1.

Response to Comment 4: Soil remediation is not within the scope of this removal action, therefore WAC-173-340 is not an applicable or relevant and appropriate requirement (ARAR). However, Section 8.0 of the Action Memorandum for the Non-Time-Critical Removal Action for the 224-T Plutonium Concentration Facility (DOE/RL-2004-68) states, "if the sampling results are above industrial clean-up standards, then a work plan addendum to identify follow-on actions will be negotiated between DOE, Ecology and EPA. These actions may include no further action, performing additional removal, or deferring to a later remedial action." Evaluation of WAC 173-340 as an ARAR will take place during these follow-on negotiations.

Comment 5: Since TRUSAF is a RCRA TSD facility, Section 6.0 should include Ecology as a decision maker for the deferral of any cleanup activities to a subsequent Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) remedial action. The Fact Sheet "Next Steps for the 224-T Plutonium Concentration Facility" notes that Ecology will be a decision maker in future cleanup actions.

Response to Comment 5: Ecology is a decision maker in this process, as well as EPA and DOE. In Section 8.0 of the Action Memorandum for the Non-Time-Critical Removal Action for the 224-T Plutonium Concentration Facility (DOE/RL-2004-68), the language was changed to include Ecology: "If the sampling results are above industrial clean-up standards, then a work plan addendum to identify follow-on actions will be negotiated between DOE, Ecology and EPA."

Comment 6: If remaining contamination will be left in place, characterization of residual contamination in below-grade structures and soil should be more adequately addressed for verification of existing risk assumptions. Any characterization or verification that will be used for regulatory purposes should be documented in a sampling and analysis plan and must be approved by Ecology.

Response to Comment 6: Characterization activities will be performed in accordance with CERCLA requirements. A DQO process was performed for the 224-T removal action, and Ecology representatives were involved in that process. The DQO process identifies such key factors as contaminants of concern, number of samples required to adequately characterize, and locations where samples should be taken. The results of that process will be incorporated into a sampling and analysis plan that will undergo review and approval by regulatory authorities.

Comment 7: Underground process piping still connects 224-T to T-Plant. The EE/CA does not address isolation of the TRUSAF from surrounding above-grade and below-grade structures.

Methods to terminate water infiltration into below-grade structures should be addressed (i.e., liquid collection in hot cells).

Response to Comment 7: As agreed to by the agencies, the specific details of the removal action process will be addressed in the Removal Action Work Plan, which will be approved by Ecology (the lead regulatory agency). Further actions will be based on the decision negotiated by the agencies as specified in Section 8.0 of the 224-T AM.

Comment 8: The Fact Sheet for this EE/CA stated that this document is a Draft; therefore, Ecology requests that these issues be addressed in the final EE/CA.

Response to Comment 8: The Fact Sheet inadvertently referred to the EE/CA as draft, which was not the case. Ecology representatives reviewed the EE/CA prior to public comment. The 224-T AM was drafted in a manner that addressed significant comments.

RESPONSIVENESS SUMMARY

Introduction

The purpose of this Responsiveness Summary is to summarize and respond to public comments on the Engineering Evaluation/Cost Analysis (EE/CA) for the 224-T Plutonium Concentration Facility. The EE/CA was provided for public comment on January 12, 2004.

The Tri-Parties announced the issuance of the EE/CA in the Tri-Cities Herald. A 45-day public comment period was held during which time the public had the opportunity to read, review and submit comments on the 224-T EE/CA. There were no requests for a public meeting; therefore, no public meeting was held. The document evaluates the alternatives for a non-time critical removal action for the 224-T facility under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

Public Involvement

A newspaper ad was placed in the Tri-City Herald on January 11, 2004, announcing the availability of the 224-T EE/CA and the start of the public comment period.

Approximately twelve hundred copies of a fact sheet describing the EE/CA were mailed out or sent electronically. A public comment period was held from January 12 through February 26, 2004. No requests were received for a public meeting. No public meeting was held.

Comments and Responses

Three commenters provided public comment. The comments, along with the responses from the agencies are presented below.

COMMENTER:

Ken Niles
Oregon Department of Energy
Salem, Oregon

Comment 1: We appreciate the opportunity to provide comments on the proposed action. Our recommendations on the 224-T facility EE/CA mirror those for the 224-B facility EE/CA that you recently issued. Both facilities were operated similarly, and have similar issues.

We believe the EE/CA provides a reasonable path forward for the 224-T facility. You have proposed alternative 3 (decontamination and decommissioning to slab). We believe, however, that alternative 4 (complete removal to one meter below the structure) is a better choice. The projected costs between the two alternatives differ by less than 12 percent. This is within the error margin for the estimates. This also does not account for costs that will be incurred later when DOE finishes remediation of the area. If the work is not completed now, DOE will bear the increased costs for remobilizing to do the work later. This will likely increase the total cost at completion for alternative 3, possibly making alternative 4 the less expensive of the two. We urge you to reconsider and select alternative 4.

Response to Comment 1: Thank you for your interest in the 224-T Engineering Evaluation/Cost Analysis (EE/CA). As noted in Section 6.0 of the EE/CA, implementation of Alternatives 3 and 4 will provide comparable long-term protection to human health and the environment, assuming there is not significant radiological inventory located in the foundation. Alternative 3 would leave the stabilized slab in place, which would isolate any potential subsurface contamination. Section 6.0 of the EE/CA identifies Alternative 3 as the preferred alternative. However, it also states that environmental sampling will be performed as a part of this removal action to determine whether the cleanup and stabilization objectives have been met. Following analysis of these samples, the U.S. Department of Energy (DOE), the State of Washington Department of Ecology (Ecology) and the U.S. Environmental Protection Agency (EPA) will jointly determine whether additional cleanup activities should be undertaken as a part of this or some future remedial action.

Comment 2: Just as with the 224-B EE/CA, there is an error on page 4-1 of the EE/CA. In the last full paragraph, the document asserts that the Environmental Restoration Disposal Facility (ERDF) is eligible to receive Resource Conservation and Recovery Act (RCRA) waste. It is not. ERDF includes a liner similar to those used in RCRA facilities. This makes ERDF a lined CERCLA waste facility, not a RCRA waste facility. ERDF is not subject to the State regulatory requirements and accordingly is not licensed or authorized to accept RCRA wastes. The impact of this is minimal as the mixed wastes can be disposed in the RCRA licensed mixed waste disposal facility at Hanford.

Response to Comment 2: The last full paragraph of page 4-1 of the EE/CA states that the "ERDF is an engineered structure designed to meet RCRA minimum technological requirements." The text was not intended to assert that ERDF (Environmental Restoration Disposal Facility) is eligible to receive RCRA (Resource Conservation and Recovery Act) waste. Because the wastes from this action are Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) hazardous substances, they are eligible for disposal in ERDF.

Comment 3: We previously requested clarification on the legal definition of transuranic waste in our comments on the 232-Z EE/CA, noting that the DOE Orders related to transuranic waste were not promulgated. We continue to await your reply on that question. The 224-B, 232-Z and the 224-T EE/CAs should all be modified to reflect that answer.

Response to Comment 3: As stated in our 232-Z EE/CA response to this comment, waste generated by this project containing less than 100 nanocuries per gram of transuranic isotopes will be managed as low-level, radioactive waste and disposed of at ERDF in accordance with the provisions of that facility's waste acceptance criteria.

COMMENTER:

John and Pam Bigas
Seattle, Washington

Comment 1: I support Alternative #4 decontaminate and demolish including building foundation and underlying soils/structures to approximately 39 inches below the foundation. This would provide the public and Washington residents the least amount of poison and the closest to a before this 224-T facility was built condition.

Thank you for this great honor to be considered in your decision.

Response to Comment 1: Thank you for your interest in the 224-T EE/CA. As noted in

Section 6.0 of the EE/CA, implementation of Alternatives 3 and 4 will provide comparable long-term protection to human health and the environment, assuming there is not significant radiological inventory located in the foundation. Alternative 3 would leave the stabilized slab in place, which would isolate any potential subsurface contamination. Section 6.0 of the EE/CA identifies Alternative 3 as the preferred alternative. However, it also states that environmental sampling will be performed as a part of this removal action to determine whether the cleanup and stabilization objectives have been met. Following analyses of these samples, DOE, Ecology and EPA will jointly determine whether additional cleanup activities should be undertaken as a part of this or some future remedial action.

COMMENTER:

Calvin Rinne
Richland, Washington

Comment 1: The preferred alternative seems reasonable to me.

Response to Comment 1: Thank you. We appreciate your interest in the 224-T Facility EE/CA.