



U.S. Department of Energy  
Office of Inspector General  
Office of Audit Services

# Audit Report

## Transuranic Waste Retrieval and Processing at the Hanford Site

DOE/IG-0624

October 2003



## Department of Energy

Washington, DC 20585

October 23, 2003

MEMORANDUM FOR THE SECRETARY

FROM:

*Greg Friedman*  
Gregory H. Friedman  
Inspector General

SUBJECT:

INFORMATION: Audit Report on "Transuranic Waste Retrieval and Processing at the Hanford Site"

### BACKGROUND

Over many years of operation, plutonium production at the Department of Energy's Hanford Site generated massive amounts of hazardous and radioactive solid wastes. Much of the site's solid wastes are transuranic (TRU) wastes, a synthetic by-product of the nuclear weapons program that remains radioactive for thousands of years. Hanford's inventory of unprocessed TRU waste currently consists of about 38,000 containers, many of which are buried in shallow trenches. The Department established several milestones for retrieval and processing Hanford's TRU waste. These milestones, contained either in the formal compliance agreement with the State of Washington and the U.S. Environmental Protection Agency or in the Hanford Performance Plan, include the following:

- By the end of Fiscal Year 2004, retrieve about 10,000 containers of TRU waste currently buried in a trench onsite; and,
- By 2015, process and ship all 38,000 containers of legacy TRU waste to the Department's Waste Isolation Pilot Plant.

The objective of the audit was to determine if the Department was retrieving and processing its TRU waste at the Hanford Site in an expeditious and cost-effective manner.

### RESULTS OF AUDIT

We found that the Department faces significant challenges in its efforts to retrieve and process TRU waste at the Hanford Site. Specifically, as of July 2003:

- None of the nearly 10,000 containers had been retrieved. In fact, the Department faced substantial technical challenges to its retrieval schedule, including the identification of carbon tetrachloride under Trench 4 and the need to hire and train additional personnel; and,



- In total, only 6,700 containers had been processed. The audit disclosed that in its first four years of operation, the facility processed an average of less than 1,300 containers per year. At the current rate of processing, only a little more than half of the legacy TRU waste will be prepared for shipment by 2015.

The Department's milestones were in jeopardy because Richland had not placed sufficient emphasis on retrieving and processing projects. This was exemplified by the fact that Richland had not established what we considered to be an achievable TRU waste retrieval plan. Similarly, although the Department had performed several cost studies for various waste receiving and processing scenarios, it had not performed a comprehensive study to determine obtainable retrieval rates and optimal processing levels needed to meet, at minimal cost, regulatory milestones and cleanup goals.

Department managers, recognizing the problem, had initiated actions to increase both retrieval and processing rates. Yet, in our judgment, more needs to be done. Consequently, the report includes recommendations to assist Department officials in assuring that Hanford's TRU Waste Processing Program successfully meets its objectives.

#### MANAGEMENT REACTION

The Assistant Secretary for Environmental Management generally concurred with our finding and agreed that significant issues must be resolved, particularly with respect to integrating the TRU waste retrieval, processing, and shipping schedules to meet agreed on milestones. However, she noted that more urgent environmental matters had taken priority, including stabilizing plutonium materials and removing spent nuclear fuel from water-filled basins adjacent to the Columbia River. The Assistant Secretary stressed that actions, which will address our recommendations are ongoing. Management's response is included as Appendix 3.

Attachment

cc: Deputy Secretary  
Under Secretary for Energy, Science and Environment  
Assistant Secretary for Environmental Management  
Manager, Richland Operations Office

# TRANSURANIC WASTE RETRIEVAL AND PROCESSING AT THE HANFORD SITE

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# PROJECT MANAGEMENT

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## Background

In 1996, the Department of Energy (Department) amended its Tri-Party Agreement with the Environmental Protection Agency and the State of Washington regarding cleanup of the Hanford Site. Included in the amendment was an enforceable milestone that the Department would remove about 10,000 containers of transuranic (TRU) waste from Trench 4, located in Hanford's Low-Level Burial Grounds, by the end of Fiscal Year (FY) 2004. The Richland Operations Office established a related goal to process and ship all of the site's legacy TRU waste – estimated at about 38,000 containers – to the Waste Isolation Pilot Plant (WIPP) by 2027.

In 2002, the Office of Environmental Management began a program to accelerate risk reduction and cleanup across the Department complex. As part of this program, Environmental Management developed performance management plans with each site to identify specific initiatives and deadlines for accelerating risk reduction. In August 2002, the Richland Operations Office issued its *Hanford Performance Management Plan*, and revised its performance goal for processing and shipping TRU waste to WIPP from 2027 to 2015.

## TRU Waste Retrieval and Processing

The Department faces significant challenges in its efforts to retrieve and process TRU waste at the Hanford Site. As of July 2003, none of the TRU waste containers had been removed from Trench 4. Previous plans called for the removal of 1,200 containers in FY 2002 and 2,000 containers in FY 2003. While Richland anticipates eventually being able to ramp up its retrieval effort to 7,000 containers annually, even at that rate, the milestone will not be met.

Required steps for retrieval of TRU waste containers were identified in the 2002 *Transuranic Waste Retrieval Project Execution Plan*. This document specified a number of actions that would need to be taken in order for the milestone to be met, including the need to hire and train additional staff, perhaps as many as 20 individuals. Some or all of the new hires will require several months' training in the technical aspects of waste retrieval. To further complicate the retrieval process, a high level of hazardous carbon tetrachloride, recently identified under Trench 4, has created additional concerns that must be resolved before the waste can be removed. Richland estimates this could delay retrieval up to seven months. As the milestone approaches, dealing with unexpected contingencies, such as the carbon tetrachloride concern,

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become more difficult. The Richland Operations Office Manager stated that, in addition to these concerns, a number of issues including renegotiating the milestones must be resolved before a definitive retrieval rate can be identified and achieved.

Also, the audit disclosed that the Waste Retrieval and Processing (WRAP) facility, the facility intended to process TRU waste, has operated at significantly less than full capacity. According to the May 2002 *WRAP Final Safety Analysis Report*, the facility was designed to receive and process up to 3,400 containers of TRU waste and 3,400 containers of low-level waste annually. However, in its first 4 years of operation, the facility processed an average of less than 1,300 containers of TRU waste per year, and processing for FY 2003 is expected to increase only slightly. In fact, only about 6,700 containers have been processed through the WRAP facility since FY 1999, including 1,579 through the first 8 months of FY 2003. At this rate, Richland will process about 20,000 containers by 2015, well short of its 38,000-container goal.

Environmental Management personnel stated that the WRAP was not capable of processing TRU waste at or near its design capacity due to the additional time required for repackaging and visually examining wastes in heat-sealed bags at the Hanford Site. However, they were not able to estimate WRAP's actual capacity. While we recognize that the heat-sealed bags required additional processing time, based on our review of WRAP processing rates and staffing levels and discussions with Richland personnel, we concluded that WRAP is capable of processing substantially more than 1,300 containers per year.

The Department has initiated a plan to accelerate WRAP processing rates, beginning in FY 2004, to meet the 2015 milestone. During the audit, the low-level waste processing line was being converted to a TRU waste processing line to allow more TRU waste to be processed. Further, processing will be accelerated with the help of onsite mobile units to perform three major characterization activities: non-destructive assay, headspace gas sampling, and real-time radiography. Management determined that the mobile units would be more economical for these activities based on FY 2003 cost estimates. Also, mobile units are funded through the Carlsbad Field Office's budget rather than Richland's budget. Thus, the use of mobile units would allow Richland to use more of its funds for other waste processing activities, such as prescreening

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and repackaging. The first mobile unit arrived at the Hanford Site in June 2003 and could be certified for operations by December 2003. Richland plans to characterize about 4,000 drums of waste per year using the first mobile unit.

If WRAP is operated at full capacity, using both lines to process TRU waste, attainment of the 2015 goal is possible. However, as noted, significant issues must be resolved before definitive retrieval rates can be identified.

## **Funding and Cost Analyses**

Richland has never fully funded its TRU waste retrieval and processing projects. For example, in FY 2002, funding for the TRU waste retrieval project was reduced from about \$2.5 million to about \$1.6 million. Also, funding for the WRAP facility project was reduced from about \$15 million in FY 2001 to about \$10 million in FY 2002. In FY 2003, funding for the TRU retrieval project was increased to \$10 million to reflect the new acceleration goal, while funding for the WRAP facility remained at about \$10 million. As a result of budget cuts, WRAP staffing declined from 72.5 full-time equivalents in FY 2000 to 62 in FY 2003. Richland estimates that 146 full-time equivalents would be required to operate the facility at full capacity. Funding for the projects was reduced to provide more funds for the Plutonium Finishing Plant and Spent Nuclear Fuels Projects. While the Office of Inspector General recognizes that there are many competing priorities for limited cleanup funds, Richland now faces the possibility that the regulatory milestone for TRU waste retrieval will be missed.

Further, the Department has not performed sufficient analysis to determine the optimal operating levels for the WRAP Facility to meet cleanup milestones and minimize total project costs. To its credit, the Department has performed several studies of waste characterization activities and determined that mobile units could be used to perform some of these activities more economically than the WRAP. While these studies will assist the Department in reducing overall project costs, additional analysis is needed to determine optimal retrieval rates or processing levels to meet cleanup milestones at minimum costs. Until waste retrieval rates are established, the Department cannot determine optimal processing levels or determine the number of additional personnel needed to operate the facility. Without such an analysis, the Department cannot be assured that the WRAP facility and the mobile units will be used cost-effectively. Also, until waste retrieval rates are established, it may be premature for the Department to deploy mobile facilities at the Hanford Site.

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**Missed Milestones and Costs**

If Richland cannot meet the Tri-Party Agreement milestone to retrieve almost 10,000 containers of TRU waste, resulting fines could be as much as \$5,000 for the first week and \$10,000 for every week thereafter until the waste is retrieved. Also, if the WRAP facility continues to operate at its current level, Richland is not likely to meet its performance plan goal to ship all legacy, contact-handled TRU waste to WIPP by 2015. It should be noted that in May 2003, a U.S. District Judge ruled that the Department must halt shipments of TRU waste to the Hanford Site from out-of-state sites until all litigation regarding TRU waste is resolved. This could impact those Department sites planning to ship waste to the Hanford Site.

Further, the current operating plan results in unnecessary waste-storage costs. Because the WRAP facility has been underutilized, unprocessed containers of waste have been stored at the Central Waste Complex. As of April 2003, the inventory of unprocessed containers totaled about 4,000. The cost of storing unprocessed containers totaled about \$1.5 million between FYs 1999 and 2002, and FY 2003 costs are estimated to be about \$413,000.

**RECOMMENDATIONS**

We recommend that the Manager, Richland Operations Office:

1. Develop a definitive plan for expeditious TRU waste retrieval; and,
2. After a retrieval plan is developed and approved, obtain an analysis to determine optimal operating levels and staffing for the WRAP facility to meet cleanup goals and minimize total project costs.

We recommend that the Assistant Secretary for Environmental Management:

3. Approach the State of Washington about renegotiating the Tri-Party Agreement milestone based on attainable milestones established in the new retrieval plan (from Recommendation 1 above);
4. Obtain a cost-benefit analysis to determine the most economical use of the WRAP facility and mobile units to characterize waste at optimal operating levels; and,
5. Work with Richland to ensure that revised plans for TRU waste retrieval and processing are funded sufficiently to achieve



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## MANAGEMENT REACTION

milestones and goals.

Management generally concurred with our finding and agreed that significant issues must be resolved, particularly with respect to integrating the TRU waste retrieval, processing and shipping schedules to meet agreed on milestones. More specifically, management stated that the Department will:

- Prepare a revised plan for TRU waste retrieval;
- Reexamine the operations of the WRAP facility once a waste retrieval plan is developed and approved;
- Complete two ongoing studies of waste characterization costs at various sites versus using mobile processing units; and
- Ensure that adequate resources are applied to achieve the negotiated milestones and goals.

With regard to the recommendation to renegotiate the Tri-Party agreement milestones, management indicated that the Trench 4 retrieval milestone has been under negotiation with the Washington State Department of Ecology and the Environmental Protection Agency for several years. More specifically, the Tri-Party Agreement agencies are converging on an interim progress milestone that would require the removal of more than 20,000 containers from various Hanford trenches by the end of FY 2006, thereby accelerating the retrieval of contact-handled TRU waste. Environmental Management views these actions as sufficient to satisfy the audit recommendation.

Management also indicated that they had completed a cost study on the use of mobile units for TRU waste processing and had commissioned for the completion of another study on waste characterization costs. No further actions are planned with regard to recommendation 4.

Management's verbatim comments can be found in Appendix 3 of this report.

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**AUDITOR COMMENTS**

Management's comments are responsive to the intent of the report's recommendations.

The Office of Inspector General recognizes that the Department has been engaged in negotiations with the State of Washington, and we understand that negotiated changes to retrieval milestones are a part of those discussions. As detailed in the report, however, achievement of the existing 2004 milestone is unlikely, in part, because the Department did not have a detailed plan for retrieval. In our judgment, it would be prudent for Department managers to develop such a plan – to include realistic retrieval rates – prior to agreeing to a new milestone.

### PRIOR AUDIT REPORTS

- *Planned Characterization Capability at the Waste Isolation Pilot Plant (DOE/IG-0577, December 2002)*. The report identified that the planned waste characterization capability at WIPP is unlikely to expedite the removal of waste or save costs to the extent of management's estimates. In fact, our analysis disclosed that of the 26 sites with contact-handled TRU waste, the vast majority would not benefit from the centralized capability. Although the Department contended that additional characterization capabilities would inherently speed up the waste disposal process it did not perform a complete analysis to demonstrate where and how efficiencies would be gained. Without such an analysis the Department risks investing time and resources in an unnecessary capability, ultimately delaying cleanup, increasing costs, and creating new health and safety concerns.
- *Utilization of the Department's Low-Level Waste Disposal Facilities (DOE/IG-0505, May 2001)*. This report identified that the Department did not adequately utilize existing low-level waste disposal capacity at the Hanford Site or Nevada Test Site because it did not have a comprehensive approach to maximize waste disposal. As a result, the Department did not realize the maximum benefit from its \$30 million investment for low-level waste disposal operations at Hanford and Nevada.
- *Planned Waste Shipments to the Waste Isolation Pilot Plant (WR-B-99-06, August 1999)*. The audit identified planned schedules were based on the generator sites securing full funding, but the largest sites anticipated funding at approximately 75 percent. Thus, there is no assurance that WIPP will be able to close by the dates cited in the Management Plan unless the generator sites receive full funding. Such closure delays will probably result in increased costs for the generator sites and for WIPP.
- *Waste Incineration at the Oak Ridge Reservation (DOE/IG-0451, August 1999)*. The audit concluded that the Department did not operate the incinerator at the capacity permitted or the attainable capacity. The incinerator operated at between 10 and 20 percent of its permitted capacity from FY 1996 to FY 1998. The incinerator operated below capacity because: it was designed to treat more waste than was planned for, the contractor had to balance all the priorities to meet Site Treatment Plan milestones delaying characterization of waste to be incinerated, and the State of Tennessee placed greater restrictions on the incineration of waste received from other states until local waste was disposed of.

## Appendix 1 (continued)

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- *Waste Incineration at the Savannah River Site (DOE/IG-0453, October 1999).* The audit identified that the incinerator was not operating at its permitted capacity. The incinerator was operating at about 8 percent of capacity and planned to operate at no more than 32 percent of capacity. There were three causes for operating at a low capacity including: the incinerator was designed and permitted to treat more waste than that available at SRS, there was a slow start-up to operating the incinerator, and the amount of incinerable waste was limited because of RCRA Land Disposal Restriction regulations.
- *Waste Incineration at the Idaho National Engineering and Environmental Laboratory (DOE/IG-0454, December 1999).* The audit concluded that the Department did not operate the incinerator at the capacity permitted or at the attainable capacity. The incinerator operated between 15 percent and 27 percent of permitted capacity and at between 24 percent and 44 percent of attainable capacity. The incinerator operated below capacity because downtime between runs of the incinerator was high and prioritization of funding to meet Site Treatment Plan milestones delayed segregation and characterization of waste to be incinerated.

## Appendix 2

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### OBJECTIVE

The objective of the audit was to determine if the Department was retrieving and processing its TRU waste at the Hanford Site in an expeditious and cost-effective manner.

### SCOPE

The audit was performed between October 9, 2002, and July 16, 2003, at the Hanford Site in Richland, Washington. We reviewed the activities associated with the retrieval and processing of TRU waste and the utilization of the Waste Receiving and Processing facility from October 1999 through March 2003. The audit identified a material internal control weakness that management should consider when preparing its yearend assurance memorandum on internal controls.

### METHODOLOGY

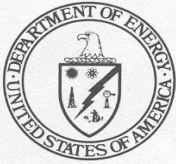
To accomplish the audit objective, we:

- Researched applicable Federal and Departmental regulations;
- Reviewed prior audit reports related to the audit objective;
- Toured the WRAP facility;
- Identified regulatory milestones and cleanup goals established for retrieval and processing of TRU waste at the Hanford Site;
- Reviewed budget, cost, and performance data for the WRAP facility during FYs 1999 through 2002;
- Compared WRAP's actual processing levels to its design capacity;
- Evaluated results of internal Department studies regarding TRU waste characterization processes and costs; and,
- Estimated potential costs associated with missed milestones and unnecessary storage of unprocessed waste.

The audit was conducted in accordance with generally accepted Government auditing standards for performance audits and included tests of internal controls and compliance with laws and regulations to the extent necessary to satisfy the audit objective. Accordingly, we assessed internal controls and performance measures established under the *Government Performance and Results Act of 1993* related to the Department's management and operation of the WRAP facility.

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We held an exit conference with the Associate Deputy Assistant Secretary for Integration and Disposition, Office of Environmental Management on September 30, 2003.



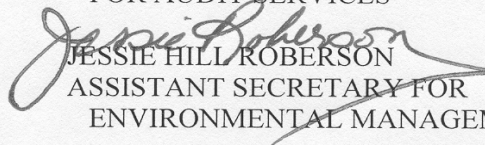
## Department of Energy

Washington, DC 20585

September 10, 2003

MEMORANDUM FOR FREDERICK D. DOGGETT  
ASSISTANT INSPECTOR GENERAL  
FOR AUDIT SERVICES

FROM:

  
JESSIE HILL ROBERSON  
ASSISTANT SECRETARY FOR  
ENVIRONMENTAL MANAGEMENT

SUBJECT: Draft Audit Report: Transuranic Waste Retrieval and  
Processing at the Hanford Site

Your August 18, 2003, memorandum requested review and comment on the subject draft report by the Office of Environmental Management prepared by the Office of Inspector General (IG). The draft report on transuranic (TRU) waste at the Hanford Site makes an honest attempt at portraying the complexities of the Department's TRU waste retrieval and processing work – with an eye toward improving cost efficiency for the DOE complex and ensuring that applicable Tri-Party Agreement (TPA) compliance milestones are met. The Department appreciates the IG focus on those two key elements – efficiency and effectiveness – and echoes its commitment to achieving them. We agree that significant issues must be resolved, particularly with respect to integrating the TRU waste retrieval, processing and shipping schedules to meet agreed on milestones. However, an accurate evaluation of our approach to this work requires an understanding of not only what the Department has done in the past, but what is being done today and is planned for the future of this critical program at Hanford.

The draft report focuses first on the existence of a TPA milestone signed by the Department, Washington State Department of Ecology, and the Environmental Protection Agency in 1996 as a first attempt to delineate a start of TRU waste retrieval. That milestone requires 10,000 drums of TRU waste to be retrieved by the end of FY04. The draft report points out that none of these 10,000 containers has yet been retrieved and it is doubtful that the milestone can be achieved. In fact, no milestones have been missed to date, and revisions to the milestones to complete retrieval by the end of FY04 have been under negotiation for over two years. Those negotiations were consistent with efforts to ensure milestones were realigned with schedules and priorities agreed to with the regulators as part of discussions on the Hanford Project Management Plan.

The draft report correctly notes that the start of TRU waste retrieval and processing has not been our number one priority. More urgent environmental matters have taken priority, including stabilizing plutonium materials and removing spent nuclear fuel from the two water-filled basins adjacent to the Columbia River. We have also thought it prudent to not begin TRU waste retrieval in earnest until we had worked through with the State of Washington a



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## Appendix 3 (continued)

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number of substantive issues that will have a bearing on our operations. These issues include: what waste (if any) can be left in the ground; the level of characterization required; unanswered questions about total cost; attempts to minimize risk to workers; and the overlap of Washington Administrative Code requirements and the federal requirements for disposal of TRU waste at the Waste Isolation Pilot Plant. Given this tangle of regulatory, technical, safety, legal, and even political issues, we have had to be very deliberate in our approach.

The fact is that the milestones pertaining to TRU waste, part of a diverse series covering Hanford solid waste, have been in negotiations between the TPA agencies for three years, and we have recently been converging on an agreement that requires the removal of more than 20,000 containers by the end of FY06 as an interim progress milestone, but more importantly, accelerates the retrieval of contact-handled TRU waste. This change aligns the retrieval milestone with our Hanford Performance Management Plan and is imminently achievable given the progress made in this area to date – including retrieving 1,400 containers from Hanford trenches, completing and approving the safety analysis for full-scale retrieval work, and assigning additional resources to the retrieval project, both contractor and Federal staff. We expect to complete a readiness review to commence retrieval in September 2003 and begin full-scale operations the following month.

As your report notes, the Department has moved from 2027 to 2015 the deadline for having all legacy TRU waste (about 38,000 containers) processed and shipped to WIPP. That acceleration may seem at odds with what would appear to be a delay in the start of retrieval. Our cleanup contractor has, however, been studying resource plans and has found efficiency and productivity benefits from redeploying certain categories of workers that will be winding down spent fuel and plutonium stabilization in FY04 to TRU waste activities. Needed resources will be applied to this project (and others in waste management) as the work gets better defined and the issues, identified above, are resolved.

The final audit report should properly refer recommendations #1 and #3 to the Manager of the Richland Operations Office rather than to me as in the draft report. We are generally in agreement with your recommendations as indicated in our responses to the draft audit report recommendations below:

Recommendation 1: Develop a definitive plan for expeditious TRU waste retrieval.

Response: We agree with the IG that there have been major changes in our program to accelerate the disposal of TRU waste at Hanford, as well as other sites, and integration and refinement are necessary to achieve efficiency. Pending the outcome of negotiations to establish new TPA milestones for TRU waste retrieval, the Department will prepare a revised plan for TRU waste retrieval, and provide



## Appendix 3 (continued)

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direction to site contractors to implement the new milestones. The Richland Operations Office will forward this plan to the IG staff when complete.

Recommendation 2: Based on the definitive plan, approach the State of Washington about renegotiating the Tri-Party Agreement milestone accordingly.

Response: The negotiation of the TPA and current litigation are ongoing efforts to develop an acceptable, achievable, and cost effective program. Milestones for starting and accelerating retrieval, which replace the milestone referenced in the draft report, have been under negotiation with the regulators for the past several years and an informal agreement was reached, but will not be formally in place until the parties sign the proposed settlement agreement. This information was shared with the IG auditors during their review, including the proposed retrieval schedule and milestones. For these reasons there is no additional action required to satisfy recommendation #2.

Recommendation 3: After a retrieval plan is developed and approved, obtain an analysis to determine optimal operating levels and staffing for the WRAP Facility to meet cleanup goals and minimize total project costs.

Response: As noted in the response to Recommendation #1, we agree that once a revised retrieval plan is developed and approved that the Hanford site should reexamine the operations of the WRAP Facility. The Richland Operations Office will provide the results of this evaluation to the IG staff by mid-FY04.

Recommendation 4: Obtain a cost-benefit analysis to determine the most economical use of the WRAP Facility and mobile units to characterize waste at optimal operating levels.

Response: A cost study has been done on the use of mobile units with a comparison to site characterization, including the use of the Waste Receiving and Processing (WRAP) Facility. This analysis was provided to the IG auditors. By using both the mobile processing units provided under the National TRU Waste Program and the on-site WRAP facility, Hanford should be well equipped to optimize throughput for certification of TRU waste shipped to the WIPP. The mobile units bring the most experienced

## Appendix 3 (continued)

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workforce, standardized equipment and procedures, and a proven track record for getting the job done safely. Hanford's WRAP facility provides for needed rework and visual examination capability to complete the suite of characterization needed for WIPP disposal. The Department's ability to meet its commitments and achieve the PMP acceleration depends on both these resources being used in concert.

As a further check on ensuring the greatest efficiency for the taxpayers we have commissioned the Center for Acquisition and Business Excellence at the National Energy Technology Laboratory to conduct two studies of waste characterization costs at various sites versus using mobile processing units for other purposes including the National Academy of Sciences review of TRU waste characterization activities. These ongoing efforts are looking at the costs in the areas the IG has highlighted and are sufficient. No further action is required on recommendation #4.

Recommendation 5: Work with Richland to ensure that revised plans for TRU waste retrieval and processing are funded sufficiently to achieve milestones and goals.

Response: See response to Recommendation #1. As part of our ongoing budget development and management activities we will continue to work with the Richland Operations Office to ensure that adequate resources are applied to achieve the negotiated milestones and goals as they are established. No further action is required on recommendation #5.

If you have any further questions, please call me at (202) 586-7709 or Patrice Bubar, Associate Deputy Assistant Secretary for Integration and Disposition, at (202) 586-5151.

cc: Dr. Inés Triay, Manager, Carlsbad Field Office  
Keith A. Klein, Manager, Richland Operations Office

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