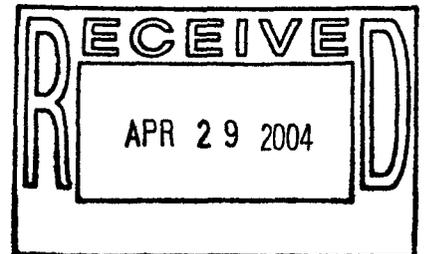


QUARTERLY STATUS REPORT
RFCA IMPLEMENTATION
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE
THIRD QUARTER FISCAL YEAR 1997



ADMIN RECORD

SW-A-004939

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2.2 Actinide Migration Evaluation

During the third quarter of FY97, many activities associated with the Actinide Migration Studies were accomplished. Rocky Mountain Remediation Services, L L C (RMRS) initiated finalizing the report on existing actinide data. Kaiser-Hill Company L L C (Kaiser-Hill or KH) and DOE prepared a stakeholder briefing packet which contained the Proposed Path Forward for the Actinide Migration Studies, Development of a Conceptual Model for Actinide Migration and the FY97 workscope for Dr. Bruce Honeyman and Dr. Peter Santschi. In addition, soil, sediment and groundwater samples were collected and sent to Dr. Bruce Honeyman to conduct speciation and partitioning experiments. Next quarter the remaining sediment, soil core and air samples will be collected, a status report will be issued by Dr. Honeyman in early August, 1997, and a completion report in early October, 1997.

2.3 Watershed Improvements

Approximately 14,100 square yards (126,900 square feet) of selected exposed dirt areas were treated during the third quarter of FY97 with TopSeal soil sealant to minimize erosion and contaminant transport. This included the following areas:

- 1,100 square yards (9,900 square feet) of exposed dirt northeast of Building 779 (in the Protected Area) in the North Walnut Creek drainage (Completed 4/14/97)
- 3,700 square yards (33,300 square feet) of exposed dirt west of Building 707 (in the Protected Area) in the South Walnut Creek drainage (Completed 4/14/97)
- 1,700 square yards (15,300 square feet) of exposed dirt in the ditches along Seventh Street south of Central Avenue in the South Walnut Creek drainage (Completed 4/16/97)
- 7,600 square yards (68,400 square feet) of dirt roadways south and east of the 903 Pad in the South Interceptor Ditch drainage (Completed 4/16/97)

Approximately 650 square yards (5,850 square feet) of exposed dirt areas were revegetated and treated with SoilGuard during the third quarter of FY97 to minimize erosion and contaminant transport. This included the following areas:

- 450 square yards (4,050 square feet) of exposed dirt east of Solar Pond 207B-South in the North Walnut Creek drainage (Completed 5/9/97)
- 200 square yards (1,800 square feet) of exposed dirt northeast of Building 991 in the South Walnut Creek drainage (Completed 5/9/97)

Areas selected for watershed improvements were chosen because of proximity to elevated levels of radionuclides as determined by soil, sediment, and surface water sampling.

3.0 IMPLEMENTATION OF THE RFCA

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3 4 Implementation Guidance Document (IGD)

The RFCA describes the IGD as a guidance document that the Parties agree DOE will use in preparing work documents for activities regulated by the Agreement. During the third quarter of FY97, the Working Group met to discuss outstanding issues on the draft IGD prepared by the Kaiser-Hill team. These issues include the application of action levels to individual data points, including defining the area of concern, closeout reports, and DOE concerns about Section 4. A final IGD is currently being prepared and is planned for issuance in July 1997.

3 5 Summary of Analyses Conducted at Offsite Laboratories

Attachment 1 contains a summary of analyses conducted for the site at offsite laboratories.

3 6 RFCA Implementation Related Activities of Significance

Significant efforts occurred during the third quarter of FY97 on activities related to RFCA implementation including (1) draft consent orders, (2) issuance of the Resource Conservation and Recovery Act (RCRA) permit, and (3) efforts for off-site shipments of low level/low level mixed (LL/LLM) waste.

Draft consent orders on Chemical Wastes, Tanks, and Idle Equipment were prepared by CDPHE. Significant progress toward agreements has been made by CDPHE, DOE, and KH. The agreements will lay out the plan to assure RCRA compliance in these three areas of significant legacy waste problems.

The RCRA permit renewal process was completed. CDPHE issued the permit on May 30, 1997, it became effective on June 30, 1997. The permit represents a major improvement over the existing permit through its clarity, organization, and coverage.

KH and DOE have initiated procurement efforts to obtain an additional option for off-site LL/LLM waste treatment and disposal. The purpose of the procurement is to lower the cost and increase the options and reliability of RFETS' LL/LLM waste management options by increasing competition and locating a site in Colorado.

4 (WATER MANAGEMENT

Water management activities during the third quarter of FY97 include (1) surface water management, (2) surface water monitoring, (3) ground water monitoring, and (4) the Interceptor Trench System.

4 1 Surface Water Management

During the third quarter of FY97, the Site completed the following pond water transfers and discharges:

- Pond A-3 activity included two routine outlet valve direct discharges to pond A-4 totaling 24.9 Mgal. The first discharge of 19.1 Mgal occurred during the period of April 21 through May 7, 1997. The second discharge of 5.8 Mgal occurred during the period of May 22 through 29, 1997.
- Pond A-4 activity included three outlet valve direct discharges to North Walnut Creek utilizing the new upstream water quality gate valve. The first discharge of

phytoremediation, wetlands, iron/peat passive systems) The study will be complete by the end of FY97

5 0 WASTE MANAGEMENT MILESTONES

The FY97 Milestones include five for waste management (1) Construct/modify and operate B440 for storage of wastes (LL and/or TRU) by 9/30/97, (2) (a) Ship 18% of current pondcrete/saltcrete inventory off-site by 9/30/97, or (b) ship 7 8% of current pondcrete/saltcrete inventory offsite and submit a permit application for additional onsite storage of pondcrete/saltcrete by 9/30/97, (3) Ship 608 cubic meters of LL offsite by 9/30/97, (4) Remove 60% of all containerized wastes (except residues, per the October 1, 1996 inventory) from all buildings in the PA (excluding the 750 Pad and B991) by 9/30/97, and (5) Certify 350 drums of TRU/TRM to WIPPWAC by 9/30/97. The scope of these projects, including the third quarters accomplishments, is listed below Attached to this report is a table summarizing the status of each milestone (Attachment 2)

- 5 1 Construct/modify and operate B440 for storage of wastes (LL and/or TRU) by 9/30/97
[FY97 Milestone M1]

During the third quarter of FY97 the modifications to B440 and the Operational Readiness Review were completed Storage operations were initiated in May. This milestone is complete

- 5 2 (a) Ship 18% of current pondcrete/saltcrete inventory off-site by 9/30/97, or (b) ship 7 8% of current pondcrete/saltcrete inventory offsite and submit a permit application for additional onsite storage of pondcrete/saltcrete by 9/30/97
[FY97 Milestone M2]

During the third quarter of FY97 a contract was awarded for the transportation, treatment and disposal of pondcrete/saltcrete waste The baseline inventory is 13,500 m³ Approximately 172 m³ of LDR compliant saltcrete was shipped during the quarter, bringing the total shipped during FY97 to 816 m³ (6%) An issue remains with the treatment and disposal contractor on their ability to accept waste as originally planned due to their radionuclide gram limitations for the site LLM Waste shipments are anticipated during the fourth quarter Permit application submission for the construction of an additional storage facility is also anticipated during the fourth quarter

- 5 3 Ship 608 cubic meters of LL offsite by 9/30/97
[FY97 Milestone M3]

During the third quarter of FY97, approximately 136 m³ of low level waste was shipped, bringing the total shipped during FY97 to 531 m³ or 87% of the RFCA milestone Low level waste shipments are scheduled to continue during the fourth quarter

- 5 4 Remove 60% of all containerized wastes (except residues, per the October 1, 1996 inventory) from all buildings in the PA (excluding the 750 Pad and B991) by 9/30/97
[FY97 Milestone M4]

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6 1 2 Complete Phase I of Trench T-1 accelerated cleanup and submit PAM or IM/IRA by 9/30/97 (IHSS 108, BZ OU) [FY97 Milestone M7]

In preparation for the remediation of Trench T-1, a burial site of depleted uranium and waste oil, a sizable effort has been scoped to include final evaluation/characterization of existing data and treatment options and preparation of the PAM (or IM/IRA) for submittal to DOE. This Phase I step is necessary in support of final (Phase II) remediation. Due to the pyrophoric nature of the buried material and its anticipated condition from being buried for over 40 years, thorough planning is prudent and is the basis for segmenting this effort into phases.

The planning process development from the first quarter FY97 continued into the second quarter through the use of an activity-based management planning tool. Subject matter experts, project workforce, and DOE team members have developed very detailed flow charts of all proposed work activities for the remediation of Trench T-1. A treatment alternatives analysis was performed by the team concluding treatment of U-chips by stabilization/encapsulation. This effort has continued into the third quarter.

The Draft PAM was submitted for public comment on May 21, 1997. The Rocky Flats Citizens Advisory Board (RFCAB) requested a 15-day extension on the 30-day comment period, which will now close on July 5, 1997. Other third quarter efforts have included continuation of the activity-based management planning, analysis of treatment alternatives, and development of field documents. Additionally, monthly meetings have been held with the Environmental Waste Management subcommittee of the RFCAB to enhance stakeholder involvement. DOE has committed to the RFCAB to submit project documentation for discussion as planning progresses.

6 1 3 Complete source removal and soil treatment at Mound by 9/30/97 (IHSS 113, BZ OU) [FY97 Milestone M8]

Volatile organic compounds in the subsurface has contributed contamination to the ground water and surface water of South Walnut Creek. The drums and debris once buried in the Mound have long-since been removed, but a relatively small area (approximately 15 feet by 20 feet) remains as an ongoing source. The scope of the project includes source removal through excavation followed by treatment of the excavated material using low temperature thermal desorption. The soil will be replaced back into the excavation if it meets all appropriate concentrations.

Activities during the third quarter of FY97 included excavation of 700 cubic yards of material which is stockpiled and awaiting treatment. Procurement and contract award have been accomplished with treatment scheduled to commence in July.

6 2 Operable Units (OU's)

The OU consolidation under RFCA established the Buffer Zone and Industrial Area OU's, and left OU's 1, 3, and 7 intact. Operable Units 5 and 6 remain in place with some minor modifications. The following actions were completed for each OU during the third quarter of FY97.

6 2 1 OU 1

Pursuant to the OUI CAD/ROD, a remedial action for 119 1 was initiated with closure funds provided in April. As required, a sampling program was completed for potential

6 2 7 Industrial Area OU (IA OU)

No D&D or characterization work occurred in the IA in the third quarter of FY97 that impacted the current understanding of the IA OU

7 0 SPECIAL NUCLEAR MATERIAL MANAGEMENT TARGET ACTIVITIES

The FY97 Target Activities include five for special nuclear material (SNM) management (1) Identify corrective actions for the plutonium and the HEU vulnerabilities by 9/30/97, (2) Complete pipe component development for residue packing by 6/30/97, (3) Install and operate EU decon system by 9/30/97, (4) Thermally stabilize 90% of the plutonium oxide generated during the year by 9/30/97, and (5) Ship 25 SNM shipments offsite by 9/30/97. The scope of these projects, including the third quarters accomplishments, is listed below. Attached to this report is a table summarizing the status of each target activity (Attachment 2)

7 1 Identify corrective actions for the plutonium and the HEU vulnerabilities by 9/30/97 [FY97 Target Activity T-1]

The DOE has approved the corrective actions for the plutonium vulnerabilities. Closure for an additional five plutonium vulnerabilities have been approved by DOE. The total plutonium vulnerabilities dispositioned this fiscal year is forty-one (41).

The DOE is still reviewing the corrective actions for the HEU vulnerabilities. An additional HEU vulnerability has been closed. The total HEU vulnerabilities dispositioned this fiscal year is two (2).

Activities planned for the fourth quarter of FY97 include

- Expect to receive approval of the corrective actions from DOE for the HEU vulnerabilities, and
- Continue to submit additional plutonium and HEU vulnerabilities for closure

Progress is being made faster than expected due to DOE Headquarters defining various closure categories for vulnerabilities in the first quarter of FY97. Also, closure methodology was developed with DOE in the first quarter of FY97 which defined format and content of closure documents.

7 2 Complete pipe component development for residue packing by 6/30/97 [FY97 Target Activity T-2]

This target was closed February 25, 1997

7 3 Install and operate EU decon system by 9/30/97 [FY97 Target Activity T-3]

The management review has been completed for the system and operations have begun. Initial results indicated the parts were not achieving the expected decontamination level (less than 20 DPM transuranic nuclides). However, after additional material was removed from some of the parts, the site has achieved the desired level (three to date). A memorandum of understanding for decontamination levels has been proposed to Oak Ridge.

Activities planned for the fourth quarter of FY97 include

the public comment period ending July 9, 1997 Approval of the Building 980 Complex PAM is anticipated by August 1, 1997

8 4 Building Radiation Closure Standards

A working group consisting of representatives from DOE, EPA, CDPHE, and the Kaiser-Hill team was formed in October 1996 to recommend building radiation closure standards This working group will continue its efforts throughout FY97 During the third quarter, the working group focused on reaching agreement on the proper modeling system to use in analyzing the various flow paths, the selected flow path scenarios, the management of the construction debris, and incorporation of public participation in the approval process Several issues have been identified and are being addressed for resolution by either the working group or the RFCA coordinators Public participation has started

8 5 Fourth Quarter FY97 Activities

D&D activities for the next quarter will focus on issuing the final draft documents for both the DPP and the 779 DOP The target date for final review and approval of the DPP is December 30, 1997 A proposed path forward on the 779 DOP will be presented to DOE and the Regulators In addition, the Building Radiation Closure Standards working group will continue its efforts

9 0 LIST OF APPROVED DECISION DOCUMENTS

During the third quarter of FY97 the OU3 CAD/ROD was finalized in June, 1997

Pursuant to RFCA paragraph 172, DOE has updated the list of all approved documents, other approvals, and final resolutions of dispute contained in Attachment 12 The updated list is attached to this report (Attachment 3) DOE will place a copy of the updated list in each of the Repositories

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