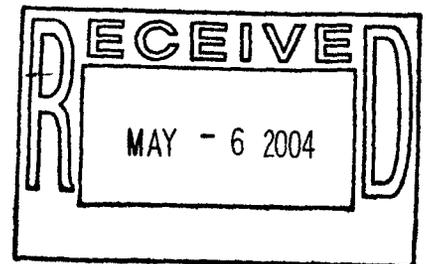


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QUARTERLY STATUS REPORT  
RFCA IMPLEMENTATION  
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

FIRST QUARTER FISCAL YEAR 1997



ADMIN RECORD

SW-A-004949

1/12

## 1 0 INTRODUCTION

Pursuant to paragraph 263 of the Rocky Flats Cleanup Agreement (RFCA or Agreement), this quarterly status report presents the progress toward implementation of activities covered under the Agreement. The RFCA is a legally binding agreement between the Department of Energy (DOE), the Environmental Protection Agency (EPA), and the Colorado Department of Public Health and Environment (CDPHE) to accomplish required cleanup of radionuclide and hazardous substance contamination at and from the Rocky Flats Environmental Technology Site (RFETS).

This report describes activities that occurred from October 1996 through December 1996 (referred to as the first quarter of fiscal year [FY]97) and future planned activities. The sections of this report are organized into the following topics: (1) Introduction, (2) Site-wide Initiatives, (3) Accelerated Actions, (4) Operable Unit (OU) Activities, (5) Operations; (6) Monitoring, (7) Waste Management, and (8) List of Approved Decision Documents.

## 2 0 SITE-WIDE INITIATIVES

During the first quarter of FY97, several site-wide initiatives and strategies continued or were implemented. These initiatives and strategies include (1) the Ten Year Plan, (2) watershed improvements, (3) D&D activities, and (4) implementation of RFCA.

### 2 1 The Ten Year Plan

On June 20, 1996 DOE Assistant Secretary of Environmental Management Al Alm issued a memorandum to all DOE,EM sites directing them to prepare an initial Ten Year Plan which describes how much cleanup could be accomplished. On July 30, 1996, Rocky Flats submitted its initial plan to Assistant Secretary Alm and the Rocky Flats' stakeholders for review and comment.

The Rocky Flats' Plan described the following key activities that would be accomplished in ten years: (1) All special nuclear materials would be stabilized and placed in a new interim storage vault awaiting shipment to an offsite repository, (2) all transuranic waste would be shipped to DOE's Waste Isolation Pilot Plant for disposal, (3) almost all low-level waste would be shipped offsite to DOE and commercial disposal sites, (3) almost all Site facilities, including all former nuclear production facilities, would be demolished, and (4) environmental cleanup of approximately 52 Individual Hazardous Substance Sites would be accomplished.

During the first quarter of FY97 a number of activities occurred to support the preparation of the next draft of the Ten Year Plan due to Assistant Secretary Alm on February 28, 1997. Key activities which occurred included (1) completed an analysis of the impact of the FY97 budget on the July 30, 1996 Ten Year Plan, (2) proposed and received DOE approval of a new listing of projects which the next draft of the Ten Year Plan will be based, and (3) received final guidance on preparation the February 28, 1997 draft of the Ten Year Plan from Assistant Secretary Alm.

### 2 2 Watershed Improvements

The September 1996 watershed improvement project of removing 200 trees from the South Interceptor Ditch channel was completed in October 1996.

### 2 3 D&D Activities

The Deactivation Program Management Plan and the Decommissioning Program Management Plan transmitted from Kaiser-Hill Company, L L C (Kaiser-Hill) to DOE in August 1996 were not formally transmitted to EPA or CDPHE. These plans were products of the RFETS Facility Disposition Working Group which included representatives from DOE, EPA, CDPHE, DNFSB and the Kaiser-Hill team. There are no plans to formally submit these plans to EPA or CDPHE because the purpose of the plans was to provide DOE with information on how Kaiser-Hill will provide technical instructions to contractors performing D&D activities.

#### Decommissioning Program Plan

The draft Decommissioning Program Plan (DPP) was submitted to DOE for review and comment on December 30, 1996. The DPP, a product of the RFETS Facility Disposition Working Group,

is scheduled to be submitted to the agencies by the end of January 1997 for public review and comment. Based upon agreement between DOE, EPA, and CDPHE, this draft DPP also incorporated the RFCA Standard Operating Protocol for D&D activities

#### Decommissioning Operations Plan for 779 Cluster

The draft Decommissioning Operations Plan (DOP) will be submitted to DOE for review and comment in January 1997. The DOP, a product of the RFETS Facility Disposition Working Group, is scheduled to be submitted to the agencies by February 1997 for public review and comment

#### 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 first quarter, the working group has discussed a schedule, final product, a Site decommissioning model, and decommissioning criteria

#### Second Quarter FY97 Activities

D&D activities for the next quarter will focus on receipt and disposition of comments received from DOE, EPA, and CDPHE on the draft DPP and DOP and preparation of the final DPP and DOP for public review and comment. In addition, the Building Radiation Closure Standards working group will continue its efforts

### 2.4 Implementation of the RFCA

Activities associated with the implementation of RFCA during the first quarter of FY97 include (1) resolution of radionuclide action levels and "put back" values for surface and subsurface soil, (2) the Colorado Water Quality Control Commission hearing in December; (3) the selection of the FY97 milestones, (4) continued preparation of the Implementation Guidance Document; and (5) implementation of the RFCA training plan. The Integrated Monitoring Plan is undergoing further preparation and is discussed below in Section 6.0. These RFCA implementation activities are discussed below

#### 2.4.1 Radionuclide Action Levels and "Put Back" Values for Soil

After the close of the public comment period on October 4, 1996, the Agencies reached a final decision on October 18, 1996 on the recommended action levels and "put back" levels for radionuclides in soils for RFCA. The final decision will be reflected in the revised Attachment 5 to RFCA which will be released as part of the RFCA errata sheets, scheduled for release during the second quarter of FY97

#### 2.4.2 Colorado Water Quality Control Commission (CWQCC)

Attachment 5 of the RFCA proposed changes to the surface water and ground water classifications and standards for RFETS. These changes required approval by the CWQCC. DOE and Kaiser-Hill submitted its prehearing statement to the CWQCC on October 28, 1996, attended the prehearing conference on November 7, 1996, and submitted a rebuttal statement on November 27, 1996

The hearing was held on December 9, 1996. The CWQCC deliberated on December 10, 1996 and tentatively approved the Sites proposed changes. The CWQCC will make its final decision on the proposed changes on January 13, 1997. Based on the final decision of the CWQCC, attachment 5 of the RFCA may need to be revised. If this is required, the revised attachment 5 will be released with the RFCA errata sheets.

#### 2.4.3 Integrated Site-wide Baseline and Milestones

Work on the ISB continues with the projected completion of the draft life-cycle ISB by late second quarter or early third quarter of FY97. CDPHE and EPA finalized the Milestones and Target Activities (M&TAs) on December 18, 1996. RFFO communicated its intent to dispute several of the M&TAs. The dispute will occur primarily during January 1997.

#### 2.4.4 Implementation Guidance Document

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 first quarter of FY97, the Working Group met on numerous occasions and commented on the draft IGD prepared by the Kaiser-Hill team. A revised version was submitted to the LQAT for its initial review in December 1996. A final IGD is anticipated by the end of January 1997.

#### 2.4.5 RFCA Training Plan Implementation

Joint RFCA training was conducted on October 29, 1996 at the Arvada Center. It was very well attended and received. A video tape was made of the plenary session in order to assist future training efforts of those unable to attend. Subject specific training on RFCA, planned for the first quarter of FY97 was delayed by joint agreement of the parties to the second quarter of FY97. The first training will be on planning/budgeting/ISB.

#### 2.4.6 Update of the ER Ranking

The ER Ranking is identified in RFCA to be updated annually. No changes were made in the first quarter of FY97 that will result in a revision of the Ranking.

### 3 0 ACCELERATED ACTIONS

The Accelerated Action Program for FY97 includes (1) Remediation of the Mound (IHSS 113), (2) Development of remediation approach for Trench T-1 (IHSS 108), and (3) Preparation of the IM/IRA for the 903 Pad and lip area (IHSSs 112/155) The scope of these projects, including the first quarters accomplishments, is listed below.

#### 3 1 Remediation of the Mound (IHSS 113)

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

In the first quarter of FY97, the project approach was finalized with the regulating agencies and the Proposed Action Memorandum was drafted, internally approved, and put out for public review and comment A project briefing was held with the Citizen's Advisory Board Environmental and Waste Management subcommittee in December

#### 3 2 Development of Remediation Approach for Trench T-1 (IHSS 108)

In preparation for the remediation of Trench T-1, a burial site of depleted uranium and waste oil, a sizeable effort has been scoped to include final evaluation/characterization of existing data and treatment options and preparation of the Proposed Action Memorandum (or Interim Measures/Interim Remedial Action Plan) 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 first quarter of FY97 was used to identify the appropriate subject matter experts and begin putting together appropriate historical records pertaining to the site. Additionally, an effort was begun to contact retirees who worked at Trench T-1 when it was active for first-hand information

#### 3 3 Preparation of the IM/IRA for the 903 Pad and Lip Area (IHSSs 112/155)

The FY97 scope for the 903 Pad area includes revising the remediation approach and drafting a new IM/IRA given the objectives of RFCA which were not available when the existing draft IM/IRA was submitted to the agencies in 1995 The remediation project will be divided into phases-one for the pad and subsurface volatile organics and one for surface radiological contamination These phases are expected to be completed over a two-year period when funding becomes available Scoping meeting and concurrence to proceed with an alternatives analysis were completed in the first quarter of FY97

#### 4 0 OPERABLE UNITS

Based on the RFCA OU reconsolidation, the following activities were completed for specific OUs in the first quarter of FY97

#### 4 1 OU 1

DOE worked with the regulators to finalize the OU1 CAD/ROD. It is expected that the CAD/ROD will be signed and finalized in the second quarter of FY97. The Rocky Flats Field Office anticipates receiving funds to begin the OU1 Remedial Design in FY97.

#### 4 2 OU 3

DOE has drafted the OU3 CAD/ROD. The final CAD/ROD is planned for submittal to the regulators in April 1997.

#### 4 3 OU 5

The remaining issues on the RFI/RI report for OU5 are being resolved with the regulators. Also being discussed are exceedances of the soil action levels for radionuclides at OU5 that may affect the selected remedy. DOE anticipates resolving this issue in the second quarter of FY97.

#### 4 4 OU 6

The remaining issues on the RFI/RI report for OU6 are being resolved with the regulators. The Proposed Plan is scheduled to be released for public comment in the second quarter of FY97.

#### 4 5 OU 7

The passive seep collection system continues to operate with no changes since last quarter.

#### 4 6 Buffer Zone OU

No environmental restoration activities occurred in the first quarter of FY97.

#### 4 7 Industrial Area OU

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

5 0 OPERATIONS

**Annual Update to the Historical Release Report**

The Annual Update to the Historical Release Report was completed in September 1996

**OU1/OU2 Consolidated Treatment Plant**

Operations of the OU1/OU2 Consolidated Treatment Plant, the Interceptor Trench System (ITS), and the Decontamination Pad continued during the first quarter FY97. Currently, the OU1/OU2 Consolidated Treatment Plant meets the more stringent of the OU1 and OU2 standards

**ITS Alternatives**

The Kaiser-Hill team is continuing to research treatment alternatives to the ITS water. A proposal will be presented to EPA, CDPHE and the City of Broomfield by early February, 1997

**Waste Storage**

Waste storage areas for sludge, pondcrete, and Investigative-Derived Material were also operated and maintained during this time period

**Surface Water Management**

During fourth quarter FY96, the Site completed construction of the Pond A-4 outlet works. The project has enhanced the dam's safety by depressurizing the concrete outlet pipe and provides added water quality control capabilities by improving sediment retention through the use of a vertical extension of the upstream outlet. These improvements will allow future flow through operations and have reduced pond operating costs. Project construction was completed on September 18, 1996 and administrative and regulatory approvals for use of the reservoir were received on October 7, 1996

During the first quarter of FY97, the Site completed three pond water transfers from internal ponds to the terminal pond and two discharges from terminal Ponds A-4 and B-5. A discharge that was initiated in the fourth quarter of FY96 from Pond B-5 was completed on October 10, 1996. Eleven and one-half (11.5) million gallons (Mgal) was discharged through the Dam B-5 outlet works in support of the upgrades project at Pond A-4. A total of 0.98 Mgals was transferred from Pond A-2 to Pond A-3 during the period of October 18 through 29, 1996. From October 28 to November 5, 5.2 Mgals of water was transferred from Pond A-3 to Pond A-4. During November 18 to November 29, 11.4 Mgals was transferred by pumping from Pond B-5 to Pond A-4. Pond A-4 discharged 9.5 Mgals through the new outlet works on December 20 through 28, 1996

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## 6 0 Monitoring

Monitoring activities associated with RFCA consist of the development of an Integrated Monitoring Plan (IMP) (especially activities associated with surface water, ground water and the Industrial Area Interim Measure/Interim Remedial Action [IA IM/IRA]) These activities are discussed below-

### 6 1 Integrated Monitoring Plan

During 1996, RFETS developed DQOs for surface water, ground water, air, and ecological monitoring, and revised monitoring programs accordingly. The results of the DQO process are described in draft media-specific IMPs. During the first quarter of FY97, draft plans were reviewed by EPA and CDPHE, and comments were addressed in revisions. Additional CDPHE comments are expected in January 1997. Comment resolution should occur during January and February. An IMP which incorporates each media-specific plan is expected to be completed by the end of March 1997.

Plans for FY97 include, if funds are available

- Development of DQOs for soil monitoring (3rd and 4th quarters),
- Evaluation of DQOs for waste characterization (3rd and 4th quarters),
- Development of a process to develop project-specific DQOs for environmental restoration and decontamination and decommissioning projects, including DQOs for action levels, cleanup levels, and emissions (3rd and 4th quarters);
- Monitoring integration between media (2nd and 3rd quarters),
- Integration between site-wide and project-specific monitoring (2nd and 3rd quarters),
- Refinement and integration of data management systems, including improvement of data exchange mechanisms; and
- Incorporation of all CDPHE and Cities monitoring into the IMP (3rd and 4th quarters)

Data automation plans, including the use of the Internet, were presented at the November 26, 1996 meeting of the RFETS Information Exchange Meeting. During the second quarter of FY97, the Site is planning on placing the most recent quarterly report for surface water on the Site's Intranet as a test case. Results will be included in the next RFCA Implementation Quarterly Status Report.

#### 6 1 1 Surface Water Integrated Monitoring Plan

During the first quarter of FY97 significant changes were made to the Site Remote Surface Water Monitoring Network in accordance with the draft Surface Water Integrated Monitoring Plan (SW IMP) and the Industrial Area IM/IRA. These network changes are as follows (1)

eight locations were terminated after fulfillment of their objectives, (2) five New Source Detection (NSD) locations were upgraded, (3) three Action Levels and Standards Framework were upgraded, and (4) two new Point of Compliance (POC) locations were made to the Site SW telemetry system that facilitate effective surface water monitoring and management under RFCA requirements

Sampling operations began during the first two weeks of the quarter. Since that time, 27 automated samples have been collected and submitted for analysis. Water quality probes for NSD and POC locations have been procured and are scheduled for installation during the second quarter of FY97. The Surface Water Group has implemented processes to collect, compile, analyze, and report surface water monitoring data in accordance with RFCA requirements.

#### 6.1.2 Ground Water Integrated Monitoring Plan

CDPHE provided additional comments to the IMP during the first quarter of FY97. Comment resolution will occur during the second quarter of FY97.

For a discussion of new wells drilled and completed in 1996 and the latest sampling results, please see the Ground Water Quarterly Report dated January 1997.

#### 6.2 Pond Operations Plan, Revision 2

The Pond Operations Plan (POP), Revision 2, was distributed to regulatory agencies and neighboring municipalities in October 1996. Revision 2 incorporates stakeholder comments regarding Revision 1 (issued in December 1995). The document was prepared to control near-term surface water operations and to plan eventual transition of the site ponds to flow-through operations. Stakeholder response to Revision 2 has generally been positive. Further refinement of Revision 2 is anticipated in 1997.

7 0 Waste Management

The RFETS has five primary regulated waste streams Pondcrete, Saltcrete, Transuranic Mixed, Hazardous and other Low Level Mixed Waste. The following activities were completed in the first quarter of FY97

October 1996

- Shipped offsite for disposal
  - 1300 containers of non-radioactive chemicals,
  - 208 drums of low-level waste, and
  - 5000 drums of fluid bed incinerator oils

November 1996

- Shipped offsite for disposal
  - Shipped 127 cubic meters of saltcrete to EnviroCare,
  - Shipped 44 cubic meters of LL Waste to the Nevada Test Site, and
  - Shipped 253 containers of non-radioactive excess RCRA chemicals to an offsite disposal facility
- Submitted two draft application/decision documents to CDPHE--one for bulk-waste CAMU and one for a containerized-waste CAMU
- Initiated discussions with stakeholders regarding offsite disposal of solid waste. The existing landfill will reach capacity by November 1997, and the newly-constructed landfill will not be opened.

December 1996

- Shipped offsite for disposal
  - Shipped 212 cubic meters of saltcrete to EnviroCare,
  - Shipped 76 cubic meters of LL Waste to the Nevada Test Site, and
  - Shipped 6584 containers of non-radioactive excess RCRA chemicals to an offsite disposal facility
- Completed construction on the primary storage area in Building 440. This is a significant step in preparing for the Operational Readiness Review and subsequent storage operations key to waste consolidation.