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CORRESPONDENCE CONTROL

Department of Energy

ROCKY FLATS PROJECT OFFICE
10808 HIGHWAY 93, UNIT A
GOLDEN, COLORADO 80403-8200

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DIST.	LTR	ENC
BERARDINI, J.H.	X	X
BOGNAR, E.S.	X	X
BROOKS, L.	X	X
BUTLER, L.	X	X
CARPENTER, M.	X	X
CROCKETT, G. A.		
DECK, C. A.	X	X
DEGENHART, K. R.	X	X
DIETER, T. J.		
DIETERLE, S. E.		
FERRERA, D. W.	X	X
GIACOMINI, J. J.		
LINDSAY, D. C.	X	X
LONG, J. W.		
LYLE, J. L.		
MARTINEZ, L. A.	X	X
NAGEL, R. E.	X	X
NESTA, S.		
NORTH, K.	X	X
PARKER, A. M.	X	X
RODGERS, A. D.		
SHELTON, D. C.	X	X
SPEARS, M. S.		
TRICE, K. D.		
TUOR, N. R.	X	X
WIEMELT, K.		
WILLIAMS, J. L.		
ZAHM, C.	X	X
COR. CONTROL	X	X
ADMIN. RECORD	X	X
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Reviewed for Addressee
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Date By

Ref. Ltr. #

DOE ORDER #
5400.1

Mr. Steve Gunderson
Rocky Flats Cleanup Agreement Project Coordinator
Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530

Mr. Mark Aguilar
Acting Rocky Flats Cleanup Agreement Team Leader
U. S. Environmental Protection Agency
999 18th Street, Suite 500
Denver, Colorado 80202-2466

Dear Mr. Gunderson and Mr. Aguilar:

Enclosed is the Rocky Flats Cleanup Agreement Implementation Quarterly Status Report for the First Quarter for Fiscal Year 2004. If you have any questions or comments, please contact me at (303) 966-2282 or Richard Schassburger at (303) 966-4888.

Sincerely,

Joseph A. Legare, Director
Project Management

Enclosure

cc w/o Encl.:
F. Lockhart, OOM, RFPO
R. Schassburger, HQPM, RFPO
D. Shelton, K-H
L. Brooks, K-H

QUARTERLY STATUS REPORT

ROCKY FLATS CLEANUP AGREEMENT IMPLEMENTATION

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

FIRST QUARTER FISCAL YEAR 2004

1.0 Introduction

Pursuant to paragraphs 122 and 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). For the purposes of this report, the term, the Site, refers to both DOE and the Kaiser-Hill Company, L. L. C. (Kaiser-Hill).

This report describes activities that occurred from October 2003 through December 2003 (referred to as the first quarter of fiscal year [FY] 04). The sections of this report are organized into the following topics: (1) Introduction; (2) Site-wide Activities Implementing RFCA and Supporting RFETS Closure; (3) RFETS Closure Projects; (4) Water Management; and (5) List of Approved Decision Documents.

2.0 Site-wide Activities Implementing RFCA and Supporting RFETS Closure

Site-wide activities implementing RFCA and supporting RFETS closure during the first quarter of FY04 included: (1) Closure Project Baseline and Status of RFCA Milestones and (2) Integrated Monitoring Plan Update.

2.1 Closure Project Baseline and Status of RFCA Milestones

By letter dated December 11, 2003, CDPHE and EPA chose to forego the establishment of rolling Earned Value milestones for FY04. This decision was based on the dramatic and successful progress that is being made at Rocky Flats towards meeting the December 2006 closure date. If the current trend of closure progress is dramatically disrupted, reestablishment of Earned Value milestones will be reconsidered by the agencies next fall. The agencies retained the Outyear Tier One milestones that were established in previous years for completion of key remedial and decommissioning activities.

2.2 Integrated Monitoring Plan Update

During the first quarter of FY04, the revised Integrated Monitoring Plan (IMP) for FY04 was published and distributed. Changes in the plan included the addition of sample points for surface water monitoring, the removal of several air samplers to facilitate decommissioning of utilities, the cessation of annual Preble's Meadow Jumping Mouse trapping, and the identification and removal of a number of unproductive and/or redundant groundwater monitoring locations.

The first quarterly update is likely to occur in February or March of FY04. One item that will be resolved by that time is the probable removal of off-site air monitoring locations that are no longer needed to supplement the industrial area and perimeter monitoring systems. The three monitors in question are located in the communities several kilometers to the east of RFETS.

Other issues that will be pending during FY04 have to do with revisions to the groundwater and surface monitoring data quality objectives to align them with the monitoring strategies that will be needed when accelerated actions have been completed. Once RFETS acquires its post-accelerated action configuration, some of the drivers for the surface water and groundwater monitoring needed presently will be eliminated.

3.0 RFETS Closure Projects

RFETS Closure activities conducted during the first quarter of FY04 included: (1) Industrial Area Operable Unit, Building (B) 771; (2) Industrial Area Operable Unit, B776/777; (3) Industrial Area Operable Unit, B371/374; (4) Industrial Area Operable Unit, B707; and (5) Remediation, Industrial & Site Services Project (RISS).

3.1 Industrial Area Operable Unit, B771 Closure Project

The B771 Closure Project Decommissioning Operations Plan (DOP) was approved by CDPHE on January 11, 1999. As of December 31, 2003, five modifications to the DOP have been approved. During the first quarter of FY04, the B771 Closure Project Team conducted the following activities:

1. Completed initial area AC and AE decontamination.
2. Completed area AB and AG dismantlement.
3. Completed demolition of B717, B772 and trailers F, J, K, Q, R, T.
4. Completed demolition of portions of area AM (Rooms 212 and 250).
5. Completed approximately 57% of hydrolasing activities.
6. Completed soil remediation activities associated with three underground storage tanks located near B774.

3.2 Industrial Area Operable Unit, B776/777 Closure Project

The B776/777 Closure Project DOP was approved by CDPHE on November 5, 1999. As of December 31, 2003, ten minor modifications and one major modification to the DOP have been approved. The Demolition Plan was a major modification; it was approved on July 1, 2003. During the first quarter of FY04, the B776/777 Closure Project Team conducted the following activities:

1. Completed two decontamination and decommissioning (D&D) work sets. These included Set 69 (RCRA process waste T-Tanks), and Set 81 (Miscellaneous external items, including cargos, storage tanks, exterior piping, and four electrical transformers). There are a total of eighty-four work sets in the B776/777 Project; 79 sets have been completed to date.
2. Liquid and sludge were pumped out of B730 pit, Tank T9 east and T9 west into holding tanks; all concrete surfaces inside the tanks were painted. Electrical and mechanical equipment was stripped out of the vault above the tanks and the area was encapsulated. This completes stabilization of B730 in preparation for transfer to the environmental restoration (ER) organization. B730 is part of set 76.

Activities planned for the second quarter of FY04 include: continue working on the overhead removal of conduit, piping and zone 2 ducting (Set 83) and asbestos abatement and radiological decontamination activities. Transite wall panel removal/replacement was begun for asbestos abatement purposes. Approximately 60% of the exterior walls are constructed of two layers of transite panels. These must be removed as part of the asbestos abatement effort prior to demolition and replaced with non-asbestos panels. In the planning stage are Set 65 (compressor house), and Set 77 (removal of 2 out-of-service, natural gas fired chillers).

3.3 Industrial Area Operable Unit, B371/374 Closure Project

The B371/374 Closure Project DOP was approved by CDPHE on March 29, 2001. As of December 31, 2003, three field modifications to the DOP have been approved.
During the first quarter of FY04, the B371/374 Closure Project Team conducted the following activities:

1. Completed dismantlement of a total of 25 sets. Significant progress has been made on Sets 6, 12, 26, 57, and 58. The Closure Project Team has removed a total of 227 gloveboxes and 205 tanks.
2. Completed removal of storage pallets in support of the D&D of the Central Storage Vault. A total of 1148 of 1148 pallets were removed. Decontamination of the eight I/O stations is in process.
3. Continued the sludge removal from the B374 tanks.

4. Modification 1 of The Decommissioning Operations Plan for B371/374 was issued for public comment starting December 15, 2003 and ending on January 21, 2004. This Modification provides an alternative decommissioning strategy, which substantially reduces the person-hours required to prepare the facility for demolition. Additionally, Revision 1 updates the DOP for minor modifications 1, 2 and 3 as well as minor corrections and the status of the project.

Activities planned for the second quarter of FY04 include: continue strip-out of electrical, mechanical, tanks, and glovebox systems in Sets 6, 12, 26, 29, 57, and 58; and continue sludge removal from B374 tanks.

3.4 Industrial Area Operable Unit, B707 Closure Project

The B707 Closure Project DOP was approved by CDPHE on January 18, 2001. As of December 31, 2003, two minor modifications to the DOP have been approved. Activities conducted during the first quarter of FY04 include the completion of Sets B-8, C-8, J-4, K-5, Y-4 and Second Floor Set 4. This brings the total sets completed to date to 68 of 99 sets. The work performed this quarter encompassed the removal of another 25 (to date, 361 of total 377) glovebox/chainveyor equivalents. The only remaining glovebox/chainveyor equivalents are in Set R3 (14 total) and one each for Set K-4 (X-Y Retriever) and Set B-6 (GB85 - Hydroform Press).

Activities planned for the second quarter of FY04 include the completion of Sets B6, K4, N1, Second Floor Sets 3, 6, 7, 9 and 15. Continuing activities include asbestos abatement in B707 with module wall and fitting removal and concrete shaving for radiological decontamination.

3.5 Remediation, Industrial & Site Services Project

RISS activities supporting RFETS closure during the first quarter of FY04 include D&D as well as ER.

3.5.1 Decontamination and Decommissioning

During the first quarter of FY04, the following activities were completed:

1. Substantial decommissioning activities were initiated in the first quarter of FY04 in B444. This includes equipment removal, extensive utility stripout (i.e., electrical conduit, process lines, water lines), asbestos abatement activities, and structural decontamination. Three external structures have been removed including the carbon hoppers on the northeast side of the complex, and the removal of B454 and B455 and the associated slabs. D&D teams worked closely with ER sampling teams to complete the Under Building Contamination (UBC) characterization that led to the

completion and approval of the characterization report as a No Further Accelerated Action (NFAA).

2. Building 881 decommissioning was restarted in the first quarter of FY04 after a funding driven suspension in the fourth quarter of FY03. Substantial progress was made including utility stripout, asbestos abatement, and structural decontamination in the basement and first two floors. Externally, the cooling tower and one of the concrete stacks were decommissioned (explosively).
3. Demolition of the B865 slab was completed including the removal of the deep concrete pits that were formerly under the large manufacturing equipment. Following slab removal, UBC sampling was conducted and the characterization report was submitted and approved as a NFAA.
4. Significant progress was made in B559 complex decommissioning activities, the most significant of which was the cessation of analytical operations in the B559 laboratory and the start of analytical operations in T130A. Notable achievements in this transition include the transition of key analytical activities to Idaho National Laboratory (i.e., residue sampling), development of alpha spectroscopy in a local (offsite) laboratory to support ER activities, and glovebox removal passing the halfway point in the facility.

Other significant first quarter FY04 decommissioning activities included:

- Explosive decommissioning of the last Protected Area Guard Tower (B372);
- Explosive decommissioning of the site water tower; and
- Decommissioning of buildings 119, 566, 985, T115A, T115C, 240 Tank, several valve vaults, and several thousand feet of steam lines.

3.5.2 Environmental Restoration

ER activities implementing RFCA and supporting closure during the first quarter of FY04 included: (1) Buffer Zone (BZ) Operable Unit (OU), Group 900-11 (903 Pad); (2) BZ OU, Individual Hazardous Substance Site (IHSS) 133.5 (Incinerator); and (3) Group 000-5 (Present Landfill) and Group SW-2 (Original Landfill).

3.5.2.1 Buffer Zone Operable Unit, Group 900-11 (903 Pad)

The 903 Pad project involves excavation and off-site disposal of asphalt and underlying contaminated soil. The following work activities under the ER RFCA Standard Operating Protocol (RSOP) were completed during the first quarter of FY04:

- 27 cells were completed (excavated and backfilled);
- 333 intermodals have been filled with excavated soil, gravel fill and asphalt; and
- 490 intermodals have been shipped off site for disposal.

The excavation activities were completed on December 4, 2003. The project to date has accomplished the following:

- 225 cells have been completed and
- 32,000 tons of soil, gravel and asphalt have been excavated.

The 903 Lip Area project involves excavation and off-site disposal of wind-blown contaminated soil. Excavation started in the Lip area on December 10, 2003. The following work activities under the ER RFCA Standard Operating Protocol (RSOP) were completed during the first quarter of FY04.

- 21 cells (42'x 42') were completed (excavated and confirmation sample below action levels);
- 182 intermodals have been filled with soil

3.5.2.2 Buffer Zone Operable Unit, IHSS 133.5 (Incinerator)

During removal of excess, clean concrete from an area used during plant construction to washout concrete trucks prior to leaving RFETS, the former Incinerator, IHSS 133.5, was found on April 24, 2003. It was suspected that the Incinerator slab, or portions of the Incinerator structure, might still be present in this area, however, the exact location could not be determined because the concrete washout in this area is up to eight feet thick.

The Incinerator was built into the hillside with the structure partially backfilled along the north, east and west sides while it was operating. After it was abandoned, the rest of the structure was covered with fill, then clean excess concrete was poured over it and much of the surrounding area as part of the washout operations.

Radiological surveys of the exposed Incinerator sides and roof were performed. Detectable activity was well below action limits (i.e., this material is free releasable). Beryllium swipes were below action levels except those taken immediately within the lower ash chutes. Soil samples collected adjacent to the Incinerator were also below action levels. Soil/ash samples and radiological surveys from within the lower ash chutes indicate depleted uranium is present above action levels.

The structure was removed and disposed during the first quarter of FY04.

3.5.2.3 Group 000-5 (Present Landfill) and Group SW-2 (Original Landfill)

Group 000-5 (Present Landfill)

This project involves completion of the IM/IRA and the design and construction of a RCRA compliant cover at the Present Landfill. The Interim Measure/Interim Remedial Action Decision Document (IM/IRA) underwent formal public review during the fourth

quarter of FY02 and has been revised, based upon consideration of comments and continuing RFCA Party consultation. A modified, proposed final IM/IRA was released for an additional 45-day public comment period starting on September 23, 2003. Comments on the revised IM/IRA have been received and are being addressed. The responsiveness summary and final IM/IRA is now being prepared for submittal to the regulators and stakeholders in the second quarter of FY04. Cover construction activities are scheduled to begin in the third quarter of FY04, after approval of the final IM/IRA.

Group SW-2 (Original Landfill)

The draft IM/IRA is scheduled to be available for agency and informal stakeholder review in the second quarter of FY04. Field activities related to the design of the proposed action are scheduled to commence in the second quarter of FY04. Construction of the proposed action is scheduled for FY05 after the approval of the IM/IRA.

4.0 Water Management

Water management activities during the first quarter of FY04 are summarized by (1) Watershed Improvements; (2) Surface Water Management; (3) Surface Water Monitoring; (4) Groundwater Monitoring; and (5) the Rocky Flats Water Working Group.

4.1 Watershed Improvements

The annual *Evaluation of the Effectiveness of the RFETS Storm Water Pollution Prevention Plan (SWPPP)* is required by the National Pollutant Discharge Elimination System (NPDES) Permit and was completed during the first quarter of FY04. Storm water monitoring data were evaluated for impacts of RFETS industrial area stormwater discharges on Big Dry Creek Stream Segment 5 and to determine the effectiveness of the Site's stormwater controls. The data evaluation provided no indications nor showed trends which suggested degradation of Segment 5 water quality attributable to the analytes of interest. The Site determined that the current stormwater control measures are adequate for minimization of discharged pollutants.

The annual SWPPP *Comprehensive Site Compliance Evaluation (CSCE) Report* is also required by the NPDES Permit, and was completed during the first quarter of FY04. This report culminated a series of Site SWPPP visual compliance inspections that were completed by Surface Water Operations field personnel during FY03. The inspections identified potential pollution sources, evaluated the implementation of sediment and erosion control measures, and classified the condition of the RFETS drainage structures. This report revealed no major observations and no incidents of non-compliance with the SWPPP. Minor observations noted during the inspections were relayed to Project or Facility Managers and were promptly corrected.

Storm water pollution prevention measures (silt fences, straw bales, recontouring patterns, etc.) were prescribed for various RFETS demolition projects during the first quarter of FY04. These measures were implemented by these projects to minimize erosion and storm water runoff that could impact earlier accelerated actions and the natural drainage system.

There were no maintenance or cleanout activities performed on the RFETS detention pond dams, ditches, or other storm water conveyance structures during the first quarter of FY04.

4.2 Surface Water Management

During the first quarter of FY04, RFETS completed the following pond water transfers and discharges totaling 16.68 Million Gallons (MG), a decrease of 32% compared to the first quarter of FY03 (24.51 MG).

Pond A-3 activity included one outlet-valve direct discharge to Pond A-4 totaling 2.66 MG. This discharge occurred during the period of October 13 through 17, 2003.

Pond A-4 activity included one outlet-valve direct discharge to North Walnut Creek totaling 4.96 MG. This discharge occurred during the period of December 2 through 9, 2003. Water quality samples were collected and analyzed, and all approvals were obtained prior to the discharge. The City of Broomfield diverted the Pond A-4 discharge around Great Western Reservoir via the Broomfield Diversion Ditch.

Pond B-5 activity included one outlet-valve direct discharge to South Walnut Creek totaling 9.06 MG. This discharge occurred during the period of December 2 through 12, 2003. Water quality samples were collected and analyzed, and all approvals were obtained prior to the discharge. The City of Broomfield diverted the Pond B-5 discharge around Great Western Reservoir via the Broomfield Diversion Ditch.

There were no Pond A-1, A-2, B-1, B-2, C-2, or Landfill Pond transfers or discharges during the first quarter of FY04.

Transfers and discharges from the RFETS ponds during the first quarter of FY04 are summarized in Table 1.

Table 1. RFETS Pond Water Transfers and Discharges - First Quarter FY04

Dates	Pond Activity	Total MG	Mode
10/13 to 10/17	A-3 to A-4	2.66	Outlet-valve direct discharge
12/2 to 12/9	A-4 to NWC	4.96	Outlet-valve direct discharge
12/2 to 12/12	B-5 to SWC	9.06	Outlet-valve direct discharge
	Total for Quarter	**16.68 MG**	

4.3 Surface Water Monitoring

During the first quarter of FY04, 43 composite samples were collected by the RFCA automated monitoring network and submitted for analysis. This level of sampling activity is 63% of anticipated (68 samples targeted) for the current monitoring network and 96% less than the average (45 samples) for the same period during the prior seven years of RFCA sampling (1Quarter(Q)FY03: 54 samples, 1Quarter(Q)FY02: 34 samples, 4QFY01: 44 samples, 4QFY00: 54 samples, 4QFY99: 46 samples, 4QFY98: 62 samples, and 4QFY97: 23 samples).

Installation of monitoring equipment at SW018 was completed on October 9, 2003. SW018 is located on the North Walnut Creek tributary south of the 771 trailers and provides performance-monitoring coverage for the B371/374 subdrainage area. SW018 is located at state plane 2083351, 751006; the location is tributary to Point of Evaluation (POE) SW093. The SW018 drainage area is approximately 80.2 acres. This station collects samples for plutonium (Pu), americium (Am), uranium isotopes, Contract Laboratory Protocol (CLP) metals, and total suspended solids using continuous flow-paced composite sampling.

Installation of monitoring location GS61was completed on October 29, 2003. GS61 is located at the confluence of ditches west of the 231 tanks and provides performance-monitoring coverage for the area upstream of the B371/374 subdrainage area. Data from GS61 will be used in conjunction with SW018 data to evaluate the D&D of B371/374. GS61 is located at state plane 2082612, 750033; the location is tributary to SW018, and subsequently POE SW093. The GS61 drainage area is approximately 50.5 acres. This station collects samples for Pu, Am, uranium isotopes, Contract Laboratory Protocol (CLP) metals, and total suspended solids using continuous flow-paced composite sampling.

Including all analytical data available for the quarter as of January 5, 2004, the 30-day moving average values for all POE and Point of Compliance locations were below the RFCA action levels and standards for all monitored analytes.

4.4 Ground Water Monitoring

Results of the Second (calendar) Quarter 2003 RFCA Groundwater Monitoring Report was presented at the Quarterly Information Exchange Meeting on November 25, 2003.

Other activities completed during the first quarter of FY04 included:

1. The Draft 2002 Annual RFCA Groundwater Monitoring Report was completed and submitted internally and externally (to DOE) for review. The final report will be issued during the second quarter of FY04.

2. The Draft Biodegradation Potential of Chlorinated Aliphatic Hydrocarbon Compounds in Groundwater at Rocky Flats was completed and submitted internally and externally (to DOE) for review. The final report will be issued during the second quarter of FY04.

3. Fourteen (14) of 15 groundwater monitoring wells included in the calendar year 2003 Well Installation and Sampling Project Work Plan were completed. Development and sampling of these wells has been initiated.

4. One hundred eighty six (186) IMP groundwater monitoring wells were sampled during the first quarter of FY04. Four hundred seven (407) groundwater samples were shipped to offsite laboratories for analysis. Sampling of 30 additional wells was attempted but the wells were either dry or technically dry.

5. Water levels were measured at one hundred eighty-one (181) monitoring wells during the first quarter of FY03. Water level measurements were attempted at an additional thirty-four (34) wells which were either dry or technically dry.

6. The WARP abandoned 30 wells during the first quarter of FY04. Three hundred three (303) of the 332 wells scheduled for abandonment in calendar year 2003 have been abandoned.

5.0 Approved Decision Documents

There were no decision documents approved during the first quarter of FY04 that need to be included as an update to RFCA Attachment 12 in accordance with RFCA paragraph 122.