

**QUARTERLY STATUS REPORT**  
**ROCKY FLATS CLEANUP AGREEMENT IMPLEMENTATION**  
**ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE**  
**SECOND QUARTER FISCAL YEAR 2001**



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## 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 Kaiser-Hill.

This report describes activities that occurred from January 2001 through March 2001 (referred to as the second quarter of fiscal year [FY] 01). The sections of this report are organized into the following topics: (1) Introduction; (2) Site-wide Activities Implementing RFCA and Supporting Site Closure; (3) Site Closure Projects; (4) Water Management; and (5) List of Approved Decision Documents.

## 2.0 Site-wide Activities Implementing RFCA and Supporting Site Closure

Site-wide activities implementing RFCA and supporting site closure during the first quarter of FY01 included: (1) Closure Project Baseline (CPB) and Status of RFCA Milestones; (2) Integrated Monitoring Plan (IMP) Update; (3) Actinide Migration Evaluation (AME) Update; (4) Site-wide Water Balance Update; and (5) Land Configuration Design Basis.

### 2.1 Closure Project Baseline and Status of RFCA Milestones

It is anticipated that the project will reach two significant closure project baseline milestones during the upcoming fiscal quarter: 1) reduction of the Protected Area and, 2) hot startup of the Plutonium Stabilization and Packaging System.

For the period October 1, 2000 through April 1, 2001, the cumulative schedule variance reported by Kaiser-Hill for the four areas of RFCA Earned Value Milestones is:

- Decontamination and Decommissioning -\$645.0 Million (-8.4%)\*
- Low Level Waste Shipments -\$276.0 Million (-9.5%)\*
- Transuranic Waste Shipments -\$0.0 Million (-100%)\*
- Environmental Restoration - No Earned Value activities in this area are scheduled for FY01.

\* Note: The earned values reported here have not yet been verified by the DOE as part of the quarterly oversight evaluation process. Results of this process should be forthcoming in the third quarterly RFCA report.

Schedule variances in the Decontamination & Decommissioning (D&D) areas have resulted from the recent safety related shutdown in the 700 area buildings and delays in the reduction of the Protected Area. Project managers are now working to recover these variances by adding additional work shifts, moving more work crews into deactivation work, and accelerating some of the scheduled work in Building 774. It is anticipated that much of the negative schedule variance in this area may be recovered prior to the end of the fiscal year.

Negative variances for TRU waste shipments will continue (and the gap could in fact increase) because the waste that is being shipped is not associated with the activities that give maximum credit. The main reason, especially in the TRU waste shipment arena, is due to a complete re-prioritization of the waste streams to be shipped under the current permit requirements (as opposed to the waste streams originally planned for shipment in the baseline). While Kaiser-Hill may not be able to take earned value credit at this time, it is the most cost-effective path. It is important to note that TRU waste shipping is

proceeding according to the current shipping plan and that, beginning this quarter, the Site achieved and, with one exception, maintained four (4) or more shipments per week.

During the past quarter, the DOE Rocky Flats Field Office (RFFO) has been developing activity schedules for its portion of the work scope associated with the Rocky Flats Closure Project. It is anticipated that these activities will be further refined and combined with the Kaiser-Hill activities to form the Integrated Closure Project Baseline (ICPB). This ICPB will become the primary project management tool for the DOE.

DOE RFFO and Kaiser-Hill completed the review and comment process on the Closure Project Baseline activities during the past quarter. A further External Independent Review of the ICPB will be conducted during the next two months, and a final report from this review is expected in June of 2001.

## **2.2 Integrated Monitoring Plan Update**

The IMP Surface Water Working Group met once during the second quarter of FY01 with a primary focus of examining options available to minimize sampling periods that result in insufficient quantities of water for analysis. Options examined included split sampling across periods of pond discharge, increased pacing of samplers for the period just prior to an anticipated pond discharge event, continuation of sampling into the discharge event, and no change. After reviewing the options and characterizing the actual volume of water that might go uncharacterized due to omitted analyses, the working group determined that no change to the existing sampling protocol was necessary. Discussions will continue in the next quarter regarding laboratory analytical requirements to achieve minimum detectable activities.

The IMP Air Working Group met in March to discuss the results of the Site's investigation into the feasibility of using the Oxford Alpha Spectroscopy Integrated System (OASIS) as an analytical tool for short-term analysis of ambient air concentrations of plutonium resulting from demolition activities on the Site. The results of the study indicate that a three-day analytical turnaround may provide a sample result with sufficient precision and accuracy to be used as decision information for demolition projects. The study is continuing.

In the same meeting, a draft sampling and analysis plan was proposed for monitoring beryllium during demolition projects. Such monitoring would be performed at the same ambient locations as the radionuclide monitoring with a similar three-day turnaround on sample results. The detection limit proposed is a fraction of the NESHAPS alternative standard for monitoring of beryllium in ambient air of 0.01  $\mu\text{g}/\text{m}^3$ . Decision rules were discussed but left to the specific D&D projects for development and specification.

Both radionuclide and beryllium monitoring are proposed during the Building 111 demolition planned for this summer. The purpose of the monitoring would be to establish demolition baseline concentrations while monitoring a project with no potential for release of either targeted material. Both Pu and Be are ubiquitously present in very low concentrations in the soil and air of Front Range Colorado.

### 2.3 Actinide Migration Evaluation Update

The Site established an Actinide Migration Evaluation (formerly called the Actinide Migration Studies) Group to provide expert guidance and data on issues of actinide (plutonium, americium, and uranium) behavior and mobility in surface water, groundwater, air, soil, and biota environments. Specifically, the goal of the AME is to answer the following questions in the order of urgency shown:

- Urgent: What are the important actinide migration sources and migration processes that account for recent surface water elevated values?
- Near-term: What will be the impacts of actinide migration on planned remedial actions? To what level do sources need to be cleaned up to protect surface water from exceeding action levels for actinides?
- Long-term: How will actinide migration affect surface water quality after Site closure (what soil action levels would sufficiently protect surface water over the long-term)?
- Long-Term: What is the long-term off-site actinide migration, and will it impact downstream areas (e.g. accumulation)?

The Advisors to the AME Group have been delegated to draw on the state-of-the-art understanding in the scientific community on actinide chemistry, geochemistry, hydrogeology, and biological transport and apply them to actinide migration issues at RFETS.

During the second quarter of FY01, the AME Group conducted the following activities: (1) held an internal AME Group meeting on January 8-9, 2001 to discuss progress on the Pathway Analysis Report; (2) continued working on the groundwater, surface water, air, and biological components of the Pathway Analysis Report; (3) prepared and presented poster and animated PC presentation for the 7<sup>th</sup> Federal Interagency Sedimentation Conference, in Reno, Nevada March 25-29, 2001; (4) continued work on erosion and sediment transport scenarios; (5) collected soil samples in the GS27 drainage area for experiments by Dr. Peter Santschi at Texas A&M University (TAMU); TAMU received the samples and began resuspension and filtration experiments; and (6) met with personnel from the RFCAB, CDPHE, City of Westminster, and City of Broomfield to provide AME project status and summary of TAMU's FY00 results.

The next stakeholder meeting will be held on May 1, 2001 to discuss the progress of the Pathway Analysis Report.

## **2.4 Site-wide Water Balance Update**

The purpose of the Site-wide Water Balance is to develop information to support a hydrologic design basis for RFETS closure activities. The objectives of the Site-wide Water Balance are to provide RFETS with a management tool to: (1) evaluate how the Site-wide hydrology is likely to change from its present configuration to the final Site configuration at closure; (2) assist in predicting surface water impacts from groundwater for the present and final Site configurations; (3) provide hydrologic profiles that guide decisions concerning the final Industrial Area configuration to protect surface water quality; and (4) provide information for the RFCA Integrating Decision Document, the comprehensive risk assessment (CRA), and the Final Corrective Action Decision/Record of Decision (CAD/ROD).

During the second quarter of FY01, Site-wide Water Balance activities included the following: (1) reviewed, interpreted, and conducted quality assurance/quality control of data for model input (especially geology and building foundation information) and converted data into a format suitable for the MIKE SHE modeling code; (2) purchased MIKE SHE computer code; (3) initiated calibration of the MIKE SHE model; (4) initiated model code verification and validation which will be completed in June 2001; and (5) released the Model Code and Scenario Selection Report (dated February 19, 2001) to the regulators and stakeholders and initiated analysis of comments received on the report.

Next quarter the Site-wide Water Balance activities will complete the model calibration and initiate the planned modeling scenarios and uncertainty analyses. A status meeting with the regulators and stakeholders is planned for April 18, 2001.

## **2.5 Land Configuration Design Basis**

The Land Configuration Design Basis (LCDB) will provide a conceptual design for the land configuration at closure along with the design basis by which the final design will be completed. The LCDB will integrate previous studies and modeling completed at the Site, such as the Actinide Migration Evaluation and the Site-Wide Water Balance. The LCDB will also identify the data gaps that must be addressed prior to development of the final design.

During the first quarter of FY01, the LCDB project developed the Strategy for Land Configuration Design Basis Project (Strategy) document. The Strategy document describes the objectives and scope of the project, including a description of the actual work to be performed. The Strategy Document provides the reader with a general overview of the project and the interfaces that will be required to perform the work.

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During the second quarter of FY01, the Data Quality Objectives were finalized, the contract was let for subcontractor support, the Project Work Plan was completed and sector methodologies analyzed.

During the third quarter of FY01, several possible scenarios will be identified and analyzed using a weighting system for comparison to project objectives and Site closure requirements. Existing data gaps will be filled and additional Site features analyzed with respect to long-term stability.

### **3.0 Site Closure Projects**

#### **3.1 Industrial Area Operable Unit, Building 771 Closure Project**

The 771 Closure Project Decommissioning Operations Plan (DOP) was approved by CDPHE on January 11, 1999. No D&D work sets were completed in the second quarter of FY01; however, significant progress was made on six D&D works sets. The B771 team completed draining five process liquid system (Systems #10, 11, 15, 16 & 38), and completed removing four process liquid systems (Systems #21, 27, 28 & 35) in the second quarter of FY01. The 771 Closure Project DOP modification was approved on March 22, 2001. This major modification includes demolition activities, under building remediation, and streamline the Resource Conservation and Recovery Act (RCRA) closure process. The B771 team also completed the Reconnaissance Level Characterization Report Supplement for Type 1 and Type 2 Facilities on March 19, 2001.

During the first quarter of FY01, it was discovered that 11 workers within the project had obtained a potential internal uptake of plutonium. The investigation concerning this issue is complete. Kaiser-Hill issued its report to DOE on March 23, 2001. The report concluded that *"the most likely cause of the positive bioassay results was exposure to low levels of airborne plutonium radioactivity from radiological operations exacerbated by D&D operations. These low levels of airborne radioactivity are below the threshold of workplace indicators."*

The sampling for the B771 UBC commenced during the second quarter of FY01. The sampling activity is expected to continue into the third quarter with results available during the same quarter.

#### **3.2 Industrial Area Operable Unit, Building 776/777 Closure Project**

The B776/777 Closure Project DOP was approved by CDPHE on November 5, 1999. During the first quarter of FY01, the B776 Closure Project Team completed tasks required to support the Site Protected Area (PA) Reduction Project. Significant progress in the D&D of B776/777 was made during the second quarter of FY01. Nine D&D sets were completed during the quarter, bringing the total to 30 sets completed to date. There are a total of eighty-four work sets in the 776/777 project. The 9 sets completed this quarter were Sets 2, 3, 20, 28, 30, 44, 45, 52, and 55.

#### **3.3 Industrial Area Operable Unit, Building 371/374 Closure Project**

During the second quarter of FY01, the B371/374 Closure Project Team conducted the following activities:

1. On November 8, 2000, submitted to CDPHE the Reconnaissance Level Characterization (RLC) Report. The RLCR was concurred on by CDPHE on January 31, 2001. The parties resolved an outstanding issue by agreeing that Building 374 is a Type 3 facility.
2. The 371 Closure Project DOP was submitted for formal public review on December 21, 2000. The formal comment period was completed on February 10. The document is expected to be approved in early April.
3. The cerium (IV) nitrate testing will be completed in early April. A "hot" test should occur in mid April.
4. Obtained LRA concurrence on the removal and size reduction of a glovebox in room 3701.
5. Rebaselined the Building 371/374 project, which resulted in an increase in the number of RFCA earned value sets, but no increase in the total project cost.

Activities planned for the third quarter of FY01 include:

1. Obtain DOE and LRA approval of final BDOP.
2. Commence executing D&D worksets in B371 and B374.

### **3.4 Industrial Area Operable Unit, Building 707 Closure Project**

During the Second quarter of FY01, the B707 Closure Project Team conducted the following activities:

1. The Site received approval of the B707 DOP on January 18, 2001.
2. Over half of the B707 D&D workers have completed D&D training.
3. Deactivation has started in all modules and will be going full scale by May when the MAA is closed.
4. RCRA Closure of portions of the RCRA Unit 707.1 in Module F room 125 and storage racks in room 126 has been completed.
5. Equipment removal and facility reconfiguration necessary to support decommissioning activities initiated this quarter includes equipment disassembly in Modules C, D, and K. Removal of storage racks in Module F.

6. Decommissioning activities have not started in the field yet. IWCP work packages are being developed and subcontracts put in place for Building Trades work.
7. Equipment removal and facility reconfiguration necessary to support decommissioning activities

Activities planned for the third quarter of FY01 include: (1) continue D&D training of employees (expected to be completed in July); (2) RCRA closure of other Permitted waste storage areas associated with Unit 707.1; (3) withdrawal of unused Treatment RCRA treatment units 707.3A and 707.3C and (4) complete readiness assessment for decommissioning activities.

### **3.5 Remediation, Industrial & Site Services Project**

Meetings held between DOE, CDPHE, EPA and Kaiser-Hill during this quarter resulted in the parties reaching clarification concerning using the RFCA consultative process to facilitate performing certain decommissioning-type activities in South Side buildings under the DPP.

#### **3.5.1 Decontamination and Decommissioning**

During the second quarter of FY01, the Site completed the following activities:

1. The Statement of Work (SOW) for the commercial demolition of B111, B333, and the 132 substation pad was completed and advertised via the Commerce Business Daily (CBD) and Demolition News. Thirty-six potential bidders responded to the advertisement and a pre-qualification process based on safety, experience, and financial condition was used to identify qualified bidders. A pre-proposal conference was convened on March 19 and letters expressing the intention to propose are being collected. Award of the contract is currently scheduled for the end of April 2001.

The RLCR for B111 and B333 was submitted to CDPHE on March 13, 2001. Based on the RLCR, the primary issue to be resolved concerns the disposition of building rubble. Elevated levels of polychlorinated biphenyls (PCBs) were found in some paint samples taken from the walls in each facility. Options for the appropriate disposition of building rubble (e.g., disposal of a portion as PCB bulk waste per 40CFR 761) are being evaluated.

2. Approximately 91% of the property and hazards have been removed from B865 in preparation for the RLC. A funding request has been made to accelerate the RLCR for B865 to be initiated in the third quarter of FY01.

3. Property and hazard removal was initiated in B881 and approximately 30% has been removed as of March 31, 2000.
4. Removal of beryllium (Be) components and beryllium-contaminated equipment (loose) was initiated in B444 as the top priority in the RISS hazard stabilization effort. The present strategy is for removal of all loose property and significant hazards including 600 legacy drums, 160,000 lbs. of depleted uranium (DU) stock, removal of Be stock material, 45 drums of DU chips and oxide and the draining of machine oil from former production equipment by the end of FY01. Significant progress has been made in removal of loose materials and Be stock in Rooms 106 and 107 (former Be shop) with expected completion in the third quarter of FY01.

The third quarter of FY01 will focus on property and hazard removal in B886, B444, and B881. The RLC may be initiated for B865 and other small 800 Area facilities depending on funding levels.

### **3.5.2 Environmental Restoration**

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

A closure strategy similar to the Industrial Area (IA) Strategy will be implemented for the closure of the Buffer Zone (BZ) operable unit (OU) and OUs 5, 6, 7 which reside geographically in the BZ of the RFETS. The BZ closure strategy integrates characterization and remediation of BZ IHSSs and PACs.

The first action of the BZ closure strategy is to develop a Buffer Zone Data Summary Report which will accumulate all existing analytical data available in the Soil Water Database for all sample locations outside the Industrial Area OU. These data will be evaluated for usability and those data passing the data quality filters will be utilized to provide starting point characterization data for individual IHSS'.

DQOs to support characterization requirements will be outlined in the BZ Sampling and Analysis Plan (BZSAP). The BZSAP is the sampling plan to gather analytical data from IHSSs and PACs in the BZ for future decision making purposes. These data will be evaluated to determine whether no further action (NFA), additional characterization, or remedial/management action is required. The plan will be written to enable analytical results from samples collected outside of IHSSs and PACs (white space) to be used for the CRA that evaluates residual risk following completion of all accelerated actions. The BZSAP sampling requirements will contain the final site characterization requirements for the RFETS BZ.

BZSAP addenda will be prepared for each IHSS, IHSS group or PAC which provides background information of the IHSS or PAC, sampling requirements to meet the

BZSAP's DQO's, and analytical data currently available and usable to support the identified sampling requirements. Each BZSAP addendum will define the study area and optimize the sampling design for the IHSS or PAC to meet the DQO's identified in the BZSAP.

The Buffer Zone Data Summary Report and BZSAP are currently being prepared and will be submitted concurrently to CDPHE and EPA upon completion in August 2001. The BZSAP FY01 addenda, scheduled for a September 30, 2001 submittal, is expected to include characterization scope for IHSS 216.1, 216.2, and 216.3, East Spray Fields-North Area, -Center Area, and -South Area, respectively, IHSS 153, Oil Burn Pit No. 2, and IHSS 154, Pallet Burn Site.

### **3.5.2.2 Plume Maintenance and Monitoring**

Operation, maintenance and monitoring continue for the three reactive barriers and two other plume treatment systems at Rocky Flats. The reactive barriers are the Mound Site Plume, East Trenches Plume and Solar Ponds Plume groundwater collection and treatment systems. The other two plume systems collect and treat groundwater at OU1-881 Hillside and at the OU 7 - Present Landfill Seep. The quarterly activities and performance monitoring data for the five systems are provided in the Quarterly Report for the Rocky Flats Groundwater Plume Treatment Systems that was completed March 30, 2001. This document will be provided to CDPHE and EPA during the second quarter of calendar year 2001.

At the OU 7 - Present Landfill Seep, benzene exceeded the RFCA surface water standard in the sample collected on December 4<sup>th</sup>, with a validated concentration of 2 ug/l. A sample was then collected on March 13, 2001. In accordance with the OU7 Sampling and Analysis Plan protocol, if validated results from this sampling event also show an exceedance of the benzene action level, then samples will be collected monthly for volatile organic compounds (VOCs), the results reported, and if the performance objective is exceeded by two times, the DOE will consult with the CDPHE and EPA on what, if any, actions should be taken until the performance objective of 1 ug/l for benzene is attained for two consecutive months. Otherwise, the sampling frequency will return to a semi-annual basis.

A treatability study for the PU&D Yard Plume is in progress to determine if a lactic acid compound is effective in enhancing the natural attenuation process at Rocky Flats. Injection of the material was completed on March 1. Monitoring will begin in May after the subsurface conditions stabilize.

### **3.5.2.3 OU1**

The final Modification to the OUI CAD/ROD was signed by the DOE and EPA in January 2001. Because soil removal is not necessary, the modified remedy deleted the requirement to remove soil and includes pumping and treating groundwater from the OUI Collection Well for a period of one year after signing the final Modification, and continued groundwater monitoring at IHSS 119.1 consistent with the RFETS IMP. Decommissioning of the French Drain was completed in September 2000. The French Drain system was breached at the lowest point and the collected groundwater now flows underground to the South Interceptor Ditch. The French Drain Decommissioning Closeout Report was approved by the DOE on January 11, 2001. Closeout of the OUI project is scheduled for completion in April 2001.

#### **3.5.2.4 Characterization of Under Building Contamination 123 and Building 886 Implementing Horizontal Directional Drilling Environmental Measurement While Drilling**

This project was performed and funded as a technology deployment of Sandia National Laboratory's Environmental Monitoring While Drilling (EMWD) technology in conjunction with a local drilling subcontractor (Corrocon Inc.) for horizontal directional drilling to characterize the potential under building contamination (UBC) and the slab for 123 and at Building 886 (B886).

All samples have been collected at both UBC 123 and B886 using both horizontal directional drilling and conventional sampling methods. Most of the analytical data have been received except for the 12 boreholes recently completed inside B886. A completion report will be prepared during the third quarter of FY01 after the analyses for all samples have been received.

#### **3.5.2.5 Group 000-5 (Present Landfill), Group 000-1 Solar Ponds, and Group SW-2 Original Landfill Cap**

This project involves the modeling and conceptual design of proposed evapotranspiration covers for the Solar Evaporation Ponds and the Present Landfill. A subcontract to perform the work was awarded during the second quarter. The subcontractor will first develop a work plan for the two sites that will include specific tasks as outlined under the statement of work. This project will include regulatory agency input during the work plan and DQO development. Because of uncertainties related to design and performance of a cover for the Original Landfill, this site will not be addressed under the modeling subcontract. Rather, another subcontract will be issued to evaluate remedial alternatives for the landfill. The subcontract will be awarded early in the third quarter. This task will also include regulatory agency involvement.

#### **3.5.2.6 Industrial Area Characterization**

During the second quarter of FY01, DOE responded to CDPHE comments on the Draft IASAP. There were no comments from EPA or stakeholders. There is no formal public comment period for the IASAP. The IASAP is the sampling plan to support characterization and remediation of potentially contaminated soil in IHSSs, PACs, and UBC sites in the Industrial Area. It is anticipated that the IASAP will be finalized in the third quarter of FY01.

The Draft CRA Methodology contains the methodologies for conducting the final human health and ecological risk assessments for Site closure. EPA has provided comments on the Draft CRA Methodology; CDPHE has not yet provided comments. It is anticipated that CDPHE will provide comments and the CRA Methodology will be finalized during the third quarter of FY01.

## **4.0 Water Management**

Water management activities during the second quarter of FY01 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**

During the first half of FY01, Site utilities completed over 40 structural improvements to the Rocky Flats storm water control systems. Structural improvements included culvert cleanouts, placement of new riprap, ditch cleanouts, and the installation of new culverts and replacement of damaged culverts. Existing watershed storm water control structure maps are being updated to document the improvements.

### **4.2 Surface Water Management**

During the second quarter of FY01, the Site completed pond water transfers and discharges totaling 24.60 Million Gallons (MG), a decrease of 51% compared to the second quarter of FY00 (48.61 MG).

Pond A-3 activity included one routine outlet-valve direct discharge to Pond A-4 totaling 3.64 MG. This discharge occurred during the period of February 22 through 26, 2001.

Pond B-5 activity included two routine outlet-valve direct discharges to South Walnut Creek totaling 20.96 MG. The first discharge of 8.76 MG occurred during the period of January 11 through 22, 2001. The second discharge of 12.20 MG occurred during the period of March 12 through 23, 2001. Water-quality samples were collected and analyzed, and all approvals were obtained prior to the discharges. The City of Broomfield diverted the Pond B-5 discharges around Great Western Reservoir via the Broomfield Diversion Ditch.

There were no Pond A-1, A-2, A-4, B-1, B-2, C-2, or Landfill Pond transfers or discharges during the second quarter of FY01.

Transfers and discharges from the Site ponds during the second quarter of FY01 are summarized in Table 1.

**Table 1. Site Pond Water Transfers and Discharges - Second Quarter FY01**

<b>Dates</b>	<b>Pond Activity</b>	<b>Total MG</b>	<b>Mode</b>
1/11 to 1/22	B-5 to South Walnut Creek (SWC)	8.76	Outlet-valve direct discharge
2/22 to 2/26	A-3 to A-4	3.64	Outlet-valve direct discharge
3/12 to 3/23	B-5 to SWC	12.20	Outlet-valve direct discharge
	<b>Total for Quarter</b>	<b>24.60 MG</b>	

**4.3 Surface Water Monitoring**

During the second quarter of FY01, 47 automated monitoring system samples were collected and submitted for analysis.

The 30-day moving averages for all RFCA Point of Evaluation and Point of Compliance monitoring locations were below the RFCA action levels and standards during the second quarter of FY01 for all monitored metals and radionuclides.

During March 2001, the Kaiser-Hill Team completed the source evaluation letter report for RFCA Point of Evaluation monitoring location SW027. Reportable values were observed at SW027 POE monitoring location on the South Interceptor Ditch (SID) above Pond C-2 for the periods June 26-29, July 18-21, and August 18-20, 2000. The SW027 Source Evaluation was conducted in accordance with the proposed responses outlined in the Letter of Notification dated September 12, 2000 (00-DOE-03497). The SW027 letter report will be distributed to the regulators the third quarter of 2001.

Progress continues on GS08 source evaluation and GS10 special investigation. The GS08 source evaluation is scheduled for completion early in third quarter FY01 and the GS10 special investigation is scheduled for completion later in third quarter FY01

Two new surface water monitoring locations (GS49 and GS50) were added to the Site's D&D performance monitoring network during second quarter FY01. Monitoring station GS49 (installed during the last week of December 2000) started collecting samples in January to establish baseline water quality west of Building 776. GS49 will receive storm water runoff providing performance-monitoring coverage for D&D of Buildings 566, 776, and 778 D&D. Water flowing from GS49 is sampled again at RFCA POE SW093 before flowing into Pond A-3. Monitoring location GS50 (installed during the last week of March 2001) started sampling late during second quarter FY01. GS50 located in the

drainage ditch that conveys surface water from the area east of the Solar Ponds. In addition to providing Solar Pond Performance Monitoring coverage, GS50 will improve monitoring resolution for the GS10 subdrainage.

#### **4.4 Ground Water Monitoring**

The Third (calendar) Quarter 2000 groundwater monitoring report was presented to the stakeholders at the Quarterly Information Exchange Meeting on February 27, 2001.

1. The SAP for the D&D Monitoring of Buildings 707, 371/374, 776/777 and 883/865 was approved by \_\_\_\_\_ and monitoring wells have been installed at Buildings 776/777 and 707. Wells will not be installed this quarter for Buildings 883/865 or 371/374 because schedule changes have moved D&D of these buildings further out than originally planned.
2. All groundwater samples and water level measurements for the first quarter of calendar year 2001 were completed on March 29, 2001.
3. The updated ICP/MS Uranium sampling and analysis project, which is being conducted jointly with CDPHE, was completed as of March 15, 2001. Final sample shipment will be completed on March 29, 2001 to Los Alamos National Laboratory.
4. Additional groundwater monitoring requirements were outlined in March 2000 to supply additional data for the site water balance modeling effort. Additional groundwater monitoring was completed for the first quarter of CY01, and consisted of water level measurements from 72 wells and real time water level measurements from 13 wells.

#### **4.5 Rocky Flats Water Working Group**

The RFETS Water Working Group was part of the Quarterly Exchange of Information Meeting held on February 27, 2001. In addition to the quarterly exchange of information, the following topics were discussed: 1) status update for Site pond operations, 2) review of RFETS water routing, 3) schedule for the ongoing SW027 and GS08 source evaluations and GS10 special investigation, 4) briefing on the groundwater sampling and analysis plan for buildings 559/881/991, 5) overview of the proposed Excel Energy activities in the Buffer Zone for utility installation, and 6) the future direction of the Water Working Group and Integrated Monitoring Plan meetings.

## 5.0 List of Approved Decision Documents

This list of approved decision documents provides the information for the update to RFCA Attachment 12.

1. EPA and CDPHE approved the RSOP for Facility Component Removal, Size Reduction, and Decontamination Activities on February 22, 2001.
2. The 771 Closure Project DOP modification was approved on March 22, 2001.
3. The B707 Closure Project Team received approval of the 707 DOP from on January 18, 2001.