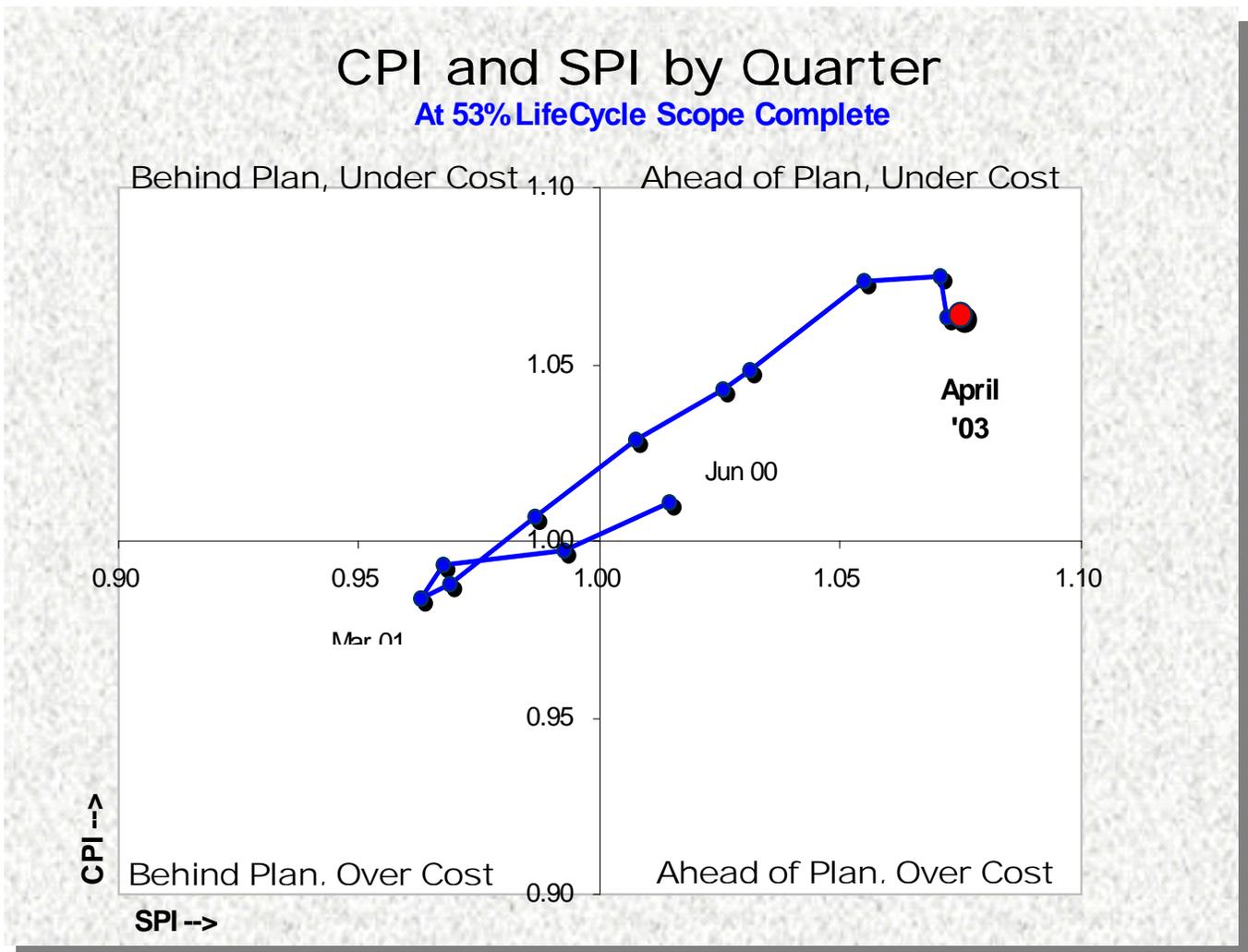


# ROCKY FLATS Monthly Project Report

FY03  
April, 2003



# Monthly Project Report Rocky Flats

April 2003

## Executive Overview

**In General:** K-H continues to complete work activities below estimated cost and ahead of schedule as they have for the previous 19 months. K-H continues its emphasis on working safely and maintaining compliance with procedures to ensure safe operations.

**Key Accomplishments:** D&D activities remain on or ahead of schedule with work progressing in the nuclear buildings and on the south side of the Industrial Area with three reportable structures demolished during April. The Waste program shipped 274m<sup>3</sup> of TRU, 3,734m<sup>3</sup> of Low Level, and 2,141m<sup>3</sup> of Low Level Mixed Waste, and the Environmental Remediation program has completed remediation of 88 of 225 cells (39%) at the 903 Pad.

METRIC	
<b>Safety:</b>	During April, 2003, there were 62 site-wide safety events, including one event of "Serious Concern" (Level 4), and one event of "Significant Concern" (Level 3). A total of 27 of these events were "RAD" related, while 11 events were OSIH. <i>See page 2</i>
<i>Bears Watching</i>	No Site Noncompliance Tracking Reports were submitted for the month of April.
<b>Cost Variance:</b>	<b>Cumulative Cost Variance</b> = +6%, +\$127M out of ~\$2,109M BCWP <sub>CUM</sub>
<i>On Plan</i>	<i>LIFECYCLE: 53% of target scope completed; 50% of target cost expended.</i>
<b>Schedule Variance:</b>	<b>Predetermined Work Activities SV</b> = +50% ,+\$87M
<i>On Plan</i>	<i>LIFECYCLE: 15% of scope scheduled; 23% of scope completed.</i>
	<b>Traditional Schedule Variance</b> = +7%, +\$147M
	<i>LIFECYCLE: 49% of scope scheduled; 53% of scope completed.</i>
<b>Critical Path</b>	<b>CP = <u>SNM activities, B371 D&amp;D</u></b> <b>Estimated Completion Date: <u>December 15, 2006</u></b>
<b>Completion Date: <i>On Plan</i></b>	The working plan critical path has remained stable for five months. The contractor continues to examine critical path activities for acceleration opportunities. RFFO is continuing to use the original Target Date, December 15, 2006, as the ECD.
<b>Current CP: <i>On Plan</i></b> <i>Under review</i>	<i>47% (39 months) of contract duration elapsed.</i>
<b>Key Milestones</b>	<b>Closure Activities:</b> The 441 Offices, the 863 Electrical Transformer and emergency generator #2 for B771/774 were demolished in April along with an office trailer, cooling tower and generator slab.
<b>DNFSB: <i>On Plan</i></b>	<b>DNFSB: <u>Pu Metals &amp; Oxides</u></b> – The October 2003 commitment to complete PuSPS operations is expected to be complete by the end of June.
<b>RFCA: <i>On Plan</i></b>	<b>RFCA FY03 Milestones:</b> . <span style="float: right;"><i>RFFO Validated</i></span> D&D (\$29.54M): Met for 2003. LLW (\$5.91M): Met for 2003. ER (\$.552M): Met for 2003. TRU (\$.75M): Met for 2003. 2003 M5 Milestone ( <i>See Glossary</i> ) (\$35.312M): Met for 2003.
<b>GFS/I</b>	GFS/I requirements are being met and/or are in process except as noted here:
<b>Status: <i>On Plan</i></b>	Need DOE receiver site for Low Level Mixed Waste Orphans (between 10 and 100 nanocuries/gram).
<b>Forecast: <i>Bears Watching</i></b>	

## Executive Summary

### Contract Status

**TC:** 3.973B (Original: 3.963)

**TF:** \$340.8M (Original: \$340M)

**TCD:** 15 December 2006

### Penalty Assessment

No Fee Penalties were issued in April. To date, four fee penalties have been issued under the terms of this contract with total penalties equaling \$510,000.

### Requests for Equitable Adjustments (REAs):

National Emergency REA-HQ is reviewing RFFO's comprehensive response to issues raised on the Proposed Settlement. WIPP/WAC Part III has been revised and Kaiser-Hill is responding to additional issues raised by RFFO. An amendment is in process to revise the Size Reduction/Shipment of items to SRS to incorporate additional items. The revised PuSPS Moisture measurement REA is pending fact finding. No REA settlements have been incorporated into the contract this month.

### Pending REA's: ~ \$36.3M

- ~ \$16.4 million: National Emergency (2002 – 2003 Costs)
- ~ \$12.1 million: WIPP WAC Part III (projected 2002 - 2005 costs)
- ~ \$2.7 million: Size Reduction/Shipment to SRS
- ~ \$2.6 million: PuSPS Moisture measurement
- ~ \$2.5+ million in these miscellaneous REAs: - System Engineers/B371 VSS - NTS Waste Acceptance Criteria - PuSPS outside SRS Requirement - Beryllium Monitoring



### Safety

### 2 Events of "Significant Concern" or Above

During April, 2003, there were 62 site-wide safety events, including one Level 4 (Serious Concern) and one Level 3 (Significant Concern).

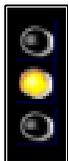
The Level 4 event: A potential Near-Miss occurred due to a loss of control of a pressurized air hose associated with Building 771 hydro lasing activities. Further hydro lasing activities were put on hold until the Fact Finding meeting was held.

The Level 3 Event: During asbestos removal activities in Building 553, safety professionals noted employees were working on a scaffold with many safety deficiencies and were not tied off. The work permit required that the employees be tied off. Work was discontinued until the deficiencies were corrected.



### Critical Path

The working plan critical path includes PuSPS operations followed by B371 D&D and site grading. In September 2002, the contractor re-sequenced the B371 D&D activities to accelerate the estimated Project completion date by several months. RFFO is monitoring the efficacy of the new critical path and near critical path activities and for the foreseeable future will continue to utilize December 15, 2006 as the estimated completion date.



### GFS/I Performance

Most GFS/I requirements have been met. The key issue is the identification of disposal sites for LLMW between 10 and 100 nCi/g activity.

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## Cost Performance



### Cost

*LIFECYCLE: 53% of scope completed; 50% of target cost expended*

Cost Variance +6%, +\$127M

Cost Variance for target activities increased ~\$5M this month and ~\$11M in March, recouping most of the declines in January and February. The Cost Variance on the Project remains significantly positive, with over \$127 million in cost savings accumulated since the beginning of the contract.

Most of the negative variance in the project is concentrated in PBD A (B371). Over the past year, PBD A has averaged an increase of \$2.4M per month in negative cost variance. Most cost overruns are associated with PuSPS and related activities and are expected to cease by the end of FY03. Activities in this PBD dominate the critical path.

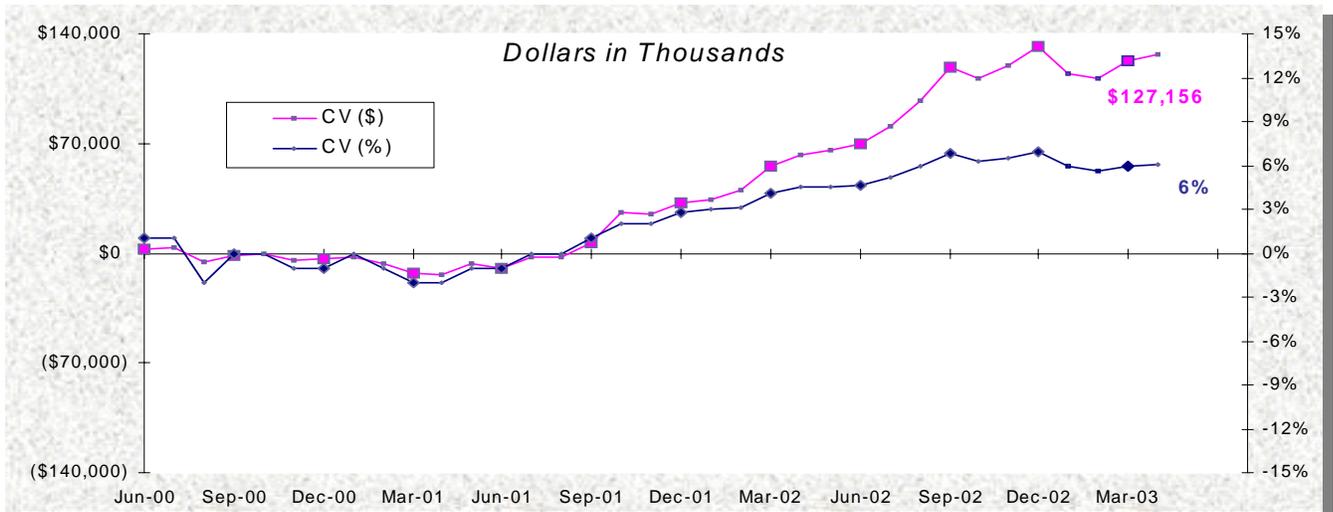
The positive cost variances are concentrated in: PBD E, Industrial and Site Services Project (\$66M); PBD G, the Environmental Remediation Project (\$23M), and in the level-of-effort activities in PBD J, Support Project (\$41M). Significant cost savings in PBD F's Waste Programs and Operations are offset by cost overruns in that same PBD in the areas of Facility Management and Safeguards and Security.

### Cost Performance by PBD\*:

Project Description	BCWP	ACWP	CV (\$)	CV (%)
1A 371 Complex Project	265,639	304,354	(38,716)	-15%
1B 707 Complex Project	158,278	160,266	(1,988)	-1%
1C B771/774 Closure Project	183,377	192,624	(9,248)	-5%
1D B776/777 Closure Project	153,612	145,975	7,637	5%
1E Industrial and Site Services Project	385,514	318,733	66,781	17%
1F Material Stewardship Project	489,100	469,044	20,056	4%
1G Remediation Project	61,426	38,233	23,193	38%
1H Engr., Environ, Safety & Quality	143,690	125,340	18,350	13%
1J Support Project	268,508	227,418	41,091	15%
<b>Project Totals</b>	<b>\$2,109,144</b>	<b>\$1,981,988</b>	<b>\$127,156</b>	<b>6%</b>

Includes *all target* fund sources: EW05, FS40, EW09, GG08, NN61 and YN01

### Cumulative Cost Variance Over Time



**NOTE:** Currently, the closure project has accumulated \$20.7M in non-target Site Closure (EW05) and Safeguards and Security (FS40) costs. These non-target costs are generally the result of technical direction and may eventually be considered as part of potential Requests for Equitable Adjustment, and / or will impact cost variance.

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## Schedule Performance

DEFINITIONS OF ROCKY FLATS' SCHEDULE PERFORMANCE INDICATORS CAN BE FOUND IN THE GLOSSARY AT THE BACK OF THIS REPORT.



### Comparative Schedule Performance

The project-level positive schedule variances reflect the contractor's continued success at accelerating workscope. However, the majority of accelerated activities have been in PBDs D, E and G, not on the Critical Path. A comparative review of schedule performance indicators continues to indicate that positive schedule variances in the Building 776 Closure Project (PBD D), the Industrial and Site Services Project (PBD E) and Environmental Remediation (PBD G) mask negative schedule variances in the Building 371 Complex Project (PBD A). K-H is applying cost savings realized in other PBDs to fund schedule reduction in PBD A. It is anticipated that PBD A's schedule variance will continue to improve in the future.

Project		SV <sub>TRAD</sub>	SV <sub>PWA</sub> *	SV <sub>MM</sub>	SV <sub>P3</sub> +/- Days
1A	371 Complex Project	-2%	1%	-5%	121**
1B	707 Complex Project	7%	28%	19%	62
1C	B771/774 Closure Project	6%	11%	13%	27
1D	B776/777 Closure Project	16%	97%	38%	244
1E	Industrial and Site Services Project	21%	189%	84%	164
1F	Material Stewardship Project	4%	81%	14%	160
1G	Environmental Remediation	69%	1299%	82%	135**
<b>Total Project:</b>		<b>7%</b>	<b>50%</b>	<b>27%</b>	<b>135**</b>

\*These are K-H reported values. RFFO validates and reports on PWA performance quarterly, in the Total Project Report  
 \*\*Under RFFO Review



### P3 Completion

The *K-H generated* Estimated Completion Dates (using P<sup>3</sup> project scheduling software), are represented below. K-H continues to examine the critical path activities to identify schedule acceleration opportunities. RFFO is monitoring the critical path and for the foreseeable future will continue to utilize December 15, 2006 as the estimated completion date.

PBD	Activity Description	Baseline Early Finish	Stated Early Finish
A	B371	11-Oct-06	31-Mar-06
B	B707	13-Mar-06	01-Dec-05
C	B771/774	18-Aug-04	12-Jul-04
D	B776/777	31-Oct-06	05-Oct-05
E	Industrial Sites	11-Oct-06	24-Jan-06
F	Material Stew.	13-Dec-06	03-Apr-06
G	ER	14-Dec-06	11-May-06
<b>Total Project</b>		<b>14-Dec-06</b>	<b>11-May-06*</b>

\*Under RFFO Review



### Predetermined Work Activities

SV<sub>PWA</sub> (+\$87M, +50%)\*

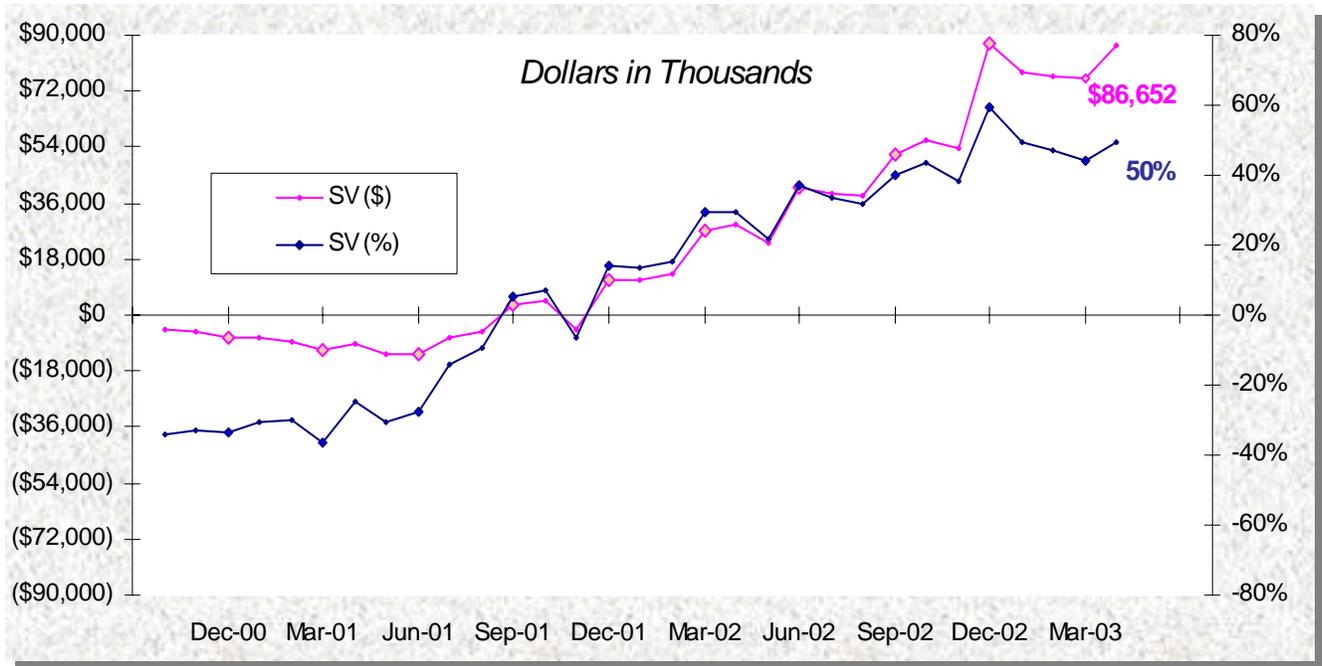
The contractor recouped almost all of the SV lost over the last 3 months. The current PWA schedule variance

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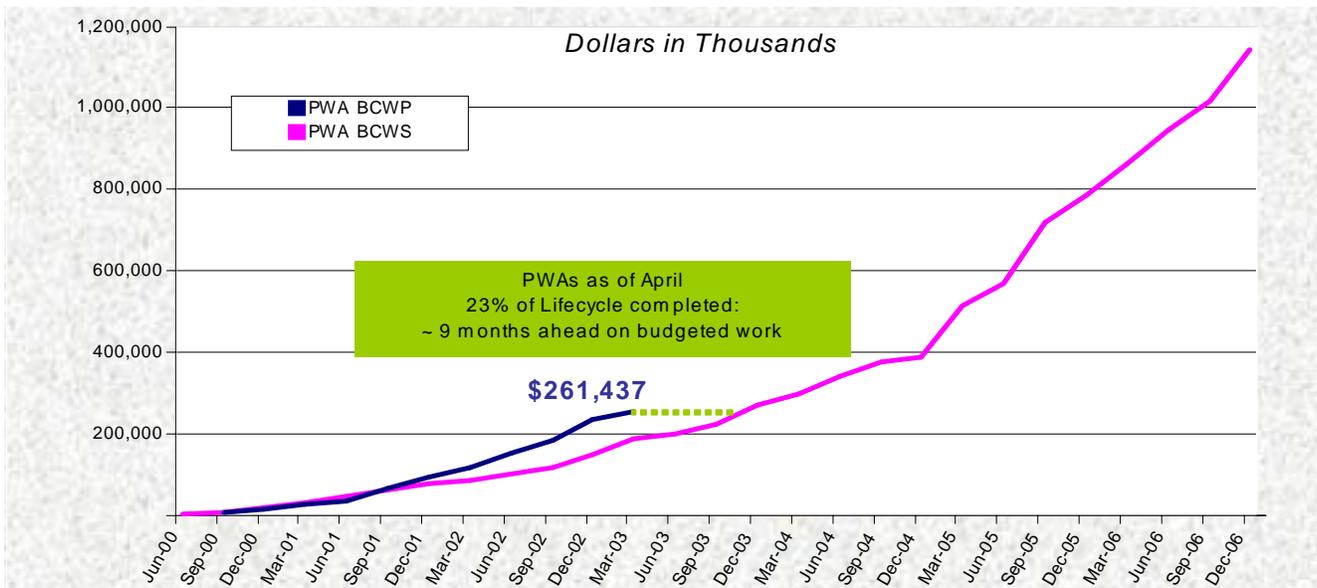
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remains highly positive, and shows that the contractor has completed half again as much critical closure work than their baseline estimate. The current BCWS for these activities is \$175M with a lifecycle BCWS of \$1.145B. At the end of April, 2003, 47% of the contract schedule has elapsed (39 out of 82.5 months), 15% of the PWA scope was scheduled for completion (\$175M), and 23% (\$261M) of the PWA scope is complete.

*\*These are K-H reported values. RFFO validates and reports on PWA performance quarterly, in the Total Project Report*



## PWA Schedule: Actual against Baseline Projection



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## Project Metrics

<b>Project Metric</b>	<b>Life Cycle <sup>1</sup> Planned</b>	<b>Actuals to Date</b>	<b>% LC Complete</b>	<b>Actuals for Month</b>	<b>Actuals this FY</b>	<b>FY Plan (CPB) this FY</b>	<b>FY Plan (AWA)</b>
<b>Low Level Waste Disposed (m<sup>3</sup>)</b>	184,475	70,265	38%	3,734	22,725	36,637	37,000
<b>Low Level Mixed Waste Disposed (m<sup>3</sup>)</b>	44,614	14,062	32%	2,141	10,773	3,151	8,700
<b>TRU Waste Disposed (m<sup>3</sup>)</b>	12,355	6,132	50%	274	1,997	2,065	3,000
<b>Certified 3013 Containers Produced</b>	1,950	1,593	82%	111	609	0	716
<b>B371 Project Work Sets</b>	60	13	22%	0	7	9	14
<b>B707 Project Work Sets</b>	98	51	52%	1	16	17	17
<b>B771 Project Work Sets</b>	106	71	67%	2	11	13	15
<b>B776 Project Work Sets</b>	82	72	88%	0	6	17	13
<b>Facilities Demolished</b>	290 <sup>2</sup>	106	37%	3	26	6	43
<b>Release Sites Cleaned Up</b>	121	35	29%	0	5	9	9
<b>Gloveboxes removed</b>	1,324	942	71%	15	188	306	403

<sup>1</sup> "Life Cycle" based on Closure Project Baseline metrics and New Corporate Performance Measures

<sup>2</sup> Based on current IPABS data, subject to change

# Key Definitions / Terms

## Rocky Flats' schedule performance indicators:

All indicators (except P3) use the standard formula  $SV=BCWP-BCWS$  and are measured in dollars, not time. Performance is measured against the Life-Cycle Baseline as presented in June 2000 with minimal adjustments approved through our rigorous Change Control Process. The indicators defined below differ mainly in which budgeted costs are included in the analysis.

**Traditional Schedule Variance (SV<sub>TRAD</sub>):** This indicator addresses schedule performance compared to plan for the entire project contracted with Kaiser-Hill. It includes all "Target" costs as defined by the contract (EW05, EW09 (formerly EW02), FS40, GG08, YN01, and NN61). It does NOT include budgeted costs for things like performance fee, technology deployment, and program (RFFO) funds. A positive variance means that, compared to the original plan, more work was accomplished than planned. A negative variance means that less work has been accomplished than planned.

**Modified Milestone Schedule Variance (SV<sub>MM</sub>):** This schedule performance indicator is designed to focus on all the 'real' work at the site. It removes level-of-effort activities from the analysis, but adds the Technology Deployment budget. Again, the variance indicates that more work or less work was accomplished than planned.

**Predetermined Work Activities Schedule Variance (SV<sub>PWA</sub>):** In order to best assure that the government is awarding performance fee for the accomplishment and acceleration of the most important work at Rocky Flats, our contract with Kaiser-Hill includes a list and schedule of ~900 "Predetermined Work Activities" against which performance is measured and provisional fee is paid. Generally, SV<sub>PWA</sub> calculations allow for earning value only when an activity is 100% complete (all or none), unless the activity is a quantity-based measure. These activities represent critical work necessary to the timely closure of the Site, and performance is measured against the baseline schedule set out at the beginning of the contract. Although the contractor is free to realign specific work activities as they see fit, the dollar amount of work accomplished against these critical activities is expected to remain on plan to facilitate timely closure of the site.

**Primavera Project Planner Schedule Variance (SV<sub>P3</sub>):** In contrast with the previous indicators, the P3 schedule variance is measured in units of time (days). The Primavera project scheduling software computes the longest (critical) path through the contractual work on the Project and arrives at the Statused Early Finish, (a.k.a. Estimated Completion Date). Variance is measured against the Baseline Early Finish as established in June 2000.

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**Orphans – Low Level Mixed Waste Orphans.** Wastes which must be removed from the Site but for which no disposal / treatment path has been identified and/or approved.

**D&D – Deactivation and Decommissioning.** Deactivation: the process of placing a "building" in a safe and stable condition. Decommissioning: All activities that occur after deactivation. Includes decontamination and dismantlement /demolition.

**M5 - RFCA Earned Value Aggregate (over 50%) Milestone.** Fiscal Milestones M1 – M4 require that 50% of the FYBCWS in each individual category be completed in that fiscal year. The FY M5 Milestone tracks the dollar value of the remaining BCWS in those categories for the fiscal year and requires that it be completed before the end of the *following* fiscal year. The M5 Earned Value Milestone can be satisfied with any combination of BCWP from LLW, D&D, ER, and TRU. However, the M5 milestone must be completed for each fiscal year before BCWP can be applied to Milestones M1 – M4 in the following year.

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**PBD A – 371 Complex Project.** Liquid waste ops, Plutonium Stabilization & Packaging System (PuSPS), repackaging of residues, SNM removal (including shipping), and D&D. Building demolition by October 11, 2006.

**PBD B – 707 Complex Project.** SNM holdup removal, consolidation of SNM into B371, classified matter removal, and D&D. Building demolition by 3/1/06.

**PBD C – 771 Complex Project.** Complex D&D and D&D Programs (site decommissioning program and EM-50 funded projects). Building demolition by 8/04/04.

**PBD D – 776 Complex Project.** D&D. Building demolition by 10/27/05. Removal of the slab/foundation by 4/26/06 and project completion by 10/31/06.

**PBD E – Industrial / Site Services Project.** The industrial and site services portion of the RISS Project, and other bldg D&D.

**PBD F – Material Stewardship Project.** Technical program direction and operational support for commodities, engineered services, procurement, traffic & transportation, and disposition of waste.

**PBD G – Remediation Project.** The Environmental Restoration (ER) Program portion of the RISS project. The overall scope includes Industrial Area and Buffer Zone Closure and environmental restoration including any remaining characterization.

**PBD H – Engineering, Environmental, Safety, Quality, and Health.** Infrastructure. Includes; project management, assessment, oversight, regulatory compliance and monitoring, waste certification, technical training, Nuclear Safety and Licensing, Criticality Safety, Fire Protection, Engineering, Safety/Work Control, and Radiological Protection.

**PBD J – Support Project.** General Counsel & Audit (GC&A), Strategic Planning & Integration, Administration, and the K-H Executive Office.