



Section D

Spent Nuclear Fuel

PROJECT MANAGERS

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SUMMARY

The Spent Nuclear Fuel (SNF) mission consists of the Spent Nuclear Fuel Project (SNFP) WBS 1.3.1.1 (Project Baseline Summary [PBS] WM01) and the subsequent Canister Storage Building (CSB) Operations Project WBS 1.3.2.1 (PBS WM02), which does not start until FY 2004.

NOTE: Unless otherwise noted, the Safety, Conduct of Operations, Milestone Achievement, and Cost/Schedule data contained herein is as of March 31, 2001. All other information is as of April 23, 2001.

Fiscal year-to-date milestone performance (EA, HQ, and RL) showed that three out of four milestones (75 percent) were completed late and one milestone is overdue.

The Milestone Achievement details, found following the cost and schedule variance analysis, provide further information on all milestone types.

NOTABLE ACCOMPLISHMENTS

Fuel Movement Activities — Six Multi-Canister Overpacks (MCOs) - 127 canisters - have been removed from K West (KW). One additional MCO will be shipped before May 1, 2001. (The seventh MCO, estimated for shipment before April 1, 2001, was delayed to conduct a "Time Out for Safety.") During the April Maintenance Outage, KW Basin successfully completed numerous upgrades and modifications. These upgrades included electrical upgrades, installation of three new empty basket queue tables (required to support the production improvement items), and installation and testing of the Process Water Conditioning (PWC) system filter in support of pumping the PWC tank to a radioactive liquid waste tanker. Also completed were the Preventative Maintenance Procedures as well as a change-out of an Ion Exchange Module (IXM). In all, over 400 maintenance packages were completed. In addition, fuel movement has resumed at KW. Dual bay operations have been authorized by RL at the Cold Vacuum Drying (CVD) Facility.

K Basins Construction Projects — Procurement packages for equipment for the Fuel Retrieval System (FRS) KW Basin production improvement project were prepared. The Comprehensive Plan transition team was mobilized. Construction work continued in the K East (KE) Basin; activities included the reset of IXMs in KE Basin, completion of corridor 10 modifications, leasing and setting in place a trailer for Crafts personnel, and development and implementation of a tagging and tracking system for Construction Projects materials and equipment (95 percent complete).

MCO Production Rate Improvement Activities — Funding was identified for upgrades to KW to increase production activities. Project delivery work commenced to procure and install process improvements into KW Basin. Upgrades accomplished during the April Maintenance Outage included electrical upgrades required for the additional stiff-back grapple crane and three new empty basket queuing tables. Contracts were issued to vendors for equipment and tools. All vendors committed to meet the scheduled delivery dates. All equipment is on track for installation during the July Maintenance Outage.

Alternate Fuel Transfer Strategy (AFTS) Comprehensive Plan — The Comprehensive Plan and associated Tri-Party Agreement and Performance Incentives changes received approval by DOE and the Environmental Protection Agency (EPA). Implementation of the associated Baseline Change Request (BCR) has been initiated.

Audits and Assessments - Successful completions of Defense Nuclear Facilities Safety Board (DNFSB) review of project software and combined DOE/National SNF Office of Civilian Radioactive Waste Management (OCRWM) audit. Combined EPA and DOE Inspector General audit in progress.

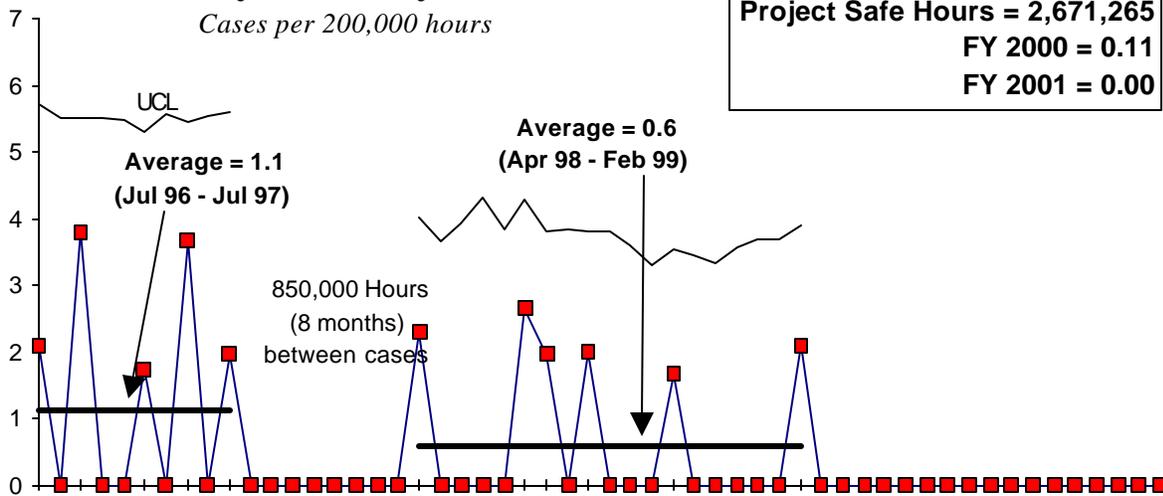
SAFETY

The Spent Nuclear Fuel (SNF) Project has achieved over 2.6 million safe work hours. No Lost Away Workday Cases have been reported in nineteen months. SNF's OSHA recordable case rate for FY 2001 continues to be favorable, and at 1.2, is approaching the FH goal of 0.9. The Project has been below the OSHA recordable case rate average for six months in a row.

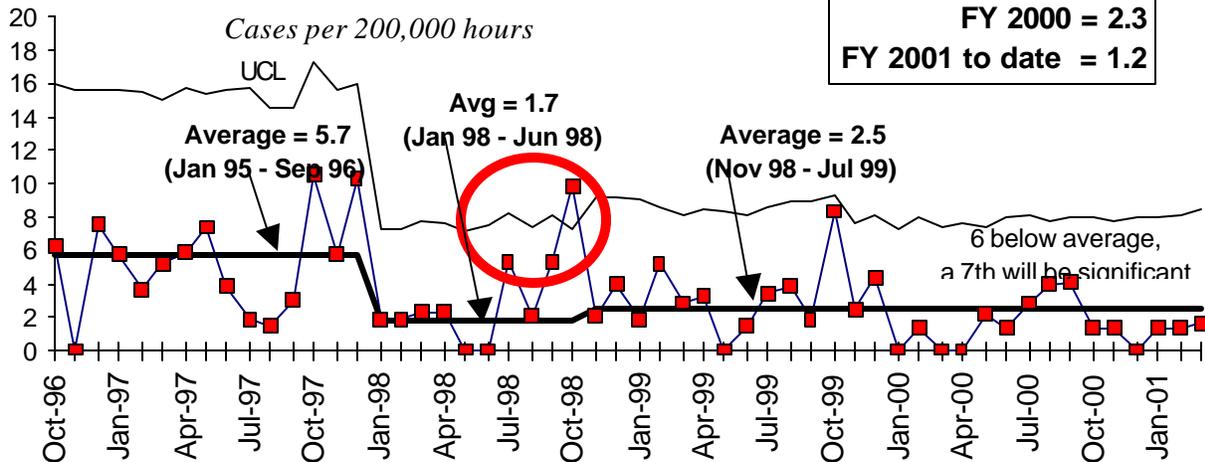
A "Time Out for Safety" program was developed, and tailored to each SNF facility. SNF Senior Management kicked off each facility "Time Out" session with a presentation focusing on the management expectations for professional conduct of operations. Reinforcement of the principles of sound professional performance in the execution of procedural compliance, pre-job briefings, stop work authority, and problem identification and resolution rounded out the presentations.

Green

Lost Away Workday Case Rate

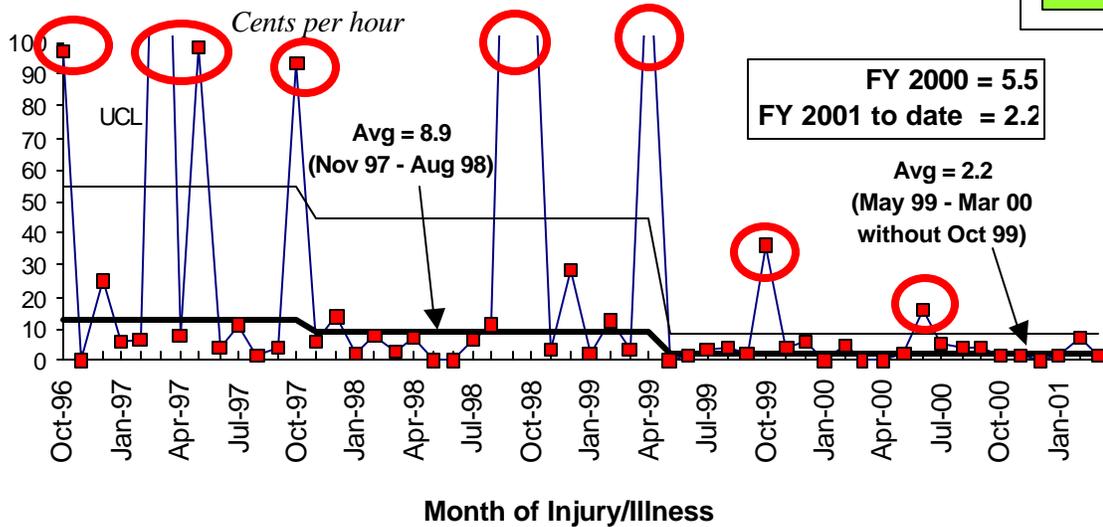


OSHA Recordable Case Rate



DOE Safety Cost Index

Green

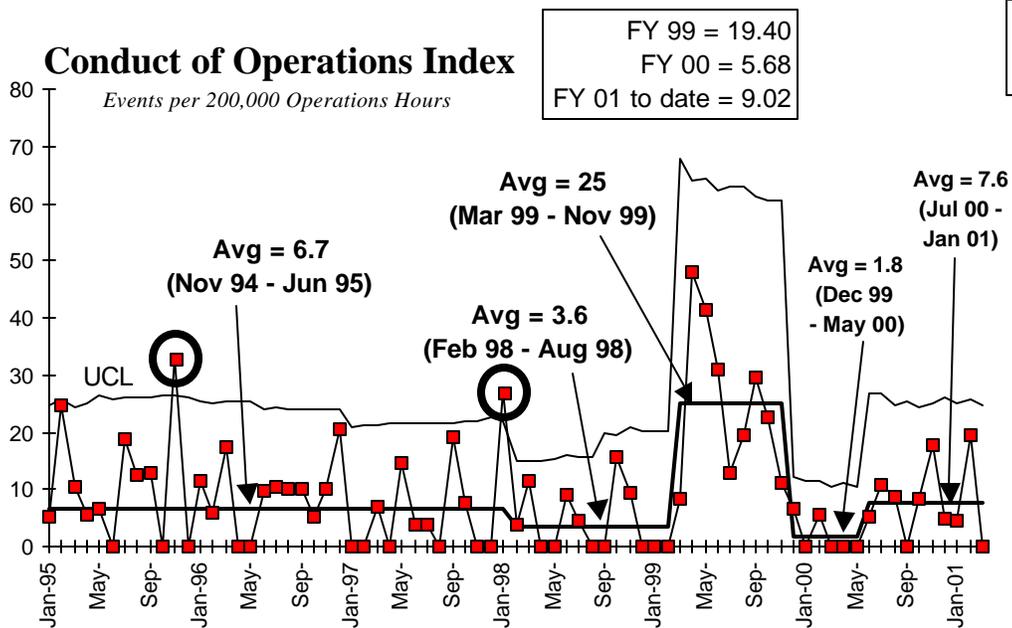


ISMS STATUS

The collaborative effort between SNF Project Operations and Construction staff to complete the final design of the KE fuel removal process, along with the approval of the Comprehensive BCR, demonstrates SNF Project employees' continued strong commitment to ISM.

CONDUCT OF OPERATIONS

Green



Recent occurrences are results of problems with procedures and equipment as SNF continues to streamline the process, and through the introduction of new operators into the process during hands on training.

In order to achieve necessary long-term performance improvement, the SNF facilities will conduct a "Time Out for Safety" following each quarterly maintenance outage. Review of problems during the past quarter, lessons learned (including complex-wide lessons learned), and performance metrics and trends of both safety and Conduct of Operations will be included in preparation for each "Time Out for Safety." This quarterly review, along with senior management's participation, will strengthen the commitment toward procedural compliance, issue identification, safety awareness, and appropriate response.

BREAKTHROUGHS / OPPORTUNITIES FOR IMPROVEMENT

Breakthroughs

Green

Alternate Fuel Transfer Strategy (AFTS) — The AFTS will move fuel from the KE Basin to the KW Basin for processing in lieu of processing fuel in the KE Basin as currently baselined. The formal decision to proceed with the Comprehensive plan and associated process improvements was made on April 2, 2001. Implementation of the BCR is proceeding.

Green

Opportunities for Improvement

MCO Production Rate Improvements — The project effort to install additional fuel handling tables in KW is in progress. Contracts were issued to vendors for equipment and tools and all vendors committed to meet the scheduled delivery dates. All equipment is on track for installation during the July maintenance outage. Significant progress was made during the recent maintenance outage in KW Basin including electrical upgrades and installation of three new basket queuing tables.

SNF Accelerated Closure Team (ACT) — The ACT has identified several prospective improvements and breakthroughs that have the potential to further reduce fuel removal processing times and accelerate the completion of the project. Potential breakthroughs consist of initiatives that could reduce MCO drying time, simplify sludge removal and accelerate the project transition to the River Corridor contractor. These initiatives will now be evaluated by the SNF Project to determine their viability given the availability of overall SNF Project resources.

UPCOMING ACTIVITIES

- Continue MCO shipments through FY 2001.
- Start comprehensive plan implementation and process improvements in May 2001.
- Perform Shippingport (PA) fuel removal dry run in May 2001.
- Complete implementation of Safety Authorization Basis for receipt and storage of Shippingport (PA) SNF at the Canister Storage Building (CSB) in June 2001.
- Initiate KW Basin spent nuclear fuel canister cleaning operations in August 2001.

MILESTONE ACHIEVEMENT

Green

MILESTONE TYPE	FISCAL YEAR-TO-DATE				REMAINING SCHEDULED			TOTAL FY 2001
	Completed Early	Completed On Schedule	Completed Late	Overdue	Forecast Early	Forecast On Schedule	Forecast Late	
Enforceable Agreement	0	0	1	0	0	0	0	1
DOE-HQ	0	0	0	0	0	0	0	0
RL	0	0	2	1	0	1	0	4
Total Project	0	0	3	1	0	1	0	5

Only TPA/EA milestones and all FY2001 overdue and forecast late milestones are addressed in this report. Milestones overdue are deleted from the Milestone Exception Report once they are completed. The following chart summarizes the FY2001 TPA/EA milestone achievement and a Milestone Exception Report follows. The last milestone table summarizes the first six months of FY 2002 TPA/EA milestones.

FY 2001 Tri-Party Agreement / EA Milestones

Number	Milestone Title	Status
M-34-16 (S00-01-900)	"Initiate Removal of K West Basin Spent Nuclear Fuel"	Due 11/30/00 – Completed on December 7, 2000. Green
M-34-06-T01 (S04-99-521)	"Initiate K West Basin Spent Nuclear Fuel Canister Cleaning Operations"	Due 12/31/00 – Overdue. Forecast start, August 31, 2001. Green
M-34-26-T01 **NEW	"Approve Start of Construction for the K East and K West Basin facility modifications for AFTS"	Due 09/30/01 – On Schedule. *This Milestone added per Tri-Party Agreement Change Package M-34-01-02. Green
M-34-05-T01 (S04-01-515) **DELETED	"Submit DOE Approved Report Debris to Ecology/EPA"	Due 05/31/2001 *Deleted per Tri-Party Agreement Change Package M-34-01-02.

DNFSB Commitments

Nothing to report at this time.

MILESTONE EXCEPTION REPORT

<u>Number/WBS</u>	<u>Level</u>	<u>Milestone Title</u>	<u>Baseline Date</u>	<u>Forecast Date</u>
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Overdue – 1

S04-99-521	RL	Start K West Canister Cleaning Operations	12/31/00	8/31/01
1.3.1				

Cause: Suspended design last summer to simplify system and reduce costs. SNF Project made a project management decision to defer work to FY 2001 and focus on near-term critical path items.

Impact: No impact to any other SNF Project baseline schedule activities or TPA/DNFSB milestones.

Corrective Action: Currently in design and on schedule; to be started by August 31, 2001.

Forecast Late – 0

FY 2002 Tri-Party Agreement / EA Milestones

Number	Milestone Title	Status
M-34-29 **NEW	"Complete K East Basin and K West Basin facility modifications for AFTS cask transportation system"	Due 03/31/2002 On Schedule *This Milestone added per Tri-Party Agreement Change Package M-34-01-02.
M-34-12-T01 (S04-97-621) **Changed to target date	"Complete Construction of K East Basin Integrated Water Treatment System (IWTS) to Support Spent Nuclear Fuel Removal"	Due 09/30/2002 On Schedule *Interim milestone changed to target date per Tri-Party Agreement Change Package M-34-01-02.
M-34-13B-T01 (S04-98-356) **DELETED	"Complete Construction & Installation of K East Basin Spent Nuclear Fuel Retrieval System (FRS)"	Due 03/31/2002 *Deleted per Tri-Party Agreement Change Package M-34-01-02.
M-34-14B-T01 (S06-97-012) **DELETED	"Complete KE Basin Cask Facility Mods"	Due 02/28/2002 *Deleted per Tri-Party Agreement Change Package M-34-01-02.

DNFSB Commitments

	Nothing to report at this time.	
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PERFORMANCE OBJECTIVES

Move Fuel Away from the River

EXPECTATION: Remove spent fuel from K Basins

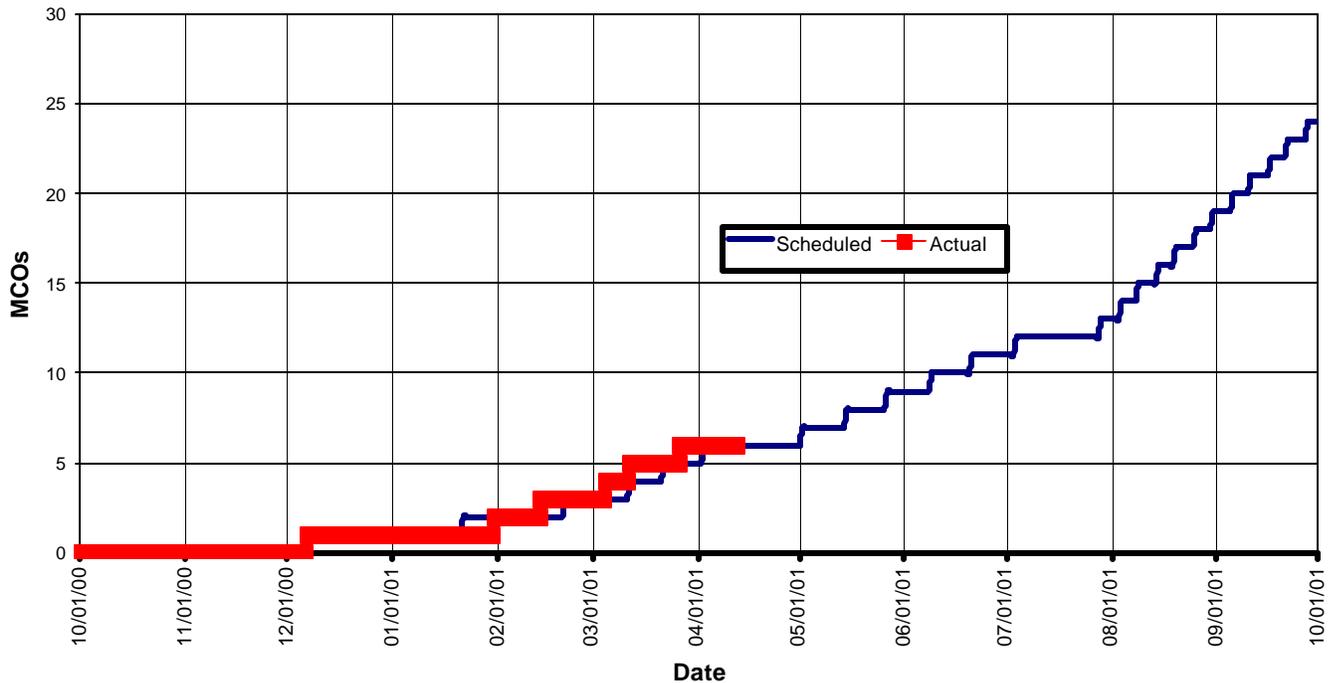
Move first MCO of SNF from KW Basin and transport to the CVD Facility for processing by December 7, 2000 (TPA M34-16)

Status: Completed on schedule

Move 116 Metric Tons Heavy Metal from KW Basin by end of FY 2001

Status: On schedule.

FY 2001 MCO Production Performance



**FY 2001 Commitment - Ship 116 Metric Tons by 9/30/01.
 Status as of 4/04/01 - Approx 30.42 Metric Tons Shipped; 7 days ahead of schedule.**

The sixth MCO shipped on March 28, 2001. The seventh MCO, estimated for shipment before April 1, 2001, was delayed to conduct a "Time Out for Safety."

FY 2001 COST/SCHEDULE PERFORMANCE – ALL FUND TYPES CUMULATIVE TO DATE STATUS – (\$000)

Yellow

By PBS	FYTD									
	BCWS	BCWP	ACWP	SV	%	CV	%	PEM*	EAC	
PBS WM01 Spent Nuclear WBS 1.3 Fuel Project	\$ 72,929	\$ 67,431	\$ 85,167	\$ (5,497)	-8%	\$ (17,736)	-26%	\$ 191,715	\$ 187,860	
Total	\$ 72,929	\$ 67,431	\$ 85,167	\$ (5,497)	-8%	\$ (17,736)	-26%	\$ 191,715	\$ 187,860	

Authorized baseline as per the Integrated Planning Accountability, and Budget System (IPABS) – Project Execution Module (PEM).
Note: Above data includes RL contract for Steam.

FY TO DATE SCHEDULE / COST PERFORMANCE

FYTD, SNFP is behind schedule and over cost. Aggressive actions are in progress to mitigate the overruns. The unfavorable schedule variance of \$5.5 million (8 percent) was due to delays in K East Basin Construction Project. FH developed an Alternate Fuel Transfer Strategy (AFTS) that required TPA milestone changes. The TPA changes have been approved and submitted to FH on April 2. The AFTS essentially eliminates the K East Basins construction scope associated with the schedule variance.

The unfavorable cost variance of \$17.7 million (26 percent) was due to additional facility start up and engineering required to resolve first-of-a-kind equipment issues at K Basins and the Cold Vacuum Drying Facility and subsequent extension of the Operational Readiness Review process. A staff demobilization plan has been implemented to bring costs in line with the baseline.

For all active sub-PBSs and TTPs associated with the Operations/Field Office, Fiscal Year to Date (FYTD) Cost and Schedule variances exceeding + / - 10 percent or one million dollars require submission of narratives to explain the variance.

Schedule Variance Analysis: (-\$5.5M)

Spent Nuclear Fuel Project — 1.3.1/WM01

Description /Cause: The unfavorable schedule variance is due to delays in KE Construction Project activities.

Impact: Potential impacts to future milestones.

Corrective Action: The recently approved AFTS BCR eliminates the KE Construction scope associated with the schedule variance and will be reflected in the April performance report.

Cost Variance Analysis: (-\$17.7M)

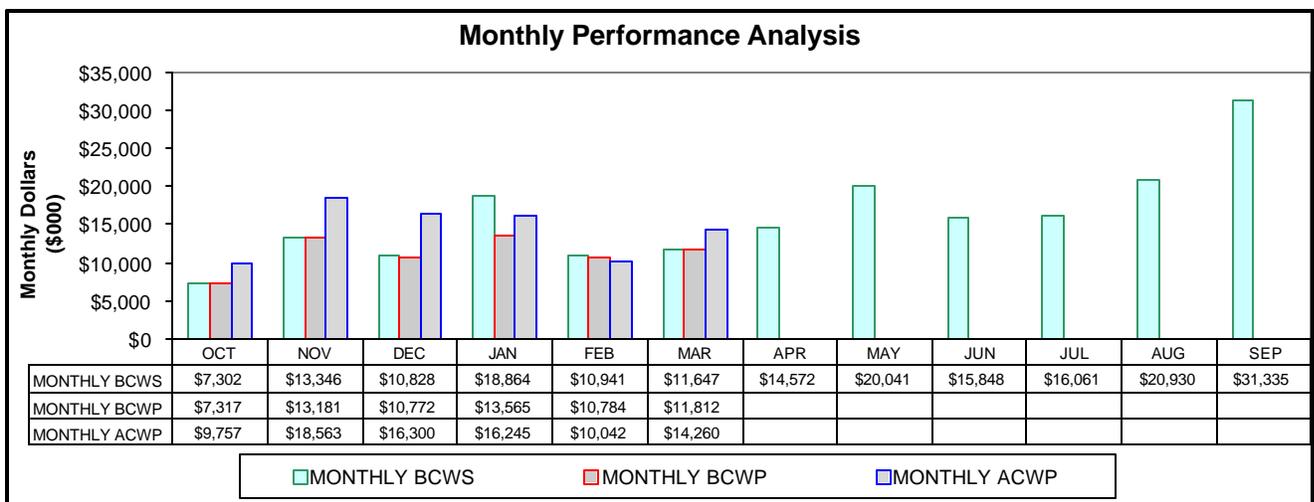
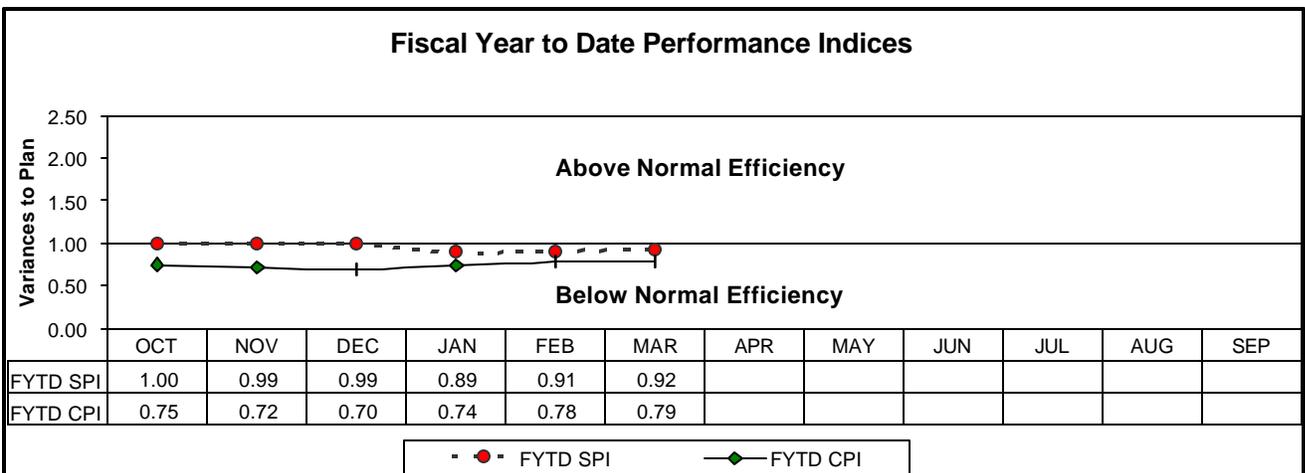
Spent Nuclear Fuel Project — 1.3.1/WM01

Description/Cause: The unfavorable cost variance was due to additional startup and engineering required to resolve first of a kind equipment issues at the K Basins and CSB facility, and subsequent extension of the Operational Readiness Review (ORR) process.

Impact: Costs will exceed funding without taking corrective action (see below).

Corrective Action: A staff plan has been developed which is reducing the number of staff augmentation contractors, adjusting the skill mix of the exempt staff, and hiring bargaining unit staff to support production goals within the baseline. These staff corrections, in conjunction with incorporating BCRs (AFTS and ORR) will significantly reduce the current cost variance by the end of May.

COST/SCHEDULE PERFORMANCE (MONTHLY AND FYTD)



FUNDS MANAGEMENT FUNDS VS SPENDING FORECAST (\$000) FY 2001 TO DATE

	Project Completion *			Post 2006 *			Line Items *		
	Funds	FYSF	Variance	Funds	FYSF	Variance	Funds	FYSF	Variance
The River									
1.3 Spent Nuclear Fuel									
WM01 Operating	\$ 188,071	\$ 188,821	(750)				\$ 16	\$ 16	0
Line Item									
Total Spent Nuclear Fuel Operating	\$ 188,071	\$ 188,821	(750)						
Total Spent Nuclear Fuel Line Item							\$ 16	\$ 16	0

* Control Point

NOTE: Additional actions being taken to avoid forecasted variance.

ISSUES

Regulatory Issues

Issue: If the simplification of the CVD SAR is not approved, commitments to savings may not be achieved.

Impacts: Significant cost to maintain safety class systems will result.

Corrective Action: Continue working with RL staff in hopes of reaching agreement between DOE and the DNFSB.

Technical Issues, and External and DOE Issues and DOE Requests

Issue: Nothing to report at this time.

Impacts: None.

Corrective Action: None at this time.

BASELINE CHANGE REQUESTS CURRENTLY IN PROCESS

PROJECT CHANGE NUMBER	DATE ORIGIN.	BCR TITLE	FY01 COST IMPACT \$000	S C H	T E C H	DATE TO FH CCB	CCB APR'VD	RL APR'VD	CURRENT STATUS
SNF-2001-004	11/14/00	WM02/CP02 Revision Planning Basis - Continuing CSB Operations	N	Y	N	1/3/01	1/3/01	3/30/01	Approved.
SNF-2001-010	1/15/01	FY01 Base Ops Reduction Budget Reconciliation	-3855	N	N	1/26/01	2/9/01	3/30/01	Approved.
SNF-2001-012	2/9/01	Fuel/Sludge Processing Improvements	N	Y	Y	2/21/01	2/21/01	N/A	Approved.

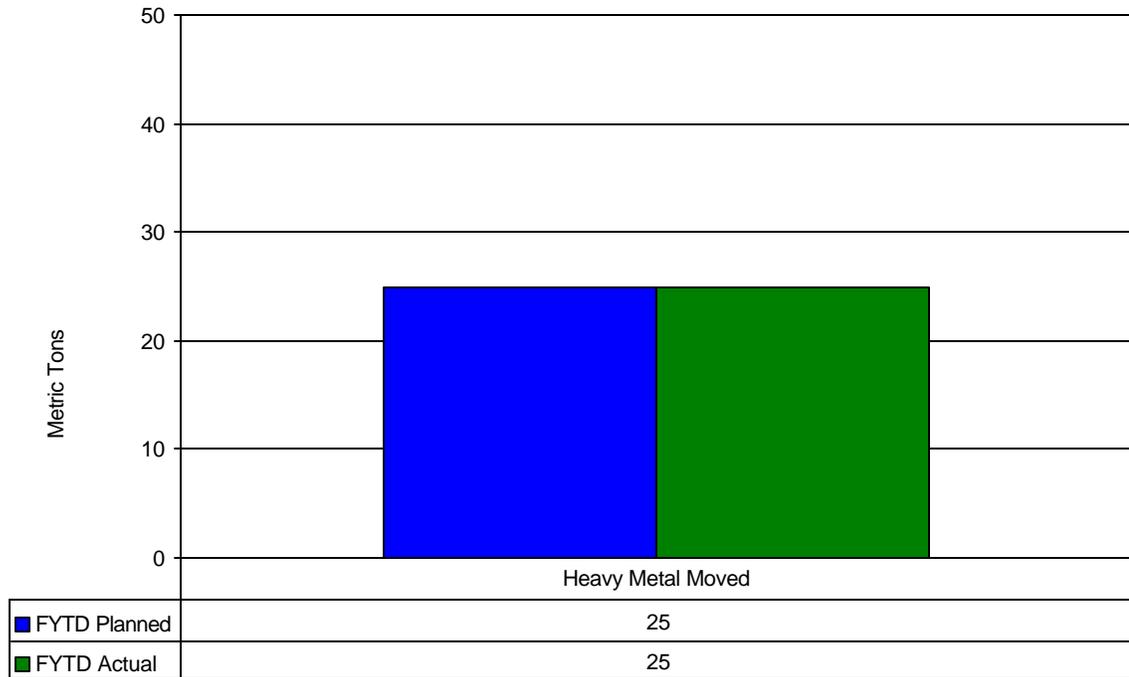
ADVANCE WORK AUTHORIZATIONS									
		None.							

KEY INTEGRATION ACTIVITIES

- SNF final disposition interface activities are ongoing with the National SNF Program, including Office of Civilian Radioactive Waste Management (OCRWM) Quality Assurance (QA) Program implementation.
- The SNF Project and Waste Management Project continued preparations for Shippingport (PA) Pressurized Water Reactor Core 2 SNF removal.
- The SNF Project and the River Corridor Project interfaced on 324 Building (B Cell) SNF removal.
- Neutron Radiography Facility Training Research and Isotope Production General Atomics (TRIGA) and Fast Flux Test Facility (FFTF) SNF relocation planning is ongoing with the FFTF Project.
- Activities continued for potential receipt of SNF discovered by Bechtel Hanford Inc. during upcoming 105F and 105H reactor basins deactivation at K Basins.
- The Sludge Handling Project and T Plant Operations continued preparations for K Basin sludge storage at T Plant.

HEAVY METAL MOVED

SNF Moved to Dry Storage as of March 31, 2001



Heavy Metal Moved: Within + / - 10 percent of planned.