



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 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 June 30, 2000. All other information is as of July 24, 2000.

The third and fourth shipments of Multi-Canister Overpacks (MCOs) were received from Joseph Oat, Inc. ahead of schedule. A total of 32 MCOs have been received at the Hanford Site as of July 14, 2000. Fabrication of the MCO baskets continues at the 328 shop at the Hanford Site.

Fiscal year-to-date milestone performance (EA, DOE-HQ, and RL) shows that three out of four milestones (75 percent) were completed on or ahead of schedule and one milestone was completed late.

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

ACCOMPLISHMENTS

- Since October 2, 1999 the Project has achieved 1,375,651 safe work hours without a lost time incident.
- The third and fourth shipments of Multi-Canister Overpacks (MCOs) were received from Joseph Oat, Inc. ahead of schedule. A total of 32 MCOs have been received at the Hanford Site as of July 14, 2000. Fabrication of the MCO baskets continues at the 328 shop at the Hanford Site.
- The Cold Vacuum Drying (CVD) Facility Bay 5 was turned over to Operations for operational testing and training.
- The Canister Storage Building was turned over to Operations for full control.

SAFETY

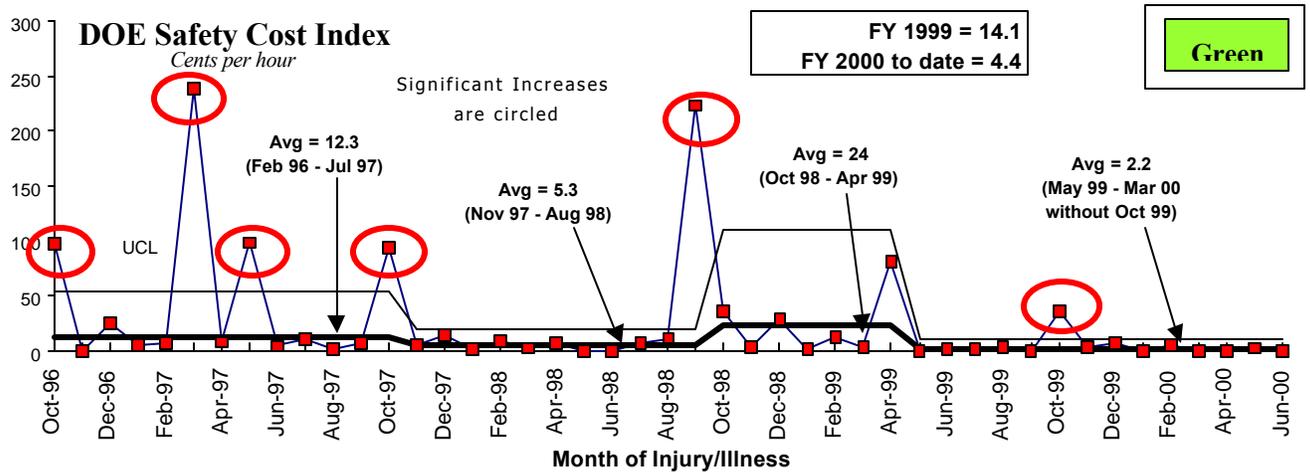
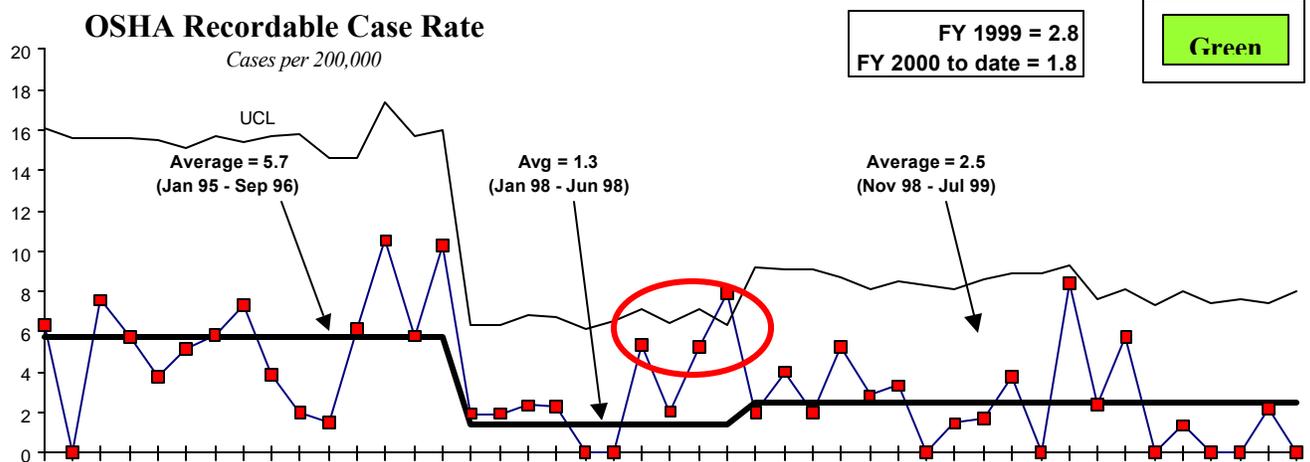
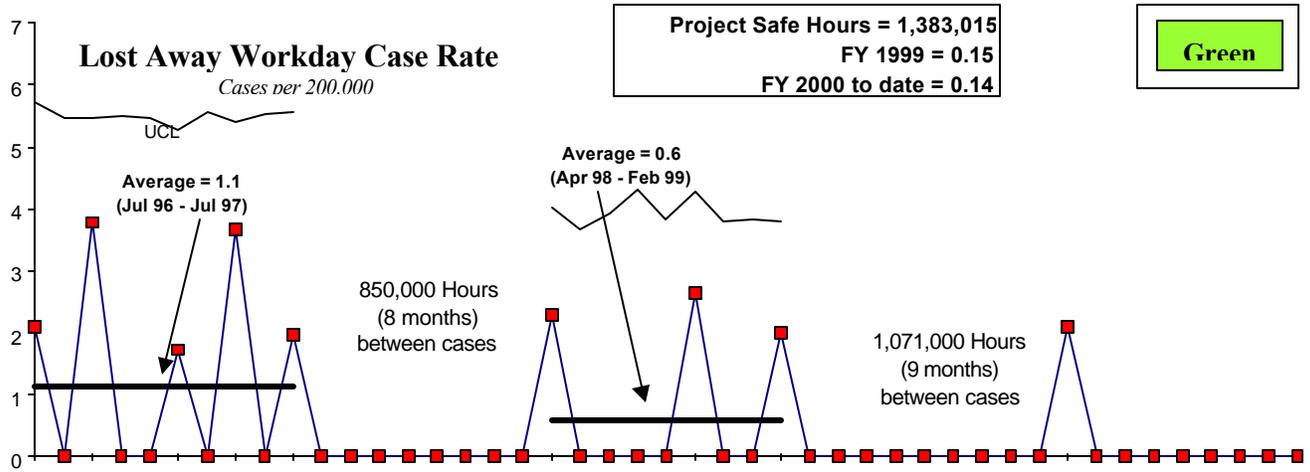
The project has achieved over 1,375,651 safe work hours. The past eleven of twelve months for the DOE Cost Index and Severity Rate have been below average. Although the SNF Project experienced some safety performance degradations with the start of FY 2000, performance continues to improve. October 1999 had two Restricted Workday Cases, and one Lost Away Workday Case. This was a

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nearly significant increase (close to but not above the UCL) on the Occupational Safety and Health Act (OSHA) Recordable Case Rate.

The project's safety record is improving in both OSHA recordables and DOE Cost Index.

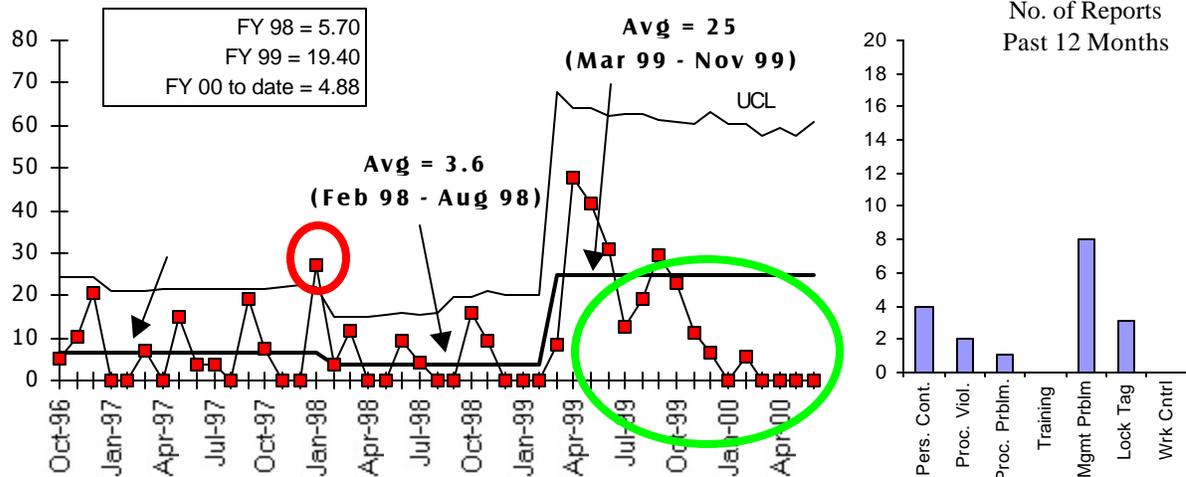
Lostaway overall has had only one case in the past year.



CONDUCT OF OPERATIONS / ISMS STATUS

CONDUCT OF OPERATIONS Events per 200,000 hours

Green



ISMS STATUS

Green

- The ISMS Phase I/II verification for the SNF Project was completed on November 19, 1999.
- The Corrective Action Plans for the “Opportunities for Improvement” were developed and transmitted to RL on January 10, 2000.
 - The actions required to enable ISMS implementation to be declared March 31, 2000 are now complete. Documentation packages have been transmitted to the Environmental, Safety and Health organization. Three of the four packages were reviewed as part of the Project Hanford Management Contract (PHMC) Phase I verification. These items are complete. The remaining item needing RL verification deals with Chemical Management Implementation and is awaiting availability of RL personnel to complete the review.

BREAKTHROUGHS / OPPORTUNITIES FOR IMPROVEMENT

Breakthroughs

Green

- Baseline Change Request SNF-2000-009, which accelerates the completion of sludge removal by one year from August 2005 to August 2004 and reduces total project life cycle cost by \$16 million, was implemented.

Opportunities for Improvement

Green

Phased Startup Initiative (PSI) — Results from the PSI are expected to improve the fuel production rates by approximately one month in FY 2001.

UPCOMING ACTIVITIES

Cold Vacuum Drying (CVD) Facility Testing — Testing at the CVD Facility continues to remain on the critical path. Completion of testing is scheduled for the end of August 2000.

Cask Loadout System (CLS) Testing — Complete startup testing by mid-August 2000.

Phased Startup Initiative (PSI) — Complete PSI Phases I and II in order to support start of Hot Testing by August 25, 2000.

Storage Projects — Delivery of eight more Multi-Canister Overpacks (MCO) is expected by the end of August.

Fuel Removal Activities — Begin DOE Operations Readiness Review by late-September 2000. Begin K West Basin fuel removal, drying and storage operations by November 30, 2000.

COST PERFORMANCE (\$M):

	BCWP	ACWP	VARIANCE
Spent Nuclear Fuel	\$153.3	\$157.7	- \$4.4

The unfavorable cost variance of \$4.4 million (3 percent) is primarily due to Hanford Site assessments higher than baseline and additional facility start up and engineering required as a result of first-of-a-kind equipment issues at K Basins and the CVD Facility.

SCHEDULE PERFORMANCE (\$M):

	BCWP	BCWS	VARIANCE
Spent Nuclear Fuel	\$153.3	\$154.0	- \$0.7

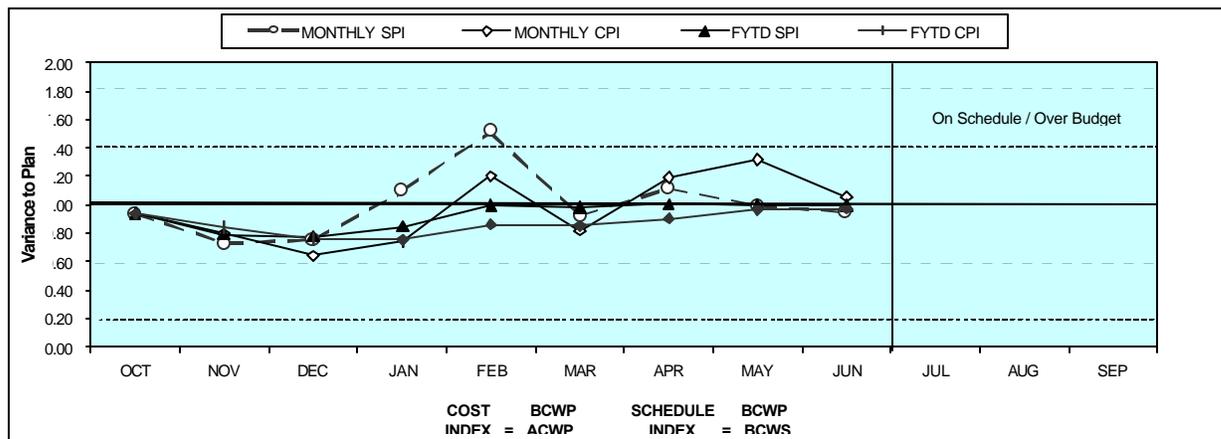
The unfavorable schedule variance of \$0.7 million (0 percent) is within the established thresholds.

FY 2000 COST/SCHEDULE PERFORMANCE – ALL FUND TYPES CUMULATIVE TO DATE STATUS – (\$000)

By PBS		FYTD									
		BCWS	BCWP	ACWP	SV	%	CV	%	PEM	EAC	
PBS WM01	Spent Nuclear	\$ 154,007	\$ 153,344	\$ 157,731	\$ (663)	0%	\$ (4,388)	-3%	\$ 197,222	\$ 201,257	
WBS 1.3	Fuel Project										
Total		\$ 154,007	\$ 153,344	\$ 157,731	\$ (663)	0%	\$ (4,388)	-3%	\$ 197,222	\$ 201,257	

COST/SCHEDULE PERFORMANCE INDICES (MONTHLY AND FYTD)

Yellow



FY 2000	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MONTHLY SPI	0.94	0.73	0.75	1.09	1.52	0.92	1.12	0.99	0.95			
MONTHLY CPI	0.93	0.79	0.64	0.74	1.20	0.82	1.19	1.31	1.06			
FYTD SPI	0.94	0.79	0.78	0.85	0.99	0.98	1.00	1.00	1.00			
FYTD CPI	0.93	0.84	0.76	0.75	0.86	0.85	0.90	0.96	0.97			
MONTHLY BCWS	\$8,574	\$19,209	\$15,681	\$12,081	\$15,753	\$20,085	\$19,582	\$28,731	\$14,312	\$12,268	\$15,758	\$15,189
MONTHLY BCWP	\$8,049	\$13,968	\$11,770	\$13,221	\$23,909	\$18,511	\$21,838	\$28,517	\$13,561			
MONTHLY ACWP	\$8,626	\$17,581	\$18,370	\$17,831	\$19,906	\$22,611	\$18,286	\$21,703	\$12,818			
FYTD BCWS	\$8,574	\$27,783	\$43,463	\$55,544	\$71,297	\$91,382	\$110,963	\$139,694	\$154,007	\$166,275	\$182,033	\$197,222
FYTD BCWP	\$8,049	\$22,016	\$33,786	\$47,008	\$70,917	\$89,428	\$111,265	\$139,783	\$153,344			
FYTD ACWP	\$8,626	\$26,207	\$44,577	\$62,408	\$82,314	\$104,925	\$123,210	\$144,913	\$157,731			

COST VARIANCE ANALYSIS: (- \$4.4M)

WBS/PBS

Title

1.3.1/WM01 Spent Nuclear Fuel Project

Description/Cause: The unfavorable cost variance of \$4.4 million (3 percent) is primarily due to Hanford Site assessments higher than baseline and additional facility start up and engineering required as a result of first-of-a-kind equipment issues at K Basins and the CVD Facility.

Impact: The unanticipated site cost impacts, i.e., Corrective Action Management, Hanford Security, and fee allocation, are being compensated with appropriate site actions. In addition, Baseline Change Requests (BCRs) have been developed and reviewed and are on hold pending source availability for

engineering, testing and administrative support. An \$8 million fiscal year end expense funding shortfall has been identified to FH and RL budget staff.

Corrective Action: Approve pending BCRs.

SCHEDULE VARIANCE ANALYSIS: (\$0.7M)

WBS/PBS

Title

1.3.1/ WM01

Spent Nuclear Fuel Project

Description /Cause: The unfavorable schedule variance of \$0.7M (0 percent) is within the established thresholds.

Impact: None.

Corrective Action: None

FUNDS MANAGEMENT

FUNDS VS SPENDING FORECAST (\$000)

FY TO DATE THROUGH JUNE 2000

(FLUOR HANFORD, INC. ONLY)

	Project Completion *			Post 2006 *			Line Items *		
	Expected Funds	FYSF	Variance	Expected Funds	FYSF	Variance	Expected Funds	FYSF	Variance
The River									
1.3 Spent Nuclear Fuel									
WM01 Operating									
Line Item	\$ 171,075	\$ 177,438	\$ (6,363)				\$ 22,669	\$ 22,669	\$ -
Total Spent Nuclear Fuel Operating	\$ 171,075	\$ 177,438	\$ (6,363)						
Total Spent Nuclear Fuel Line Item							\$ 22,669	\$ 22,669	\$ -

* Control Point

ISSUES

There are no technical, DOE, Regulator or external issues identified at this time. However, an internal DOE budget reprogramming of \$5.0 million will be allocated in August to remedy SNF's projected FY 2000 expense funding shortage.

Baseline Change Requests Currently in Process (\$000)

PROJECT CHANGE NUMBER	DATE ORIGIN.	BCR TITLE	FY00 COST IMPACT \$000	SCH	TECH	DATE TO FDH CCB	CCB APR'VD	RL APR'VD	CURRENT STATUS
SNF-2000-019	5/9/00	FRS/IWTS Phased Startup Initiative	2500	Y	Y				In preparation.
SNF-2000-001	6/13/00	CAM/DTS Cost Allocation	1311	N	Y				FH CCB approved BCR, 7/12/00. Awaiting RL CO approval.
SNF-2000-020	6/14/00	Safeguards & Security Support at KE/KW Basins and CVD Facility		Y	Y				In preparation.
ADVANCE WORK AUTHORIZATIONS									
		Nothing to report.							

SPENT NUCLEAR FUELS – WBS 1.3 MILESTONE ACHIEVEMENT

MILESTONE TYPE	FISCAL YEAR-TO-DATE				REMAINING SCHEDULED			TOTAL FY 2000
	Completed Early	Completed On Schedule	Completed Late	Overdue	Forecast Early	Forecast On Schedule	Forecast Late	
Enforceable Agreement	2	0	0	0	0	0	0	2
DOE-HQ	0	0	0	0	0	0	0	0
RL	1	0	1	0	0	1	0	3
Total Project	3	0	1	0	0	1	0	5

Status as of 7/24/2000

Green

Tri-Party Agreement / EA Milestones

Number	Milestone Title	Status
M-34-14A (S06-97-009)	"Complete K West Basin Cask Facility Modules"	Due 2/29/00 — Completed on schedule.
M-34-04 (S01-99-124)	"Submit Remedial Design Report/Remedial Action Work Plan for the K Basins"	Due 3/31/00 – Completed over one month early (February 10, 2000).
M-34-05 (T01)	"Submit Report on Quantities, Character, and Management of K Basins Debris"	Due 5/31/00 – Completed on Schedule.
M-34-16 (S00-01-900)	"Initiate removal of K West Basin Spent Nuclear Fuel"	Due 11/30/00 - On schedule.
M-34-06-T01	"Initiate K West Basin Spent Nuclear Fuel Canister Cleaning Operations"	Due 12/31/00 - On schedule.

DNFSB Commitments

	Nothing to report.	

MILESTONE EXCEPTION REPORT

Nothing to report.

PERFORMANCE OBJECTIVES

Readiness for Fuel Movement (RC-1-1.a-I) ¾ Contractor completion of construction and operational testing, Management Self-Assessment (MSA), and Independent Operational Readiness Review (ORR) by September 14, 2000 to begin moving fuel by November 30, 2000. Start of fuel movement is currently on track for November 30, 2000.

Yellow

Phased Startup Initiative (PSI) (RC-1-1.a-II) ¾ Complete PSI Phases 1 and 2 by April 15, 2000. This includes successful Cold Testing of Integrated Water Treatment System (IWTS) and Fuel Retrieval System (FRS).

Red

This activity is behind schedule due to required changes to the IWTS Control System Software. This accelerated non-critical path testing activity continues to allow KW Basin system problems to be uncovered and fixed much earlier than the baseline schedule.

Accelerate Fuel Movement (RC-1SS-1) ¾ Accelerate start of fuel movement

Yellow

by two months. Pre-positioning of fuel processed in PSI Phase III will allow early loading of Multicanister Overpacks (MCOs). Assumes IWTS testing completes without further delay, no problems during first fuel movement, and minimum ORR discrepancies.

Phased Startup Initiative (PSI) (RC-1SS-2) ¾ Complete Phases three and four by August 15, 2000. This includes completion of FRS/IWTS system testing using SNF (real fuel) and Completion of Construction Documentation Phase II (CCD2). PSI Phases III & IV are currently being restructured to reflect the delay caused by the IWTS Control System software failure.

Yellow

KEY INTEGRATION ACTIVITIES

- Spent nuclear fuel (SNF) final disposition interface activities, including Office of Civilian Radiation Waste Management (OCRWM) Quality Assurance (QA) Program implementation, ongoing with National SNF Program.
- K Basins sludge removal and Shippingport (PA) Pressurized Water Reactor Core 2 SNF removal implementation activities ongoing with Waste Management Project.
- 324 Building (B Cell) SNF removal acceptance criteria and conceptual design reviews ongoing with River Corridor Project.
- Neutron Radiography Facility, Training, Research and Isotope Production, General Atomics (TRIGA), and Fast Flux Test Facility (FFTF) SNF relocation planning ongoing with FFTF Project.
- Input provided to Bechtel Hanford, Incorporated (BHI) on recovery actions required if SNF is discovered during upcoming reactor basins deactivation.
- Completed assessment and documentation for the Canister Storage Building's readiness to support the receipt of Immobilized High Level Waste (IHLW) from Occurrence Reporting Program (ORP).