



Section C:1

Nuclear Material Stabilization

PROJECT MANAGERS

P.M. Knollmeyer, RL
(509) 376-7435

G.W. Jackson, FH
(509) 373-6622

SUMMARY

The Nuclear Material Stabilization (NMS) mission consists of the Plutonium Finishing Plant (PFP), WBS 1.4.5 (PBS TP05).

NOTE: The Safety, Conduct of Operations, and Cost/Schedule data contained herein is as of March 31, 2001. Other information is updated as noted.

Fiscal-year-to-date milestone performance (EA, DOE-HQ, and RL) shows that two milestones (67 percent) were completed on or ahead of schedule and one milestone is overdue. Further details can be found in the milestone exception report following the cost and schedule variance analysis.

NOTABLE ACCOMPLISHMENTS

Maintain Safe & Secure SNM

Seismically qualified storage racks were installed in Rm. 638 of 2736-ZB in support of Vault Operations and the W460 Project. The Remote Material Surveillance System (RMSS) design is 90 percent complete and procurement is underway for installation of five new Proximity Card Readers and 21 Surveillance Cameras. This upgrade satisfies fire protection requirements, reduces personnel exposure by approximately 50 percent in the stabilization area, and improves 234-5Z and 2736-ZB security access.

Maintain Safe and Compliant PFP

Installation of the final of 12 backflow preventers was completed April 18, 2001, which closes out this milestone activity (TRP-01-511) significantly ahead of the June 2001 RL commitment date. The Defense Nuclear Facility Safety Board (DNFSB) recently commended the Nuclear Material Stabilization Project (NMSP) in the areas of Deactivation and Decommissioning planning and closure of Plutonium Vulnerability Assessment actions.

Stabilization of Nuclear Material

Residues $\frac{3}{4}$ Packaging of Rocky Flats (RF) ash into Pipe Overpack Containers (POCs) was completed on March 19, 2001. Final shipment of the packaged ash to the Central Waste Complex (CWC) was completed March 29, 2001, well in advance of the April 30, 2001 milestone. Processing and packaging of Hanford Ash was initiated on April 09, 2001. This campaign is currently scheduled to complete by December 31, 2001.

Oxides/Metals $\frac{3}{4}$ Design of the Bagless Transfer Can 3013 can-piercing device was completed, and procurement/fabrication activities were initiated. Fabrication and testing is nearing completion and is expected to support startup of the oxide packaging process in early May 2001. Forty-one (41) metal items were packaged this month. This includes seven (7) items that were oxidized, stabilized and packaged into food pack cans and thirty-four items brushed and packaged in BTS inner cans.

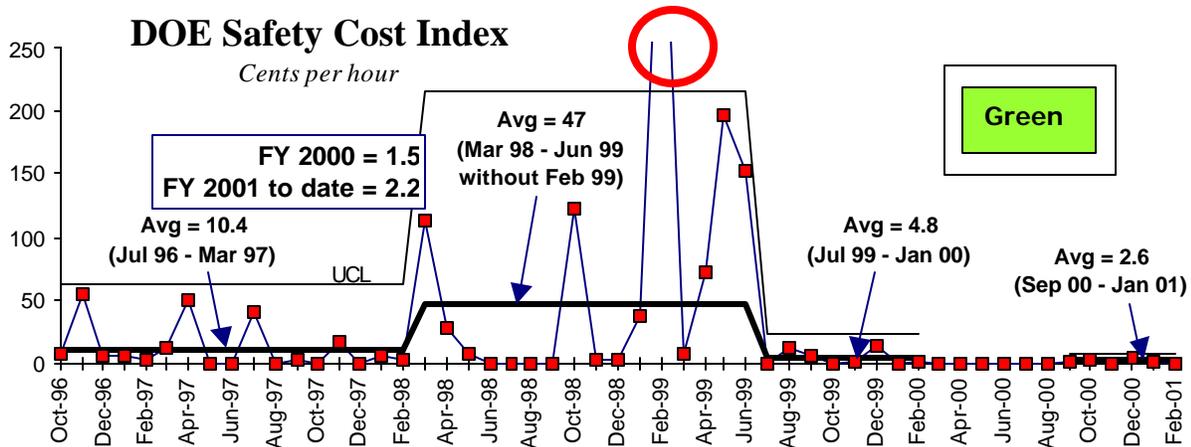
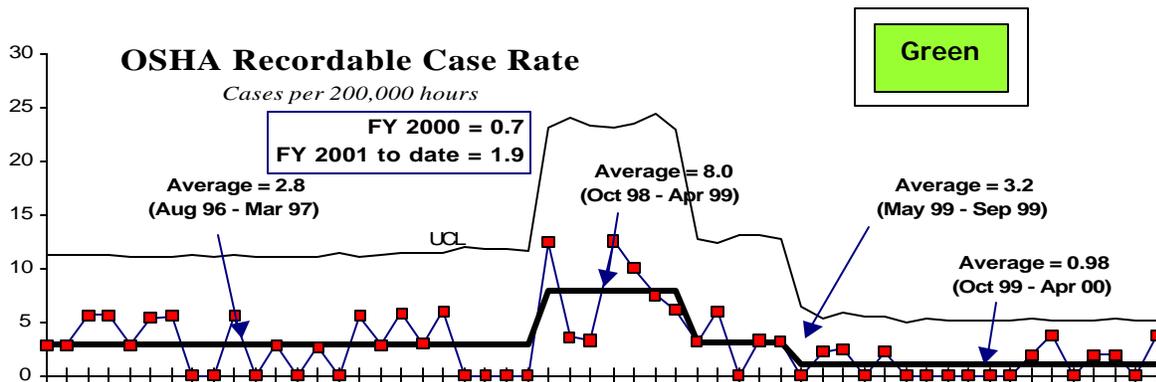
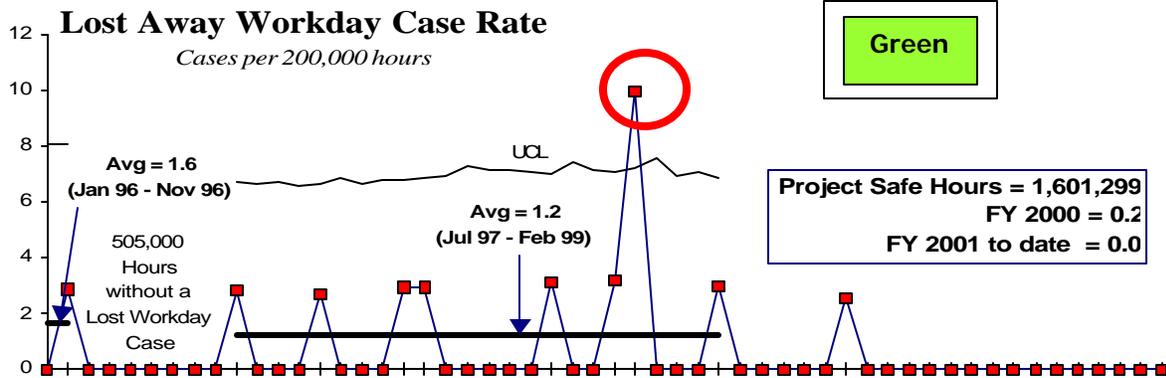
Solutions $\frac{3}{4}$ Operational improvements have been implemented, or are underway, that are expected to improve Solutions Stabilization throughput. These include installation of a two-boat hot plate, additional capability for in-process lag storage, increasing feed concentration to 40 grams/liter, and additional lag storage in glove box HA-23S. Additionally, alternate disposition options for some of the lower-concentration solutions continue to be evaluated. The Solutions Stabilization project processed 80 liters through the $Mg(OH)_2$ process during March, bringing the fiscal year total to 376 liters. Fifty (50) liters were processed thru the muffle furnaces in March.

Disposition of Nuclear Material

Startup operation of the Outer Can Welder (OCW) was initiated on April 10, 2001. This achievement makes Hanford the first site in the DOE complex to comply with the new DOE plutonium packaging standard.

SAFETY

Through March 31, 2001, there were 491 calendar days (over 1.6 million staff hours) since the last recorded lost workday injury.



ISMS STATUS

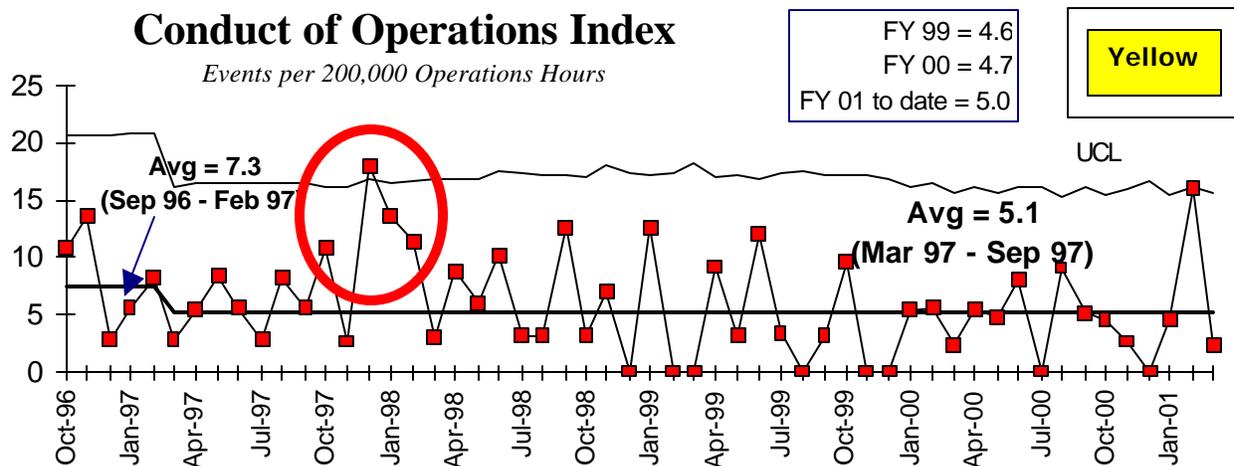
Green

Preparations are continuing for VPP "Star" status application.

CONDUCT OF OPERATIONS

An all employee safety stand-down was conducted on March 23, 2001, to focus on Conduct of Operations issues, non-conformances, and Integrated Safety Management principles. Additionally, management staff has increased presence in the field during all shifts to address these issues.

The Conduct of Operations Index has been stable for the past three years at a baseline of 5.1. The current baseline is less than the baseline of 5.6. The recent upward trend is being actively addressed.



BREAKTHROUGHS / OPPORTUNITIES FOR IMPROVEMENT

Breakthroughs

Yellow

Project W-460 - Planning is underway to expedite completion of this project by nearly 1 ½ years by fabricating/procuring all of the vault racks during FY 2001 and installing them with plant forces on a just-in-time basis as required to support outer can operations.

Opportunities for Improvement

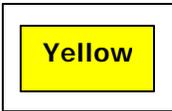
Maintain Safe and Secure Special Nuclear Materials - A request has been submitted to RL to conduct the RL Material Balance Area 80 domestic inventory in conjunction with the annual International Atomic Energy Agency (IAEA) inventory rather than at six-month intervals. *(On hold – will be resubmitted later. No further status to be provided at this time.)*

Yellow

Residues Stabilization - Revision of the Safety Analysis Report for Packaging (SARP) is underway to allow shipment of the Pipe Overpack Containers (POCs) to the CWC without first being placed in the 55 gallon shipping over pack containers. DOE-RL approval is anticipated the first week of May. (This proposal is expected to reduce exposure through shortened shipment preparation time, and in addition, eliminate potential lifting hazards.)

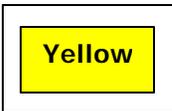
Green

Exposure Reduction - Completed an ALARA evaluation and cost benefit analysis for dose reduction alternatives for the stabilization of the polycube inventory. A shielded can will be used for material transport from the vaults into the glove box system, and shielded tongs will be used for handling the polycubes once the cans have been opened.



A request was submitted to RL to conduct the RL Material Balance Area 80 domestic inventory in conjunction with the annual International Atomic Energy Agency (IAEA) inventory rather than at six-month intervals. The request was returned to FH with comments and will be resubmitted at a later date with comments incorporated. (No further status to be provided).

Solutions Stabilization - The Solutions Team continued its evaluation of alternate disposal methods for a portion of the Solutions inventory. These modifications could accelerate the solutions stabilization project and reduce processing, packaging, and storage costs.



UPCOMING ACTIVITIES

- Complete modifications to one vault cubicle in May 2001. This effort was scheduled for April but was re-sequenced. (Milestone TRP-99-412)
- Complete Alloy Stabilization by June 30, 2001.
- Complete stabilization and repackaging of plutonium (Pu) metals and oxides in 3013 outer cans by August 31, 2001.
- Complete Project W-460 construction activities by August 31, 2001.

MILESTONE ACHIEVEMENT

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	1	0	0	0	0	1	0	2
DOE-HQ	0	0	0	1	0	1	0	2
RL	1	0	0	0	0	3	1	5
Total Project	2	0	0	1	0	5	1	9

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.

FY2001 Tri-Party Agreement / EA Milestones			
M-083-07 (TRP-01-515)	"Complete Repackaging & Shipping of Rocky Flats Ash to the CWC"	Due April 30, 2001 – Completed on March 29, 2001.	
M-083-08 (TRP-01-516)	"Complete Requirements to Ship Rocky Flats Ash to WIPP"	Due date to be determined based on negotiations for transition of the PFP facility. Negotiations are scheduled to begin June 1, 2001.	
DNFSB Commitments			
M-IP-114 (TRP-01-501) R94-01	"Ship Alloys to SRS or Complete Stabilization of Alloys"	Due June 30, 2001 - Completion of Groups 1 and 2 alloy processing and disposition is expected to meet the June 30, 2001, commitment. Group 3 alloy characterization and stabilization activities continue on schedule.	
M-IP-110 (TRP-02-500)	"Complete Packaging of Metal Inventory"	Due August 31, 2001 – On schedule. BCR has been submitted to FH to change the RL milestone completion date consistent with the DOE- HQ Implementation Plan date, 8/31/01, on this subject.	

MILESTONE EXCEPTION REPORT

<u>Number/WBS Level</u>	<u>Milestone Title</u>	<u>Baseline Date</u>	<u>Forecast Date</u>
-------------------------	------------------------	----------------------	----------------------

Overdue – 1

TRP-02-500 HQ 1.4.5	Complete Packaging of Metal Inventory	03/31/2001	08/31/2001
------------------------	---------------------------------------	------------	------------

Cause: The DOE HQ Implementation Plan on DNFSB Recommendation 94-1/2000-1 was revised in January 2001. This revision changed Hanford's packaging of metals inventory milestone from March 31, 2001, to August 31, 2001. This change was required to be consistent with startup of the Outer Can Welder at Hanford.

Impact: No impact to either cost or schedule is anticipated since the current schedule is already based on the 8/31/01 completion.

Corrective Action: A Baseline Change Request has been submitted documenting this change.

Forecast late – 1

TRP-99-412 RL 1.4.5	Complete mods. to One PFP Vault Cubicle	04/02/2001	05/30/2001
------------------------	---	------------	------------

Cause: The re-sequencing of Project W-460 workscope, as a result of a change in contractors, resulted in an increased focus on facility modifications and also determined cost efficiencies could be realized through mass fabrication of storage racks rather than individually as previously planned.

Impact: This milestone will be delayed to May 30, 2001.

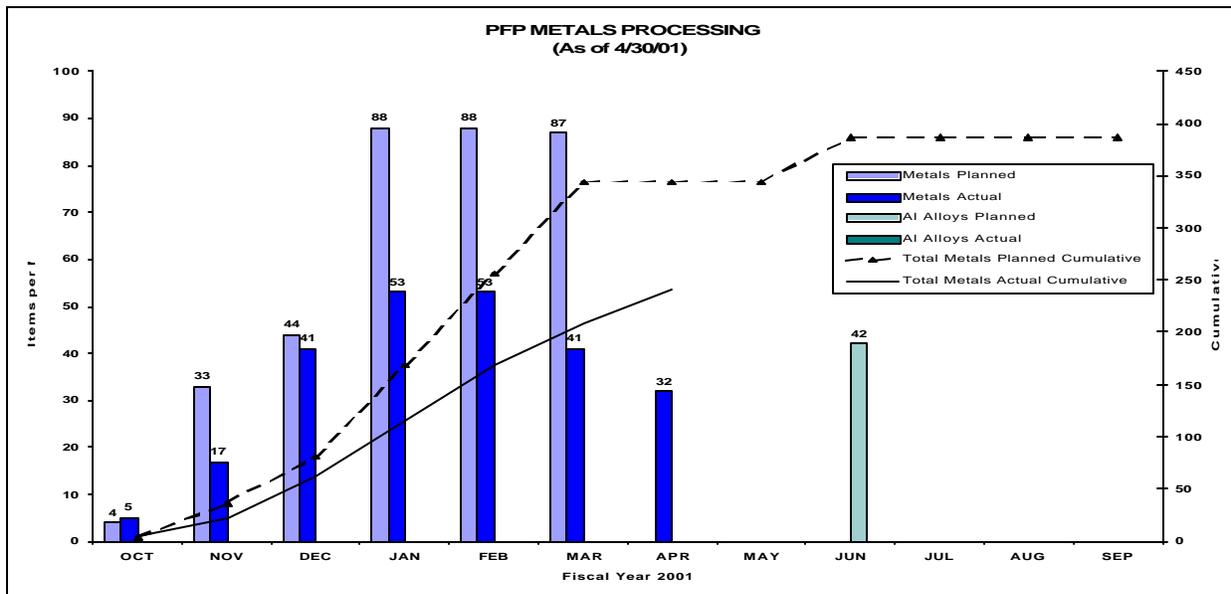
Corrective Action: No corrective action required.

FY 2002 Tri-Party Agreement / EA Milestones		
Number	Milestone Title	Status
	Nothing to report at this time.	
DNFSB Commitments		
M-IP-106 (TRP-01-500) (R94-01)	"Complete Stabilization & Packaging Plutonium Solutions"	Due December 31, 2001 – Although numerous process improvements are in various stages of implementation, this milestone remains three months behind schedule. Evaluating alternative disposal methods, which could accelerate stabilization.

PERFORMANCE OBJECTIVES

Green

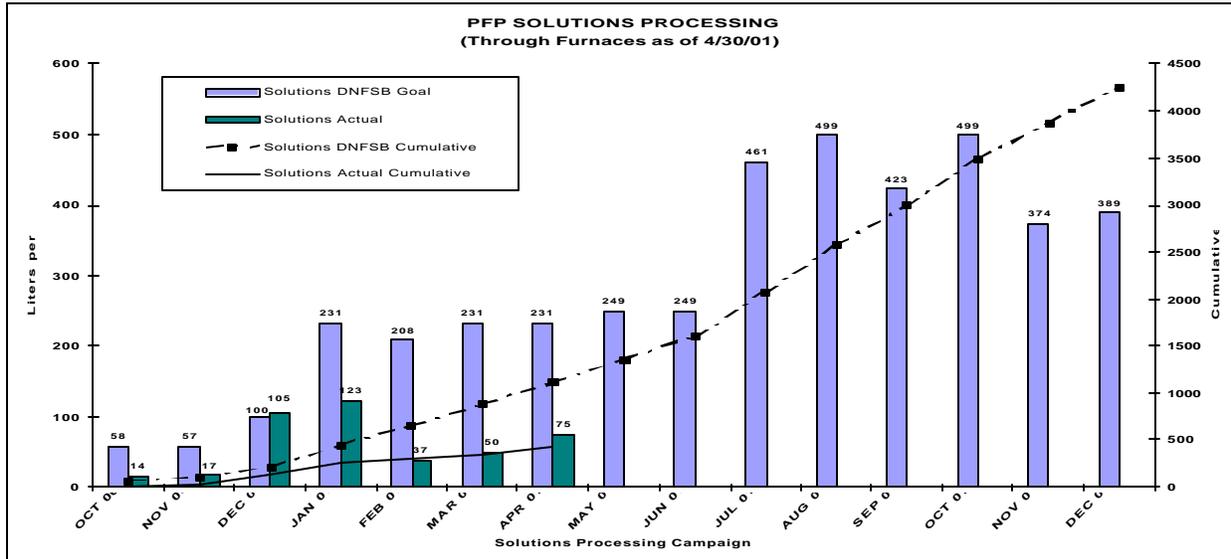
OXIDES/METALS/POLYCUBES STABILIZATION



Higher than planned oxidation rates, now moderating slightly, and reduced operational reliability of the Bagless Transfer System's cutting and welding operations have impacted metal stabilization packaging processing. Third shift operations and weekend overtime are being utilized to recover schedule loss.

Solution Stabilization

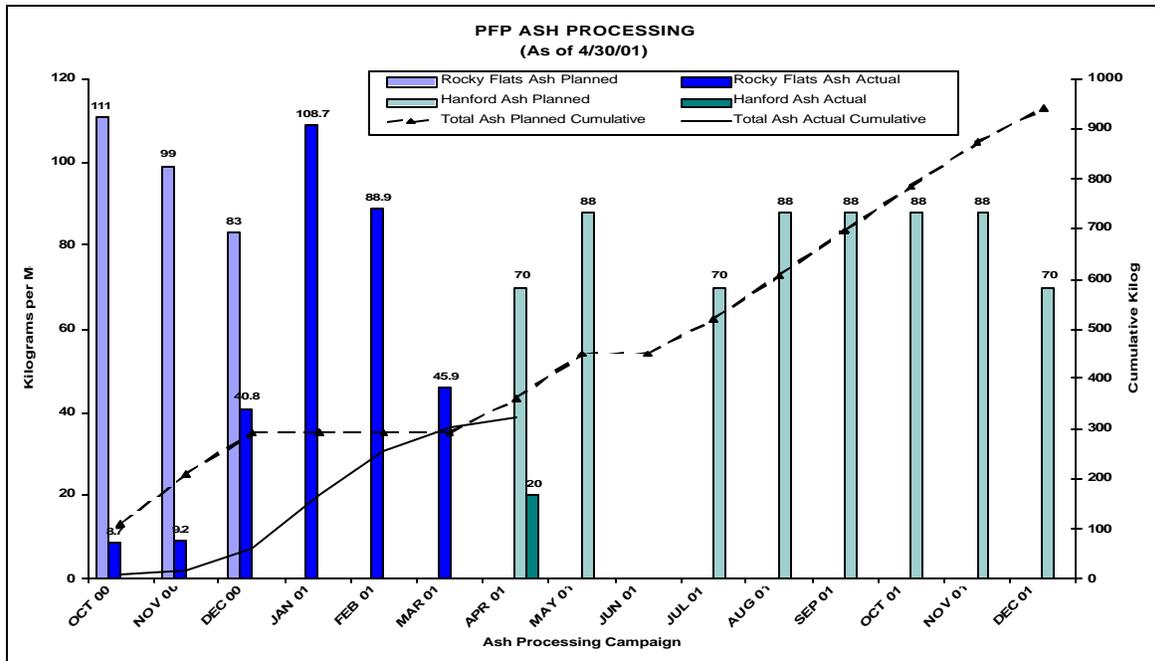
Yellow



This graph represents progress toward completion of the Defense Nuclear Facilities Safety Board milestone that is due December 31, 2001. The behind schedule status is due to the quantity of the boats generated per liter of solution from the precipitation process being significantly higher than forecasted in the baseline estimates.

Residues Stabilization

Green



On schedule as planned.

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

Yellow

		FYTD									
By PBS		BCWS	BCWP	ACWP	SV	%	CV	%	PEM	EAC	
WBS 1.4.5 PFP		\$ 52,986	\$ 50,044	\$ 52,890	\$ (2,942)	-6%	\$ (2,846)	-6%	\$ 109,330	\$ 111,520	
PBS TP05	Deactivation										
	Total	\$ 52,986	\$ 50,044	\$ 52,890	\$ (2,942)	-6%	\$ (2,846)	-6%	\$ 109,330	\$ 111,520	

Authorized baseline as per the Integrated Planning Accountability, and Budget System (IPABS) – Project Execution Module (PEM).
Note: The above cost variance includes an additional \$1.4M RL holdbacks for steam, laundry, and Interoffice Work Orders to the Savannah River Site in support of Project W-460.

FY TO DATE SCHEDULE / COST PERFORMANCE

Both schedule and cost variances are within the established thresholds.

The unfavorable schedule variance represents an overall 14% improvement from February 2001 and continues to be primarily attributable to Project W-460 schedule recovery. However despite this progress, throughput in the Metals and Solutions Stabilization projects continues to be limited by technical and operational challenges.

The unfavorable cost variance is primarily attributable to acceleration of Project W-460, 234-5Z Bagless Transfer System (BTS) operational difficulties, emergent 291-Z Stack Monitor modifications, and late completion of Rocky Flats Ash processing. The detailed cost variance that follows does not address fee allocation (\$240K) or the additional \$1.4M RL holdbacks for steam, laundry, and Interoffice Work Orders to the Savannah River Site in support of Project W-460.

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: (-\$2.9M)

1.4.5.1.10 Maintain Safe & Secure SNM (-\$250K)

Description and Cause: The unfavorable schedule variance is primarily attributable to a late start in initiating design and procurement activities supporting the Remote Material Surveillance System (RMSS) upgrade.

Impact: At this time, there are no significant impacts to completion of the RMSS upgrade or related work scope (Remote CCTV Surveillance Cameras and Proximity Card Readers).

Corrective Action: Although this project is now forecast for a July completion, there is no programmatic impact with this delay.

1.4.5.1.11 Maintain Safe & Compliant PFP (-\$681K)

Description and Cause: The unfavorable schedule variance is primarily attributable to delays in starting special projects due to winter weather conditions, the redirection of plant and contract resources to support higher priority Project W-460 workscope, and development of the S/RID Phase II Assessment.

Impact: No impact at the present time. Despite the delayed start, the planned special projects are forecast to complete as scheduled (i.e. Parking Lot Expansion, 25 MREM boundary study, Continuous Air Monitor

[CAM] upgrade). Completion of the S/RID Phase II Assessment may be delayed to FY 2002 due to late approval of the S/RID Annual Update by DOE-RL that was completed last fall.

Corrective Action: None. These special projects are expected to complete this fiscal year as resources become available. The 2736-ZB air conditioning and CAM upgrades are under review for carryover into FY 2002 due to resource constraints. The S/RID Phase II Assessment will begin upon DOE-RL approval.

1.4.5.1.13 Stabilization of Nuclear Material (-\$1,160K)

Description and Cause: The unfavorable schedule variance is primarily attributable to continuing technical and operational challenges in the Metals and Solutions Stabilization projects. Higher than planned oxidation rates, now moderating slightly, and reduced operational reliability of the Bagless Transfer System's cutting and welding operations have impacted metal stabilization packaging. Generation of higher than planned precipitate through the $Mg(OH)_2$ process continues to limit Solution stabilization progress. Also contributing to this variance were early operational issues in the Residues Packaging project. Other contributors to this variance include delays in initiating special projects due to winter weather conditions and a redirection of resources to Project W-460 activities.

Impact: Limited availability of the Bagless Transfer System (BTS) has extended completion of metals stabilization and packaging to early June 2001 based on a six item per day production rate. Subsequent stabilization and packaging of alloys is expected to support the June 30, 2001 completion of the Defense Nuclear Facilities Safety Board (DNFSB) milestone. Current operational efficiency in the Solutions Stabilization project jeopardizes completion of two (2) Defense Nuclear Facilities Safety Board (DNFSB) milestones ("Complete Solutions Stabilization," TRP-01-500 and "Complete Stabilization of Polycubes," TRP-02-501) due December 31, 2001 and August 31, 2002 respectively.

Corrective Action: Installation of new generation cutter wheels and weld tips from the Savannah River Site (SRS) are expected to benefit metals packaging by improving the operational reliability of the BTS. A number of operational improvements have been implemented, or underway, that are expected to improve Solutions Stabilization throughput. Additionally, alternate disposition options for some of the lower concentration solutions are being evaluated. Residues Packaging of Rocky Flats ash was completed March 29, 2001, significantly ahead of the April 30, 2001 Tri-Party Agreement Milestone (M-083-07) commitment. Schedule recovery is anticipated in special projects.

1.4.5.1.14 Disposition of Nuclear Material (-\$799K)

Description and Cause: The unfavorable schedule variance is primarily due to late receipt of Project W-460 stabilization and laboratory equipment supporting 2736-ZB Bagless Transfer System (BTS) construction and installation. Thermal stabilization of plutonium alloys and 234-5Z BTS production are also contributors. Mitigating factors to this variance include early 2736-ZB design completion for construction of vault racks and accelerated facility modifications.

Impact: No impact is currently forecast for completion of Project W-460. However, the June 30, 2001 Defense Nuclear Facility Safety Board (DNFSB) milestone for plutonium alloy stabilization is in jeopardy. Resolution of 234-5Z BTS production difficulties is not currently expected to impact the August 31, 2001, DNFSB milestone to complete packaging of the plutonium metals inventory.

Corrective Action: Complete installation of Project W-460 is expected in advance of the August 31, 2001, DOE-RL milestone. Baseline Change Request FSP-2001-024 has been submitted to DOE-RL for approval that reclassifies the remaining portion of the alloys into two groups of residues that will be thermally stabilized or packaged into Pipe Overpack Containers. This same Baseline Change Request also removes from the FY 2001 baseline approximately 40% of the planned alloy disposition to FY 2003. Installation of new generation cutter wheels and weld tips from the Savannah River Site (SRS) are expected to benefit metals packaging by improving the operational reliability of the BTS.

Cost Variance Analysis: (-\$2.8M)

WBS/PBS

Title

1.4.5.1.10 Maintain Safe & Secure SNM (\$174K)

Description and Cause: The favorable cost variance is the result of an understatement of exempt and bargaining unit support and, to a lesser extent, efficiencies in conducting International Atomic Energy (IAEA) monthly adhoc inventories.

Impact: No impact is projected at this time.

Corrective Action: Realignment of labor costs, and a projected increase in expense costs supporting construction of an IAEA dedicated area within 2736-ZB are expected to mitigate this underrun.

1.4.5.1.11 Maintain Safe & Compliant PFP (-\$683K)

Description and Cause: The unfavorable cost variance is primarily attributable to higher than planned corrective maintenance activities supporting the stabilization processes, DOE-RL guidance regarding funding to support the 291-Z stack monitoring upgrade, and a misallocation of telephone, computer, and Bonneville Power Administration (BPA) assessments. A significant portion of this variance continues to be offset through productivity efficiencies that have allowed reassignment of engineering personnel to the stabilization processes and Project W-460.

Impact: The projected overrun is expected to be significantly offset by under runs in other cost accounts within this WBS account.

Corrective Action: A letter is being prepared requesting the DOE-RL Contracting Officer for direction and funding regarding the emergent 291-Z stack probe upgrade. Corrective actions are underway, or being evaluated, with respect to the increased telephone, computer, BPA assessments.

1.4.5.1.13 Stabilization of Nuclear Material (-\$352K)

Description and cause: The unfavorable cost variance is primarily attributable to 234-5Z Bagless Transfer System (BTS) mechanical failures that have resulted in a higher per unit cost for packaging stabilized metal items and incremental Rocky Flats Ash processing costs. During March, the weld tip and cutter operations issues resulted in reduced BTS operation in seventeen (17) of nineteen (19) available days. Early technical and operational issues extended processing and packaging of Rocky Flats Ash by three months.

Impact: The incremental metal stabilization processing costs are expected to be offset by actual underruns in the preparations for polycube processing. The incremental Rocky Flats Ash processing costs will be absorbed at the project level.

Corrective Action: Installation of a new generation of weld tips and cutter wheels are expected to improve operational reliability the 234-5Z BTS that will benefit metals processing. Final packaging and shipment of Rocky Flats (RF) ash into Pipe Overpack Containers (POCs) was completed on March 29, 2001.

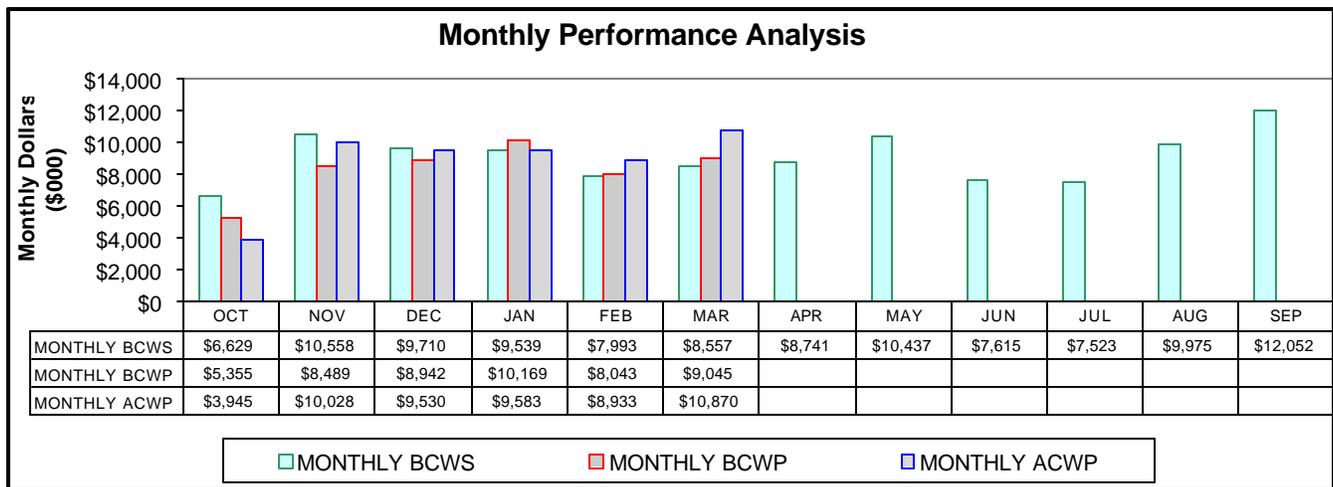
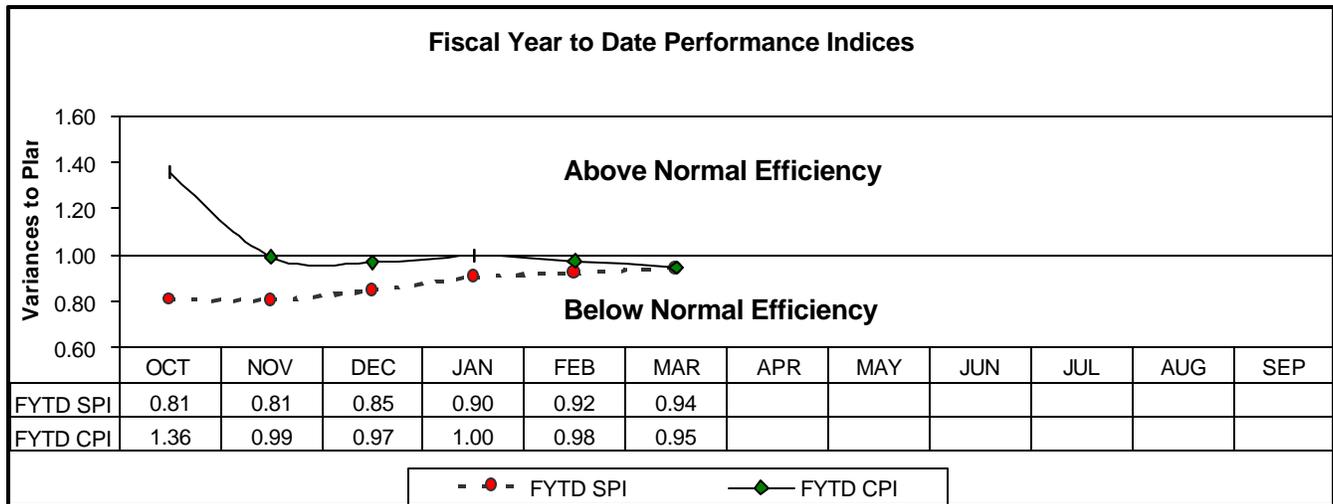
1.4.5.1.14 Disposition of Nuclear Material (-\$762K)

Description and cause: The unfavorable cost variance is primarily attributable to acceleration of Project W-460 and previous contractor costs.

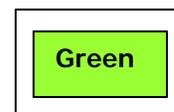
Impact: Fiscal Year (FY) 2001 funding to support the continued accelerated progress of Project W-460 is at critical levels and may result in the suspension of the 2736-ZB Stabilization & Packaging Equipment installation activities.

Corrective Action: Close monitoring of costs are necessary to support continued Project W-460 construction and installation activities.

SCHEDULE / COST PERFORMANCE (MONTHLY AND FYT)



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 Plateau 1.4.5 Nuclear Materials Stabilization TP05 Operating Line Item	\$ 89,820	\$ 94,532	\$ (4,712)				\$ 12,140	\$ 12,108	32
Total Nuclear Mat. Stab. Operating	\$ 89,820	\$ 94,532	\$ (4,712)						
Total Nuclear Mat. Stab. Line Item							\$ 12,140	\$ 12,108	32

* Control Point

NOTE: Forecast includes planned investment from indirect savings.

ISSUES

Technical Issues

Issue: The quantity of boats from the precipitation process is higher than expected or forecasted in the baseline estimates and schedules

Impact(s): Extends project completion date three months beyond the original Defense Nuclear Facilities Safety Board 94-1/2001-1 commitment of December 31, 2001.

Corrective Action(s): Processing estimates and production schedules have been revised based on results of the characterization-processing task. Options currently under consideration to improve throughput include; increased lag storage, additional processing capability (two-boat hot plates) and discussions with WIPP and WRAP officials regarding alternate stabilization and disposition options.

Issue: A portion of the oxides to be processed contains fairly high levels of chloride.

Impact(s): Could impact completion of oxide stabilization.

Corrective Action(s): A meeting was held with PNNL to select the characterization and material pretreatment methods to remove chlorides prior to processing. A draft report from PNNL was received the end of January. Further work is underway to develop detailed plans and schedules. *(No further status to be provided).*

Issue: The Super Critical Fluid Extraction (SFE) method is not completely removing the water from the Mg(OH)₂.

Impacts: Has the potential to further extend the project completion date.

Corrective Action: A technical assistance team is being formed by Los Alamos and Hanford to evaluate the data on the SFE. A preliminary report is expected by mid-May.

Regulatory, External, and Doe Issues and DOE Requests

Issue: No other issues identified at this time.

Impacts: None at this time.

Corrective Action: None at this time.

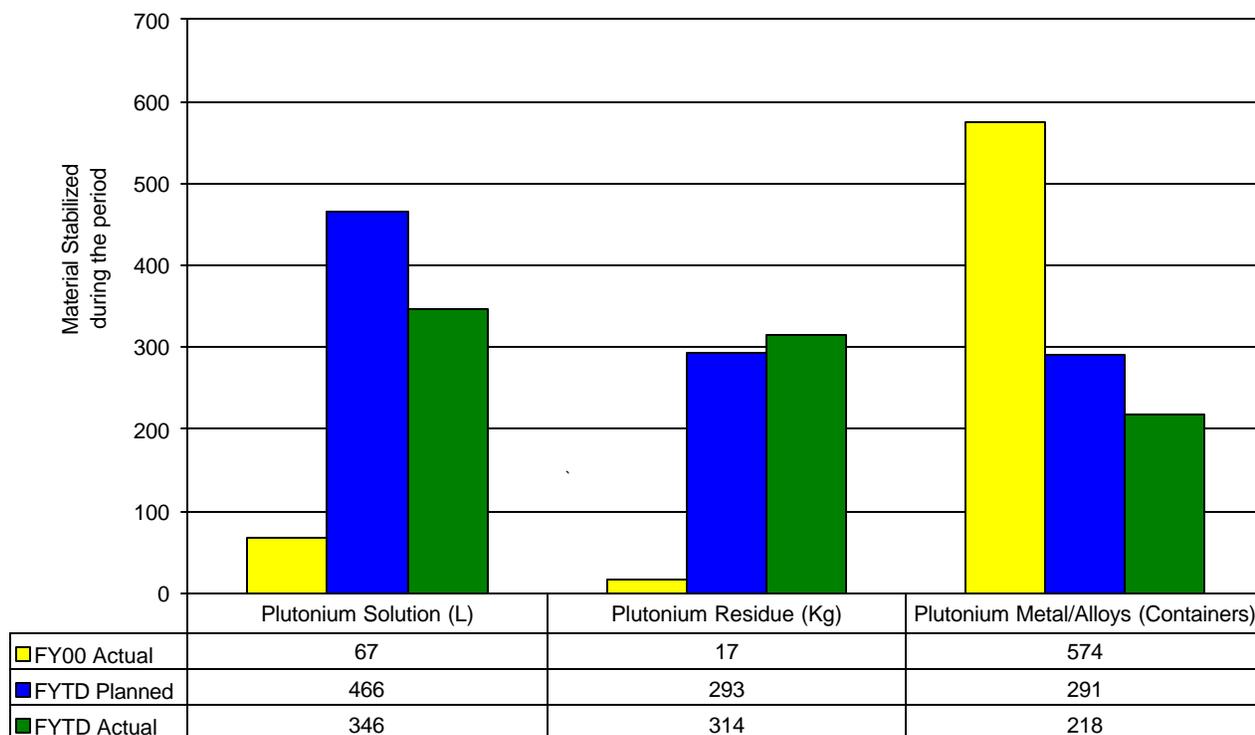
BASELINE CHANGE REQUESTS CURRENTLY IN PROCESS

BCR NUMBER	DATE ASSIGNED	BCR TITLE	FY 01 IMPACT	SCH	TECH	DRAFT COPY	TO FH	FH APPROVAL	DOE-RL APPROVAL
FSP-2001-021	13-Dec-00	Additional Cost Savings	(\$1,672)	---	---		10-Jan-01	10-Jan-01	3-May-01
FSP-2001-024	29-Dec-00	Rebaseline Alloys Stabilization	\$86	X	X		8-Mar-01	9-Mar-01	Returned No Action
FSP-2001-037	9-Feb-01	Accelerate Hanford Ash	\$3,106	X	X	21-Mar-01	29-Mar-01	On Hold	
FSP-2001-038	9-Feb-01	Maintenance Calendar Restructure		X	---		Cancel		
FSP-2001-041	5-Mar-01	Prototype VDC		X	X				
FSP-2001-043	15-Mar-01	291-Z-1 Stack Monitor	\$363	X	X	23-Apr-01	27-Apr-01	2-May-01	Not Required
FSP-2001-045	23-Mar-01	10 CFR 830, Phase 1	\$138	X	X	28-Mar-01	29-Mar-01	2-May-01	Not Required
FSP-2001-046	4-Apr-01	Revise Metals Completion Date	-----	X	---	4-Apr-01	27-Apr-01	7-May-01	
FSP-2001-047	4-Apr-01	3013 Monitoring System, Phase 1	\$442	X	X	18-Apr-01	27-Apr-01	2-May-01	Not Required
FSP-2001-048	16-Apr-01	DNFSB Recommendation 2000-2	\$25	X	X	23-Apr-01	4-May-01	7-May-01	Not Required
FSP-2001-049	16-Apr-01	Supercritical Fluid Extraction							
PFPA Advance Work Authorization Status									
AWA Number	AWA TITLE		FY 01 IMPACT	SCH	TECH	DRAFT COPY	TO FH	FH APPROVAL	DOE-RL APPROVAL
AWA-01-005	291-Z Stack Monitor		\$100	X	X	1-Mar-01	1-Mar-01		
AWA-01-006	Accelerate Hanford Ash		\$486	X	X	29-Mar-01	29-Mar-01	11-Apr-01	Not Required

KEY INTEGRATION ACTIVITIES

- Room modifications are underway in the 2736-ZB facility to accommodate delivery and installation of a new neutron counter from the Los Alamos National Laboratory. This equipment will be tested in the May-June timeframe jointly with the International Atomic Energy Agency (IAEA) and is expected to improve Nondestructive Analysis efficiency that will shorten the time for IAEA inventory verification requirements.
- The authorization basis for allowing packaging of oxides including oxidized metals into a BTC is currently contingent upon approval from RL. Resolutions of the risks associated with this activity are currently under evaluation by RL.
- Thermal stabilization of high chloride oxides must include a pretreatment to remove the chlorides. PNNL had been reviewing treatment methods and has presented a cool air quench recommendation for the off-gas.
- The completion of the quality assurance documentation associated with the SGSAS is required to be complete prior to initiation of measurement of Hanford ash. A significant effort is underway to complete the documentation the first part of April. Completion for some of the documents includes review and acceptance by Carlsbad Area Office (CAO). The feasibility of initiating repackaging and measurement of Hanford ash after obtaining Waste Management approval of the documents but prior to CAO acceptance will be evaluated.

NUCLEAR MATERIALS STABILIZED DURING THE CURRENT PERIOD



Plutonium Solution: The delay is due to a production rate that is lower than planned. The amount of plutonium-bearing magnesium hydroxide precipitate generated per liter of solution via the Mg(OH)₂ precipitation process is considerably higher than planned. This increased amount of precipitate per liter of solution results in significantly lowering the overall production rate. As a result, the amount of stabilized liters of solution per time is falling behind schedule and not expected to reach the year end goals.

Plutonium Residues: On schedule as planned.

Plutonium Metal/Alloys: The delay in stabilization progress is primarily due to operational difficulties with the Bagless Transfer System (BTS). The BTS system has experienced welding and can cutter failures during the last two months that has resulted in limited operations. For example, during March 2001, the BTS system was at least partially unavailable in seventeen of nineteen days. However, the year-end goals are expected to be met.