

Site Integration and Infrastructure

D.T. Carter, Vice President for Safety and Health/(509) 376-0543 - Safeguards and Security

D. M. Busche, Vice President for Regulatory Compliance/(509) 373-3337 - Environmental Compliance Program

M. T. Case, Senior Director of Project Operation Center/(509) 376-4250 - Hazardous Materials Management and Emergency Response (HAMMER)

N. P. Nunn, Vice President of Project Systems and Support/(509) 373-9724 - Planning and Integration, and Systems Engineering and Integration



OVERVIEW

Site Integration and Infrastructure consists of Project Baseline Summary (PBS) Safeguards and Security (PBS RL-SS-D); Hazardous Materials Management and Emergency Response (HAMMER, PBS RL-SS05) and Site Systems and Regulatory Analysis (PBS RL-SS01). PBS SS01 contains three sub-projects:

- Planning and Integration;
- Environmental Compliance Program; and
- Systems Engineering and Integration.

NOTE: Unless otherwise noted, all information contained herein is as of the end of September 2003.

TOP FY 2003 ACCOMPLISHMENTS

SAFEGUARDS AND SECURITY (SAS) (PBS RL-SS-D)

Breakthroughs Supporting FH Projects: SAS implemented five innovative practices (three for Nuclear Material Stabilization and two for Spent Nuclear Fuels) during FY 2003 that are expected to result in significant cost and schedule savings for the projects. These breakthroughs were implemented with no additional SAS risk to FH or RL.

Vehicle Safety Record Improvement: SAS substantially improved vehicle safety showing a drop in the number of recordable vehicle accidents involving SAS personnel from six in FY 2002 to four in FY 2003. The number of safe miles driven per recordable accident increased from 140,660 (FY 2002) to 218,770 miles (FY 2003). Accident-related property damage dropped dramatically from approximately \$45K in FY 2002 to just under \$14K in FY 2003.

HAMMER (PBS RL-SS05)

Hanford Site Training at HAMMER: HAMMER experienced a year of change and opportunities in fiscal year 2003. HAMMER continued its primary mission of serving the Hanford cleanup including mutual aid and emergency responder training resulting in a 6% growth rate over FY 2002. The FY 2003 Hanford site student day cumulative total was 33,164. The cumulative total of training since HAMMER opened its doors in September 1997 is 215,642 student days of which 170,254 were for Hanford site training. Examples of the critical support HAMMER provided to the Hanford site include specialized respirator training for the Spent Nuclear Fuel Project, development of a deactivation and decommissioning (D&D) program in support of accelerated clean-up, and a major re-training initiative for Lock-Out/Tag-Out.

Hanford Fire Department (HFD) Training: Nationwide, statistics demonstrate that over 100 firefighters die annually on the job. HAMMER continued to meet critical HFD training for extremely dangerous work. Training conducted included 12 paramedic refresher classes, Hazardous Material Technician class, Fire Fighter Entry Level Physical Agility test, and a six week recruit academy, plus 67 days of additional training during the year using the various HAMMER props.

Voluntary Protection Program (VPP): VPP Star Status was officially established in September, 2002, by the DOE VPP evaluation team. This was followed in January, 2003, with an annual VPP self-assessment that concluded the HAMMER/Hanford Training organization continued to comply with all requirements for a DOE VPP Star site. Observations and recommendations for continuous improvement were documented.

TOP FY 2003 ACCOMPLISHMENTS, CONTINUED

Environmental Compliance Program (ECP) (PBS RL-SS01)

Settlement Agreement on Notice of Construction (NOC) Approvals: On September 12, 2003, representatives of RL and the State of Washington signed a Settlement Agreement and Stipulation on Manner of Dismissal (hereafter referred to as "Settlement Agreement"). The Settlement Agreement represents collaborative work between the two entities since March 2003, when RL filed a Request for Adjudicative Proceedings (hereafter referred to as "Appeal") with the State of Washington's Office of Professional Standards. Under the Settlement Agreement, the Washington State Department of Health (WDOH) will modify the language used in the conditions and limitations issued as part of NOC approvals for sources of radioactive airborne emissions. Ten NOC approvals specifically named in the Appeal are now being issued with the new language. All future approvals issued to RL will use the new language. The new language removes several onerous clauses which were shown to be extra-regulatory. Radioactive air emission NOC approvals will only be required for new construction or modifications as defined by the regulations. The inventory of radioactive material in RL facilities will no longer be specifically limited. Special procedures reflecting NOC approval language will no longer be required. Notifications to the regulator will be limited to those strictly required by the regulation. These and other gains resulted from the Settlement Agreement. Once the ten appealed approvals are issued by the state and accepted by RL, the Appeal will be formally dismissed and the Settlement Agreement will remain binding. FH environmental and legal staff provided support that was instrumental in achieving this Settlement Agreement.

Systems Engineering and Integration (SEI) (PBS RL-SS01)

Supported the FH life-cycle baseline update to reflect revised Statement of Work (SOW)

- Worked to ensure that all PHMC SOW deliverables and RL Government Furnished Services and Items (GFS/I) were allocated to a FH Work Breakdown Structure (WBS) element with a responsible FH manager clearly identified.
- Worked to align the FH WBS with the PHMC SOW to strengthen FH's ability to manage work and achieve effective change control.
- Reduced the number of control accounts from ~ 520 to ~140, and reduced the number of work packages from ~1,400 to ~ 800 to enhance control and reporting, and eliminate redundancy between WBS and control accounts.
- Developed a cross-walk from the FH WBS to the RL PBS.
- Worked with RL and the FH sub-projects to clearly identify Gold Metrics and Performance Incentive metrics in the life-cycle baseline and report progress on a monthly basis.

Revised PHMC SOW

- Organized the PHMC SOW to describe the cleanup work scope by geographic area, the waste management work scope by major facility, the site services and infrastructure work scope, and the other work scope that FH performs for RL.
- Clearly identified the FH deliverables and the RL GFS/I.
- Removed over 80 low-value reports that FH previously was required to deliver to RL.
- Worked with FH Prime Contract Management to transfer work scope (e.g. 242-A Evaporator, selected site services) from FH to CH2M HILL per RL direction.

TOP FY 2003 ACCOMPLISHMENTS, CONTINUED

Systems Engineering Analyses

- Supported RL with technical analysis of the River Corridor Closure Contract (RCCC) SOW and identified buildings and waste sites that were incorrectly assigned between the RCCC and the PHMC.
- Coordinated the FH risk analysis efforts in support of the contract negotiations and development of the FH life-cycle baseline.
- Developed a logic diagram to support the FH project analysis for managing large, contaminated transuranic waste equipment.
- Established a forum for integrating FH technical databases (e.g. Hanford Site Technical Database, Waste Information Data System, and Hanford Facilities CORE Database).
- Worked with other Hanford Prime Contractors to improve the interface management process and documentation.
- Provided technical information and review for the Optimization Strategy for Central Plateau Closure, Waste Management Project (WMP)-18061 Rev 0.

NOTABLE SEPTEMBER ACCOMPLISHMENTS

Safeguards and Security (PBS RL-SS-D)

Safeguards and Security Interface: FH and CH2M Hill Hanford Group, Inc. (CH2M HILL) finalized an Administrative Interface Agreement outlining respective roles and responsibilities for meeting DOE SAS requirements at Hanford special nuclear material facilities operated by CH2M HILL under their contract with the DOE Office of River Protection (ORP).

Fast Flux Test Facility Fuel Movement Support: SAS supported two successful fuel offload shipments in September. Both events went smoothly and without incident.

Industrial Security Improvements: SAS Technical Security completed a number of software and firmware enhancements to the Hanford Industrial Security Alarm Monitoring System that will improve the operator's ability to quickly assess alarm events.

HAMMER (PBS RL-SS05)

Portable Hazardous Energy Control Prop: HAMMER Operations staff developed and constructed a portable hazardous energy control prop that was critical to begin training site employees in the new revision of the hazardous energy control procedure (HNF-PRO-081). This new prop was constructed within three working days at a very minimal cost.

Sheet Metal Nuclear Council Annual Workshop: The Sheet Metal Nuclear Council held its annual workshop at HAMMER from September 14-15, 2003. The council members participated in training segments from HAZWOPER and Respiratory classes and received briefings on Radiation Worker and Beryllium classes. The accelerated clean-up focus by DOE involving D&D was presented along with weapons of mass destruction training provided by Pacific Northwest National Laboratory (PNNL) bridged to early responder activities. The council participated in tours of the Waste Treatment Plant construction and the Tank Farms. Council members are associated with DOE sites across the complex. The information obtained in this workshop will help attendees better understand the hazards faced by workers and improve training curriculums.

NOTABLE SEPTEMBER ACCOMPLISHMENTS, CONTINUED

HAMMER Medical Surveillance Subcommittee Meeting: The HAMMER Medical Surveillance Subcommittee met at HAMMER with the focus on worker health and safety. The subcommittee is comprised of worker instructors; Hanford Environmental Health Foundation professionals; and representatives from labor, DOE, Hanford contractors and Native American tribes. Presentations and discussions included the Employee Job Task Analysis Process, Risk-based Medical Surveillance, Medical Aspects of the Beryllium Program at Hanford worker's compensation program, and Tank Vapor Questions and Solutions.

Planning and Integration (P&I) (PBS RL-SS01)

FH Life-cycle Re-baseline: Baseline data was provided to RL to support Hanford Advisory Board briefings. Meetings were also held with RL and PNNL representatives to explain and validate the data provided for the Site Life-Cycle Model.

PHMC Performance Report: The August report was submitted to RL on September 24, 2003, and formally transmitted on September 29, 2003, nine working days ahead of schedule. Performance information provided included major accomplishments, cost/schedule, government furnished services/items, contract deliverables, Gold Metrics, safety, milestone analysis, funds management status, and issues.

FY 2003 Performance Baseline Validation: P&I validated that all approved baseline changes were accurately incorporated into the FH performance baseline for FY 2003 year-end reporting.

Environmental Compliance Program (PBS RL-SS01)

Resource Conservation and Recovery Act of 1976 (RCRA) Underground Pipe Mapping and Marking Report: The RCRA Underground Pipe Mapping and Marking Report was submitted to RL on September 3, 2003. This completed ECP Tracked Deliverable ECP-03-707 thirteen days early.

Annual Hanford Site Environmental Permitting Status Report: The Annual Hanford Site Environmental Permitting Status Report was submitted to RL on September 18, 2003. This completed ECP Tracked Deliverable ECP-03-708 one day early.

NESHAP Quality Assurance (QA) Project Plan: FH prepared a draft NESHAP compliance plan in response to RL's letter of direction. RL and ORP expressed interest in developing a Hanford Site compliance plan instead of a more formal Federal Facilities Compliance Agreement.

NESHAP Quality Assurance (QA) Project Plan: A revision to the NESHAP QA Project Plan for Radioactive Air Emissions (Hanford Nuclear Facility- Environmental Protection [HNF-EP-0528-5]) was completed on September 30, 2003. Significant aspects of this revision were:

- Referencing the new amendment to 40 Code of Federal Regulations (CFR) 61, Subpart H, and the new American National Standards Institute/Health Physics Society N13.1—1999;
- Re-instating appendices for major stacks FH received from Bechtel Hanford, Inc. (BHI), in which compliance to Method 114 of Appendix B of 40 CFR 61 was described by way of reference-by-reference comparisons;
- Adding an appendix on Method 114 compliance by near-facility environmental ambient air monitors;
- Updating monitoring and sampling equipment at stacks;
- Updating analytical processes at Waste Sampling and Characterization Facility; and
- Updating regulatory references and DOE Orders.

NOTABLE SEPTEMBER ACCOMPLISHMENTS, CONTINUED

RCRA Part B Permit Renewal: The General Information Portion is being updated to support Permit renewal. The draft Chapter 5, *Groundwater Monitoring for Land-Based Units*, was completed by PNNL and provided to FH for review and comment.

Regulator Inspection Support: Supported inspections performed by the WDOH for the Fast Flux Test Facility minor stack and T Plant Complex. Maintained the Regulatory Agency Inspection Database and responded to requests from regulatory agencies.

RCRA Permit Inspection: Completed the RCRA Permit General Inspection of the banks of the Columbia River, at the low water mark on September 11, 2003.

FY03 SCHEDULE/COST PERFORMANCE (\$000)

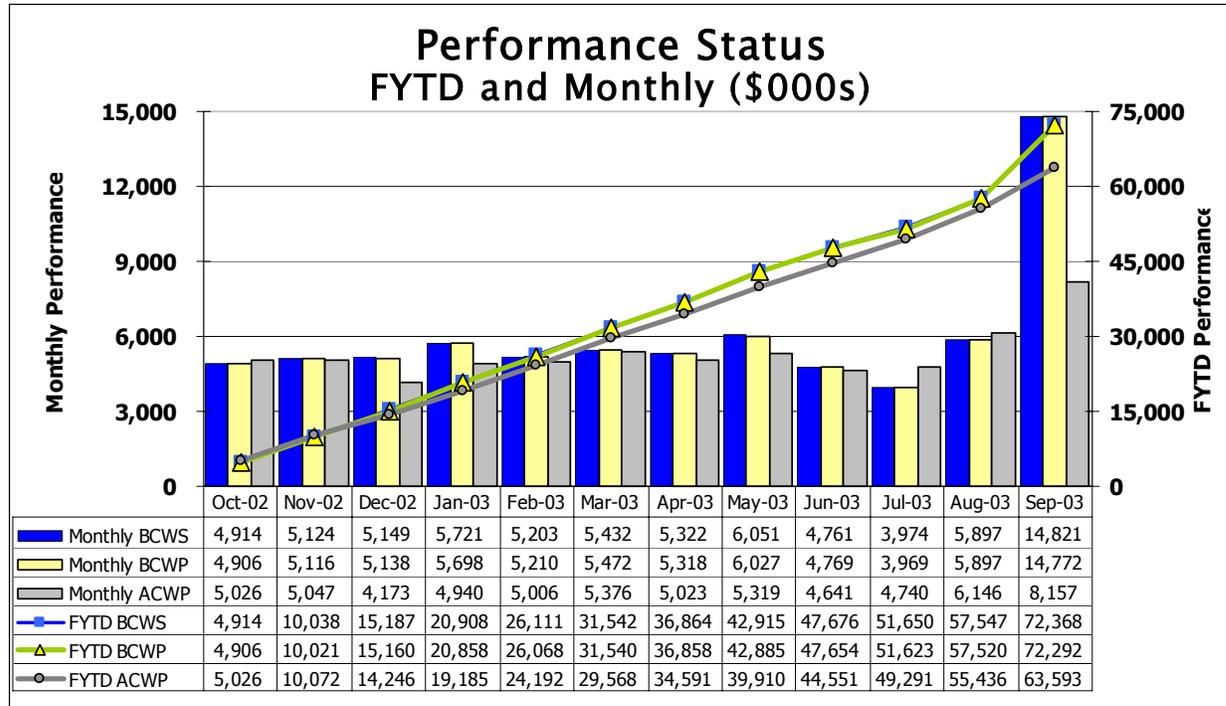
	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance \$	Schedule Variance %	Cost Variance \$	Cost Variance %	Budget At Completion
RL-SS-D Safeguards & Security	47,958	47,958	46,658	0	0%	1,301	3%	47,958
RL-SS05 HAMMER	4,939	4,863	4,590	-76	-2%	273	6%	4,939
RL-SS01 Site Systems & Regulatory Analysis	19,471	19,471	12,345	0	0%	7,126	37%	19,471
Other Direct PBSs	72,368	72,292	63,593	-76	0%	8,699	12%	72,368

NOTE: Numbers are rounded to the nearest \$K.

Schedule Performance: The schedule performance variance for all three PBSs is within the established +/- 10 percent or \$1M threshold, therefore no variance analysis is provided.

Cost Performance: PBS SS-D has a favorable variance of \$1,301K/3%. The labor under-run of \$1,028K is due to labor rate variances and security condition two cost avoidance. Variances for PBS SS05 are within the established threshold, therefore no variance analysis is provided. PBS SS01's positive cost performance variance of 37%/\$7,126K is mainly due to a reserve established during contract negotiations to address potential unplanned challenges.

SCHEDULE/COST PERFORMANCE, CONTINUED



FY 2003 FH FUNDS VS FORECAST (\$000)

	Funding Received	Actual Cost	Variance
RL-SS01 Site Integration	12,638	12,345	293
RL-SS05 HAMMER	4,939	4,590	349
Post 2006 - Operating	\$ 17,577	\$ 16,935	\$ 642
RL-SS-D Safeguards & Security	47,968	46,658	1,311
Safeguards & Security	\$ 47,968	\$ 46,658	\$ 1,311