



# **Section J**

## **Site Systems & Regulatory Analysis**

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## INTRODUCTION

Site Systems and Regulatory Analysis consists of Project Baseline Summary (PBS) RL-SS01, Work Breakdown Structure (WBS) 3.4.1 (except for 3.4.1.3, 3.4.1.7, and 3.4.1.8). The six sub-projects addressed in this section are:

- Planning and Integration (WBS 3.4.1.1)
- Environmental Compliance Program (WBS 3.4.1.2)
- Systems Engineering and Integration (WBS 3.4.1.4)
- Information Resource Management (WBS 3.4.1.5)
- Training (WBS 3.4.1.6)
- Hazardous Materials Management and Emergency Response (HAMMER) (WBS 3.4.1.9)

NOTE: Unless otherwise noted, all information contained herein is as of the end of October 2002.

There are no milestones (EA, DOE-HQ, or RL) in Fiscal Year (FY) 2003 for this PBS.

## NOTABLE ACCOMPLISHMENTS

### Planning & Integration (P&I) WBS 3.4.1.1

**Required Government Responses and Actions (RGRA)** — The RGRA was updated and provided to RL on October 23, 2002, as scheduled. Of the 24 Operational Readiness Review and Readiness Assessment items added to the list, 17 remain with ongoing dialog concerning work scope, due dates and expectations between RL-Mission Planning Division (MPD) and FH.

**FH Performance Measurement System ("Dashboard")** — The initial Project Performance dashboard was provided to Environmental, Safety, and Health (ES&H) (FH Coordinator of the product) on October 15, 2002. P&I data submitted included a status of cost/schedule, funds/fiscal year spending forecasts (FYSF), milestones, RGRA, and Baseline Change Request (BCR) turnaround. The RGRA was the only item stasured as "yellow", indicating that FH improvement on timely submittals is required.

**FH Baseline/Funding Management Summary (B/FMS), (also known as the "Big Sheet")** — P&I provided the monthly B/FMS to RL on October 23, 2002 as scheduled. This product included FY 2002 performance data at level 4 of the work breakdown structure, including fiscal year-to-date and contract to-date, fiscal year spend forecast (FYSF), estimate at completion (EAC), and FH Funding by Program Business Summary (PBS). It also provided Lifecycle data at the PBS level (Level 3) by year for the contract period, including FH anticipated contract funding. Lifecycle cost baseline detail is provided from FY 1997 through FY 2046. The third portion of the B/FMS is a reconciliation of the current baseline as adjusted by approved BCRs, summarized at the PBS level.

**FH Systems Status** — Fiscal-year rollover for all FH planning and reporting systems was accomplished. All FY 2002 data was archived according to existing procedures.

The Hanford Data Integrator (HANDI) has been temporarily modified to not reflect performance reports but to only display actual cost data. This modification will remain in place until an initial performance run is made for FY 2003.

Fourth-quarter FY 2002 performance data for RL was successfully batched to DOE-HQ.

**Integrated Baseline Planning Procedure** — Work continued on the draft Integrated Baseline Planning procedure with the bulk of the focus on resolving issues related to defining risk assessment and analysis as part of the integrated planning process. Collaboration with the Systems Engineering group to resolve comments resulting from their extensive review of the draft document was continued.

**Change Control Management Procedure** — A major revision of PRO-533, Baseline Change Management was completed in October. This revision clarifies the sub-project's approval threshold and adds two requirements: 1) upon RL's request, Basis of Estimates are to be provided, and 2) the FH Change Control Administrator must review all BCRs before submittal to the President/Executive Vice President. The document is in the process of a formal Site review.

**RL/FH Performance Management Meetings (PMMs)** — The FY 2002 Year-End Review was held on October 31, 2002. Final FY 2002 performance information was provided, including FH's Comprehensive Performance Incentives status, cost/schedule performance, major accomplishments, safety status, milestone achievements, and critical issues.

**Environmental Management Performance Report (EMPR)** — The August EMPR was provided to RL on October 1, 2002, two days earlier than scheduled and in bound copy on October 8, 2002, six days ahead of schedule. The September EMPR was also provided to RL on October 29, 2002, two days ahead of schedule.

**Planning: 2002 Primavera Users Conference** — The lead scheduler in P&I attended the Primavera 2002 Users Conference from October 20-23 in San Diego. Primavera announced and demonstrated the next generation of their project management software. FH currently uses the old version of Primavera. The new version is called P3e/c for Construction. Our current version of P3 is outdated and built on an old architecture. There are no major upgrades to the current version planned by Primavera. Primavera is offering a free upgrade from our current version to P3e/c. P&I is acquiring two copies of P3e/c for testing purposes. Once testing has been completed, recommendations will be provided to management on the best approach to fit our scheduling needs.

## Environmental Compliance Program (ECP) WBS 3.4.1.2

**Closure and Post-Closure Cost Estimate** — Fiscal Year 2002 Projections of Anticipated Costs for Closure and/or Post-Closure for Hanford Facility Treatment, Storage, and/or Disposal (TSD) Units was transmitted to RL on October 10, 2002, one week ahead of schedule, and submitted to the State of Washington, Department of Ecology (Ecology) one day early on October 30, 2002. This completed Tracked Deliverable ECP-03-702.

**Quarterly National Emission Standards for Hazardous Air Pollutants (NESHAP) Status Report** — ECP Tracked Deliverable ECP-03-801, Quarter 1 NESHAP Status Report was completed and transmitted nine days ahead of schedule on October 16, 2002.

**Hanford Facility Resource Conservation and Recovery Act of 1976 (RCRA) Permit Renewal 2004** — The Hanford RCRA Permit Board met on October 15, 2002, and agreed that an important near-term action for the Board was to develop an understanding of what the Hanford RCRA Permit renewal application would include, with the goal of keeping the renewal documentation as streamlined as possible. Additionally, a multi-contractor/RL team was established to look at the relationship between RCRA interim status units and the Hanford RCRA Permit, and at some perceived inconsistencies between current permitting processes, the Washington Administrative Code, and the Tri-Party Agreement.

**Ecology Sitewide 216 Permit Renewals** — Ecology is behind schedule renewing the Sitewide 216 Permits (Hanford's renewal application was submitted on time last fall; Ecology has given authorization to

continue activities under the old permits until the new consolidated permit is issued). In order to expedite the process, RL has authorized FH Environment and Regulation (E&R) to take the lead in preparing the draft permit language for Ecology. This work is now underway, with E&R coordinating with other contractors.

**Regulator Inspection Support** — The following regulator facility inspections and follow-up to information and/or action requests were coordinated in October:

- October 2, 2002: The Washington State Department of Health (DOH) performed Legacy Inspections of Plutonium-Uranium Extraction (Plant) (PUREX), B-Plant, and Fast Flux Test Facility (FFTF). Minor corrections may be needed for PUREX data.
- October 8, 2002: DOH performed Legacy Inspections of Plutonium Finishing Plant (PFP) and 1310 N Building. Minor corrections will be needed for PFP data.
- October 15, 2002: DOH performed an inspection of 4843 Facility in the 400 Area and closed-out a Notice of Correction.
- October 17, 2002: DOH performed inspections of 309-W, 333, and 313 Buildings. Major corrections will need to be made for the 313 data.
- October 17, 2002: DOH performed an inspection of T-Plant (drum removal from canyon): Non-notification of drum removal activities is an issue for DOH. DOH requested documents showing days that work was performed in the canyon.
- October 21, 2002: DOH performed Legacy Inspections of K Basin and Waste Encapsulation and Storage Facility (WESF). Minor corrections may be needed in the WESF data.
- October 21, 2002: DOH performed a Follow-up of T-Plant Inspection. At a meeting to discuss events, DOH related there might be a Notice of Violation (NOV) for non-notification.
- October 29, 2002: DOH performed a Follow-up of T-Plant Inspection. DOH received documents requested at prior inspection. No indication of findings.
- October 30, 2002: Ecology performed an inspection of 100D area (In situ REDOX Manipulation Field Operations). Ecology provided a checklist and no concerns were relayed.
- October 30, 2002: Ecology performed an inspection of 100N area (100NR2 Pump and Treat). Ecology provided a checklist and no concerns relayed.
- October 31, 2002: DOH performed an U.S. Environmental Protection Agency (EPA) Level II Stack Inspection of WESF. DOH requested documents to be provided by November 6, 2002. No concerns were relayed.

**Spill and Release Reporting** — Appropriate reporting responses were coordinated for six non-reportable releases of a hazardous substance and/or a petroleum product released to the environment. All of these releases were cleaned up and disposed of per state and federal requirements. There were no reportable events with a release to the environment and two reportable code non-compliance events reported directly to the FH Single-Point-of-Contact through the Occurrence Notification Center (ONC).

## Systems Engineering and Integration (SE&I) WBS 3.4.1.4

**System Engineering Management System Solution** — In support of the efforts under the Hanford Site Analyses and Models and the Hanford Site Requirements Analysis Reports, the following work was accomplished:

- Continued gathering facility information to support the rough order of magnitude (ROM) model analysis for the Central Plateau Remediation Project (CPRP). This information will be used to support the CPRP baseline development activities.
- Worked with P&I and the FH Projects to develop BCR FH-2003-001 which aligning FH to the new RL WBS. Implementation is on hold pending final approval and direction from RL.
- Worked with Requirements Management and Integration to analyze Project Hanford Management Contract (PHMC) requirements for applicability to clean up work scope. This work will be used to implement the revised statement of work.

**System Engineering Technical Products** — In support of the efforts for Prime Contract Integration the following work was completed:

- Working with CH2M HILL Hanford Group, Inc. (CH2M HILL) and Spent Nuclear Fuel (SNF) Project to clarify interface within the Canister Storage Building relative to receipt and storage of Immobilized High Level Waste from the Waste Treatment Plant.
- Work on the end point criteria for 100 K Area Facility deactivation has progressed as far as possible pending award of the River Corridor Contract.

## Information Resource Management (IRM) WBS 3.4.1.5

**HNF-PRO-309, Computer Software Requirements** — This procedure was published on October 24, 2002, to facilitate implementation of FH's software quality assurance requirements and to better drive the process and controls needed for software. The new procedure was piloted in the Analytical Labs to ensure the procedure met requirements, yet was reasonable and practical for the field to implement. The pilot identified several areas for improvement and process modifications.

**Resource Pricing System (RPS)** — This budgeting system, used by many FH organizations, was enhanced to include scenario databases for "what if" exercises utilized in out year planning, which allows users to better respond to changing requirements.

## Training WBS 3.4.1.6

**Hazardous Waste Training** — Four hundred and fifty-nine students were trained in hazardous waste handling during October 2002. Nineteen eight-hour refreshers and one combination (24/40/Bridge) class were conducted. The International Brotherhood of Teamsters (IBT) delivered their first combination 24/40/Bridge course on October 14-18, 2002. Students and auditors rated the course very successful. IBT has delivered multiple initial Hazardous Waste Operations and Emergency Response Regulations (HAZWOPER) courses in the past however; this was the first combination course. The IBT course marked the fifth successful delivery of the combination course. The first four were delivered by the International Chemical Workers Union. The combination course allows students to attend the first three days (24-Hour Initial), or all five days (40-Hour Initial), or the final three days (Bridge to 40-Hour).

**Respiratory Training** — Three hundred and fifty-five students were trained in respiratory protection during October 2002. Thirty respiratory protection refresher classes and 11 respiratory protection initial classes were conducted. In addition, four special respiratory protection classes were added, providing training for seven students just in time to meet work requirements.

**Mask Fit Training** — Three hundred and thirty-six students were processed through Mask Fit during October 2002.

**Occupational Safety and Health (OSH) Training** — Training supported the following OSH training activities during October 2002:

- Twelve sessions were delivered for 89 students on various hoisting and rigging topics during October 2002. The topics included basic crane and rigging, aerial lift safety, load securing, and inspection of overhead cranes.
- HNF-PRO-081, *Hazardous Energy Control*, Revision 7, was implemented on October 2, 2002. Subsequently, a new course, Hazardous Energy Control (#003045) was approved by the Hazardous Energy Control Technical Review Board on October 21, 2002 and delivered for the first time on October 24, 2002. This new course replaces Lock and Tag – Authorized Workers (#003034) and Lock and Tag – Controlling Organization (#003040).

**Nuclear Safety Training** — Training supported the following Nuclear Safety training activities during October 2002:

- Seven sessions of nuclear criticality safety training were delivered for 19 students during October 2002.
- Forty-five sessions of radiation worker training were held during October 2002. Sixty-four students attended 18 sessions of initial radiation worker training and 187 students attended 27 sessions of radiation worker retraining.
- The next continuing training cycle for Radiation Control Technicians (RCTs) was initiated with the pilot class on October 23-24, 2002. Regular sessions will start the first week of November 2002 and continue through March 2003. The two-day class contains lessons on the area radiation monitor, personnel contamination monitor, continuous air monitor and the E-600 instrument. The course also covers drill design and implementation, lessons learned, conduct of operations, and a hands-on drill.
- The RCT Trainee program that was initiated in August 2002 completed October 17, 2002. Three students completed the program consisting of nineteen Site academic lessons, forty-one Site generic on-the-job training/on-the-job evaluations, and a number of team drills. These students were the first graduates of the "private pay" trainee program conducted last year. All three students have reported to the field.
- The revision to the Initial Radiation Worker Training program was completed in October 2002. This multi-contractor effort included input from radiation control and training representatives from Bechtel Hanford, Inc. (BHI), CH2M HILL, and FH. Changes to procedures, equipment, and practices were included in the revision. Additionally, the program materials were reviewed and specific references to the PHMC were removed to make the program more applicable to all contractors. The revisions to the initial training will serve as the basis for updating the computer-based training program used for the retrain and accelerated programs.

**Emergency Preparedness (EP) Training** — Training supported the following EP training activities during October 2002:

- Hanford Incident Command System Initial Training – 27 student
- Hanford Incident Command System Refresher Training – 51 students
- Building Emergency Director Refresher Training – 13 students
- Building Warden Initial Training – 6 students
- Building Warden Refresher Training – 11 students

**Web-Based Training (WBT)** — Training offers WBT through the HAMMER Courseware Management System (HAMMERCMS). In October 2002, HAMMERCMS recorded 4,170 course completions. This includes 920 Hanford General Employee Training (HGET) student completions.

## Hammer WBS 3.4.1.9

**Hanford Site Training at HAMMER** — HAMMER's first priority is to deliver hands-on training to the Hanford workforce. During October 203 classes were conducted at the Volpentest HAMMER facility, for a total of 3,383 Hanford site student days. Highest attended health and safety classes included Hazardous Waste Operations, Respiratory Protection, Radiation Worker II Requalification, Basic Medic First Aid training, and Anticipating Harassment training. Overall satisfaction, rated on a scale from one to five based on level one evaluations, for the month of October: Course Content 4.55, Instructor(s) 4.68 and Facility 4.58.

**Brokered Classes** — In support of the Hanford site training requirements, HAMMER brokered or facilitated 19 training sessions covering six specific course contents. These sessions supported PHMC and Office of River Protection contractors as well as FH facility specific training. Training was provided to CH2M HILL, SNF and other FH projects. Topics covered Condensation Induced Water Hammer, Conflict Resolution, Automated Emergency Defibrillator First Responder – Initial, Anticipating Harassment, Distribution Systems Training (DST) Line and Component Isolation, and Painless Punctuation.

**Mock-ups at HAMMER** — From October 29, 2002 to November 1, 2002, FH used the Waste Tank prop's value pit located at the Volpentest HAMMER facility to mock-up a tank filled with contaminated water. This was done in preparation for pumping out several tanks on the 200 Area Plateau using newly developed pumping/filter systems. Their use of HAMMER was beneficial before they even arrived at the mock-up site. Not only did they go through an Automated Job Hazards Analysis for their work at HAMMER, which helped identify several unforeseen safety issues, but also, according to the Person-In-Charge, they needed to think through all the equipment they would need before setting up. Here again, there were some needs identified which would have stopped the work in the field and delayed completion. The actual mock-up and demonstration proved the system would work without leaks and minimal operator exposure to either the water or radiation.

## BREAKTHROUGHS / OPPORTUNITIES FOR IMPROVEMENT

### Breakthroughs

Nothing to report.

### Opportunities for Improvement

#### Information Resource Management

Four pilots using Personal Data Assistant (PDA) / Hand Held Computing Device technology are underway to confirm the expected cost savings and production efficiencies. The four include 1) collection of field samples, 2) performing job risk analyses in the field, 3) automating monitoring and tracking of field maintenance, and 4) allowing hands-free and voice activated access to procedures for laboratory personnel performing experiments in glove-boxes.

## UPCOMING ACTIVITIES

### Planning & Integration

- Support to Life Cycle Cost reductions - ongoing

### Environmental Compliance Program Environmental Compliance Program

- ECP-03-301, Annual Benton Clean Air Authority Asbestos Notification of Intent - due December 31, 2002
- ECP-03-703, Quarter 2 RCRA Permit Class I Modification Notification - due January 3, 2003
- ECP-03-802, Quarter 2 NESAHP Status Report - due January 24, 2003
- ECP-03-401, ST 4508 Log of Significant Discharges - due January 31, 2003

### Systems Engineering & Integration

- In response to Project comments on the Technical Baseline, SE&I is working to improve the Hanford Site Technical Database (HSTD) functional analysis - due December 2002.

### Information Resource Management Information Resource Management

- Windows XP - Plans to migrate to Windows XP by June 30, 2003 continue. Impacts include PC replacement/upgrades for a significant number of users and change management is now being addressed.
- Narrowband Radio Migration Project - The Narrowband Radio Migration Project modifies or replaces existing radio systems to insure the Hanford radio systems operate in compliance with the National Telecommunication and Information Administration (NTIA) Federal Narrowband Mandate by January 1, 2005. The Narrowband Radio Migration Project planning continues, and a major contract for the project was awarded.

### Training

- Train Hanford Site workers to meet health and safety requirements – ongoing.

### Hammer

- Support Hanford Site training requirements at HAMMER – ongoing.

## MILESTONE ACHIEVEMENT FH CONTRACT MILESTONES

There are no milestones (EA, DOE-HQ, or RL) in FY 2003 for this PBS.

## ISSUES

### TECHNICAL, REGULATORY, EXTERNAL AND DOE ISSUES AND DOE REQUESTS

None to report.

## BASELINE CHANGE REQUESTS CURRENTLY IN PROCESS

None to report.