
FINAL

Office of River Protection
Consent Decree 08-5085-FVS

Monthly Summary Report

July 2013

Office of River Protection

**Consent Decree 08-5085-FVS
Monthly Summary Report**

July 2013 (Monthly Summary Report/Project EVMS reflects May 2013 information)

| Page | Topic | Leads |
|-------------|--|--|
| 1 | Statistics / Status | James Lynch / Dan McDonald / Jeff Lyon |
| 2 | SST Retrieval and Closure – D-00B-01, -02, -03, -04 | Chris Kemp / Jeff Lyon |
| 3 | Tank Waste Retrieval Work Plan (TWRWP) Status – Consent Decree Appendix C | Chris Kemp / Jeff Lyon |
| 4 | SST Retrieval Monthly and Fiscal Year EVMS Data | Kathy Higgins / Jeff Lyon |
| 5 | WTP - Immobilization Plant Project – D-00A-06, D-00A-17, D-00A-01 | Delmar Noyes / Dan McDonald |
| 8 | WTP Pretreatment (PT) Facility – D-00A-18, -19, -13, -14, -15, 16 | Wahed Abdul / Dan McDonald |
| 11 | High-Level Waste (HLW) Facility – D-00A-20, -21, 02, 03 | Wahed Abdul / Dan McDonald |
| 14 | Low-Activity Waste (LAW) Facility – D-00A-07, -08, -09 | Jeff Bruggeman / Dan McDonald |
| 16 | Balance of Facilities (BOF) – D-00A-12 | Jason Young / Dan McDonald |
| 18 | Analytical Laboratory (LAB) – D-00A-005 | |

| Milestone | Title | Due Date | Completion Date | Status |
|---|--|------------|-----------------|-----------|
| Fiscal Year 2013 | | | | |
| D-00C-02X | Submit to Ecology & State of Oregon Monthly Summary Report | 10/31/2012 | 10/31/2012 | Completed |
| D-00C-02Y | Submit to Ecology & State of Oregon Monthly Summary Report | 11/30/2012 | 11/20/2012 | Completed |
| D-00C-02Z | Submit to Ecology & State of Oregon Monthly Summary Report | 12/31/2012 | 12/26/2012 | Completed |
| D-00A-05 | LAB Construction Substantially Complete | 12/31/2012 | 12/31/2012 | Completed |
| D-00A-12 | Steam Plant Construction Complete | 12/31/2012 | 12/31/2012 | Completed |
| D-00A-21 | Complete Construction of Structural Steel to EL. 37' in HLW Fac. | 12/31/2012 | 10/24/2012 | Completed |
| D-00C-01F | Submit to Ecology & State of Oregon Semi-Annual Report | 01/31/2013 | 01/31/2013 | Completed |
| D-00C-02AA | Submit to Ecology & State of Oregon Monthly Summary Report | 01/31/2013 | 01/24/2013 | Completed |
| D-00C-02AB | Submit to Ecology & State of Oregon Monthly Summary Report | 02/28/2013 | 02/25/2013 | Completed |
| D-00C-02AC | Submit to Ecology & State of Oregon Monthly Summary Report | 03/31/2013 | 03/29/2013 | Completed |
| D-00C-02AD | Submit to Ecology & State of Oregon Monthly Summary Report | 04/30/2013 | 04/25/2013 | Completed |
| D-00C-02AE | Submit to Ecology & State of Oregon Monthly Summary Report | 05/31/2013 | 05/21/2013 | Completed |
| D-00C-02AF | Submit to Ecology & State of Oregon Monthly Summary Report | 06/30/2013 | 06/26/2013 | Completed |
| D-00C-02AG | Submit to Ecology & State of Oregon Monthly Summary Report | 07/31/2013 | | On-going |
| **D-00C-02AH | Submit to Ecology & State of Oregon Monthly Summary Report | 08/31/2013 | | On-going |
| ** Future Monthly Reports will be added as necessary to maintain a two-months ahead activity. | | | | |
| D-00C-01G | Submit to Ecology & State of Oregon Semi-Annual Report | 07/31/2013 | | On-going |
| D-006-00-A1 | Provide State of Oregon Notice of Meetings | TBD | | On-going |
| Fiscal Year 2014 | | | | |
| D-006-00-A | Meet Approximately Every 3 Years to Review Requirements of CD | TBD | | On-going |
| D-00B-01 | Complete Retrieval of Tank Waste from 10 SSTs in WMA-C | 09/30/2014 | | On-going |
| D-00B-02 | Advise Ecology of the 9 SSTs Waste Will be Retrieved by 2022 | 09/30/2014 | 08/24/2011 | Completed |
| Fiscal Year 2015 | | | | |
| D-00A-07 | LAW Facility Construction Substantially Complete | 12/31/2014 | | On-going |
| D-00A-19 | Complete EL. 98' Concrete Floor Slab Placements in PT Facility | 12/31/2014 | | On-going |

SST Retrieval Program

D-00B-01, Complete Retrieval of Tank Wastes from 10 Remaining SSTs in WMA-C, Due: 09/30/2014, Status: On-going.* Please see issues below.

D-00B-01A thru J, Submit Tank Retrieval Complete Certification, Due: TBD

Pursuant to Section IV-B-5 of the CD, DOE must submit to Ecology a written certification that DOE has completed retrieval of a tank in accordance with the requirements of Appendix C, Part 1, of the CD. Completed for SST C-104 on 03/21/13 via ORP letter 13-TF-0018. Completed for SST C-108 on 05/01/13 via ORP letter 13-TF-0025. Completed for SST C-109 on 06/04/13 via ORP letter 13-TF-0037.

D-00B-02, Advise Ecology of the 9 SSTs from which Waste Will Be Retrieved by 2022, Due: 09/30/2014, Status: Completed on 08/24/11.

D-00B-03, Initiate Startup of Retrieval in At Least 5 of 9 SSTs in D-00B-02, Due: 12/31/2017, Status: On-going

D-00B-04, Complete Retrieval of Tank Wastes from the 9 SSTs in D-00B-02, Due: 09/30/2022, Status: On-going

D-00B-04A thru I, Submit Tank Retrieval Complete Certification, Due: TBD

Significant Past Accomplishments:

- Operated the C-101 retrieval system intermittently, as resources were available.
- Completed core cut from the C-105 dome.
- Completed installation of the new large riser in C-105, continuing with concrete pad installation and backfill activities.
- Continued retrieval sluicing via the Mobile Arm Retrieval System (MARS-S) at C-107, currently at greater than 85% of waste volume retrieved to AN-106 DST.
- Completed Construction Acceptance Testing (CAT) of the C-110 Fold Track system.
- Initiated and continued with Operation Acceptance Testing (OAT) of the C-110 Fold Track and associated support equipment.
- Continued with installation of equipment for C-112 Hard Heel removal.

Significant Planned Activities in the Next Six Months:

- Complete C-101 hard heel retrieval.
- Complete installation of the MARS-V in C-105.
- Complete C-107 hard heel retrieval.
- Submit retrieval certificates of completion for C-108 to Ecology.
- Begin start-up of hard heel retrieval in C-110 using the Fold-Track.
- Begin start-up of hard heel retrieval in C-112 using caustic dissolution.

Issues:

*Although this Monthly Summary Report covers information through May 2013, DOE notes that on June 6, 2013, it notified the States of Washington and Oregon that a serious risk has arisen that DOE may not meet Consent Decree milestone B-1 for tanks C-102 and C-105.

Tank Waste Retrieval Work Plan (TWRWP) Status

| Tank | TWRWP | Expected Revisions | Retrieval Technology | Second Technology | Third Technology |
|-------|--------------------|--------------------|--|-------------------------------|---------------------|
| C-101 | RPP-22520, Rev. 7 | Complete | MRS (per 10/7/10 agreement, to be Modified Sluicing) | High-Pressure Water with ERSS | - |
| C-102 | RPP-22393, Rev. 6A | In Process | Modified Sluicing | High-Pressure Water with ERSS | - |
| C-104 | RPP-22393, Rev. 6A | Complete | Modified Sluicing | Chemical Dissolution | - |
| C-105 | RPP-22520, Rev. 7 | Complete | MARS-V | MARS-High Pressure Water | - |
| C-107 | RPP-22393, Rev. 6A | Complete | MARS-S | MARS-High Pressure Water | - |
| C-108 | RPP-22393, Rev. 6A | Complete | Modified Sluicing | Chemical Dissolution | - |
| C-109 | RPP-21895, Rev. 5 | Complete | Modified Sluicing | Chemical Dissolution | - |
| C-110 | RPP-33116, Rev. 2 | Complete | Modified Sluicing | Mechanical Waste Conditioning | High Pressure Water |
| C-111 | RPP-37739, Rev. 1 | In process | Modified Sluicing | None | - |
| C-112 | RPP-22393, Rev. 6A | In process | Modified Sluicing | Chemical Dissolution | - |

Significant Past Accomplishments:

- Modification notice 2013-05 for TWRWP RPP-22393 was approved by ORP and Ecology allowing the High Resolution Resistivity system to be used for C-102 leak detection. Prior to the modification, weekly moisture logging was required when not in active retrieval because of high interstitial liquid levels. The change now allows the TOC to do 30 days of HRR monitoring once per quarter rather than weekly moisture logging.

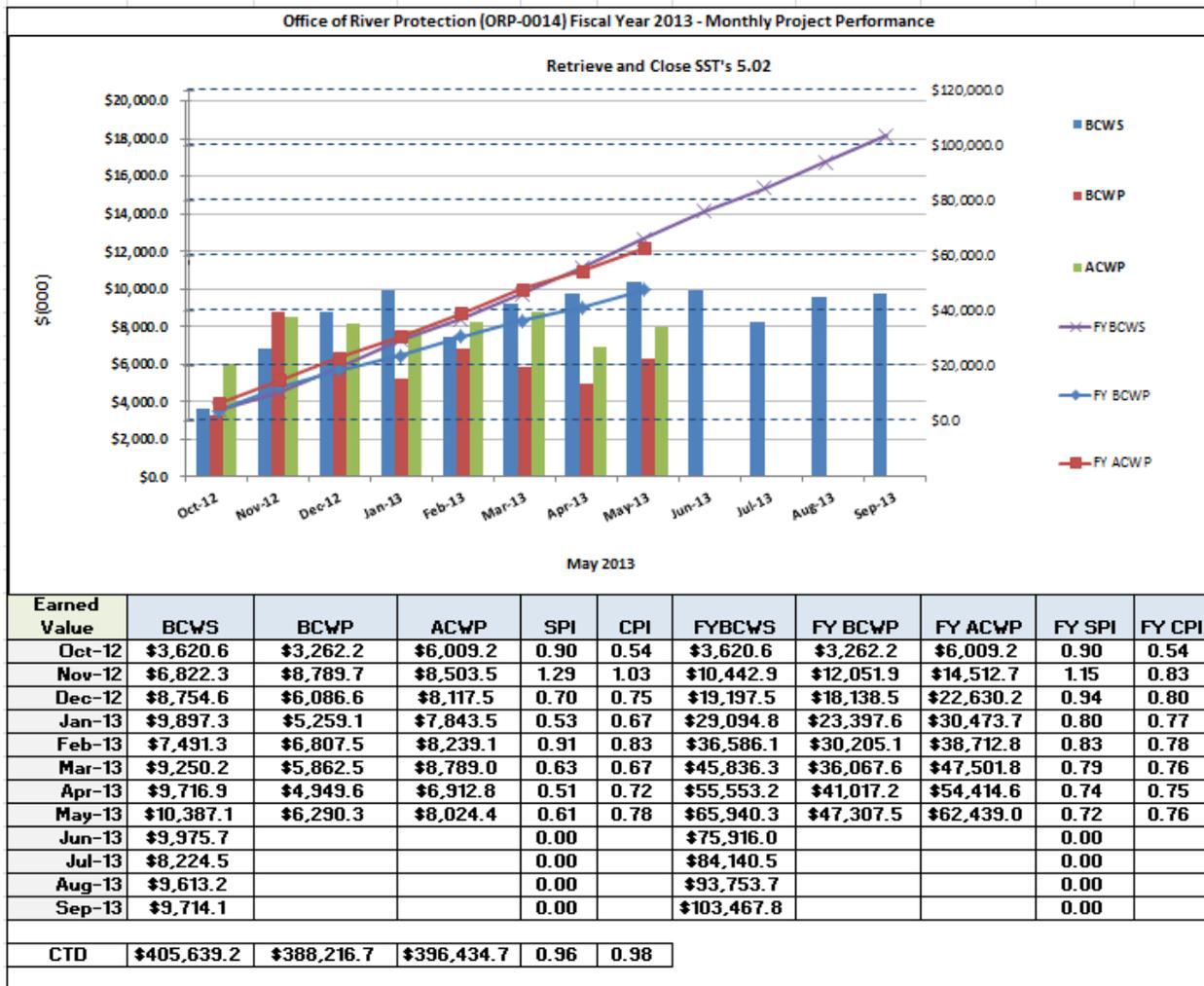
Significant Planned Activities in the Next 6 Months:

- Work with Ecology on update to TWRWP RPP-37739 for C-111.

Issues:

- None.

SST Retrieval Monthly and Fiscal Year EVMS Data



Retrieval and Close Single-Shell Tanks

Schedule Variance (\$4,097K):

The unfavorable schedule variance is primarily due to:

- C-105 MARS-V installation activities due to the dome cut suspension, delay of the test plan and operations acceptance testing, and procurements delays.
- C-102 delays in starting waste retrievals.
- C-104 early retrieval performance in fiscal year 2012.
- C-111 design of the Hard Heel Retrieval System due to DST Deep Bed sludge issues.
- C-110 five month delay of hard heel operations.

Cost Variance (\$1,734K):

The unfavorable cost variance is primarily due to:

- C-107 unexpected labor costs for investigation of the AN-106 pump leak that occurred during hard heel retrieval.
- C-110 increased engineering needed to resolve issues with the hot water skid.
- Retrieval technology development higher subcontracts costs to resolve MARS-V issues.

Waste Treatment and Immobilization Plant Project

| Number | Title | Due Date | Status |
|----------|--|------------|-----------------------------|
| D-00A-06 | Complete Methods Validations | 12/31/2017 | Ongoing* (see issues below) |
| D-00A-17 | Hot Start of Waste Treatment Plant | 12/31/2019 | Ongoing* (see issues below) |
| D-00A-01 | Achieve Initial Plant Operations for WTP | 12/31/2022 | Ongoing* (see issues below) |

The Waste Treatment and Immobilization Plant (WTP) Project currently employs approximately 2,113 full-time equivalent (FTE) contractor (Bechtel National, Inc. [BNI]) and subcontractor personnel. This includes 478 craft, 411 non-manual, and 117 subcontractor FTE personnel working at the WTP construction site (all facilities).

As of May 2013, the combined Low-Activity Waste (LAW) Facility, Analytical Laboratory (LAB), and Balance of Facilities (BOF) were 63-percent complete; design and engineering was 77-percent complete; procurement was 83-percent complete; construction was 71-percent complete; and startup and commissioning was 10-percent complete.

In September 2012, the baseline change proposal (BCP) that implemented the LAW, BOF, and LAB (collectively LBL) Replan was incorporated into the project over-target baseline (OTB), resulting in increases/decreases to the LBL facility budgets, which correspondingly increased/decreased the facility/function to-date percent complete values. In October 2012, the Pretreatment (PT) and High-Level Waste (HLW) Facilities 2-year Interim Work Plan was incorporated into the project OTB and the percent complete values for PT and HLW were frozen at the September 2012 rate. The WTP Project continues to progress in accordance with the LBL replan and PT/HLW 2-year interim work plan.

In May 2013, the cumulative to-date WTP Project schedule variance was a negative \$1.3 M, and the cumulative to-date WTP Project cost variance was a negative \$29.9 M. The major contribution to the cumulative to-date cost and schedule variance is based on the progress of the LBL Replan and PT/HLW 2-year Interim Work Plan.

The following is the status of project matters through the end of May.

Significant Past Accomplishments:

- Issued Vessel Mixing Test Completion Team Project Execution Plan (PT)
- Received 17 shield windows (PT and HLW)
- Awarded filter testing subcontract to Mississippi State University (HLW)
- Installed the melter power supply buss (LAW)
- Installed the Autosampling (ASX) System control panels (LAW)
- Completed de-energized component testing of electrical systems in Building 87 (BOF)
- Completed installing end cast liner plugs for the hot cell (LAB).

Significant Planned Actions in the Next Six Months:

- Perform testing of pulse jet mixing control strategy using the 8-ft vessel mixing test platform (PT)
- Develop vessel specific particle characteristics report for erosion/corrosion (PT/HLW)
- Award contract(s) for prototype design/fabrication of high-efficiency particulate air (HEPA) filters (HLW)
- Complete installation of melter power supplies (LAW)
- Complete installation of ASX System (LAW)
- Complete construction of the Glass Former Storage Facility (BOF)
- Complete construction of WTP Chiller Compressor Plant (BOF)
- Completion of the high purity gas system layup (LAB).
- Complete repairs to radioactive liquid waste disposal (RLD) vessels (LAB).

Issues:

* Technical issues relevant to the PT and HLW Facilities include, among others, pulse jet mixers, corrosion/erosion in piping and vessels, hydrogen accumulation, and waste feed issues.

DOE notes that on June 6, 2013, it notified the States of Washington and Oregon that a serious risk has arisen and that DOE may not meet Consent Decree Milestone A-7.

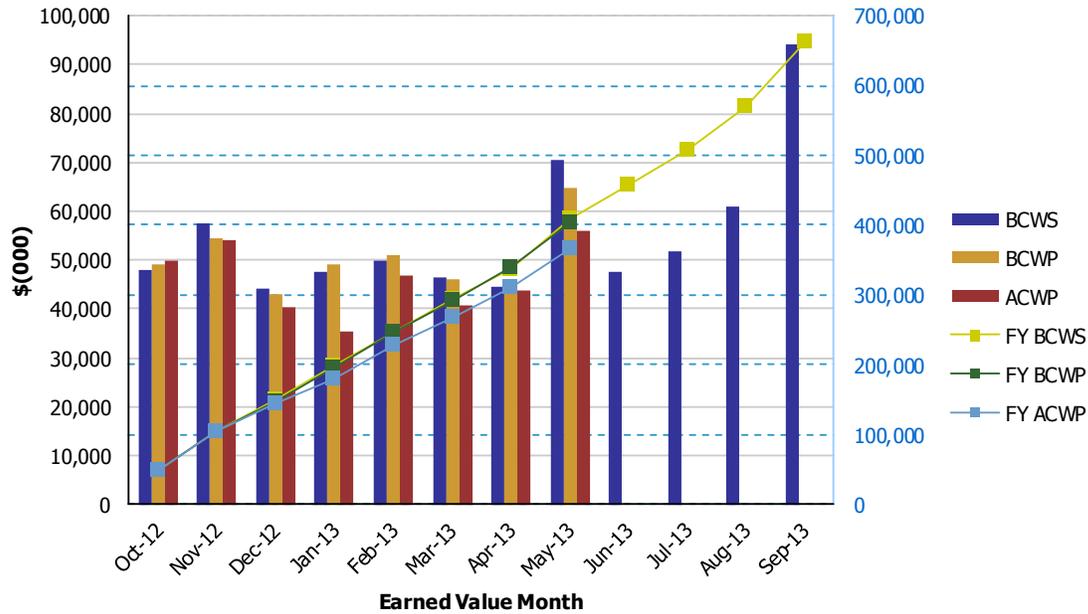
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2013 Earned Value Data

Data as of: May 2013

River Protection Project Waste Treatment Plant (WTP) Project

EVMS Monthly and Fiscal Year Values



| Earned Value Month | BCWS | BCWP | ACWP | SPI | CPI | FY BCWS | FY BCWP | FY ACWP | FY SPI | FY CPI |
|--------------------|-------------|-------------|-------------|------|------|-----------|-----------|-----------|--------|--------|
| Oct 2012 | \$47,840 | \$49,300 | \$49,742 | 1.03 | 0.99 | \$47,840 | \$49,300 | \$49,742 | 1.03 | 0.99 |
| Nov 2012 | \$57,411 | \$54,398 | \$53,916 | 0.95 | 1.01 | \$105,251 | \$103,698 | \$103,658 | 0.99 | 1.00 |
| Dec 2012 | \$44,336 | \$43,083 | \$40,457 | 0.97 | 1.06 | \$149,587 | \$146,781 | \$144,115 | 0.98 | 1.02 |
| Jan 2013 | \$47,780 | \$49,037 | \$35,389 | 1.03 | 1.39 | \$197,367 | \$195,818 | \$179,504 | 0.99 | 1.09 |
| Feb 2013 | \$49,984 | \$50,929 | \$47,008 | 1.02 | 1.08 | \$247,351 | \$246,747 | \$226,512 | 1.00 | 1.09 |
| Mar 2013 | \$46,568 | \$45,897 | \$40,819 | 0.99 | 1.12 | \$293,919 | \$292,644 | \$267,331 | 1.00 | 1.09 |
| Apr 2013 | \$44,537 | \$46,052 | \$43,887 | 1.03 | 1.05 | \$338,456 | \$338,696 | \$311,218 | 1.00 | 1.09 |
| May 2013 | \$70,575 | \$64,750 | \$55,933 | 0.92 | 1.16 | \$409,031 | \$403,446 | \$367,151 | 0.99 | 1.10 |
| Jun 2013 | \$47,715 | | | | | \$456,746 | | | | |
| Jul 2013 | \$51,682 | | | | | \$508,427 | | | | |
| Aug 2013 | \$61,121 | | | | | \$569,548 | | | | |
| Sep 2013 | \$94,165 | | | | | \$663,713 | | | | |
| PTD | \$7,549,640 | \$7,548,314 | \$7,578,209 | 1.00 | 1.00 | | | | | |

Pretreatment Facility

| Number | Title | Due Date | Status |
|----------|---|------------|-----------|
| D-00A-19 | Complete Elevation 98' Concrete Floor Slab in PT Facility | 12/31/2014 | Ongoing * |
| D-00A-13 | Complete Installation of Pretreatment Feed Separation Vessels | 12/31/2015 | Ongoing * |
| D-00A-14 | PT Facility Construction Substantially Complete | 12/31/2017 | Ongoing * |
| D-00A-15 | Start PT Facility Cold Commissioning | 12/31/2018 | Ongoing * |
| D-00A-16 | PT Facility Hot Commissioning Complete | 12/31/2019 | Ongoing * |

The PT Facility will separate radioactive tank waste into high-level waste and low-activity waste fractions and transfer each waste type to the respective vitrification facility for immobilization. As of September 2012, the PT Facility was 56-percent complete overall, with engineering design 85-percent complete, procurement 56-percent complete, construction 43-percent complete, and startup and commissioning 3-percent complete. Construction, procurement, and production engineering activities remain on hold, resulting in no change to the percent complete status since September 2012. BNI and DOE continue to focus on resolving technical issues, performing hazard analyses, and completing safety evaluations for process systems in accordance with the 2-year Interim Work Plan.

Technical review teams continue to evaluate open technical issues for resolution. Construction of the mixing test platform continues in preparation for full-scale testing. Engineering specifications for the full-scale testing have been prepared and are undergoing a multi-discipline review. National laboratories are developing a test plan, simulant, and instrumentation requirements. Phase 1 testing for erosion/abrasivity testing is scheduled to be completed by the end of calendar year 2013.

BNI is performing an impact evaluation for a potential change to the natural phenomenon hazards design criteria that would double the ashfall criteria. This design criteria revision has the potential to impact facility and heating, ventilating, and air conditioning (HVAC) system design.

Significant Past Accomplishments:

- Transferred RLD-VSL-8T and jet pump pair valve rack to Full-Scale Test Facility
- Issued Vessel Mixing Test Completion Team Project Execution Plan
- Received three shield windows.

Significant Planned Actions in the Next Six Months:

- Perform independent review of the potential for criticality in vessels
- Review flammable gas generation, retention, and release from sediments in vessels
- Develop decision process for vessel structural modifications
- Develop vessel-specific particle characteristics report for erosion/corrosion
- Perform testing of pulse jet mixing control strategy using the 8-ft vessel mixing test platform

- Issue engineering specification for vessel testing
- Complete update of the 2-year Interim Work Plan
- Issue sampling action plan to determine sampling accuracy
- Issue draft procedure for conducting failure mode, effects, and criticality analysis (FMECA)
- Update basis of design for safety classification regarding seismic analysis of vessels.

Issues:

* Technical issues relevant to the PT and HLW Facilities include, among others, pulse jet mixers, corrosion/erosion in piping and vessels, hydrogen accumulation, and waste feed issues.

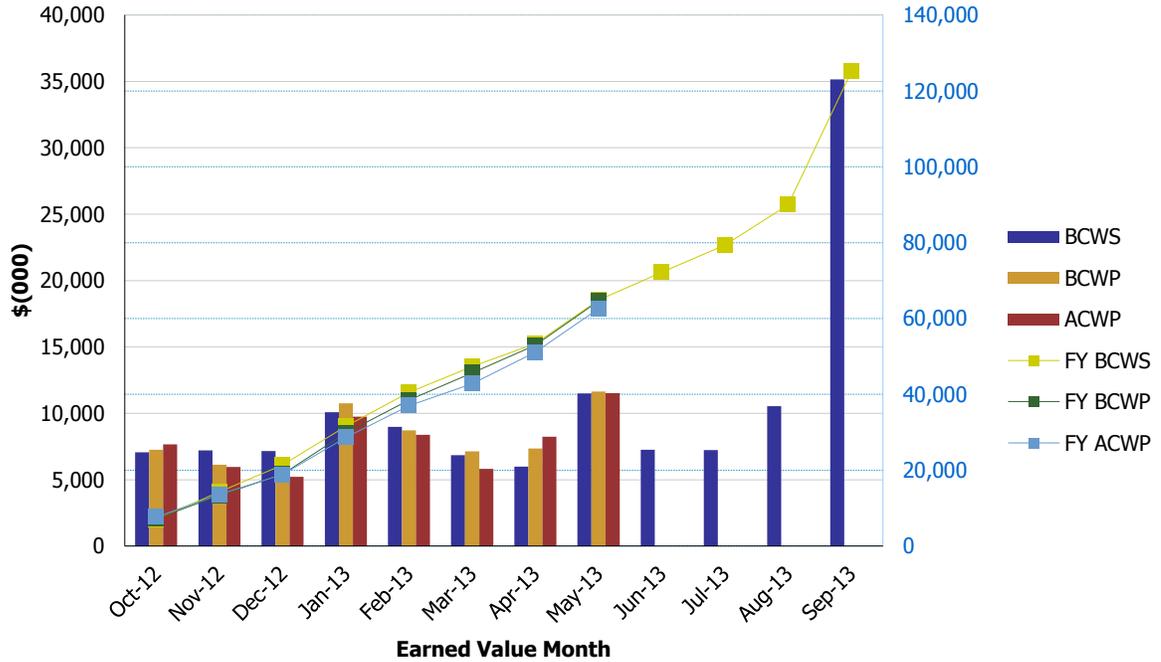
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2013 Earned Value Data

Data as of: May 2013

River Protection Project Pretreatment Facility

EVMS Monthly and Fiscal Year Values



| Earned Value Month | BCWS | BCWP | ACWP | SPI | CPI | FY BCWS | FY BCWP | FY ACWP | FY SPI | FY CPI |
|--------------------|----------|----------|----------|------|------|-----------|----------|----------|--------|--------|
| Oct 2012 | \$7,077 | \$7,269 | \$7,660 | 1.03 | 0.95 | \$7,077 | \$7,269 | \$7,660 | 1.03 | 0.95 |
| Nov 2012 | \$7,200 | \$6,130 | \$5,974 | 0.85 | 1.03 | \$14,277 | \$13,399 | \$13,634 | 0.94 | 0.98 |
| Dec 2012 | \$7,163 | \$5,619 | \$5,230 | 0.78 | 1.07 | \$21,440 | \$19,018 | \$18,864 | 0.89 | 1.01 |
| Jan 2013 | \$10,097 | \$10,759 | \$9,756 | 1.07 | 1.10 | \$31,537 | \$29,777 | \$28,620 | 0.94 | 1.04 |
| Feb 2013 | \$8,994 | \$8,716 | \$8,382 | 0.97 | 1.04 | \$40,531 | \$38,493 | \$37,002 | 0.95 | 1.04 |
| Mar 2013 | \$6,839 | \$7,142 | \$5,831 | 1.04 | 1.22 | \$47,370 | \$45,635 | \$42,833 | 0.96 | 1.07 |
| Apr 2013 | \$5,995 | \$7,355 | \$8,252 | 1.23 | 0.89 | \$53,365 | \$52,990 | \$51,085 | 0.99 | 1.04 |
| May 2013 | \$11,509 | \$11,641 | \$11,512 | 1.01 | 1.01 | \$64,874 | \$64,631 | \$62,597 | 1.00 | 1.03 |
| Jun 2013 | \$7,266 | | | | | \$72,140 | | | | |
| Jul 2013 | \$7,235 | | | | | \$79,375 | | | | |
| Aug 2013 | \$10,547 | | | | | \$89,922 | | | | |
| Sep 2013 | \$35,145 | | | | | \$125,067 | | | | |

| | | | | | |
|-----|-------------|-------------|-------------|------|------|
| PTD | \$1,463,832 | \$1,463,456 | \$1,461,552 | 1.00 | 1.00 |
|-----|-------------|-------------|-------------|------|------|

High-Level Waste Facility

| Number | Title | Due Date | Status |
|----------|--|------------|-----------|
| D-00A-21 | Complete Construction of Structural Steel to 37' in HLW Facility | 12/31/2012 | Complete |
| D-00A-02 | HLW Facility Construction Substantially Complete | 12/31/2016 | Ongoing * |
| D-00A-03 | Start HLW Facility Cold Commissioning | 6/30/2018 | Ongoing * |
| D-00A-04 | HLW Facility Hot Commissioning Complete | 12/31/2019 | Ongoing * |

The HLW Facility will receive the separated high-level waste concentrate from the PT Facility. This concentrate will be blended with glass formers and converted into molten glass in one of the two HLW melters and then poured into cylindrical stainless steel canisters. After cooling, the canisters will be sealed and decontaminated prior to shipment to interim storage.

As of September 2012, the HLW Facility is 62-percent complete overall, with engineering design 89-percent complete, procurement 81-percent complete, construction 43-percent complete, and startup and commissioning 4-percent complete. Construction, procurement, and production engineering activities have significantly slowed down, resulting in minimal change to the percent completion status since September. BNI and DOE continue to focus on resolving technical issues, performing hazard analyses, and completing safety evaluations for process systems in accordance with the 2-year Interim Work Plan.

Technical review teams continue to evaluate open technical issues for resolution. Construction activities include the placement of walls at the 37-ft elevation, installation of structural steel at the 58-ft elevation, and installation of cable tray supports and ventilation ducts at the 14-ft elevation. Engineering efforts are focused on resolution of Priority Level 1 findings. The Environmental and Nuclear Safety group continues to update the preliminary documented safety analysis and is progressing towards performing hazard analysis for several systems.

BNI is reviewing and analyzing the issues identified in the Reliability Validation Process (RVP) (Wave 1) to develop a path forward for issue resolution. Project issue evaluation reports are developed to track resolution of the issues and corrective actions are being identified. BNI is progressing on the second phase of RVP (Wave 2), which includes review of the HLW C5V system.

Significant Past Accomplishments:

- Completed the planned FMECA review of the HLW canister decontamination handling system, the HLW melter feed process system, and the melter cave systems
- Awarded filter testing subcontract to Mississippi State University
- Received 14 shield windows.

Significant Planned Actions in the Next Six Months:

- Award contract(s) for prototype design/fabrication of HEPA filters

- Complete RVP reviews
- Complete review of fabrication of the thermal catalytic oxidizer
- Develop plan to close technical issues and other issues (e.g., safety basis compliance, quality assurance issues, and design defensibility) of HLW in calendar year 2013
- Issue first hydrogen in piping and ancillary vessels hydrogen generation rate calculation
- Complete draft analysis of single point failures in support of failure mode analysis
- Complete conceptual design of in-service inspection
- Complete plan for erosion/corrosion risk evaluation for HLW.

Issues:

* Technical issues relevant to the PT and HLW Facilities include, among others, pulse jet mixers, corrosion/erosion in piping and vessels, hydrogen accumulation, and waste feed issues.

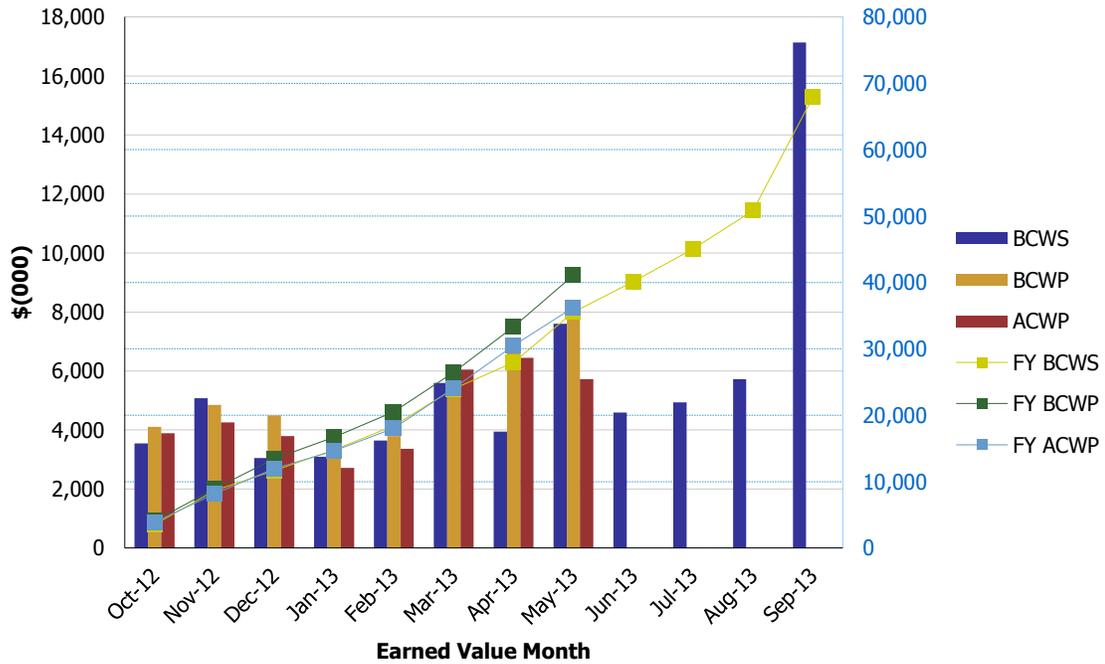
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2013 Earned Value Data

Data as of: May 2013

River Protection Project High-Level Waste Facility

EVMS Monthly and Fiscal Year Values



| Earned Value Month | BCWS | BCWP | ACWP | SPI | CPI | FY BCWS | FY BCWP | FY ACWP | FY SPI | FY CPI |
|--------------------|----------|---------|---------|------|------|----------|----------|----------|--------|--------|
| Oct 2012 | \$3,545 | \$4,105 | \$3,895 | 1.16 | 1.05 | \$3,545 | \$4,105 | \$3,895 | 1.16 | 1.05 |
| Nov 2012 | \$5,079 | \$4,852 | \$4,256 | 0.96 | 1.14 | \$8,624 | \$8,957 | \$8,151 | 1.04 | 1.10 |
| Dec 2012 | \$3,054 | \$4,496 | \$3,795 | 1.47 | 1.18 | \$11,678 | \$13,453 | \$11,946 | 1.15 | 1.13 |
| Jan 2013 | \$3,092 | \$3,266 | \$2,714 | 1.06 | 1.20 | \$14,770 | \$16,719 | \$14,660 | 1.13 | 1.14 |
| Feb 2013 | \$3,639 | \$3,791 | \$3,362 | 1.04 | 1.13 | \$18,409 | \$20,510 | \$18,022 | 1.11 | 1.14 |
| Mar 2013 | \$5,595 | \$5,953 | \$6,053 | 1.06 | 0.98 | \$24,004 | \$26,463 | \$24,075 | 1.10 | 1.10 |
| Apr 2013 | \$3,944 | \$6,860 | \$6,443 | 1.74 | 1.06 | \$27,948 | \$33,323 | \$30,518 | 1.19 | 1.09 |
| May 2013 | \$7,604 | \$7,788 | \$5,726 | 1.02 | 1.36 | \$35,552 | \$41,111 | \$36,244 | 1.16 | 1.13 |
| Jun 2013 | \$4,594 | | | | | \$40,146 | | | | |
| Jul 2013 | \$4,941 | | | | | \$45,088 | | | | |
| Aug 2013 | \$5,722 | | | | | \$50,809 | | | | |
| Sep 2013 | \$17,135 | | | | | \$67,945 | | | | |

| | | | | | |
|-----|-----------|-----------|-----------|------|------|
| PTD | \$950,081 | \$955,452 | \$952,650 | 1.01 | 1.00 |
|-----|-----------|-----------|-----------|------|------|

Low-Activity Waste Facility

| Number | Title | Due Date | Status |
|----------|--|------------|-----------------------------|
| D-00A-07 | LAW Facility Construction Substantially Complete | 12/31/2014 | Ongoing* (see issues below) |
| D-00A-08 | Start LAW Facility Cold Commissioning | 12/31/2018 | Ongoing |
| D-00A-09 | LAW Facility Hot Commissioning Complete | 12/31/2019 | Ongoing |

The LAW Facility will process the low-activity waste. Waste will be mixed with glass formers, vitrified into glass at a design capacity of 30 metric tons per day, and placed in stainless steel containers that are anticipated to be disposed on the Hanford Site in the Integrated Disposal Facility. As of May 2013, the LAW Facility is 64-percent complete overall, with engineering design 78-percent complete, procurement 85-percent complete, construction 65-percent complete, and startup and commissioning 5-percent complete.

Significant Past Accomplishments:

- Installed the melter power supply buss
- Insulated the melter discharge chambers
- Installed the ASX System carrier posting station
- Installed the ASX control panels
- Completed piping connections to the Plant Wash Vessel.

Significant Planned Actions in the Next Six Months:

- Complete installation of ASX System
- Receive HEPA preheaters for LAW secondary offgas/vessel vent process system
- Continue refractory brick installation in the melters
- Complete hazard analysis for the melter and container handling systems.

Issues:

* DOE notes that on June 6, 2013, it notified the States of Washington and Oregon that a serious risk has arisen and that DOE may not meet Consent Decree Milestone A-7.

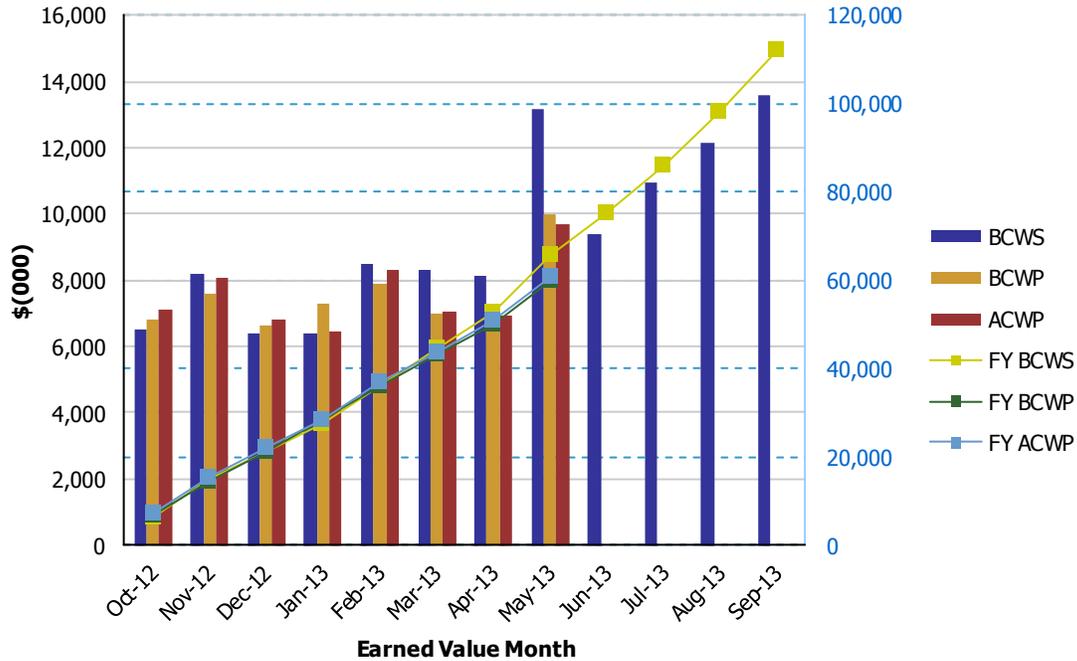
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2013 Earned Value Data

Data as of: May 2013

River Protection Project Low-Activity Waste Facility

EVMS Monthly and Fiscal Year Values



| Earned Value Month | BCWS | BCWP | ACWP | SPI | CPI | FY BCWS | FY BCWP | FY ACWP | FY SPI | FY CPI |
|--------------------|----------|---------|---------|------|------|-----------|----------|----------|--------|--------|
| Oct 2012 | \$6,536 | \$6,787 | \$7,142 | 1.04 | 0.95 | \$6,536 | \$6,787 | \$7,142 | 1.04 | 0.95 |
| Nov 2012 | \$8,212 | \$7,602 | \$8,071 | 0.93 | 0.94 | \$14,748 | \$14,389 | \$15,213 | 0.98 | 0.95 |
| Dec 2012 | \$6,418 | \$6,648 | \$6,814 | 1.04 | 0.98 | \$21,166 | \$21,037 | \$22,027 | 0.99 | 0.96 |
| Jan 2013 | \$6,392 | \$7,303 | \$6,469 | 1.14 | 1.13 | \$27,558 | \$28,340 | \$28,496 | 1.03 | 0.99 |
| Feb 2013 | \$8,503 | \$7,873 | \$8,338 | 0.93 | 0.94 | \$36,061 | \$36,213 | \$36,834 | 1.00 | 0.98 |
| Mar 2013 | \$8,316 | \$6,966 | \$7,054 | 0.84 | 0.99 | \$44,377 | \$43,179 | \$43,888 | 0.97 | 0.98 |
| Apr 2013 | \$8,135 | \$6,765 | \$6,950 | 0.83 | 0.97 | \$52,512 | \$49,944 | \$50,838 | 0.95 | 0.98 |
| May 2013 | \$13,190 | \$9,960 | \$9,706 | 0.76 | 1.03 | \$65,702 | \$59,904 | \$60,544 | 0.91 | 0.99 |
| Jun 2013 | \$9,402 | | | | | \$75,104 | | | | |
| Jul 2013 | \$10,967 | | | | | \$86,071 | | | | |
| Aug 2013 | \$12,145 | | | | | \$98,216 | | | | |
| Sep 2013 | \$13,606 | | | | | \$111,822 | | | | |

| | | | | | |
|-----|-----------|-----------|-----------|------|------|
| PTD | \$746,222 | \$746,933 | \$799,383 | 1.00 | 0.93 |
|-----|-----------|-----------|-----------|------|------|

Balance of Facilities

| Number | Title | Due Date | Status |
|----------|-----------------------------------|------------|----------|
| D-00A-12 | Steam Plant Construction Complete | 12/31/2012 | Complete |

The BOF provides services and utilities to support operation of the main production facilities—PT, HLW, LAW, and LAB. As of May 2013, BOF is 57-percent complete overall, with engineering design 79-percent complete, procurement 72-percent complete, construction 74-percent complete, and startup and commissioning 11-percent complete.

Significant Past Accomplishments:

- Started component testing of the medium voltage electrical system in BOF Switchgear Building 91
- Completed de-energized component testing of electrical systems in Building 87
- Subcontractor crews completed installation of the Fire Protection Water System in the Glass Former Storage Control Building

Significant Planned Actions in the Next Six Months:

- Complete construction of WTP Chiller Compressor Plant
- Complete the component and functional testing of the low voltage, medium voltage, and fire detection systems for Switchgear Buildings 87 and 91
- Complete construction of the Glass Former Storage Facility.

Issues:

No major issues at this time.

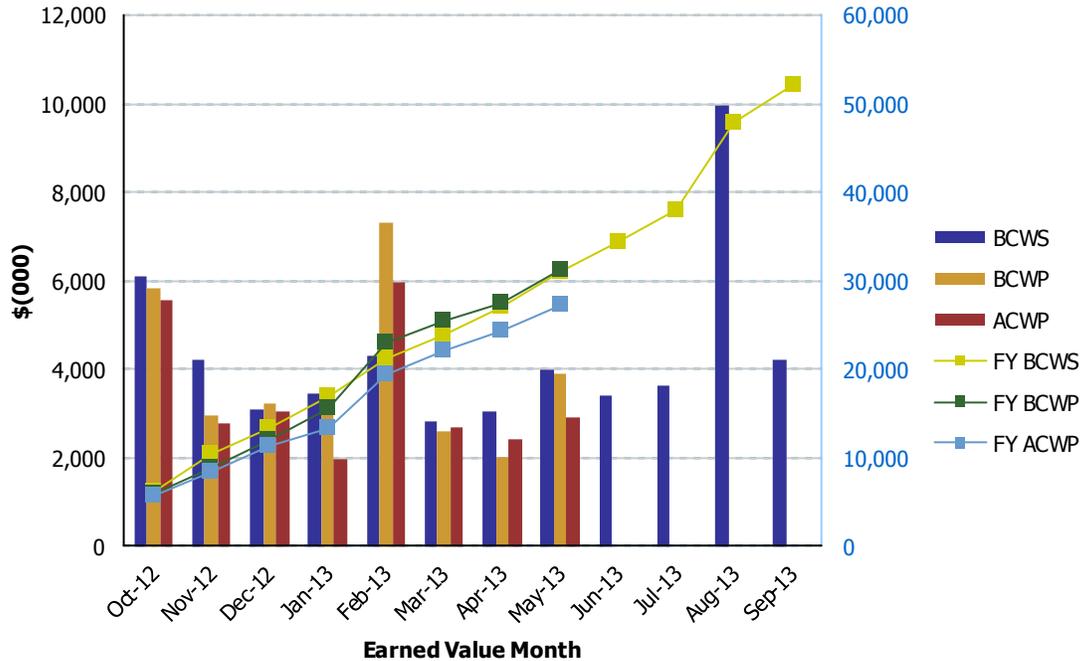
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2013 Earned Value Data

Data as of: May 2013

River Protection Project Balance of Facilities

EVMS Monthly and Fiscal Year Values



| Earned Value Month | BCWS | BCWP | ACWP | SPI | CPI | FY BCWS | FY BCWP | FY ACWP | FY SPI | FY CPI |
|--------------------|---------|---------|---------|------|------|----------|----------|----------|--------|--------|
| Oct 2012 | \$6,106 | \$5,820 | \$5,580 | 0.95 | 1.04 | \$6,106 | \$5,820 | \$5,580 | 0.95 | 1.04 |
| Nov 2012 | \$4,226 | \$2,955 | \$2,775 | 0.70 | 1.06 | \$10,332 | \$8,775 | \$8,355 | 0.85 | 1.05 |
| Dec 2012 | \$3,077 | \$3,213 | \$3,026 | 1.04 | 1.06 | \$13,409 | \$11,988 | \$11,381 | 0.89 | 1.05 |
| Jan 2013 | \$3,452 | \$3,559 | \$1,970 | 1.03 | 1.81 | \$16,861 | \$15,547 | \$13,351 | 0.92 | 1.16 |
| Feb 2013 | \$4,286 | \$7,315 | \$5,963 | 1.71 | 1.23 | \$21,147 | \$22,862 | \$19,314 | 1.08 | 1.18 |
| Mar 2013 | \$2,799 | \$2,588 | \$2,675 | 0.92 | 0.97 | \$23,946 | \$25,450 | \$21,989 | 1.06 | 1.16 |
| Apr 2013 | \$3,057 | \$1,988 | \$2,397 | 0.65 | 0.83 | \$27,003 | \$27,438 | \$24,386 | 1.02 | 1.13 |
| May 2013 | \$3,987 | \$3,897 | \$2,929 | 0.98 | 1.33 | \$30,990 | \$31,335 | \$27,315 | 1.01 | 1.15 |
| Jun 2013 | \$3,418 | | | | | \$34,408 | | | | |
| Jul 2013 | \$3,638 | | | | | \$38,046 | | | | |
| Aug 2013 | \$9,955 | | | | | \$48,001 | | | | |
| Sep 2013 | \$4,223 | | | | | \$52,225 | | | | |

| | | | | | |
|-----|-----------|-----------|-----------|------|------|
| PTD | \$302,751 | \$303,023 | \$298,318 | 1.00 | 1.02 |
|-----|-----------|-----------|-----------|------|------|

Analytical Laboratory

| Number | Title | Due Date | Status |
|----------|---|------------|----------|
| D-00A-05 | LAB Construction Substantially Complete | 12/31/2012 | Complete |

The LAB will support WTP operations by analyzing feed, vitrified waste, and effluent streams. As of May 2013, the LAB is 69-percent complete overall, with engineering design 75-percent complete, procurement 85-percent complete, construction 82-percent complete, and startup and commissioning is 22-percent complete.

Significant Past Accomplishments:

- Completed installing end cast liner plugs for the hot cell.
- 52-percent complete on pipe flushing spool installation
- 85-percent complete on instrument tubing installation.

Significant Planned Actions in the Next Six Months:

- Receive instrument and transport lines for the exhaust stack monitors
- Complete electrical engineering design for the analytical laboratory
- Terminating cable for the HVAC air-handling units and adjustable speed drives
- Complete repairs to RLD vessels.

Issues:

No major issues at this time.

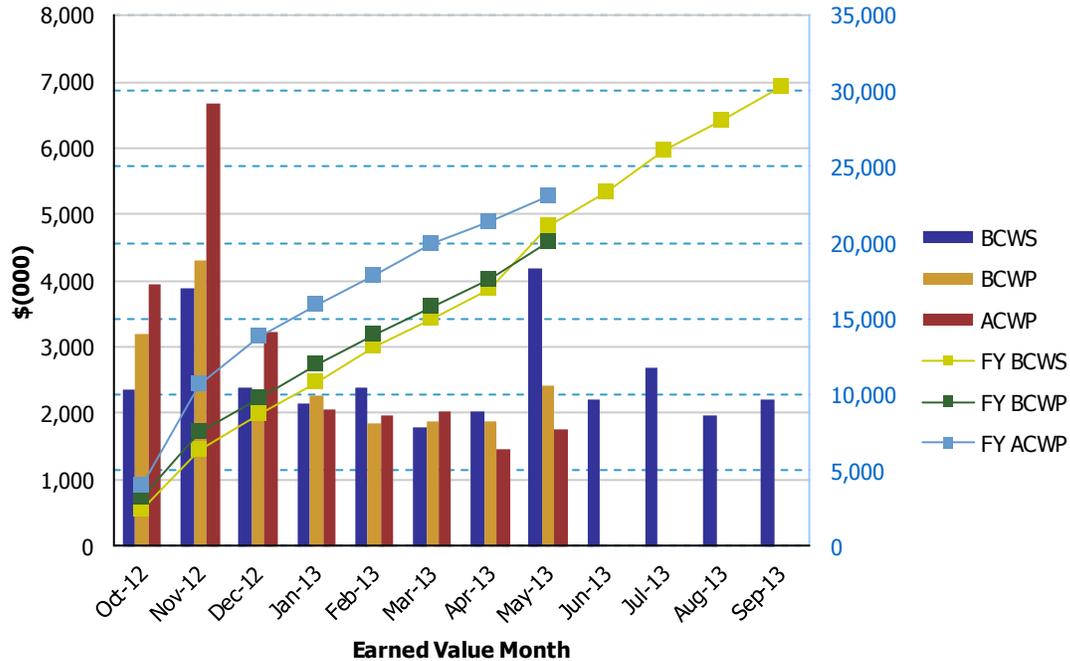
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2013 Earned Value Data

Data as of: May 2013

River Protection Project Analytical Laboratory

EVMS Monthly and Fiscal Year Values



| Earned Value Month | BCWS | BCWP | ACWP | SPI | CPI | FY BCWS | FY BCWP | FY ACWP | FY SPI | FY CPI |
|--------------------|---------|---------|---------|------|------|----------|----------|----------|--------|--------|
| Oct 2012 | \$2,370 | \$3,183 | \$3,952 | 1.34 | 0.81 | \$2,370 | \$3,183 | \$3,952 | 1.34 | 0.81 |
| Nov 2012 | \$3,896 | \$4,303 | \$6,675 | 1.10 | 0.64 | \$6,266 | \$7,486 | \$10,627 | 1.19 | 0.70 |
| Dec 2012 | \$2,381 | \$2,257 | \$3,219 | 0.95 | 0.70 | \$8,647 | \$9,743 | \$13,846 | 1.13 | 0.70 |
| Jan 2013 | \$2,137 | \$2,270 | \$2,052 | 1.06 | 1.11 | \$10,784 | \$12,013 | \$15,898 | 1.11 | 0.76 |
| Feb 2013 | \$2,387 | \$1,852 | \$1,977 | 0.78 | 0.94 | \$13,171 | \$13,865 | \$17,875 | 1.05 | 0.78 |
| Mar 2013 | \$1,783 | \$1,879 | \$2,044 | 1.05 | 0.92 | \$14,954 | \$15,744 | \$19,919 | 1.05 | 0.79 |
| Apr 2013 | \$2,021 | \$1,883 | \$1,475 | 0.93 | 1.28 | \$16,975 | \$17,627 | \$21,394 | 1.04 | 0.82 |
| May 2013 | \$4,187 | \$2,419 | \$1,757 | 0.58 | 1.38 | \$21,162 | \$20,046 | \$23,151 | 0.95 | 0.87 |
| Jun 2013 | \$2,212 | | | | | \$23,373 | | | | |
| Jul 2013 | \$2,688 | | | | | \$26,062 | | | | |
| Aug 2013 | \$1,964 | | | | | \$28,025 | | | | |
| Sep 2013 | \$2,220 | | | | | \$30,245 | | | | |

| | | | | | |
|-----|-----------|-----------|-----------|------|------|
| PTD | \$222,901 | \$224,698 | \$244,750 | 1.01 | 0.92 |
|-----|-----------|-----------|-----------|------|------|

| Waste Treatment Plant Project - (LBL) Percent Complete Status | | | | | | | | | | | | | | | |
|--|---|--|------------|--|--|------------|--|--|------------|--|--|------------|--|--|------------|
| Through May 2013 | | | | | | | | | | | | | | | |
| (Dollars - Millions) | Overall Facility Percent Complete Unallocated Dollars | | | Design/Engineering Unallocated Dollars | | | Procurement Unallocated Dollars | | | Construction Unallocated Dollars | | | Startup & Plant Operations Unallocated Dollars | | |
| | Performance Measurement Baseline (PMB) | Budgeted Cost of Work Performed (BCWP) | % Complete | Performance Measurement Baseline (PMB) | Budgeted Cost of Work Performed (BCWP) | % Complete | Performance Measurement Baseline (PMB) | Budgeted Cost of Work Performed (BCWP) | % Complete | Performance Measurement Baseline (PMB) | Budgeted Cost of Work Performed (BCWP) | % Complete | Performance Measurement Baseline (PMB) | Budgeted Cost of Work Performed (BCWP) | % Complete |
| Facilities | | | | | | | | | | | | | | | |
| Low-Activity Waste | 1,186.6 | 756.9 | 64% | 301.5 | 234.1 | 78% | 260.1 | 221.4 | 85% | 447.3 | 292.5 | 65% | 177.8 | 9.0 | 5% |
| Analytical Lab | 330.1 | 227.1 | 69% | 71.0 | 53.5 | 75% | 54.5 | 46.6 | 85% | 135.7 | 111.9 | 82% | 68.9 | 15.2 | 22% |
| Balance of Facilities | 542.3 | 306.9 | 57% | 91.9 | 72.2 | 79% | 71.3 | 51.6 | 72% | 224.3 | 166.4 | 74% | 154.7 | 16.8 | 11% |
| Total LBL | 2,059.1 | 1,290.9 | 63% | 464.4 | 359.7 | 77% | 386.0 | 319.6 | 83% | 807.3 | 570.7 | 71% | 401.4 | 40.9 | 10% |
| PT/HLW/SS Percent Complete Status Frozen as of September 2012 (due to project rebaselining efforts) | | | | | | | | | | | | | | | |
| High-Level Waste | 1,478.6 | 922.1 | 62% | 364.4 | 325.2 | 89% | 433.9 | 349.4 | 81% | 561.1 | 243.2 | 43% | 119.2 | 4.4 | 4% |
| Pretreatment | 2,517.3 | 1,410.5 | 56% | 761.7 | 645.8 | 85% | 679.9 | 380.4 | 56% | 890.0 | 378.6 | 43% | 185.8 | 5.6 | 3% |
| Shared Services | 4,726.9 | 3,632.6 | 77% | 1,047.0 | 977.9 | 93% | 451.7 | 395.0 | 87% | 1,436.5 | 1,143.0 | 80% | 453.5 | 133.2 | 29% |
| Total WTP w/o UB | n/a | n/a | 67% | n/a | n/a | 87% | n/a | n/a | 73% | n/a | n/a | 62% | n/a | n/a | 15% |
| Undistributed Budget | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Total WTP | n/a | n/a | 67% | n/a | n/a | 87% | n/a | n/a | 73% | n/a | n/a | 62% | n/a | n/a | 15% |

Source: Preliminary WTP Contract Performance Report - Format 1. Data for May 2013

Note: In September 2012, the LBL Replan was incorporated into the project OTB baseline resulting in increases/decreases to the LBL facility budgets, which correspondingly increased/decreased the facility/function to-date percent complete values. In October 2012, the PT/HLW/SS Interim Work Plan was incorporated into the project OTB baseline resulting in decreases to the PT/HLW/SS facility budgets, this was due to a work scope shift from the Distributed budget to UB. Percent Complete Values shown for PT, HLW and SS have been frozen with the September 2012 values due to the Interim Work Plan and budgets being moved into UB. UB value for the project for PT/HLW/SS is \$1,983M.