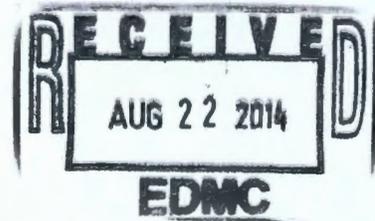


FINAL

Office of River Protection
Consent Decree 08-5085-FVS

Monthly Summary Report

August 2014



Office of River Protection**Consent Decree 08-5085-FVS
Monthly Summary Report****August 2014 (Monthly Summary Report/Project Earned Value Management System
reflects June 2014 information)**

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| 16 | Low-Activity Waste Facility • D-00A-07, D-00A-08, D-00A-09 | Jeff Bruggeman/Dan McDonald |
| 18 | Balance of Facilities • D-00A-12 | Jason Young/Dan McDonald |
| 20 | Analytical Laboratory • D-00A-005 | |

CD Milestone Statistics/Status

| Milestone | Title | Due Date | Completion Date | Status |
|-------------------------|---|------------|-----------------|-----------|
| Fiscal Year 2013 | | | | |
| 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 elevation of 37 feet in HLW Fac. | 12/31/2012 | 10/24/2012 | Completed |
| Fiscal Year 2014 | | | | |
| D-00B-01 | Complete Retrieval of Tank Waste from 10 SSTs in WMA-C | 09/30/2014 | | Ongoing* |
| 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 | | Ongoing* |
| D-00A-19 | Complete elevation 98 feet Concrete Floor Slab Placements in PT Facility | 12/31/2014 | | Ongoing* |

***The United States Department of Energy (DOE) has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone.**

| | |
|---|---------------------------------------|
| DOE = U.S. Department of Energy. | LAW = Low-Activity Waste (Facility). |
| Ecology = Washington State Department of Ecology. | PT = Pretreatment (Facility). |
| HLW = High-Level Waste (Facility). | SST = single-shell tank. |
| LAB = Analytical Laboratory. | WMA-C = C-Farm Waste Management Area. |

Consent Decree Reports/Reviews

D-00C-01 series, Submit to State of Washington and State of Oregon Semi-Annual Report, Due: Semi-annually – January 31 and July 31 of each year, Status: Ongoing. The July 2014 Semi-Annual Report was issued on July 31, 2014 via ORP Letter 14-ECD-0040.

D-00C-02 series, Submit to State of Washington and State of Oregon Monthly Summary Reports, Due: End of each month, Status: Ongoing.

D-006-00-A, Meet Approximately Every Three Years after Entry of Decree to review requirements of the Consent Decree, Held: December 10, 2013, Status: Completed.

D-006-00-A1, Provide State of Oregon notice of meetings in D-006-00-A, etc. no less than 30 days before they are scheduled, Sent: November 8, 2013, Status: Completed.

Single-Shell Tank Retrieval Program

| Milestone | Title | Due Date | Status |
|-----------------------------|--|--------------------|-----------|
| D-00B-01 | Complete Retrieval of Tank Wastes from 10 Remaining SSTs in WMA-C | September 30, 2014 | Ongoing* |
| D-00B-01A through D-00B-01J | Submit Tank Retrieval Complete Certification | TBD ^a | Ongoing |
| D-00B-02 | Advise Ecology of the Nine SSTs from which Waste Will Be Retrieved by 2022 | September 30, 2014 | Completed |
| D-00B-03 | Initiate Startup of Retrieval in At Least 5 of 9 SSTs in D-00B-02 | December 31, 2017 | Ongoing |
| D-00B-04 | Complete Retrieval of Tank Wastes from the nine SSTs in D-00B-02 | September 30, 2022 | Ongoing |
| D-00B-04A through D-00B-04I | Submit Tank Retrieval Complete Certification | TBD | TBD |

- a. Pursuant to Section IV-B-5 of the Consent Decree, U.S. Department of Energy (DOE) must submit to the Washington State Department of Ecology a written certification that DOE has completed retrieval of a tank in accordance with the requirements of Appendix C, Part 1, of the Consent Decree.
Completed for Single-Shell Tank (SST) C-104 on March 21, 2013, via DOE Office of River Protection (ORP) letter 13-TF-0018. Completed for SST C-108 on May 1, 2013, via ORP letter 13-TF-0025. Completed for SST C-109 on June 4, 2013, via ORP letter 13-TF-0037. Completed for SST C-110 on January 29, 2014, via ORP letter 14-TF-0007.

TBD = to be determined.

WMA-C = C-Farm Waste Management Area.

Significant Past Accomplishments:

- Continued operation of the Mobile Arm Retrieval System (MARS) – Vacuum system commenced at Tank C-105
- Restarted C-102 modified sluicing operations
- Completed readiness and startup of C-107 hard heel removal.

Significant Planned Activities in the Next 6 Months:

- Complete retrieval of C-105 using MARS-Vacuum
- Complete retrieval of C-107 using MARS-Sluicing
- Begin startup of hard heel retrieval in C-111 using high-pressure water, with caustic/water dissolution available
- Complete retrieval of C-102 using modified sluicing.

Issues:

* The U.S. Department of Energy (DOE) has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone.

Tank Waste Retrieval Work Plan Status

| Tank | TWRWP | Expected Revisions | First Retrieval Technology | Second Technology | Third Technology |
|-------|-------------------|--------------------|-----------------------------|---|--|
| C-101 | RPP-22520, Rev. 8 | Complete | Modified Sluicing with ERSS | High-Pressure Water deployed with the ERSS | - |
| C-102 | RPP-22393, Rev. 7 | In Process | Modified Sluicing with ERSS | High-Pressure Water deployed with the ERSS | - |
| C-104 | RPP-22393, Rev. 7 | Complete | Modified Sluicing | Chemical Retrieval Process complete per 13-TF-0018 | - |
| C-105 | RPP-22520, Rev. 8 | Complete | MARS-V | MARS-V-High Pressure Water Spray | - |
| C-107 | RPP-22393, Rev. 7 | Complete | MARS-S | MARS-S-High Pressure Water Spray | Water Dissolution |
| C-108 | RPP-22393, Rev. 7 | Complete | Modified Sluicing | Chemical Retrieval Process complete per 13-TF-0025 | - |
| C-109 | RPP-21895, Rev. 5 | Complete | Modified Sluicing | Chemical Retrieval Process complete per 13-TF-0037 | - |
| C-110 | RPP-33116, Rev. 3 | Complete | Modified Sluicing | Mechanical Waste Conditioning with an In-Tank Vehicle | High Pressure Water |
| C-111 | RPP-37739, Rev. 2 | Complete | Modified Sluicing | High pressure water using the ERSS | Chemical Dissolution Process with ERSS |
| C-112 | RPP-22393, Rev. 7 | Complete | Modified Sluicing | Chemical Retrieval Process | - |

ERSS = Extended Reach Sluicing System.
MARS = Mobile Arm Retrieval System.
S = sluicing.
TWRWP = Tank Waste Retrieval Work Plan.
V = vacuum.

Significant Accomplishments:

None.

Significant Planned Activities in the Next 6 Months:

None.

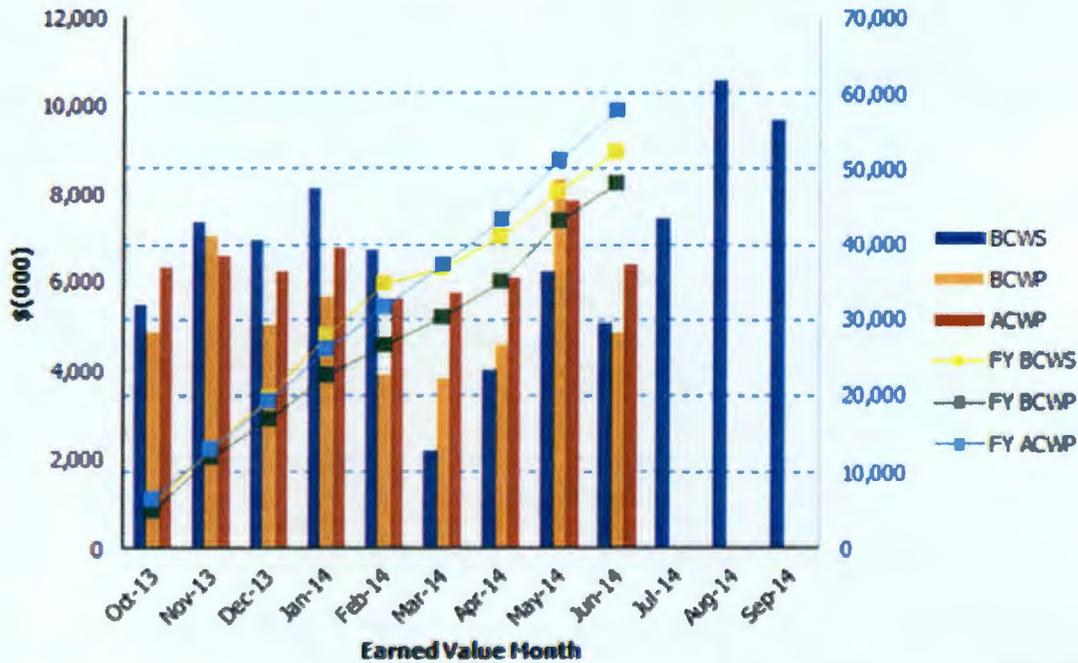
Issues:

None.

Single-Shell Tank Retrieval Monthly and Fiscal Year Earned Value Management System Data

**Tank Farms ORP-0014
Retrieve and Close SST's 5.02**

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 2013 | \$5,483 | \$4,823 | \$6,336 | 0.88 | 0.76 | \$5,483 | \$4,823 | \$6,336 | 0.88 | 0.76 |
| Nov 2013 | \$7,366 | \$7,054 | \$6,609 | 0.96 | 1.07 | \$12,849 | \$11,876 | \$12,945 | 0.92 | 0.92 |
| Dec 2013 | \$6,970 | \$5,002 | \$6,231 | 0.72 | 0.80 | \$19,820 | \$16,878 | \$19,176 | 0.85 | 0.88 |
| Jan 2014 | \$8,102 | \$5,661 | \$6,765 | 0.70 | 0.84 | \$27,922 | \$22,539 | \$25,941 | 0.81 | 0.87 |
| Feb 2014 | \$6,726 | \$3,914 | \$5,602 | 0.58 | 0.70 | \$34,647 | \$26,453 | \$31,543 | 0.76 | 0.84 |
| Mar 2014 | \$2,201 | \$3,805 | \$5,729 | 1.73 | 0.66 | \$36,849 | \$30,258 | \$37,273 | 0.82 | 0.81 |
| Apr 2014 | \$4,000 | \$4,558 | \$6,079 | 1.14 | 0.75 | \$40,848 | \$34,816 | \$43,352 | 0.85 | 0.80 |
| May 2014 | \$6,255 | \$8,331 | \$7,855 | 1.33 | 1.06 | \$47,103 | \$43,146 | \$51,207 | 0.92 | 0.84 |
| Jun 2014 | \$5,055 | \$4,826 | \$6,413 | 0.95 | 0.75 | \$52,158 | \$47,972 | \$57,621 | 0.92 | 0.83 |
| Jul 2014 | \$7,437 | | | | | | | | | |
| Aug 2014 | \$10,588 | | | | | | | | | |
| Sep 2014 | \$9,711 | | | | | | | | | |
| CTD | \$478,997 | \$474,811 | \$484,460 | 0.99 | 0.98 | | | | | |

Waste Treatment and Immobilization Plant Project

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

WTP = Waste Treatment and Immobilization Plant.

The Waste Treatment and Immobilization Plant (WTP) Project currently employs approximately 2,465 full-time equivalent contractor (Bechtel National, Inc. [BNI]) and subcontractor personnel. This includes 626 craft, 378 non-manual, and 192 subcontractor full-time equivalent personnel working at the WTP construction site (all facilities).

As of June 2014, the combined Low-Activity Waste (LAW) Facility, Analytical Laboratory (LAB), and Balance of Facilities (BOF) (collectively LBL) were 69 percent complete, design and engineering was 83 percent complete, procurement was 85 percent complete, construction was 81 percent complete, and startup and commissioning was 14 percent complete.

In September 2012, the baseline change proposal that implemented the LBL replan was incorporated into the project over-target 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 Pretreatment (PT) and High-Level Waste (HLW) Facilities 2-Year Interim Work Plan was incorporated into the project over-target baseline and the percent-complete values for PT and HLW Facilities 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 2014, the cumulative to-date WTP Project schedule variance was a negative \$134.0 million, and the cumulative to-date WTP Project cost variance was a negative \$11.8 million. 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 project status through the end of June 2014.

Significant Past Accomplishments:

- Began testing of the pulse-jet mixer (PJM) controls at the Full-Scale Testing Facility started on July 25, 2014 (PT)
- Continued conceptual design for a standardized high-solids vessel design (SHSVD) (PT)
- Secured DOE approval of the HLW safety design strategy (HLW)
- Placed the final 12-inch layer of refractory in the center of each melter floor and began placement of the initial layer of brick on the perimeter walls (LAW)
- Installed over 190 linear feet of process piping and hydro-tested 730 linear feet of facility piping (LAW)
- Placed the standby diesel generator on the foundation (BOF)
- Issued Underground Piping Integrity Assessment Program for DOE review (BOF)

- Completed the hydrostatic test of radioactive liquid waste disposal (RLD) vessel 164 (LAB).

Significant Planned Actions in the Next 6 Months:

- Complete modification at Full-Scale Vessel Testing Facility to support Phase 2 testing for the PJM controls (PT)
- DOE approval of PT resumption plan to support DOE authorization to proceed with production engineering (PT)
- BNI to submit PT Facility Safety Design Strategy (SDS) Plan for DOE review
- DOE authorization of full production engineering (HLW)
- Complete installation of autosampling system (LAW)
- Complete the LAW Facility design and operability review (LAW)
- Complete construction of the Glass Former Storage Facility (BOF)
- Complete repairs, retest, and recertify RLD vessels (LAB)
- BNI to develop 2-year work plan for fiscal year (FY) 2015 and FY 2016 (PT, HLW).

Issues:

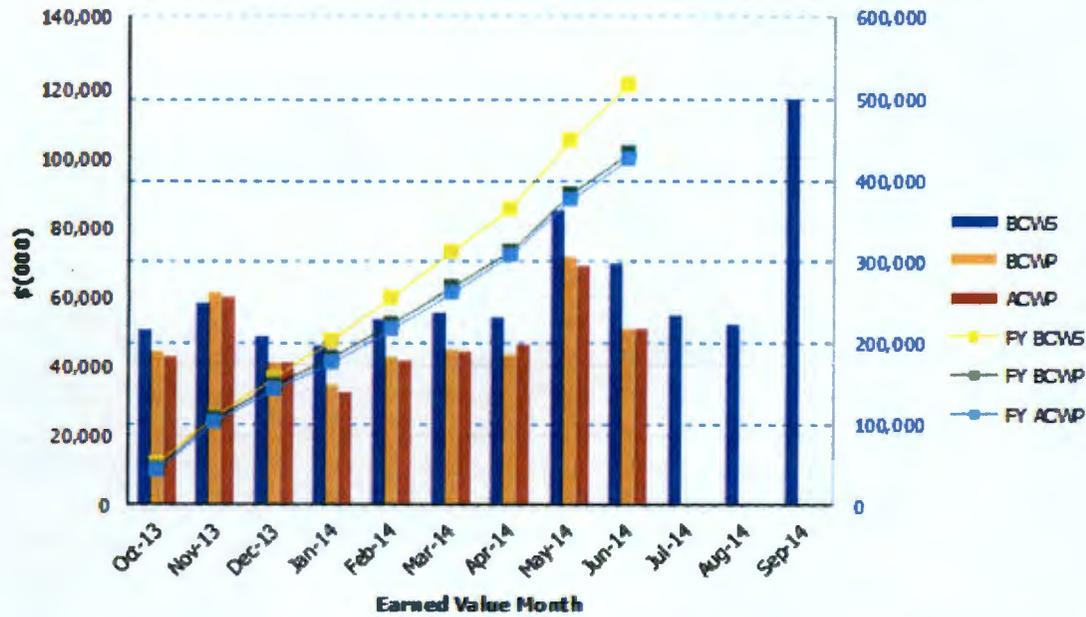
*DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone. Technical issues related to the WTP include, among others, PJMs, corrosion/erosion in piping and vessels, hydrogen accumulation, criticality, and ventilation.

Data Set: FY 2014 Earned Value Data

Data as of: June 2014

**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 2013 | \$49,959 | \$43,981 | \$42,448 | 0.88 | 1.04 | \$49,959 | \$43,981 | \$42,448 | 0.88 | 1.04 |
| Nov 2013 | \$58,047 | \$61,276 | \$59,935 | 1.06 | 1.02 | \$108,006 | \$105,257 | \$102,383 | 0.97 | 1.03 |
| Dec 2013 | \$48,739 | \$41,149 | \$40,881 | 0.84 | 1.01 | \$156,745 | \$146,406 | \$143,264 | 0.93 | 1.02 |
| Jan 2014 | \$45,633 | \$34,448 | \$32,185 | 0.75 | 1.07 | \$202,378 | \$180,854 | \$175,449 | 0.89 | 1.03 |
| Feb 2014 | \$53,315 | \$42,491 | \$41,349 | 0.80 | 1.03 | \$255,693 | \$223,345 | \$216,798 | 0.87 | 1.03 |
| Mar 2014 | \$55,327 | \$44,937 | \$44,053 | 0.81 | 1.02 | \$311,020 | \$268,282 | \$260,851 | 0.86 | 1.03 |
| Apr 2014 | \$53,695 | \$43,232 | \$46,086 | 0.81 | 0.94 | \$364,715 | \$311,514 | \$306,937 | 0.85 | 1.01 |
| May 2014 | \$84,691 | \$71,474 | \$68,633 | 0.84 | 1.04 | \$449,406 | \$382,988 | \$375,570 | 0.85 | 1.02 |
| Jun 2014 | \$69,440 | \$50,571 | \$50,680 | 0.73 | 1.00 | \$518,846 | \$433,559 | \$426,250 | 0.84 | 1.02 |
| Jul 2014 | \$54,292 | | | | | | | | | |
| Aug 2014 | \$51,488 | | | | | | | | | |
| Sep 2014 | \$116,961 | | | | | | | | | |
| PTD | \$8,309,059 | \$8,175,034 | \$8,186,860 | 0.98 | 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 * |

PT = pretreatment.

The PT Facility will separate radioactive tank waste into HLW and LAW 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 PT/HLW 2-Year Interim Work Plan.

Technical review teams continue to evaluate open PT Facility technical issues. BNI has completed construction, and commissioning of the Full-Scale Vessel Testing platform, and BNI commenced testing for verification of PJM controls on July 25, 2014, two months ahead of the planned start date of September 2014. Evaluation is ongoing relative to a standardized design for high-solids vessels within the PT Facility. BNI has submitted resolution plans for eight technical issues, which are undergoing DOE review. The eight technical issues are the T1 Hydrogen in Vessels, T2 Criticality, T3 HPAV, T4 Mixing, T5 Erosion Corrosion, T6 PTF Optimization, T7 Vessel Analysis, and T8 Ventilation.

On June 30, 2014, BNI submitted a draft of the PT resumption plan to support DOE authorization to proceed with production engineering, in accordance with DOE direction. BNI is developing a FY 2015–FY 2016 two-year work plan.

Significant Past Accomplishments:

- Began testing of the PJM controls at the Full-Scale Testing Facility on July 25, 2014
- Completed hydro testing of 2-inch Grayloc, PUREX, and 3-way PUREX test assemblies
- Continued jet impingement testing for erosion; Phase 2 test is complete
- Issued Phase 1 PJM controls test plan
- Continued conceptual design for a standardized high-solids vessel design (SHSVD)
- Continued maintenance activities as result of PT Facility assessment.

Significant Planned Actions in the Next 6 Months:

- Complete modification at Full-Scale Vessel Testing Facility to support Phase 2 testing for the PJM controls

- Evaluate potential savings relative to storing procured commodities onsite compared to storing at vendor facilities during suspensions of procurements
- DOE approval of PT resumption plan to support DOE authorization to proceed with production engineering
- Finalize technical team strategic plans
- Award contract for sensitivity tests for erosion in vessels and piping
- BNI to submit PT Facility Safety Design Strategy (SDS) Plan for DOE review
- Finalize test plan, simulant composition, and test instrument list for full-scale vessel mixing tests
- Define standardized vessel selection criteria in support of vessel mixing resolution
- Start informational testing in 8-foot test vessel for down selection of features pertaining to SHSVD.

Issues:

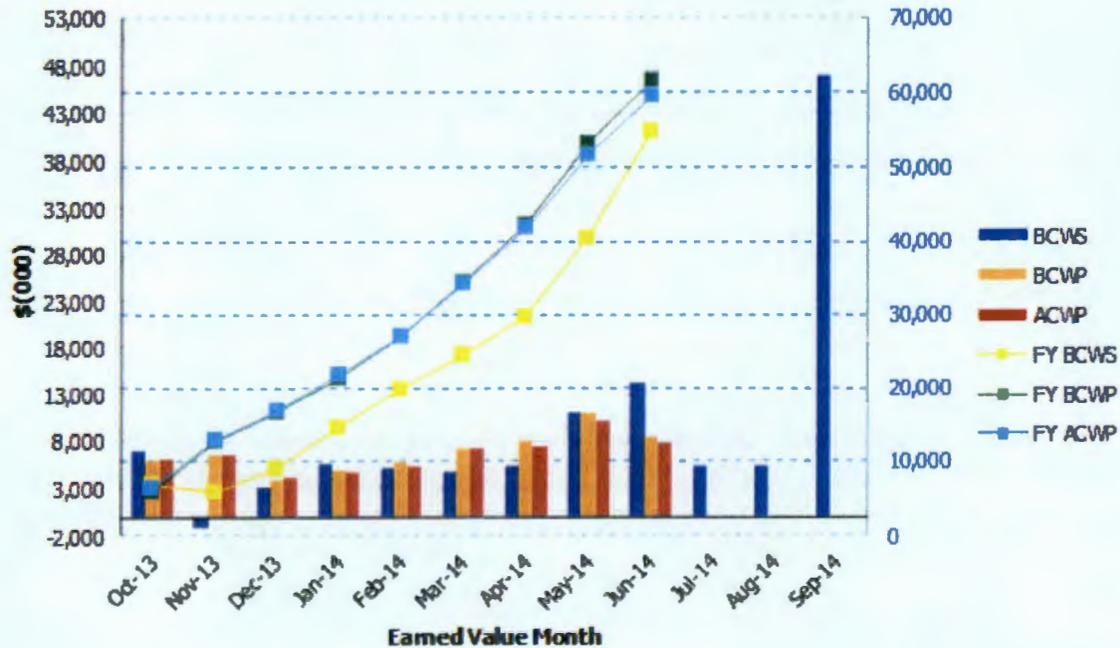
*DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone. Technical issues related to the WTP include, among others, PJMs, corrosion/erosion in piping and vessels, hydrogen accumulation, criticality, and ventilation.

Data Set: FY 2014 Earned Value Data

Data as of: June 2014

**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 2013 | \$6,954 | \$5,927 | \$6,224 | 0.85 | 0.95 | \$6,954 | \$5,927 | \$6,224 | 0.85 | 0.95 |
| Nov 2013 | (\$1,213) | \$6,673 | \$6,646 | -5.50 | 1.00 | \$5,741 | \$12,600 | \$12,870 | 2.19 | 0.98 |
| Dec 2013 | \$3,109 | \$3,957 | \$4,053 | 1.27 | 0.98 | \$8,850 | \$16,557 | \$16,923 | 1.87 | 0.98 |
| Jan 2014 | \$5,616 | \$4,856 | \$4,809 | 0.86 | 1.01 | \$14,466 | \$21,413 | \$21,732 | 1.48 | 0.99 |
| Feb 2014 | \$5,155 | \$5,673 | \$5,261 | 1.10 | 1.08 | \$19,621 | \$27,086 | \$26,993 | 1.38 | 1.00 |
| Mar 2014 | \$4,751 | \$7,210 | \$7,173 | 1.52 | 1.01 | \$24,372 | \$34,296 | \$34,166 | 1.41 | 1.00 |
| Apr 2014 | \$5,329 | \$7,957 | \$7,521 | 1.49 | 1.06 | \$29,701 | \$42,253 | \$41,687 | 1.42 | 1.01 |
| May 2014 | \$10,845 | \$10,888 | \$10,039 | 1.00 | 1.08 | \$40,546 | \$53,141 | \$51,726 | 1.31 | 1.03 |
| Jun 2014 | \$14,207 | \$8,532 | \$7,915 | 0.60 | 1.08 | \$54,753 | \$61,673 | \$59,641 | 1.13 | 1.03 |
| Jul 2014 | \$5,437 | | | | | | | | | |
| Aug 2014 | \$5,459 | | | | | | | | | |
| Sep 2014 | \$46,949 | | | | | | | | | |
| PTD | \$1,582,043 | \$1,571,682 | \$1,567,386 | 0.99 | 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 * |

HLW = High-Level Waste (Facility).

The HLW Facility will receive the separated HLW concentrate from the PT Facility. This concentrate will be blended with glass formers, 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 before shipment to interim storage.

As of September 2012, the HLW Facility was 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 been 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 PT/HLW 2-Year Interim Work Plan.

Construction activities include the placement of walls at the 37-foot elevation, installation of structural steel at the 58- and 77-foot elevation, and installation of cable tray supports and ventilation ducts at the 14-foot elevation. HLW activities are focused on supporting authorization to proceed with a resumption of production engineering. Technical review teams completed evaluations of open technical issues to support this effort. The path forward to ramp up HLW engineering, procurement, and construction is ongoing and includes the following actions:

- Conduct engineering studies to resolve technical safety issues
- Perform risk assessments for the issues noted in Priority Level 1 findings, reliability validation process, project issues evaluation reporting, etc.
- Perform assessment of BNI process improvement for the readiness to proceed.

DOE approved “limited production engineering” activities to facilitate completion of outstanding corrective actions and resolution of existing design issues. The authorization to proceed with full production engineering is imminent, awaiting BNI issuance of the system engineering checklist based on completion of full prerequisite action items. DOE has approved the HLW SDS.

Significant Past Accomplishments:

- One concrete placement was made in June
- HLW Facility efforts focused on supporting the conditional approval (Critical Decision 1) of the authorization to proceed with engineering, procurement, and construction, and included the following activities:
 - BNI issued the HLW Facility Design and Operability Review report

- DOE has approved BNI action plan for resolution of issues identified in the DOE Design and Operability Review report
- DOE has approved the HLW safety design strategy
- Fabrication of ASX No. 28 is 90 percent complete
- Started initial testing on Porvair high-efficiency particulate air (HEPA) filter at Mississippi State University
- Initiated limited hazard analysis for RLD vessels.

Significant Planned Actions in the Next 6 Months:

- DOE authorization of full production engineering
- Issue request for proposal (RFP) for vendor design of RLD-8 vessel
- Glove box 29 and 42 assembly/fabrication for auto samplers
- Twelve tons of steel forecasted for delivery in the Fourth Quarter FY 2014
- Perform gap analysis to identify misalignments with the current Preliminary Documented Safety Analysis and to identify safety analyses necessary to incorporate the SDS into the Preliminary Documented Safety Analysis
- Complete draft analysis of single-point failures in support of failure mode analysis
- Perform HEPA filter qualification testing at Mississippi State University
- Continue activities to support the RLD system redesign in support of vessel re-procurement.

Issues:

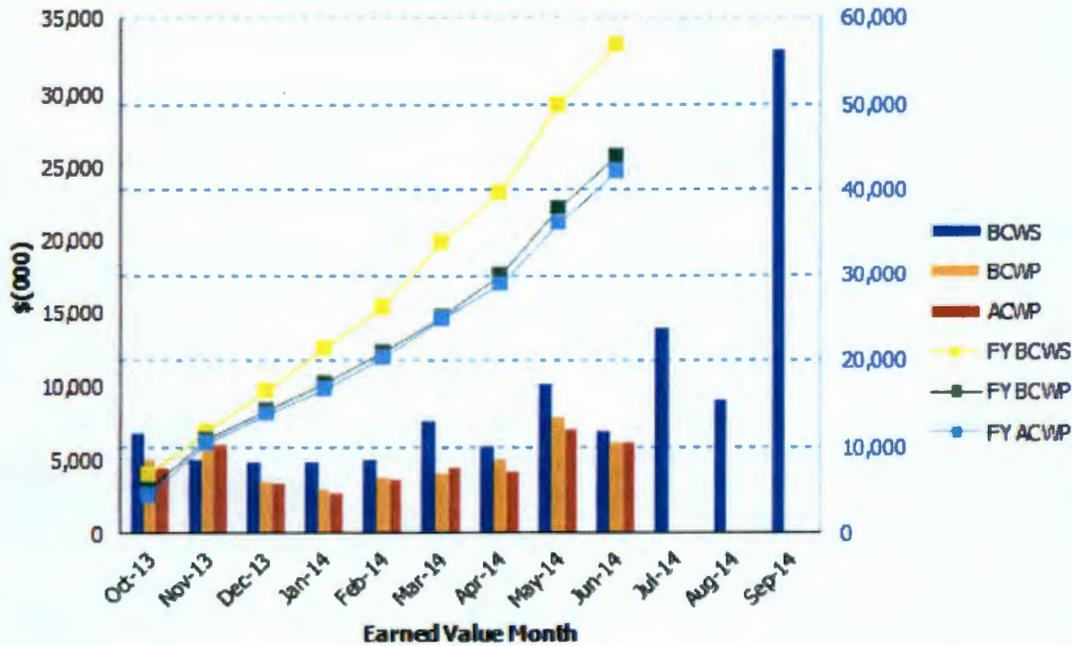
*DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone. Technical issues related to the WTP include, among others, PJMs, corrosion/erosion in piping and vessels, hydrogen accumulation, criticality, and ventilation.

Data Set: FY 2014 Earned Value Data

Data as of: June 2014

**River Protection Project
High-Level Waste Facility**

EVMS Monthly and Fiscal Year Values



| Earned Value Month | BCWS | BCWP | ACWP | SPI | CPI | FYBCWS | FYBCWP | FYACWP | FY SPI | FY CPI |
|--------------------|-------------|-------------|-------------|------|------|----------|----------|----------|--------|--------|
| Oct 2013 | \$6,818 | \$4,914 | \$4,390 | 0.72 | 1.12 | \$6,818 | \$4,914 | \$4,390 | 0.72 | 1.12 |
| Nov 2013 | \$4,892 | \$5,842 | \$6,055 | 1.19 | 0.96 | \$11,710 | \$10,756 | \$10,445 | 0.92 | 1.03 |
| Dec 2013 | \$4,811 | \$3,559 | \$3,420 | 0.74 | 1.04 | \$16,521 | \$14,315 | \$13,865 | 0.87 | 1.03 |
| Jan 2014 | \$4,778 | \$2,998 | \$2,760 | 0.63 | 1.09 | \$21,299 | \$17,313 | \$16,625 | 0.81 | 1.04 |
| Feb 2014 | \$4,927 | \$3,736 | \$3,647 | 0.76 | 1.02 | \$26,226 | \$21,049 | \$20,272 | 0.80 | 1.04 |
| Mar 2014 | \$7,612 | \$4,010 | \$4,391 | 0.53 | 0.91 | \$33,838 | \$25,059 | \$24,663 | 0.74 | 1.02 |
| Apr 2014 | \$5,867 | \$4,921 | \$4,203 | 0.84 | 1.17 | \$39,705 | \$29,980 | \$28,866 | 0.76 | 1.04 |
| May 2014 | \$10,121 | \$7,861 | \$7,079 | 0.78 | 1.11 | \$49,826 | \$37,841 | \$35,945 | 0.76 | 1.05 |
| Jun 2014 | \$6,975 | \$6,073 | \$6,097 | 0.87 | 1.00 | \$56,801 | \$43,914 | \$42,042 | 0.77 | 1.04 |
| Jul 2014 | \$13,796 | | | | | | | | | |
| Aug 2014 | \$9,052 | | | | | | | | | |
| Sep 2014 | \$32,827 | | | | | | | | | |
| PTD | \$1,043,604 | \$1,033,094 | \$1,024,912 | 0.99 | 1.01 | | | | | |

Low-Activity Waste Facility

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

LAW = Low-Activity Waste (Facility).

The LAW Facility will process the LAW that 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 anticipated to be disposed of on the Hanford Site in the Integrated Disposal Facility. As of June 2014, the LAW Facility was 70 percent complete overall, with engineering design 82 percent complete, procurement 89 percent complete, construction 76 percent complete, and startup and commissioning 7 percent complete. On February 24, 2014, DOE requested that BNI develop a contract modification proposal for the following:

- Completing the LBL work scope in the current contract through hot commissioning
- Completing initial planning and design for incorporating a permanent capability to accommodate a direct feed LAW (DFLAW) option in the WTP Project.

Significant Past Accomplishments:

- Issued all DX (Q refrigerant) pipe supports for elevation plus 48-feet for fabrication
- Placed the final 12-inch layer of refractory in the center of each melter floor and began placement of the initial layer of brick on the perimeter walls
- Installed Secondary Off-gas (LVP) HEPA filters 1A and 2A
- Installed over 2,700 linear feet of conduit and pulled over 18,500 linear feet of cable
- Installed over 190 linear feet of process piping and hydro-tested 730 linear feet of facility piping.

Significant Planned Actions in the Next 6 Months:

- Complete installation of autosampling system
- Award the purchase order for the “active” gas analyzers
- Submit the Thermal Catalytic Oxidizer (TCO) permit package for Independent Qualified Registered Professional Engineer (IQRPE) review
- Complete the LAW Facility design and operability review
- Continue refractory brick installation in the melters.

Issues:

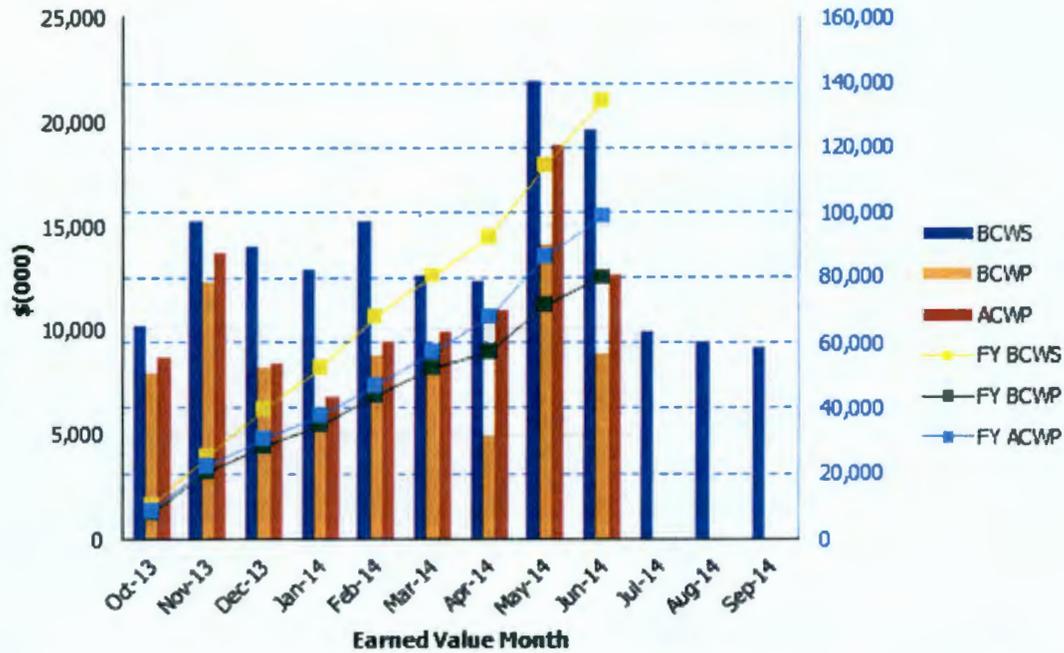
*DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone.

Data Set: FY 2014 Earned Value Data

Data as of: June 2014

**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 2013 | \$10,160 | \$7,952 | \$8,677 | 0.78 | 0.92 | \$10,160 | \$7,952 | \$8,677 | 0.78 | 0.92 |
| Nov 2013 | \$15,237 | \$12,339 | \$13,732 | 0.81 | 0.90 | \$25,397 | \$20,291 | \$22,409 | 0.80 | 0.91 |
| Dec 2013 | \$14,003 | \$8,214 | \$8,389 | 0.59 | 0.98 | \$39,400 | \$28,505 | \$30,798 | 0.72 | 0.93 |
| Jan 2014 | \$12,919 | \$6,382 | \$6,795 | 0.49 | 0.94 | \$52,319 | \$34,887 | \$37,593 | 0.67 | 0.93 |
| Feb 2014 | \$15,254 | \$8,750 | \$9,433 | 0.57 | 0.93 | \$67,573 | \$43,637 | \$47,026 | 0.65 | 0.93 |
| Mar 2014 | \$12,596 | \$8,478 | \$9,852 | 0.67 | 0.86 | \$80,169 | \$52,115 | \$56,878 | 0.65 | 0.92 |
| Apr 2014 | \$12,335 | \$4,958 | \$10,936 | 0.40 | 0.45 | \$92,504 | \$57,073 | \$67,814 | 0.62 | 0.84 |
| May 2014 | \$21,988 | \$14,117 | \$18,840 | 0.64 | 0.75 | \$114,492 | \$71,190 | \$86,654 | 0.62 | 0.82 |
| Jun 2014 | \$19,658 | \$8,885 | \$12,594 | 0.45 | 0.71 | \$134,150 | \$80,075 | \$99,248 | 0.60 | 0.81 |
| Jul 2014 | \$9,943 | | | | | | | | | |
| Aug 2014 | \$9,406 | | | | | | | | | |
| Sep 2014 | \$9,120 | | | | | | | | | |
| PTD | \$938,649 | \$869,565 | \$942,528 | 0.93 | 0.92 | | | | | |

Balance of Facilities

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

The BOF will provide services and utilities to support operation of the main production facilities: PT, HLW, LAW, and LAB. As of June 2014, BOF was 62 percent complete overall, with engineering design 84 percent complete, procurement 72 percent complete, construction 82 percent complete, and startup and commissioning 17 percent complete.

Commercial grade dedication activities in support of the emergency turbine generator procurement are the primary focus for the quality, design engineering, and procurement organizations. Construction and startup efforts are focused on completion of the Glass Former Facility and construction of the Standby Diesel Generator (SDG) Facility. The SDG Facility foundation and additional facility support concrete placements have been made to support generator placement in July.

Significant Past Accomplishments:

- Placed the SDG on the foundation
- Completed excavation and electrical connections for 6 of 10 coupon test stations
- Issued Underground Piping Integrity Assessment Program for DOE review
- Continued recoating activities for fire service water tanks.

Significant Planned Actions in the Next 6 Months:

- Complete cathodic protection system coupon test station installation
- Complete construction of the Glass Former Storage Facility
- Complete repair work for fire service water tanks
- Receive the replacement nonradioactive liquid waste disposal panel
- Complete component testing of the low-voltage, medium-voltage, and fire detection systems for switchgear Buildings 87 and 91.

Issues:

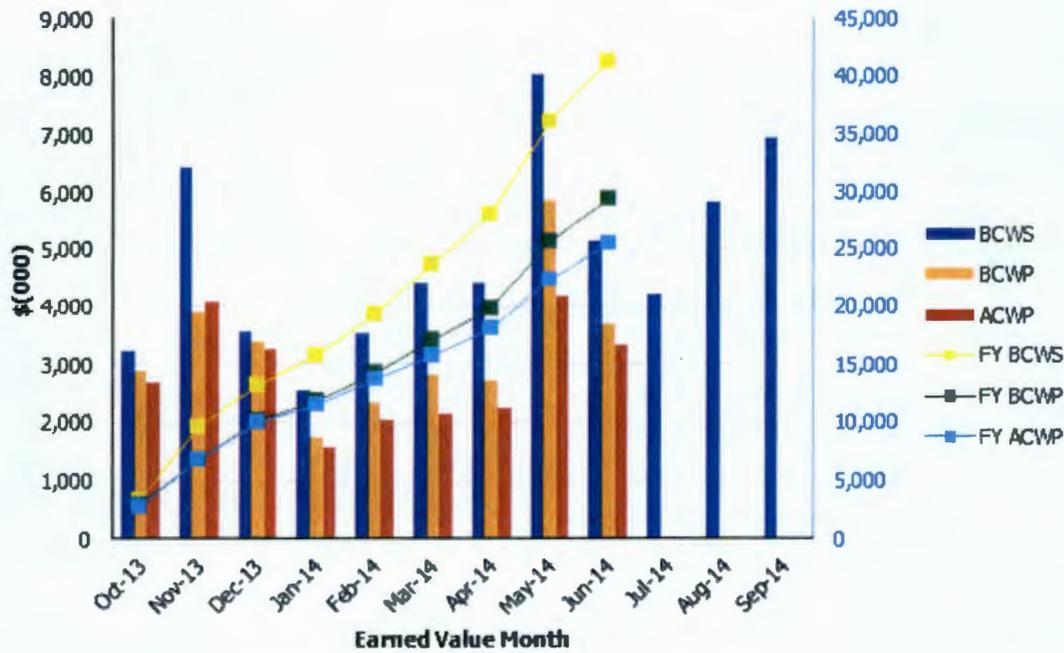
No major issues at this time.

Data Set: FY 2014 Earned Value Data

Data as of: June 2014

**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 2013 | \$3,218 | \$2,901 | \$2,679 | 0.90 | 1.08 | \$3,218 | \$2,901 | \$2,679 | 0.90 | 1.08 |
| Nov 2013 | \$6,431 | \$3,886 | \$4,067 | 0.60 | 0.96 | \$9,649 | \$6,787 | \$6,746 | 0.70 | 1.01 |
| Dec 2013 | \$3,547 | \$3,395 | \$3,267 | 0.96 | 1.04 | \$13,196 | \$10,182 | \$10,013 | 0.77 | 1.02 |
| Jan 2014 | \$2,538 | \$1,737 | \$1,562 | 0.68 | 1.11 | \$15,734 | \$11,919 | \$11,575 | 0.76 | 1.03 |
| Feb 2014 | \$3,528 | \$2,356 | \$2,047 | 0.67 | 1.15 | \$19,262 | \$14,275 | \$13,622 | 0.74 | 1.05 |
| Mar 2014 | \$4,394 | \$2,806 | \$2,163 | 0.64 | 1.30 | \$23,656 | \$17,081 | \$15,785 | 0.72 | 1.08 |
| Apr 2014 | \$4,399 | \$2,724 | \$2,238 | 0.62 | 1.22 | \$28,055 | \$19,805 | \$18,023 | 0.71 | 1.10 |
| May 2014 | \$8,035 | \$5,861 | \$4,179 | 0.73 | 1.40 | \$36,090 | \$25,666 | \$22,202 | 0.71 | 1.16 |
| Jun 2014 | \$5,161 | \$3,711 | \$3,320 | 0.72 | 1.12 | \$41,251 | \$29,377 | \$25,522 | 0.71 | 1.15 |
| Jul 2014 | \$4,212 | | | | | | | | | |
| Aug 2014 | \$5,827 | | | | | | | | | |
| Sep 2014 | \$6,945 | | | | | | | | | |
| PTD | \$367,965 | \$347,027 | \$336,892 | 0.94 | 1.03 | | | | | |

Analytical Laboratory

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

LAB = Analytical Laboratory.

The LAB will support WTP operations by analyzing feed, vitrified waste, and effluent streams. As of June 2014, the LAB was 75 percent complete overall, with engineering design 83 percent complete, procurement 86 percent complete, construction 92 percent complete, and startup and commissioning 25 percent complete.

Engineering efforts are focused on closure of deficiency reports and preparation of certification documents for RLD vessel 164. Construction efforts are focused on installation of remaining electrical commodities and penetration seals to support the completion of LAB construction.

Significant Past Accomplishments:

- Completed the hydrostatic test of RLD vessel 164
- Continued cable pulls and terminations
- Continued installation of penetration seals and fireproofing.

Significant Planned Actions in the Next 6 Months:

- Complete electrical commodity installation
- Complete penetration seal installation
- Recertify RLD vessels 163, 164, and 165
- Initiate component level testing of select LAB systems.

Issues:

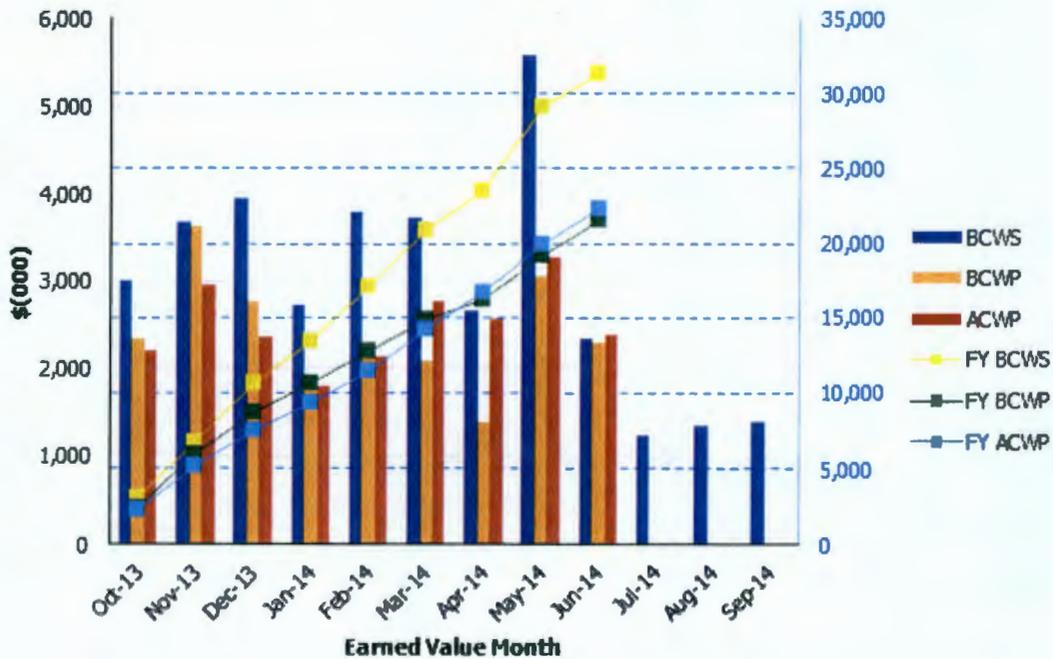
No major issues at this time.

Data Set: FY 2014 Earned Value Data

Data as of: June 2014

**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 2013 | \$3,008 | \$2,328 | \$2,196 | 0.77 | 1.06 | \$3,008 | \$2,328 | \$2,196 | 0.77 | 1.06 |
| Nov 2013 | \$3,689 | \$3,629 | \$2,959 | 0.98 | 1.23 | \$6,697 | \$5,957 | \$5,155 | 0.89 | 1.16 |
| Dec 2013 | \$3,943 | \$2,750 | \$2,350 | 0.70 | 1.17 | \$10,640 | \$8,707 | \$7,505 | 0.82 | 1.16 |
| Jan 2014 | \$2,705 | \$1,875 | \$1,788 | 0.69 | 1.05 | \$13,345 | \$10,582 | \$9,293 | 0.79 | 1.14 |
| Feb 2014 | \$3,783 | \$2,130 | \$2,126 | 0.56 | 1.00 | \$17,128 | \$12,712 | \$11,419 | 0.74 | 1.11 |
| Mar 2014 | \$3,718 | \$2,080 | \$2,751 | 0.56 | 0.76 | \$20,846 | \$14,792 | \$14,170 | 0.71 | 1.04 |
| Apr 2014 | \$2,642 | \$1,382 | \$2,552 | 0.52 | 0.54 | \$23,488 | \$16,174 | \$16,722 | 0.69 | 0.97 |
| May 2014 | \$5,592 | \$3,040 | \$3,274 | 0.54 | 0.93 | \$29,080 | \$19,214 | \$19,996 | 0.66 | 0.96 |
| Jun 2014 | \$2,330 | \$2,291 | \$2,375 | 0.98 | 0.96 | \$31,410 | \$21,505 | \$22,371 | 0.68 | 0.96 |
| Jul 2014 | \$1,234 | | | | | | | | | |
| Aug 2014 | \$1,351 | | | | | | | | | |
| Sep 2014 | \$1,381 | | | | | | | | | |
| PTD | \$268,449 | \$254,588 | \$274,874 | 0.95 | 0.93 | | | | | |

Waste Treatment Plant Project - (LBL) Percent Complete Status
Through June 2014

| (Dollars - Millions) | Overall Facility Percent Complete Unallocated Dollars | | | Design/Engineering Unallocated Dollars | | | Procurement Unallocated Dollars | | | Construction Unallocated Dollars | | | Startup & Plant Operations Unallocated Dollars | | | Project Management & Shared Services 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 | Performance Measurement Baseline (PMB) | Budgeted Cost of Work Performed (BCWP) | % Complete |
| Facilities | | | | | | | | | | | | | | | | | | |
| Low-Activity Waste | 1,236.4 | 869.6 | 70% | 325.9 | 267.7 | 82% | 263.2 | 233.4 | 89% | 484.1 | 354.9 | 76% | 181.3 | 12.5 | 7% | 1.9 | 1.0 | 54% |
| Analytical Lab | 339.2 | 254.6 | 75% | 73.1 | 60.8 | 83% | 55.9 | 48.2 | 86% | 138.5 | 127.5 | 92% | 71.1 | 17.7 | 25% | 0.6 | 0.3 | 54% |
| Balance of Facilities | 561.6 | 347.0 | 62% | 95.9 | 80.5 | 84% | 74.5 | 53.7 | 72% | 225.0 | 183.9 | 82% | 165.5 | 28.5 | 17% | 0.6 | 0.3 | 54% |
| Total LBL | 2,137.2 | 1,471.2 | 69% | 494.9 | 409.1 | 83% | 393.7 | 335.3 | 85% | 827.6 | 666.3 | 81% | 418.0 | 58.8 | 14% | 3.0 | 1.6 | 54% |
| 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% | n/a | n/a | n/a |
| 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% | n/a | n/a | n/a |
| Shared Services | 4,728.9 | 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% | n/a | n/a | n/a |
| Total HLW/PT/SS | 8,722.8 | 5,965.2 | 68% | 2,173.1 | 1,948.9 | 90% | 1,565.5 | 1,124.8 | 72% | 2,887.6 | 1,764.8 | 61% | 758.5 | 143.2 | 19% | n/a | n/a | n/a |
| 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 | n/a | n/a | n/a |
| Total WTP | 10,860.0 | 7,436.4 | 68% | 2,668.0 | 2,358.0 | 88% | 1,959.2 | 1,460.1 | 75% | 3,715.2 | 2,431.1 | 65% | 1,176.5 | 202.0 | 17% | n/a | n/a | n/a |

Source: Preliminary WTP Contract Performance Report - Format 1, Data for June 2014

Note: In September 2012, the LBL Replen 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 \$2,014M. The percent complete values for the Total WTP are the current total LBL BCWP added to the frozen HLW/PT/SS BCWP values. In March 2014, Project Controls and Project Management work scope was moved out of Shared Services control accounts into the facilities with new control accounts being set up in the facilities. These will now be seen under Project Management/Shared Services by facility. The Shared Services PMB value has not been changed to reflect this change due to the freeze on HLW/PT and SS and the budgets remaining in UB.