

FINAL

Office of River Protection
Consent Decree 08-5085-FVS

Monthly Summary Report

January 2015

Office of River Protection**Consent Decree 08-5085-FVS
Monthly Summary Report****January 2015 (Monthly Summary Report/Project Earned Value Management System
reflects November 2014 information)**

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CD Milestone Statistics/Status

| Milestone | Title | Due Date | Completion Date | Status |
|-------------------------|--|------------|-----------------|-----------|
| Fiscal Year 2014 | | | | |
| D-00B-01 | Complete Retrieval of Tank Waste from 10 SSTs in WMA-C | 09/30/2014 | | Past Due |
| 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 | | Past Due |
| D-00A-19 | Complete elevation 98 feet Concrete Floor Slab Placements in PT Facility | 12/31/2014 | | Past Due |

*** 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.

Ecology = Washington State Department of Ecology.

LAW = low-activity waste.

PT = pretreatment.

SST = single-shell tank.

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: Semiannually – January 31 and July 31 of each year, Status: Ongoing. The July 2014 Semiannual Report was issued on July 31, 2014, via U.S. Department of Energy (DOE), Office of River Protection 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 | Past Due |
| D-00B-01A through D-00B-01J | Submit Tank Retrieval Complete Certification | One year following each retrieved tank retrieval completion report ^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, 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 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. Completed for SST C-107 on September 30, 2014, via ORP letter 14-TF-0114. Completed for SST C-112 on September 30, 2014, via ORP letter 14-TF-0115.

TBD = to be determined.
WMA-C = C Farm waste management area.

Significant Past Accomplishments:

- C-102 continued retrieval operations
- Continued field activities for the replacement of the plugged slurry distributor at AN-106
- Continued fabrication of new replacement sluicers for C-111.

Significant Planned Activities in the Next 6 Months:

- Complete retrieval of C-102 using modified sluicing
- Finish a C-105 Systems Engineering Evaluation of the current retrieval method; will potentially need a revised Tank Waste Retrieval Work Plan
- Continue retrieval of C-105 using Mobile Arm Retrieval System – Vacuum
- Begin startup of hard heel retrieval in C-111 using high-pressure water, with caustic/water dissolution available.

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.

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:

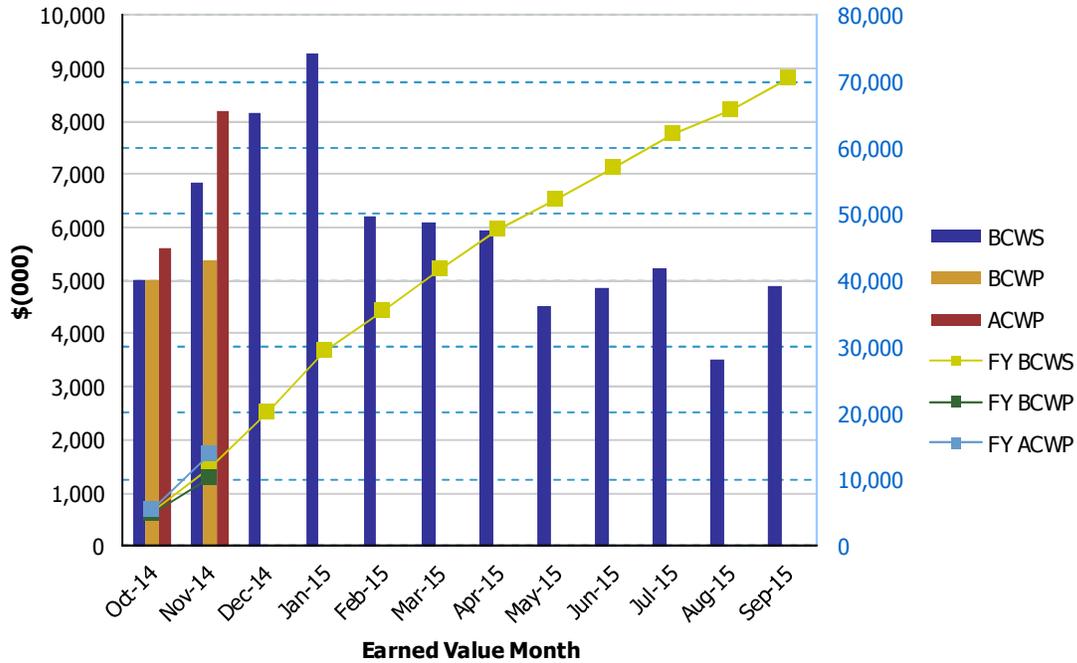
None.

Issues:

None.

**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 2014 | \$5,024 | \$5,011 | \$5,609 | 1.00 | 0.89 | \$5,024 | \$5,011 | \$5,609 | 1.00 | 0.89 |
| Nov 2014 | \$6,852 | \$5,392 | \$8,174 | 0.79 | 0.66 | \$11,876 | \$10,403 | \$13,783 | 0.88 | 0.75 |
| Dec 2014 | \$8,171 | | | | | \$20,047 | | | | |
| Jan 2015 | \$9,289 | | | | | \$29,336 | | | | |
| Feb 2015 | \$6,205 | | | | | \$35,541 | | | | |
| Mar 2015 | \$6,095 | | | | | \$41,636 | | | | |
| Apr 2015 | \$5,926 | | | | | \$47,562 | | | | |
| May 2015 | \$4,509 | | | | | \$52,070 | | | | |
| Jun 2015 | \$4,852 | | | | | \$56,922 | | | | |
| Jul 2015 | \$5,238 | | | | | \$62,161 | | | | |
| Aug 2015 | \$3,527 | | | | | \$65,687 | | | | |
| Sep 2015 | \$4,886 | | | | | \$70,573 | | | | |
| CTD | \$517,375 | \$505,820 | \$523,126 | 0.98 | 0.97 | | | | | |

Retrieval and Close Single-Shell Tanks

The current month unfavorable cost variance of (\$2,782k) is due to:

- C-105 retrieval additional cost for System Engineering Evaluation
- C-102 retrieval additional training for operators
- Additional preventive and corrective maintenance at C Farm not originally planned
- Additional health physics technician and industrial hygiene technician to support Tank Vapor Assessment Team (TVAT) issues
- A/AX support facilities delay in field work due to lead issues and equipment procurements.

The current month unfavorable schedule variance of (\$1,460k) is due to:

- Delays for the A/AX waste retrieval design scope, new personnel have a learning curve
- Testing of POR126 taking longer due to software issues with the glycol heating circuit.
- New vapor controls shortage of material for TVAT.

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 2,660 full-time equivalent contractor (Bechtel National, Inc. [BNI]) and subcontractor personnel. This includes 542 craft, 334 nonmanual, and 153 subcontractor full-time equivalent personnel working at the WTP construction site (all facilities).

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 DOE Office of River Protection (ORP) has approved the fiscal year (FY) 2015 and FY 2016 2-Year Interim Work Plan, and authorized BNI to resume production engineering activities necessary to finalize the design of the HLW Facility. The WTP Project continues to focus on resolving PT Facility technical issues, performing hazard analyses, and completing safety evaluations for process systems. The HLW safety design strategy has been approved by ORP and limited construction is ongoing.

The WTP Project continues to focus on completion of the Low-Activity Waste (LAW) Facility, analytical laboratory (LAB), and Balance of Facilities (BOF) (collectively LBL). As of November 2014, LBL facilities were 63 percent complete, design and engineering was 77 percent complete, procurement was 73 percent complete, construction was 80 percent complete, and startup and commissioning was 11 percent complete.

In November 2014, the cumulative to-date WTP Project schedule variance was a positive \$6.45 million, and the cumulative to-date WTP Project cost variance was a positive \$8.41 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 November 2014.

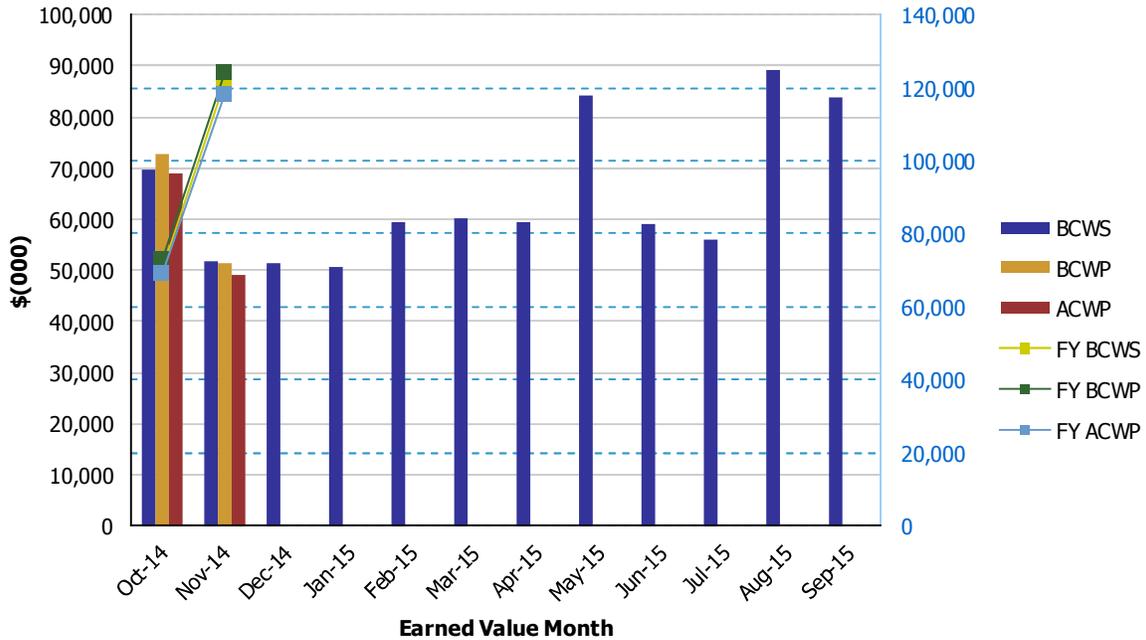
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2015 Earned Value Data

Data as of: November 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 2014 | \$69,893 | \$72,879 | \$69,039 | 1.04 | 1.06 | \$69,893 | \$72,879 | \$69,039 | 1.04 | 1.06 |
| Nov 2014 | \$51,713 | \$51,323 | \$49,300 | 0.99 | 1.04 | \$121,606 | \$124,202 | \$118,339 | 1.02 | 1.05 |
| Dec 2014 | \$51,573 | | | | | | | | | |
| Jan 2015 | \$50,828 | | | | | | | | | |
| Feb 2015 | \$59,412 | | | | | | | | | |
| Mar 2015 | \$60,303 | | | | | | | | | |
| Apr 2015 | \$59,356 | | | | | | | | | |
| May 2015 | \$84,311 | | | | | | | | | |
| Jun 2015 | \$59,231 | | | | | | | | | |
| Jul 2015 | \$56,164 | | | | | | | | | |
| Aug 2015 | \$89,139 | | | | | | | | | |
| Sep 2015 | \$84,025 | | | | | | | | | |

| | | | | | |
|-----|-------------|-------------|-------------|------|------|
| PTD | \$8,493,085 | \$8,499,540 | \$8,491,124 | 1.00 | 1.00 |
|-----|-------------|-------------|-------------|------|------|

| | |
|----------|----------|
| Mon - SV | Mon - CV |
| (\$390) | \$2,023 |
| | |
| \$6,455 | \$8,417 |

| | |
|---------|---------|
| FY - SV | FY - CV |
| \$2,596 | \$5,863 |

Significant Past Accomplishments:

- Completed placement of wall 3101 and slab 4021 (HLW)
- Completed glove box 29 and 42 factory acceptance tests for auto samplers (HLW)
- Completed vessel weld sampling plan for LOP-WESP-0001 (LAW critical path)
- Completed pre-turnover walkdowns for systems inside Building 87 (WTP switchgear), Building 91 (BOF switchgear), and Building 54 (Non-Radioactive Liquid Drain (NLD)) (BOF).

Significant Planned Actions in the Next 6 Months:

- Complete modification at Full-Scale Vessel Testing (FSVT) Facility to support Phase 2 testing for the pulse jet mixer (PJM) controls (PT)
- DOE approval of PT Facility Resumption Plan to support DOE authorization to proceed with production engineering (PT)
- Complete the LAW Facility design and operability review (LAW)
- Complete construction of the analytical laboratory (LAB)
- Initiate component level testing of select LAB systems (LAB)
- Install nonradioactive liquid waste disposal system motor control panel (BOF).

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 WTP include, among others, PJMs, corrosion/erosion in piping and vessels, hydrogen accumulation, criticality, and ventilation.

Pretreatment Facility

| Number | Title | Due Date | Status |
|----------|---|------------|----------|
| D-00A-19 | Complete Elevation 98' Concrete Floor Slab in PT Facility | 12/31/2014 | Past Due |
| 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.

BNI has submitted resolution plans for eight technical issues: T1, Hydrogen in Vessels; T2, Criticality; T3, Hydrogen in Piping and Ancillary Vessels (HPAV); T4, Mixing; T5, Erosion Corrosion; T6, PT Facility Optimization; T7, Vessel Analysis; and T8, Ventilation. Phase 1 of the FSVT is continuing for the PJM controls utilizing the RLD-8T vessel. Technical review teams continue to evaluate open PT Facility technical issues. An evaluation is ongoing relative to a standardized design for high-solids vessels within the PT Facility.

Significant Past Accomplishments:

- Continued testing of PJM controls at the FSVT Facility
- Resolved comments for PJM Control Strategy Plan, Rev. 1
- Continued conceptual design for a standardized high-solids vessel
- BNI submitted Pretreatment Resumption Plan to ORP for approval.

Significant Planned Actions in the Next 6 Months:

- ORP approval of the Pretreatment Resumption Plan to support the authorization to proceed with production engineering
- Mississippi State University Phase 1 high-efficiency particulate air (HEPA) filter qualification testing in progress
- Complete modification at FSVT Facility to support Phase 2 testing for the PJM controls
- Finalize test plan, simulant composition, and test instrument list for full-scale vessel mixing tests

- Supplemental mixing equipment evaluation
- Start informational testing in 8-ft test vessel for down selection of features pertaining to standardized high-solids vessel design
- Complete preliminary analysis of Standard High Solids Vessels Design (SHSVD)
- Develop criteria for resolution of vessel mixing for standardized vessel.

Issues:

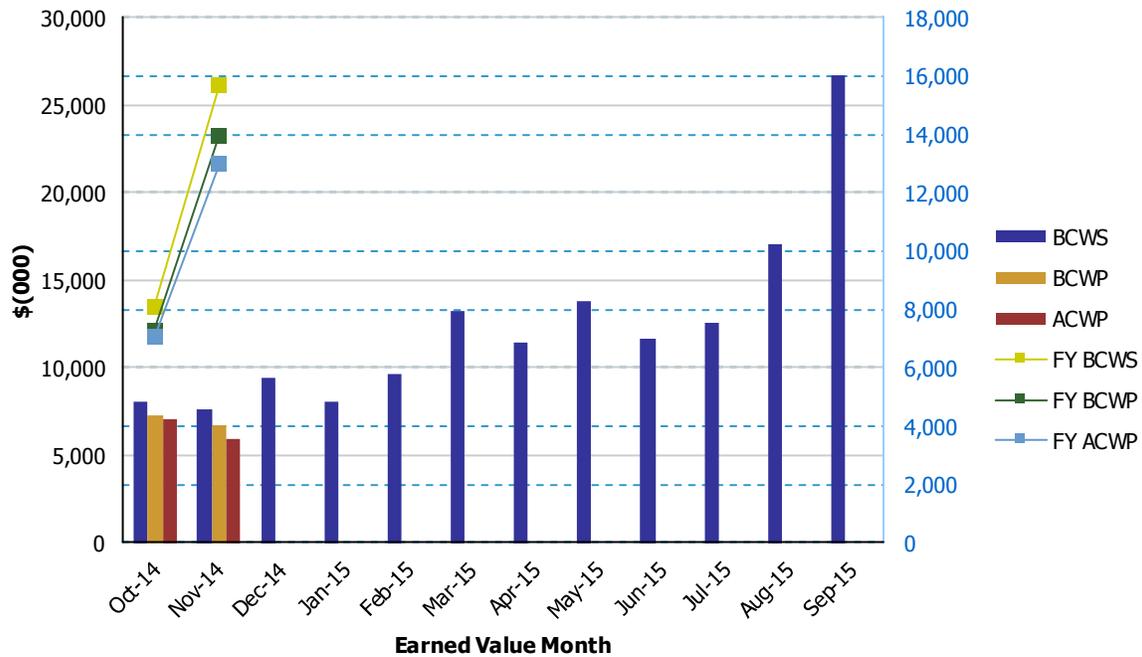
*DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone. Technical issues related to WTP include, among others, PJMs, corrosion/erosion in piping and vessels, hydrogen accumulation, criticality, and ventilation.

Data Set: FY 2015 Earned Value Data

Data as of: November 2014

**River Protection Project
Pretreatment Facility (WBS 1.01)**

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 2014 | \$8,100 | \$7,285 | \$7,050 | 0.90 | 1.03 | \$8,100 | \$7,285 | \$7,050 | 0.90 | 1.03 |
| Nov 2014 | \$7,582 | \$6,657 | \$5,917 | 0.88 | 1.13 | \$15,682 | \$13,942 | \$12,967 | 0.89 | 1.08 |
| Dec 2014 | \$9,361 | | | | | | | | | |
| Jan 2015 | \$8,051 | | | | | | | | | |
| Feb 2015 | \$9,649 | | | | | | | | | |
| Mar 2015 | \$13,219 | | | | | | | | | |
| Apr 2015 | \$11,483 | | | | | | | | | |
| May 2015 | \$13,738 | | | | | | | | | |
| Jun 2015 | \$11,633 | | | | | | | | | |
| Jul 2015 | \$12,497 | | | | | | | | | |
| Aug 2015 | \$17,059 | | | | | | | | | |
| Sep 2015 | \$26,656 | | | | | | | | | |
| PTD | \$1,622,353 | \$1,620,561 | \$1,619,594 | 1.00 | 1.00 | | | | | |

| Mon - SV | Mon - CV |
|-----------|----------|
| (\$925) | \$740 |
| (\$1,792) | \$967 |

| FY - SV | FY - CV |
|-----------|---------|
| (\$1,740) | \$975 |

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.

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.

Construction is continuing concrete placements and installation of support steel and crane rails in the canister handling cave. Testing of HEPA filters at Mississippi State University is continuing to select the filters that would meet the design and operations requirements.

BNI is focused on radioactive liquid waste disposal (RLD) system redesign and hazards analysis, engineering studies to develop path forwards for resolution of issues regarding an HVAC (heating, ventilation, and air-conditioning) system, melter and other solid waste handling system, and development of facility design description and system design descriptions as required by the newly implemented Systems Engineering Management Plan.

Significant Past Accomplishments:

- Work continues on walls at the +37' and +58' elevations and slabs at the +58' elevation
- Completed pour of slab (4021)
- Completed placement of wall (3101)
- Completed placement of pour back (9409 and 9410)
- Completed glove box 29 and 42 Factory Acceptance Tests for auto samplers.

Significant Planned Actions in the Next 6 Months:

- Continue activities to support the RLD system redesign
- Issue request for proposal for vendor design of RLD-8 vessel
- Complete draft analysis of single-point failures in support of failure mode analysis
- Continue HEPA filter qualification testing at Mississippi State University
- Process safety basis change package for RLD system to support procurement

- Start mold remediation.

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.

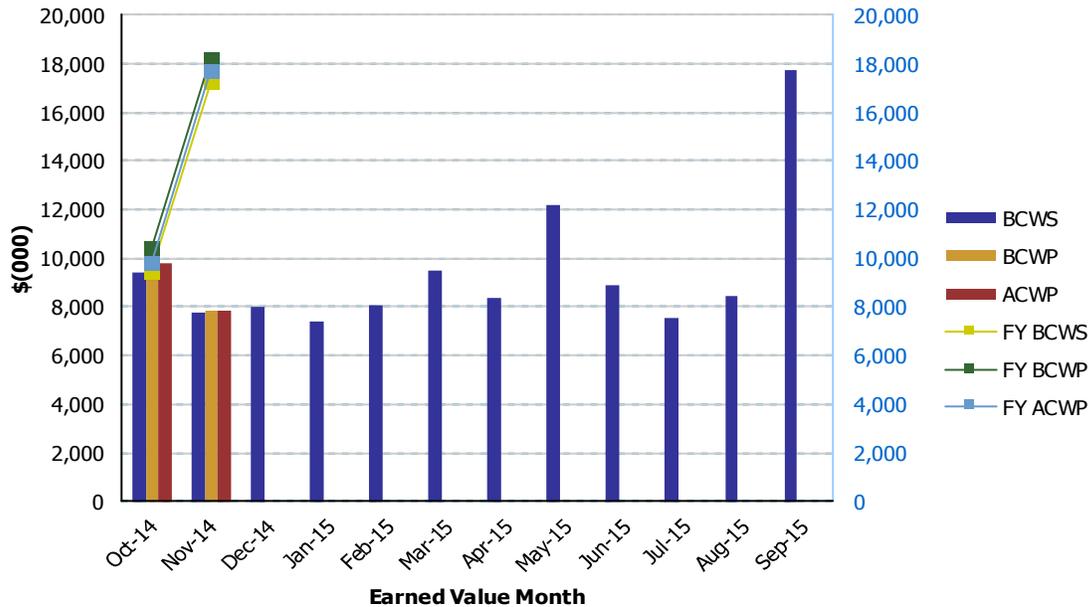
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2015 Earned Value Data

Data as of: November 2014

**River Protection Project
High-Level Waste Facility (WBS 1.03)**

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 2014 | \$9,449 | \$10,367 | \$9,783 | 1.10 | 1.06 | \$9,449 | \$10,367 | \$9,783 | 1.10 | 1.06 |
| Nov 2014 | \$7,743 | \$7,833 | \$7,880 | 1.01 | 0.99 | \$17,192 | \$18,200 | \$17,663 | 1.06 | 1.03 |
| Dec 2014 | \$7,973 | | | | | | | | | |
| Jan 2015 | \$7,357 | | | | | | | | | |
| Feb 2015 | \$8,093 | | | | | | | | | |
| Mar 2015 | \$9,495 | | | | | | | | | |
| Apr 2015 | \$8,339 | | | | | | | | | |
| May 2015 | \$12,214 | | | | | | | | | |
| Jun 2015 | \$8,890 | | | | | | | | | |
| Jul 2015 | \$7,537 | | | | | | | | | |
| Aug 2015 | \$8,442 | | | | | | | | | |
| Sep 2015 | \$17,700 | | | | | | | | | |

| | | | | | |
|-----|-------------|-------------|-------------|------|------|
| PTD | \$1,071,305 | \$1,072,572 | \$1,071,724 | 1.00 | 1.00 |
|-----|-------------|-------------|-------------|------|------|

| | |
|----------|----------|
| Mon - SV | Mon - CV |
| \$90 | (\$47) |
| \$1,267 | \$848 |

| | |
|---------|---------|
| FY - SV | FY - CV |
| \$1,008 | \$537 |

Low-Activity Waste Facility

| Number | Title | Due Date | Status |
|----------|--|------------|----------|
| D-00A-07 | LAW Facility Construction Substantially Complete | 12/31/2014 | Past Due |
| 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.

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 November 2014, the LAW Facility was 67 percent complete overall, with engineering design 78 percent complete, procurement 76 percent complete, construction 76 percent complete, and startup and commissioning 7 percent complete.

Significant Past Accomplishments:

- Completed vessel weld sampling plan for LOP-WESP-0001 (LAW Critical Path)
- Deployed WTP personnel to the IONEX shop and continued engineering, procurement, and fabrication on the thermal catalytic oxidizer
- Installed over 110 linear feet of process piping and hydro-tested 270 linear feet of facility piping
- Installed over 1,360 linear feet of conduit and pulled approximately 9,970 linear feet of cable.

Significant Planned Actions in the Next 6 Months:

- Complete subcontractor work scope in the annex
- Award the purchase order for the active gas analyzers
- Complete the LAW Facility design and operability review
- Complete castable refractory installation in the melters
- Receive caustic scrubber
- Complete repair of primary Offgas Process System (LOP) Wet Electrostatic Precipitator
- Assemble and install WESP internals PA01B, EL+03'.

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.

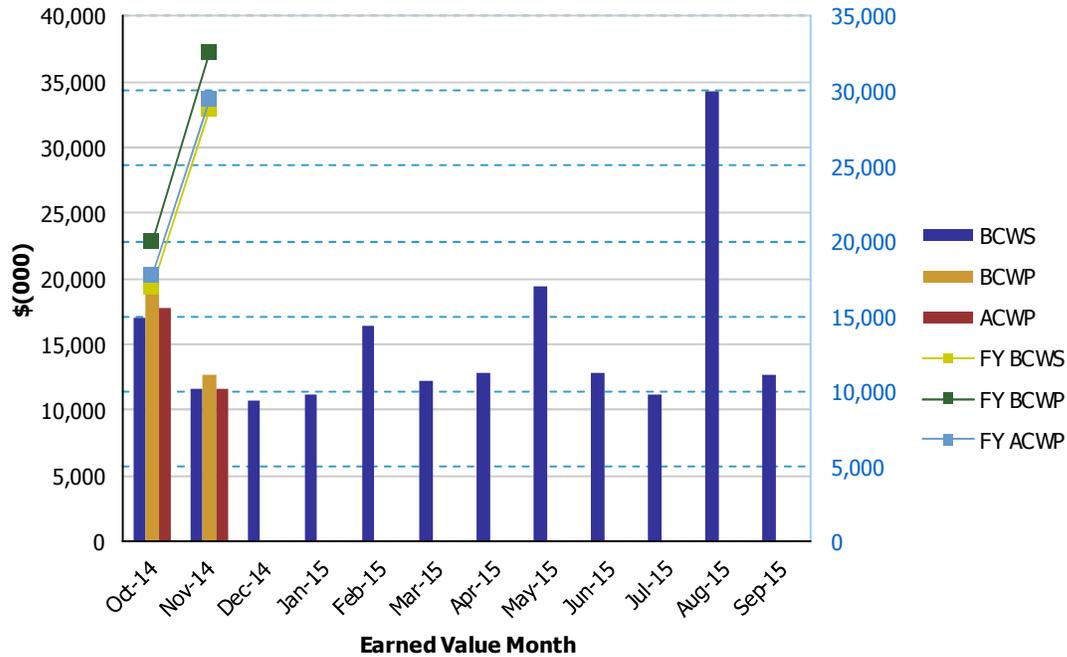
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2015 Earned Value Data

Data as of: November 2014

River Protection Project
Low-Activity Waste Facility (WBS 1.02)

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 2014 | \$16,994 | \$19,896 | \$17,781 | 1.17 | 1.12 | \$16,994 | \$19,896 | \$17,781 | 1.17 | 1.12 |
| Nov 2014 | \$11,700 | \$12,666 | \$11,597 | 1.08 | 1.09 | \$28,694 | \$32,562 | \$29,378 | 1.13 | 1.11 |
| Dec 2014 | \$10,760 | | | | | | | | | |
| Jan 2015 | \$11,225 | | | | | | | | | |
| Feb 2015 | \$16,433 | | | | | | | | | |
| Mar 2015 | \$12,312 | | | | | | | | | |
| Apr 2015 | \$12,818 | | | | | | | | | |
| May 2015 | \$19,369 | | | | | | | | | |
| Jun 2015 | \$12,814 | | | | | | | | | |
| Jul 2015 | \$11,166 | | | | | | | | | |
| Aug 2015 | \$34,271 | | | | | | | | | |
| Sep 2015 | \$12,646 | | | | | | | | | |

| | | | | | |
|-----|-------------|-------------|-------------|------|------|
| PTD | \$1,002,889 | \$1,009,563 | \$1,007,546 | 1.01 | 1.00 |
|-----|-------------|-------------|-------------|------|------|

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 November 2014, BOF was 57 percent complete overall, with engineering design 75 percent complete, procurement 67 percent complete, construction 82 percent complete, and startup and commissioning 12 percent complete.

BNI has initiated design activities to incorporate a permanent capability to directly feed LAW. Commercial grade dedication activities in support of the emergency turbine generator procurement are the primary focus for the quality and procurement organizations. Construction efforts are focused on the Standby Diesel Generator Facility.

Significant Past Accomplishments:

- Completed pre-turnover walkdowns for systems inside Building 87 (WTP Switchgear), Building 91 (BOF Switchgear), and Building 54 (NLD Drain)
- Completed 240 linear feet of conduit
- Insulated 490 linear feet of heat trace wire and 290 linear feet of insulation at the NLD Building 54.

Significant Planned Actions in the Next 6 Months:

- Complete heat trace insulation in the Cooling Tower Facility
- Complete heat trace insulation in the water treatment building
- Complete piping in the Glass Storage Facility
- Receive and install nonradioactive liquid waste disposal system motor control 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.

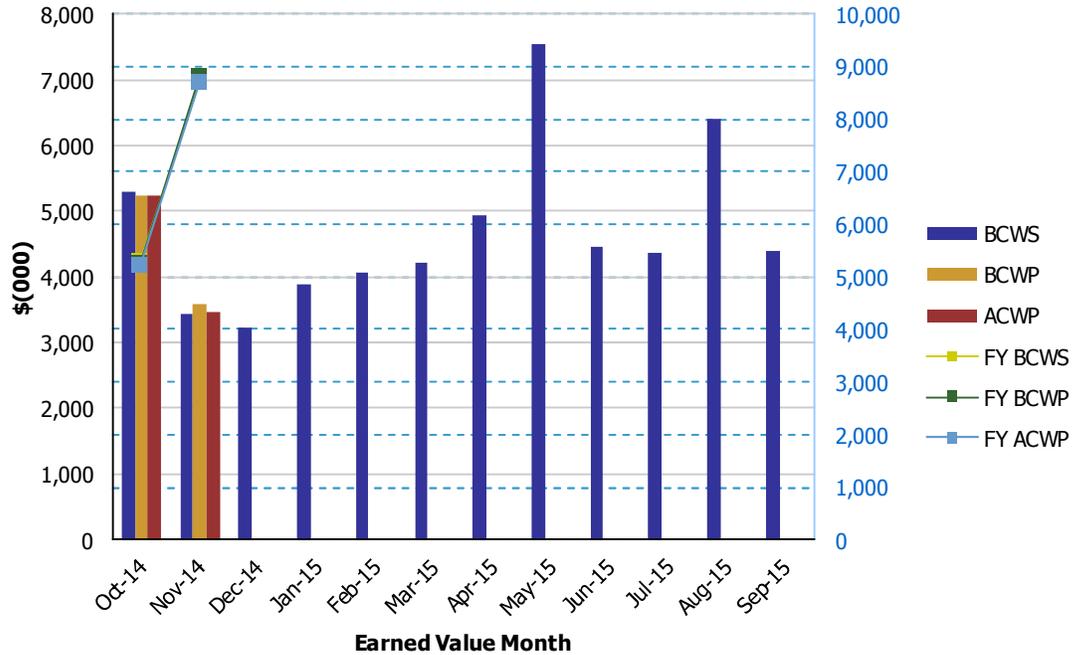
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2015 Earned Value Data

Data as of: November 2014

**River Protection Project
Balance of Facilities (WBS 1.05)**

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 2014 | \$5,300 | \$5,238 | \$5,223 | 0.99 | 1.00 | \$5,300 | \$5,238 | \$5,223 | 0.99 | 1.00 |
| Nov 2014 | \$3,429 | \$3,578 | \$3,454 | 1.04 | 1.04 | \$8,729 | \$8,816 | \$8,677 | 1.01 | 1.02 |
| Dec 2014 | \$3,240 | | | | | | | | | |
| Jan 2015 | \$3,891 | | | | | | | | | |
| Feb 2015 | \$4,067 | | | | | | | | | |
| Mar 2015 | \$4,226 | | | | | | | | | |
| Apr 2015 | \$4,945 | | | | | | | | | |
| May 2015 | \$7,550 | | | | | | | | | |
| Jun 2015 | \$4,467 | | | | | | | | | |
| Jul 2015 | \$4,359 | | | | | | | | | |
| Aug 2015 | \$6,413 | | | | | | | | | |
| Sep 2015 | \$4,405 | | | | | | | | | |

| | | | | | |
|-----|-----------|-----------|-----------|------|------|
| PTD | \$351,966 | \$352,336 | \$352,354 | 1.00 | 1.00 |
|-----|-----------|-----------|-----------|------|------|

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 November 2014, the LAB was 74 percent complete overall, with engineering design 80 percent complete, procurement 87 percent complete, construction 92 percent complete, and startup and commissioning 20 percent complete.

Engineering efforts are focused on closure of nonconformance reports and construction deficiency reports. In addition engineering is supporting completion of construction punchlist items. Construction efforts are focused on installation of remaining electrical commodities and penetration seals to support the completion of LAB construction to support direct feed LAW.

Significant Past Accomplishments:

- Continued cable pulls and terminations (4,470 linear feet in November – 86% complete)
- Continued installation of conduit (150 linear feet in November – 99% complete)
- Continued installation of 600 linear feet of Stack Discharge Monitoring System tubing insulation on the stack (95% complete)
- Completed the seven remaining C3 pit piping pen seals.

Significant Planned Actions in the Next 6 Months:

- Complete electrical commodity installation
- Complete penetration seal installation
- Complete heat trace insulation
- Complete fire detection
- Initiate component level testing of select LAB systems.

Issues:

No major issues at this time.

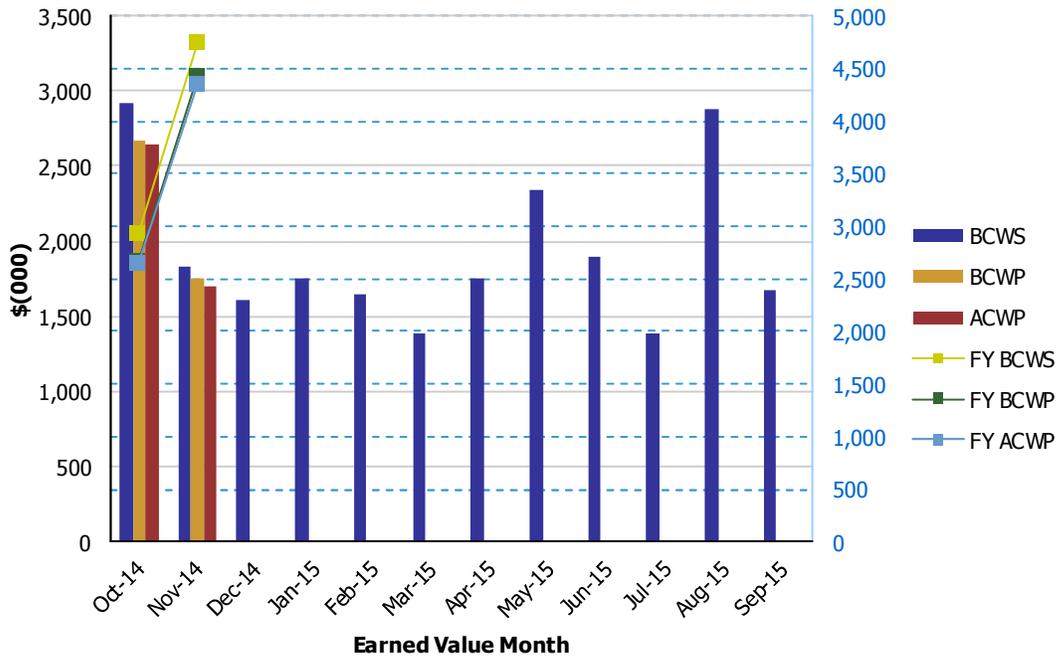
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2015 Earned Value Data

Data as of: November 2014

**River Protection Project
Analytical Laboratory (WBS 1.06)**

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 2014 | \$2,920 | \$2,670 | \$2,645 | 0.91 | 1.01 | \$2,920 | \$2,670 | \$2,645 | 0.91 | 1.01 |
| Nov 2014 | \$1,827 | \$1,748 | \$1,695 | 0.96 | 1.03 | \$4,747 | \$4,418 | \$4,340 | 0.93 | 1.02 |
| Dec 2014 | \$1,614 | | | | | | | | | |
| Jan 2015 | \$1,757 | | | | | | | | | |
| Feb 2015 | \$1,647 | | | | | | | | | |
| Mar 2015 | \$1,392 | | | | | | | | | |
| Apr 2015 | \$1,758 | | | | | | | | | |
| May 2015 | \$2,341 | | | | | | | | | |
| Jun 2015 | \$1,902 | | | | | | | | | |
| Jul 2015 | \$1,388 | | | | | | | | | |
| Aug 2015 | \$2,879 | | | | | | | | | |
| Sep 2015 | \$1,676 | | | | | | | | | |

| | | | | | |
|-----|-----------|-----------|-----------|------|------|
| PTD | \$287,262 | \$287,348 | \$287,468 | 1.00 | 1.00 |
|-----|-----------|-----------|-----------|------|------|

**Waste Treatment Plant Project - (LBL/Project Services) Percent Complete Status
Through November 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 | 1,509.0 | 1,009.6 | 67% | 411.4 | 321.0 | 78% | 315.2 | 240.7 | 76% | 566.2 | 428.7 | 76% | 212.3 | 15.2 | 7% | 4.0 | 4.0 | 100% |
| Balance of Facilities | 625.5 | 355.9 | 57% | 122.5 | 92.1 | 75% | 77.4 | 51.9 | 67% | 228.4 | 186.9 | 82% | 196.8 | 24.5 | 12% | 0.5 | 0.5 | 100% |
| Analytical Lab | 388.9 | 287.3 | 74% | 89.7 | 71.9 | 80% | 63.3 | 55.1 | 87% | 156.1 | 144.4 | 92% | 79.3 | 15.5 | 20% | 0.4 | 0.4 | 100% |
| Direct Feed LAW | 9.3 | 0.5 | 5% | 7.9 | 0.3 | 4% | 0.46 | 0.04 | 8% | 0.0 | 0.0 | 0% | 0.0 | 0.0 | 0% | 0.9 | 0.10 | 10% |
| LBL Facility Services | 93.6 | 8.7 | 9% | 0.0 | 0.0 | 0% | 20.3 | 1.9 | 9% | 0.0 | 0.0 | 0% | 31.3 | 2.7 | 9% | 42.0 | 4.14 | 10% |
| Total LBL | 2,626.3 | 1,662.0 | 63% | 631.6 | 485.4 | 77% | 476.5 | 349.6 | 73% | 950.7 | 760.0 | 80% | 519.8 | 57.9 | 11% | 47.8 | 9.1 | 19% |
| Project Services | 405.1 | 45.2 | 11% | 48.9 | 4.4 | 9% | 37.9 | 3.5 | 9% | 123.9 | 16.3 | 13% | 3.0 | 1.0 | 32% | 191.4 | 20.0 | 10% |
| Total Project Services | 405.1 | 45.2 | 11% | 48.9 | 4.4 | 9% | 37.9 | 3.5 | 9% | 123.9 | 16.3 | 13% | 3.0 | 1.0 | 32% | 191.4 | 20.0 | 10% |
| Total LBL & Project Services | 3,031.4 | 1,707.2 | 56% | 680.4 | 489.8 | 72% | 514.5 | 353.1 | 69% | 1,074.5 | 776.3 | 72% | 522.8 | 58.8 | 11% | 239.2 | 29.1 | 12% |
| 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 | 4,726.9 | 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% | 1,338.1 | 983.5 | 73% |
| 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% | 1,338.1 | 983.5 | 73% |
| 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 | 11,754.2 | 7,672.4 | 65% | 2,853.5 | 2,438.7 | 85% | 2,080.0 | 1,477.9 | 71% | 3,962.1 | 2,541.1 | 64% | 1,281.3 | 202.0 | 16% | 1,577.3 | 1,012.6 | 64% |

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

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 \$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. October 2014 data reflects the incorporation of Direct Feed LAW and the split of Shared Services into LBL Facility Services and Project Services.