

# Section F Nuclear Facility D&D, River Corridor (RL-0041)

**Monthly Performance Report** 

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183KW Complex - Demolition Areas

June 2010 DOE/RL-2008-69, Rev. 20 Contract DE-AC06-08RL14788 Deliverable C.3.1.3.1 - 1

#### PROJECT SUMMARY

#### American Recovery and Reinvestment Act (ARRA)

#### **Facilities**

Work continued on 105KE Reactor Disposition Interim Safe Storage activities. Hazardous material removal continued into June with asbestos removal starting on the east side of the reactor building and completion of glycol removal from the tunnel area. Demolition activities continued in June with horizontal control rod rack partially completed; removal of transite wall around counterweights started and walk-down of electrical equipment Rooms 15 and 28.

Continued final disposition characterization at 115KE (Gas Recirculation Building).

Continued demolition preparation activities on 117KE (Exhaust Air Filter Building).

Continued asbestos removal in the 1706KE (Radiation Control Counting Laboratory) and 1706KER (Water Studies Recirculation Building) below-grade levels.

Demolition continued on the 183.1KW (Head House), the 183.2KW (Sedimentation Basin), the 183.3KW (Sand Filter) and the 183.7KW (Tunnel).

Continued characterization of the 183.1KE (Head House).

#### **Waste Sites**

Continued waste site remediation of the below listed Remove, Treat, and Dispose sites:

			FY'.	ΓD
	10-J	un	(9/28/09 -	present)
Waste Site	Tons	Loads	Tons	Loads
100-K-3	-	-	5,507	392
100-K-42	-	-	9,688	660
100-K-47	5,049	238	12,311	828
100-K-56	1,953	91	10,249	664
100-K-68	1,238	57	6,960	359
100-K-71	2,594	123	4,975	344
100-K-102	-	-	10,222	546
116-KE-3	1,245	57	2,912	152
120-KW-1	76	4	9,149	455
183.1-Soils	11,188	561	5,427	249
<b>183.1-Debris</b>	8,872	552	23	1
100-K-53	155	9	195	15
Totals	32,370	1,692	77,618	4,665

Excavation work at 100-K-3 has been suspended to permit D4 access to the 105KE Rod Rack and 1706KE structural removal.

Work has been suspended on UPR-100-K-1 (work performed as 100-K-42) pending D4 performing the work of scabbling the diversion wall and breaking up the remainder of the floor.

Work on sites adjacent to and north of the 100-K-42 are progressing. These sites include 100-K-47, 100-K-53, 100-K-56, 100-K-68, 100-K-71, and 116-KE-3. More contamination than planned is associated with these sites but there is currently no jeopardy to the completion milestone. Excavation is expected to be completed in this region, except for 100-K-42 and 100-K-3, by mid-July.

Remediation near the 183.1KW Head House is being conducted as a single excavation. Ten waste sites were excavated as a single waste site under 120-KW-1. Post excavation sampling indicated extensive lead, mercury, and hexavalent chromium contamination remaining in the excavated area. Further excavation is required and planned to be initiated during July. No treatment for disposal is required.



Excavation was concluded at 100-K-102, a recently discovered mercury-contamination area. Analytical laboratory samples indicate results are greater than the Remedial Action Goals and further excavation is required.

Removal of the below grade portion of 183.1KW has encountered additional contaminated soils that are attributed with the newly discovered site 100-K-109.

Remedial Action Reports (RARs) were issued as "decisional draft" for RL and EPA review for six waste sites. Those sites are listed as 116-KE-6A through D, 100-K-37, and 100-K-38. Comments provided by RL and EPA are currently being incorporated into the documents.

#### Other

Sludge vacuuming continues in K West Basin East Bay with a targeted completion date for sludge removal of September 30, 2010. Over 610 debris units have been removed from the K West Basin to date.

**HVAC Project:** Work continued on the K West Basin Airborne Contamination Remediation Project with ventilation ducting installation of 320 feet of the 700 feet interior ducting resulting in a 46% completion. EPC Construction Services is experiencing a more complex HVAC installation which has resulted in longer than planned installation time. Mandated use of APR respiratory protection (use of PAPR hoods is no longer allowed) has also resulted in taking more time to install due to respirator use time limits. Subcontractor of the three outdoor ventilation units has not provided delivery as stated in their proposal and will require work-around activities until they are delivered. Procurement and project team are meeting with subcontractor to define issues and regain schedule loss.

**Electrical Project:** Work continued on the 100K Reactor Power Isolation Project with installation of five skids, associated circuit breakers, and components. Initiated trench excavation, conduit installation, and backfill for the cable raceways. Completed installation of 73% of underground three-inch conduit (800 lf of 1,100 lf). Fabrication activities for the mobile control substation are continuing. Delivery of the first transformer is scheduled for August 24, 2010. CHPRC and MSA EU performed factory inspection of 15kv switchgear on June 23. Subcontractor has ordered materials and will begin installation of poles in early August.

Water Project: Work continued on the 100K River Water Infrastructure Isolation Project with construction starting on installation of the inside-the-fence fire water and potable water piping (Phases II, III, and IV). Work activities for installation of the Import Water Line outside-the-fence to Helen's Junction are over 90% complete and awaiting a final tie into the raw water line after the Washington State Department of Health Permit is obtained. Installation, along with fabrication of the components for the Water Treatment Building and Dual-use Water Tank, is proceeding. Subcontractor has completed foundation work for the dual use tank and water treatment building. Delivery of the pre-engineered metal building and water tank was accomplished. The east and north sides of 100KW Reactor have been excavated and the new fire water line has been installed and backfilled. A contract modification was issued to repair a roadway damaged from a water project installation from K Avenue to the new trailer area west of Cold Vacuum Drying Facility (CVDF).



#### **Base**

#### **Facilities**

Work continued on 105KE Reactor Disposition Core Removal activities: preliminary design, core characterization (core boring), and regulatory documents (EE/CA and NEPA).

Continued characterization and deactivation on 110KW (Gas Storage Facility) and 115KW (Gas Recirculation Building) which will be removed as one demolition.

Deactivation continues on 117KW (Exhaust Air Filter Building).

Characterization continues on the 118KW (Horizontal Control Rod Storage Cave).

Decontamination continues on four buildings which will be removed at the same time. They are the 1717K (Maintenance Transportation Shop), 1717AKE (Electrical Shed), 1724K (Maintenance Shop) and 1724KA (Storage Shed).

Deactivation continues on four K West mobile offices to be removed as a group (MO236/MO237/MO323/MO955).

#### **Waste Sites**

The Remedial Action Report (RAR) for 100-K-4 was issued as "decisional draft" forwarded to RL and EPA for review.

			Cumulative	
	June	e-2010	(9/28/09 -	– present)
Waste Site	Tons	Loads	Tons	Loads
100-K-4	0	0	2989	209



# **EMS Objectives and Target Status**

Objective #	Objective	Target	<b>Due Date</b>	Status
10-EMS- 100K-OB3-T1	Integrate methods for controlling air emissions into 105KE reactor core removal planning	Include methods for controlling air emissions in detailed design package	08/31/10	On Schedule
10-EMS- D&D-OB2-T2	Mitigate spill impacts	Develop spill management tools for routine activities (building demolition and surveillance and maintenance)	03/31/10	Complete
		Evaluate the need for lower tier project procedures to implement the PRC spill response procedure	04/30/10	Complete
		3) Develop and provide awareness, prevention, response and mitigation training to >85 percent of project personnel as related to spill response	05/30/10	Complete
		4) Review and validate pre- designations for commonly used chemicals at the facility	06/30/10	Complete
		5) Incorporate new spill requirements into applicable procedures/work packages based upon issuance of spill response procedure	04/30/10	Complete
		6) Evaluate the need for a system to pre-designate new chemicals	06/30/10	Complete



#### TARGET ZERO PERFORMANCE

	CM Quantity	Rolling 12 Month	Comment
Days Away, Restricted or Transferred	0	0	N/A
Total Recordable Injuries	0	4	N/A
First Aid Cases	1	39	6/21 - Carpenter was performing shop work at 100K and reported back discomfort to FWS on 6/23. Injury reportedly took place while lifting. Employee reported going to personal physician for treatment. (21024)
Near-Misses	0	0	N/A

#### KEY ACCOMPLISHMENTS

#### **ARRA**

#### **Facilities**

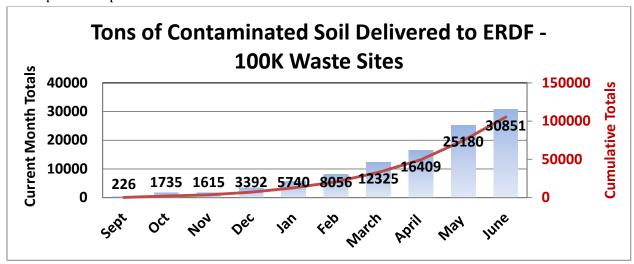
- Continued project definition of 105KE Reactor Disposition. Deactivation work was completed. Glycol removal from tunnel completed.
- The 115KE (Gas Recirculation Building) sampling in Room 1 was completed. Additional radiation control sampling is in process.
- The 116KE (Reactor Exhaust Stack) demolition work package continues. Explosive demolition is planned for late July.
- Demolition planning for the 117KE (Exhaust Air Filter Building) continues. This building will be demolished after 116KE.
- Below-grade asbestos removal continued in the 1706KE (Radiation Control Counting Laboratory) and 1706KER (Water Studies Recirculation Building). The 1706KE asbestos removal should complete in late June, with the 1706KER asbestos removal to follow by mid-July.
- Below-grade demolition of the 183.1KW (Head House) resumed in June along with soil remediation, and is anticipated to complete in mid July
- Demolition continues on the 183.2KW (Sedimentation Basin) floor. The 183.2KW (South) wall adjacent to the 183.1KW and the West footers remain and should be removed by late August. The concrete rubble is being stock-piled alongside the excavation. The stockpiled concrete will be utilized as clean fill at U Plant (originally the concrete was slated for disposal at ERDF). This saves ERDF disposal costs, space in ERDF, and avoids U Plant having to procure clean fill.
- Glycol removal is progressing well. Glycol has been drained from all but 115KW, 165KE, 165KW, 105KE, and 105KW facilities.
- Continued demolition of the 183.3KW (Filter Basin). All of the West side and half of the East side
  have been demolished. Once completed, the pipe galleries will be removed. Demolition should
  finish in late August.
- Demolition of the main 183.7KW (Tunnel) continued with the ceiling and East wall gone. Demolition should finish in early August.



- Characterization of the 183.1KE (Head House) should complete in July. Deactivation was placed on hold and will complete after major electrical and water system upgrades are completed this summer.
- 183.4KW and 184.3KE (Clear well) initial characterization walk down is complete and characterization sampling will be initiated in July.

#### **Waste Sites**

Remediation continued on waste sites within 100K Area. Production rates increased again due to
increased crew sizes and increased experience on the jobsite. There is also increased contaminated
soil to clean as overburden soil ratios have been higher than anticipated. This caused more waste
disposal than planned.



#### **HVAC Project**

- Installed 320 feet of interior ducting with 380 feet remaining
- Continuing shop fabrication and prep work for duct runs
- Completed ground clearing activities for the Exterior HVAC components

#### **Electrical Project**

- A9 Electrical subcontractor completed installation of skid components, skid frames, and associated breakers for PF1N, PF1S, PF2, PF3N and PF3S
- Completed 73% of underground conduit. Installed 800 lf of the 1,100 lf.
- Mobile substation onsite factory inspection was performed with AVS
- Resolved 13.8KV line installation with MSA Electrical Utilities along the west side of 105KW by routing the utility underground

#### **Water Project**

- Continued EPC Construction Services trench excavation, pipe install and backfill around 105KW (Fire Loop System) resulting in 41% complete with 1,780 lf of the 4,340 lf installed
- Completed Phase I installation and performed pressure testing for West Side firewater and potable water piping the inside fence
- Construction subcontractor started trench excavation, pipe install and backfill on the balance of firewater and potable piping inside the fence. Installed 2,342 lf of 4 inch PW and 2,440 lf of 12 inch FW including four road crossings resulting in 55% complete.
- Completed installation of building floor drains, trenches and grating. Successfully pressure tested underground piping and offloaded the Water Treatment building structural steel.
- Received the pre-engineered metal building and water tank for the Water Treatment Project



 Began sludge vacuuming in the East Bay of the K West Basin. Section 1 in the East Bay was completed in June. Performed preventative maintenance of overhead crane to support MCO proficiency test in August.

#### Base

#### **Facilities**

- Completed Core Characterization (Core boring) activities for 105KE Reactor Disposition. EE/CA
  Decisional Draft and Fact Sheet submitted to RL for review. Supplemental Analysis in review with
  DOE-HQ.
- Continued characterization and deactivation on 110KW (Gas Storage Facility) and 115KW (Gas Recirculation Building) where the above-grade structure will be taken as one demolition. Both buildings were accelerated from FY 2011.
- 117KW (Exhaust Air Filter Building) was accelerated from FY 2011. The electrical isolation index is in process.
- 118KW (Horizontal Control Rod Storage Cave) was accelerated from FY 2011. Characterization is continuing with one radiation control dose survey remaining. The demolition work package was finished.
- Decontamination has been placed on hold for four buildings which will be removed at one time after the utility upgrades occur this summer. They are the 1717K (Maintenance Transportation Shop), 1717AKE (Electrical Shed), 1724K (Maintenance Shop), and 1724KA (Storage Shed).
- Pumps/right angles/and piping in 182K (Water Reservoir Pump House) were removed and are
  awaiting disposal in mid-July. The below-grade water reservoir connects directly to 183.4KE clear
  wells, which provides the service water/fire protection water for 100K. The shut-off valves between
  these two facilities leak, thus below-grade demolition cannot commence until the new utility systems
  are operational this summer and the 183.4KE clear well water and pump well are drained.
- The 183KE (Chlorine Vault) preparation for deactivation continues. The vault power needs to be isolated, the Conex to store materials has been ordered, and the demolition work package has been drafted.
- Leased facility MO872 (Radiation Control Trailer) is ready for re-installation in its new location.
- Leased facility MO873 (Craft Trailer) is currently in Pasco having the HVAC replaced, and then this trailer will be relocated to the 200 Area.
- Characterization was completed, and deactivation continues on four K West mobile offices to be removed as a group (MO236/MO237/MO323/MO955). Personnel should move into other offices in late July, accelerating this demolition work from FY 2012.
- After the utilities upgrades finish (towards the end of this summer), a group of facilities will be deactivated. Their initial characterization walk downs have been performed, and characterization sampling should occur in July/August. These facilities are 110KW (Gas Storage Facility), 115KW (Gas Recirculation Building), 183.5KE/183.6KE (Lime Feeder Buildings), 183.7KE (Tunnel), 166AKE (Oil Storage Facility), 166KE/166KW (Oil Storage Vaults), 190KE (Main Pump House), and 165KW (Power Control Building). Once the en-mass deactivation occurs, the demolitions will be performed on a staggered schedule.

#### **Waste Sites**

• Excavation is complete on 100-K-4 (Group 2 Waste Site) and pending finalization of the Remedial Action Report.



#### MAJOR ISSUES

**Issue Statement** – Extent and severity of Contamination in the UPR-100-K-1/100-K-42 waste site (soil associated with the 105KE Fuel Storage Basin leak) is much higher than anticipated. The significance of this higher than anticipated contamination is that the work must be conducted under nuclear hazard category three controls, productivity will be at a diminished rate, and a larger volume of contaminated soil will need to be removed.

**Corrective Action** – Mitigation of the issue tied to higher than anticipated contamination levels has not been resolvable to date. Efforts are underway to improve productivity by ensuring the containers are loaded to their maximum weight without exceeding legal load limits. This yields a higher ton-percontainer average with some positive influence on the overall schedule.

**Status** – An REA will be developed for this situation and it will be followed up by a BCR. D4 is currently assessing the options for removing the significant contribution of contaminants associated with the discharge chute. Work is on hold until an appropriate path forward is determined.

**Issue Statement** – Necessary clean-up of contamination spread during basin removal was not anticipated. Impacts have not been fully assessed because D4 has not completed demobilization. Additional quantities of contaminated materials have been encountered.

**Corrective Action** – Add additional cover to areas contaminated by D4 equipment staging and decontaminate as the areas become available. Those covered area soils are being excavated and shipped for disposal. This volume and schedule will be included into the baseline change request (BCR)/Change Proposal (CP) associated with the UPR-100-K-1 issue above or subsequent BCR/CP as needed.

**Status** – The associated excavated volume will be captured under the BCR discussed above (higher than anticipated contamination levels). The remainder must wait until D4 completes decontamination of equipment and relinquishes the remaining area for remediation. Work of removing the additional contamination is in progress.

**Issue Statement** – Approximately ten new sites have been discovered where radiological or chemical contaminants are being found above cleanup standards.

**Corrective Action** – Two sites were added as part of the Performance Measurement Baseline, Rev. 2; the remainder, along with any future sites, will be added to the contract via Change Proposal process. Additional sites will be added via BCR/CP processes as they are encountered and defined.

**Status** – The BCR/CP process has been initiated (e.g., cost estimates and modeling have begun) for these newly discovered waste sites. An Advanced Work Authorization was issued for one new site and three sites with additional contamination above the clean-up standard. Work is anticipated to start in July on the first of these new sites.

**Issue Statement** – Extent and severity of Contamination in multiple waste sites is much higher than anticipated.

**Corrective Action** – Work is continuing on these sites in order to meet ARRA and TPA milestones even though the cost and schedule are impacted.

**Status** – BCR/CP process continues.



**Issue Statement** – Outages (electrical and water) will require significant integration with MSA EU and 100K Operations to minimize disruptions.

**Corrective Action** – Project Manager has established weekly meetings with MSA EU to coordinate electrical outages and assure resources are available. Project Manager is coordinating with 100K Operations to determine best available outage times.

**Status** – Schedule developed to identify outages for electrical and water projects and provide time for MSA EU and 100K Operations to minimize impacts.

**Issue Statement** – Procedure development and operational training for the water treatment plant may require more time than allotted.

**Corrective Action** – Project Leads have defined procedure needs (modification or new development) for HVAC and Water Treatment Facility.

**Status** – Resources identified to support procedural development and schedule developed to track progress.

**Issue Statement** – Late delivery of three air handling units and mobile electrical substations will impact construction completion.

**Corrective Action** – Project Manager, buyer's technical representative, and Procurement have discussed late delivery of the air handling units with vendor and manufacturer. The Construction Manager is working with the site subcontractor responsible for installation to determine work around to minimize schedule impacts.

**Status** – The air handling units are scheduled for delivery on August 5, 2010. Vendor is planning delivery of first transformer August 24, 2010 and the second transformer September 1, 2010.

**Issue Statement** – Installation of HVAC inside of 105KW is taking longer than scheduled due to complexity of installation.

**Corrective Action** – Working additional hours to minimize schedule impact

**Status** – Continue monitoring EPC's progress on HVAC installation activities.



## **RISK MANAGEMENT STATUS**

# Unassigned Risk Risk Passed Working - No Concerns Working - Concern Working - Concern Working - Critical Working - Critical Uncreased Confidence No Change Decreased Confidence

Risk Title	Risk Strategy/Handling	Asses Month	sment Trend	Comments
KBC-001A: KE Basin Phase IV Demolition Contamination Levels	Risk accepted without mitigation		<b>+</b>	Contamination levels are expected to result in increased costs for subsurface waste removal and disposal.
KBC-002: Subcontract change orders/claims exceed planned allowances	Prepare accurate functional requirements and SOW, including flow- downs; monitor subcontractor activities and encourage early communication of problem areas	•	1	No issues at this time.
KBC-004: Contamination Depth Greater Than Planned, Increasing Waste Volumes to ERDF	Unassigned Risk - No mitigation		1	Risk has been realized and change proposal and BCR are being prepared.
KBC-009: D4/Waste Site Interference	Integrate all 100 K work activities to minimize issues/conflicts between D4 activities and waste site remediation		1	No issues at this time.
KBC-019: Groundwater Treatment Activities Impact D4/Waste Site RTD Activities	Coordinate with S&GRP to minimize impact to D4 and waste site remediation.	•	<b>‡</b>	No issues at this time.
KBC-020: Ecological/Cultural Conditions Restrict Field Activities	Accelerate cultural resource reviews to minimize schedule impact if cultural resource mitigation is required prior to initiating remediation	•	<b>‡</b>	Although no impacts have been realized at this time, some sensitive cultural areas are expected to be encountered
KBC-022: Drawing Unavailability/Errors Cause Work Stoppage During Utility Isolation	Reroute utilities to prevent this scenario. Reconfiguration work planned during ARRA period.	•	<b>‡</b>	No new issues at this time.
KBC-035: ERDF Packaging Can Shortage	Work closely with W&FM Project regarding ERDF packaging can needs to ensure can availability	•	1	No issues at this time.
KBC-043: Waste Site Remediation Completion Requirements	Existing closure approach is consistent with WCH approach for balance of River Corridor waste sites; risk accepted without mitigation.		<b>‡</b>	No issues at this time.
KBC-044: 100 K Waste Sites Require Haz Cat Controls	Existing characterization data indicates the likelihood of this risk occurring is low; however, if it does occur the consequences may be medium to high with respect to cost and schedule impact.		1	100-K-42 site is a Haz Cat 3 facility and we have realized some schedule delays.
KBC-045: 100 K East Basin Soil Disposition	Treatment will likely be in the form of waste blending for in accordance with DSA for that site.		1	Some materials are having to be blended for 100-K-42, 100-K-47, and 100-K-70.
KBC-061: Technology Readiness Assessment Required for Reactor Core Removal and Demolition	Perform mock-up testing of equipment to demonstrate effectiveness; obtain early RL agreement of technology readiness approach.	•	<b>‡</b>	No issues at this time.
KBC-070: New SARP Required for Waste Packages	Very low probability of occurrence; risk accepted without mitigation	•	1	No issues at this time.
KBC-076: Treatment Required for 100 K RTD Waste Prior to Disposal	Review waste disposal records as part of RTD planning to identify potential is sues prior to beginning retrieval; work with ERDF to determine minimum acceptable treatment to minimize quantity of waste that must be treated or disposed elsewhere.	•	<b>‡</b>	No issues at this time.
PRC-044: ERDF Not Available for PRC Waste	Unassigned risk. Note that ERDF has modified off-load procedures, began dumping containers in the queue, and resumed container shipments.	•	1	No issues at this time.
WSR-007: More Extensive Contamination Than Expected	Cannot control contamination extent; no mitigation.	•	1	This risk is being realized at 100-K Area waste site remediation. Additional contamination is being encountered above planned levels regularly. Efforts are underway to include the resulting additional waste volumes in a change proposal and BCR. However, the listing of impacted sites is growing.
WSR-008: No Action Waste Sites	Confirmatory sampling is the only way to determine if "no action" waste sites require remediation; risk is accepted without mitigation.	•	1	Multiple sites have failed CSNA and require RTD.
WSR-009: Different Remediation Approach	Clean up remedies are consistent with direction received from RL in the PRC. There is a risk that the regulators will require a different cleanup remedy than what is planned.		1	Same as CSNA for this effort, but may expand to 116-KE-4
WSR-020: Ecological/Cultural Conditions Restrict Field Activities	Accelerate cultural reviews to minimize schedule impact if cultural resource mitigation is required prior to initiating remediation. Suspend initiation of 100-K-63 remedial action until the end of the migratory bird nesting period (approx. 7/15/10).		1	Work near 116-KE-4, including 116-K-3, 100-K-57, 100-K-80, 100-K-81 and 100-K-83 require cultural mitigation. The predominant sites are included in the December 2012 TPA milestone. The Project is working with DOE to initiate discussions with the Tribes to determine the best path forward. With respect to migratory bird nesting risk, PNNL did not identify any active nests, but recommended suspending start-up of the 100-K-63 floodplain site until 7/15/10.
WSR-028: Unexpected Liquid in Pipelines/Tanks	Anticipate liquids in field work plans; include spill response plans in RD/RAWPs.		<b>+</b>	100-K-53 lines capped and drained; no issues this month.
WSR-046: Waste Site Dimensions	Walk down waste sites scheduled to be remediated during the RD/RAWP and SAP development process to verify the site dimensions. No further mitigation is feasible; risk is accepted.	•	<b>+</b>	At Waste Site 120-K-1, contamination was found beyond the planned lateral dimensions of the site. Waste Site 100-K-109 is a newly identified site. In both cases an AWA was approved and subsequent BCRs are being processed.



# PROJECT BASELINE PERFORMANCE Current Month

(\$M)

WBS 041/RL-0041 Nuclear Facility D&D – River Corridor	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance (\$)	Schedule Variance (%)	Cost Variance (\$)	Cost Variance (%)
ARRA	8.8	7.0	11.4	(1.7)	-19.8	(4.4)	-62.4
Base	<u>1.1</u>	<u>1.0</u>	<u>1.5</u>	(0.3)	-19.4	(0.5)	-58.3
Total	9.9	8.0	12.9	(2.0)	-19.8	(4.9)	-61.9

#### **ARRA**

CM Schedule Performance: (-\$1.7M/-19.8%)

#### **100K** Area Project (Facilities and Others) (+\$0.4M)

The positive schedule variance is Utilities (+\$0.9M) with execution of field work on the electrical and water projects to recover schedule slippage; Project Management (+\$0.4M) due to the purchase of four dust suppression machines earlier than planned; and Facilities (+\$0.3M) from 183KW Sedimentation Basin Complex recovering schedule from prior months. This is offset by a negative schedule variance in K West Deactivation (-\$0.5M) due to sludge vacuuming status being overstated in April, so June status was held to the same as April in order to better reflect actual progress; and 105KE Reactor (-\$0.7K) due to asbestos removal not getting the required resources needed to complete the work and the 30'x30' door opening not starting per plan.

#### Waste Sites (-\$2.1M)

A negative schedule variance has been reported during this period. The significant contributors consist of approximately (-\$1.5M) associated with encumbered access due to D4 interference including the inability to progress the 100-K-42 Fuel Storage Basin and 100-K-3 pipeline near 1706KE; approximately (\$700K) due to suspension of waste site work while the same crew completed removal of the 183.1KW structure; and an additional (-\$1.3M) resulting from the inability to start work on the 107KW flood plain (100-K-63) due to the Migratory Bird Act. These three issues total (-\$3.5M) and are somewhat offset by other positive variances.

### CM Cost Performance: (-\$4.4M/-62.4%)

#### 100K Area Project (Facilities and Others) (-\$4.7M)

The negative cost variances in Facilities (-\$1.8M) on the 183KW Sedimentation Basin Complex is due to very little BCWP earned (this will correct itself in July) and increased 1706KE/KER costs due to removal of equipment/piping in the substructure that was not included in the estimate; Project Management/MSA Assessments (-\$1.1M) due to general site cleanup labor being utilized on site cleanup work scope, and higher than planned receipt of G&A attributed to the PBS overrun this month (allocation based on direct costs); 105KE Reactor (-\$0.6M) due to overstatement of performance for hazardous material removal in May will self correct in July and 30'x 30' subcontract labor not starting work as planned but vendor accrual was submitted; K West Deactivation (-\$0.8M) due to June sludge vacuuming performance being held to the same as April (see SV discussion) although vacuuming activities were performed; and Utilities (-\$0.4M) primarily due to subcontractor costs for installation of the firewater and potable water lines being actualized in the current month.

#### Waste Sites (+\$0.3M)

The positive Waste Site variance is due to several insignificant items.



#### **Base**

#### CM Schedule Performance (-\$0.3M/-19.4%)

The negative variance is within established reporting thresholds.

#### **CM Cost Performance (-\$0.5M/-58.3%)**

#### 100K Area Project (Facilities and Others) (-\$0.4M)

The negative variance is 105KE Core Removal (-\$0.1M) attributed to core removal design mock-up testing not estimated to be completed as part of preliminary design deliverable; UBS, G&A, and DD (-\$0.2M) higher than planned receipt of costs attributed to the PBS overrun this month (allocation based on direct costs); and Facilities (-\$0.1M) of numerous small charges.

#### Waste Sites (-\$0.1M)

The negative Waste Site variance is due to work performed on closure documents that are lagging on schedule.

## Contract-to-Date

(\$M)

WBS 041/ RL-0041 Nuclear Facility D&D – River Corridor	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	of Work	Variance	Schedule Variance (%)		Cost Variance (%)	Budget at Completion (BAC)		Variance at Completion (VAC)
ARRA	103.5	94.3	76.7	(9.2)	-8.9	17.6	18.7	190.2	189.6	0.6
Base	<u>17.8</u>	<u>17.5</u>	18.3	(0.3)	-1.7	(0.7)	-4.3	<u>378.1</u>	<u>356.7</u>	<u>21.3</u>
Total	121.3	111.8	95.0	(9.5)	-7.8	16.9	15.1	568.3	546.3	21.9
Numbers are rounded to the nearest \$0.1M.										

#### **ARRA**

# CTD Schedule Performance: (-\$9.2M/-8.9%) 100K Area Project (Facilities and Others) (-\$7.0M)

The positive variance is K West Deactivation (+\$4.5M) being ahead of schedule on small debris removal and vacuuming. This is offset by negative variances in Utilities (-\$8.5M) caused by delay in construction activities due to late release of design criteria for contract bid proposal submittals; the Power Isolation Project planned to have the Mobile Substation delivered and the 13.8KV power re-route completed in May, however, due to late contract award, these have been delayed three months; the River Water Infrastructure Isolation Project planned to have construction complete in June but is forecasting completion in August. The Facilities (-\$1.7M) negative schedule variance is because of 183.1KW Head House was paused while adjacent waste remediation was completed, 183.3KW where demolition is taking twice as long due to the footers being seven to ten feet thick which was not on the drawings, 115KE/117KE Gas Buildings where work has been paused until the 116KE stack is demolished in July, and 1706KE/KER asbestos removal which had a late start to ensure the below-grade building was structurally sound before asbestos removal was begun. The 105KE Reactor (-\$1.3M) negative schedule variance is due to availability of insulators to complete asbestos removal and the late start of 30'x30' door opening activities.

#### Waste Sites (-\$2.2M)

The significant schedule variance is primarily related to the restricted access of sites scheduled to be worked. See the "Current schedule variance" for additional details. Also (-\$1.0M) of ERDF disposal schedule variance is being reported.



#### **CTD Cost Performance:** (+\$17.6M/+18.7%)

#### 100K Area Project (Facilities and Others) (+\$12.2M)

The positive variance is from K West deactivation (+\$6.3M) for the debris removal campaign removing smaller debris units first and efficiencies from utilizing experienced staff. The Facilities (+\$5.5M) due to efficiencies of scale for concurrent demolition and \$3M of ERDF disposal cost avoidance. The 105KE Reactor Disposition (+\$1.6M) positive cost variance is attributed to decontamination work utilizing less engineering and administrative staff as planned, and over-estimation of Obstruction Removal Project Management, Site Preparation and Obstruction Removal Design costs. The utility water project is reporting a significant positive CTD cost variance that is offset by the negative CTD cost variance for the electrical power project (+\$1.2M). This is due to proposals from the construction contractors for the water treatment system and dual-use water storage tank costing less than originally estimated. These are offset by a negative cost variance in Project Management (-\$2.4M) where general site cleanup labor has been utilized on general site cleanup work scope.

#### Waste Sites (-\$0.5M)

The negative cost variance of is due to waste volumes continuing to increase beyond projections. The cumulative ERDF waste disposal costs have a cost variance due to increasing volumes.

#### **Project Support & Services (+\$5.9M)**

G&A achieved efficient use of assigned resources.

#### Base

#### CTD Schedule Performance (-\$0.3M/-1.7 %)

The negative variance is within established reporting thresholds.

#### CTD Cost Performance (-\$0.7M/-4.3 %)

The positive variance is within established reporting thresholds.

Contract Performance Report Formats are provided in Appendix A.



# Funds vs. Spend Forecast (\$M)

	FY 2		
WBS 041/RL-0041 Nuclear Facility D&D – River Corridor	Projected Funding	Spending Forecast	Variance
ARRA	116.7	106.5	10.2
Base	<u>35.8</u>	<u>14.3</u>	<u>21.5</u>
Total	152.5	120.8	31.7

Numbers are rounded to the nearest \$0.1M.

#### **Funds/Variance Analysis:**

Projected Funding includes FY 2009 uncosted and FY 2010 expected new budget authority.

#### **Critical Path Schedule**

Critical Path Analysis can be provided upon request.

#### **Estimate at Completion (EAC)**

The BAC and EAC include FY 2009 through FY 2018, the PRC contract period.

#### **Baseline Change Requests**

None.

#### **MILESTONE STATUS**

None currently identified.

#### **SELF-PERFORMED WORK**

The Section H. clause entitled Self-Performed Work is addressed in the Monthly Report Overview.

## GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

None currently identified.

