

# TPA Quarterly Review



*Tri-Party Agreement*

## *River Corridor Milestones:*

M-16

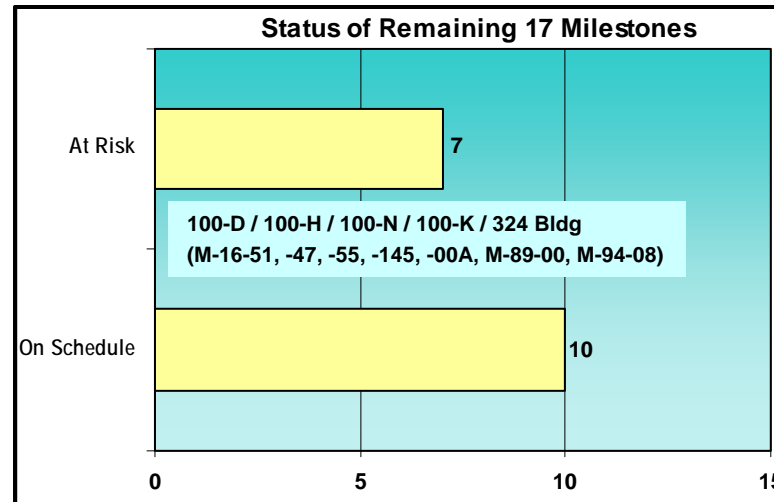
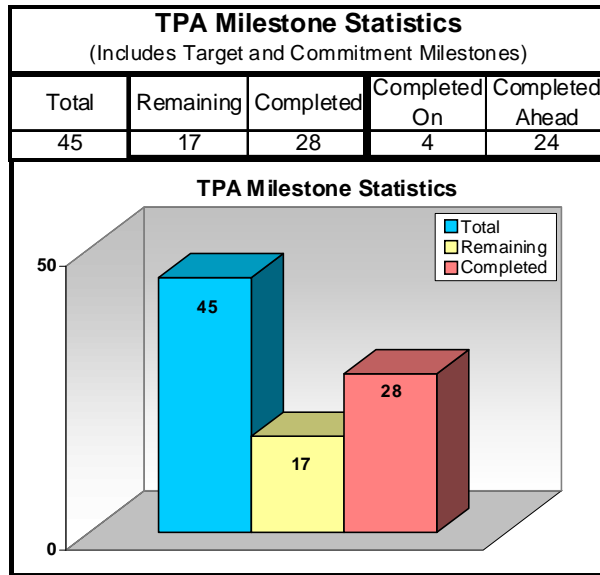
M-93

M-89

M-94

U.S. Department of Energy  
U.S. Environmental Protection Agency  
Washington State Department of Ecology

*Protecting the Columbia River*



### Quarterly Summary (September – November 2010)

- **Completed one TPA milestone:**
  - M-16-64 - Complete Interim Remedial Actions, Except Revegetation, for Following 300-FF-2 Waste Sites (300-259, 303-M SA, 303-M UOF, UPR-300-46, UPR-300-17, and 618-1) (due 9/30/10) - 9/8/10
- **Received one transitioned TPA milestone:**
  - M-92-16 - Complete Removal and Transfer, and Initiate Storage of Phase III 300 Area Special Case Waste and Materials (due 9/30/15); transitioned to WCH in September 2010 with transfer of 340 Waste Neutralization Facility.

RIVER CORRIDOR CLOSURE PROJECT

For Period: September – November 2010

TPA MS No.	Compliance Date	Title	Status	Comments
M-16 Milestones - Remedial Action (milestones through 12/31/2012 and "at risk")				
M-16-51	12/31/11	Complete Interim RA for 100-H Area	At risk	Delays in obtaining regulatory approval of closeout documents and its impact on backfill put milestone at risk.
M-16-47	12/31/11	Complete Interim RA for 100-D Area	At risk	Delays in obtaining regulatory approval of closeout documents and its impact on backfill put milestone at risk. Additionally, TPA CR M-16-09-06 proposes removal of several 100-D-31 segments from this milestone.
M-16-56	02/28/12	Complete Interim RA for 100-IU-2 / 100-IU-6 Waste Sites Listed in 1999 100 Area Remaining Sites ROD (32 sites) as Described in RDR/RAWP	On schedule	
M-16-74	09/30/12	Complete Interim Remediation (to include excavation, loadout, closeout sampling, backfill) for all 300 Area "Inside the Fence" Waste Sites North of Apple Street, Except that the 300-268 and 300-123 Waste Sites Remediation Need Only Be Completed Through Excavation and Loadout	On schedule	Waste sites 300-4, 300-15, 300 RRLWS, and RLWS are impacted by 300 Area building retentions and are addressed in M-16-00B. Revegetation of M-16-74 waste sites will be completed under M-16-139.
M-16-55	12/31/12	Complete Interim RA for 100-N Area	At risk	Remediation started in August 2010. Remediation of some sites under buildings and reactor footprint require further negotiation and places milestone at risk, as well as completion definition/requirements for in-situ and ex-situ bioremediation.
M-16-145	12/31/12	Complete Interim RA for 100-K Area Facilities and Waste Sites not Included as Phase 1,2, or 3 Work	At risk	Sites in this milestone are those listed in IROD prior to August 2009. Three sites (600-29, 100-K-78, 128-K-2) included in this milestone are currently not in WCH contract for remediation, and require an approved REA prior to performing design and another REA for remediation.

RIVER CORRIDOR CLOSURE PROJECT

For Period: September – November 2010

TPA MS No.	Compliance Date	Title	Status	Comments
M-16 Milestones - Remedial Action (milestones through 12/31/2012 and "at risk") (cont'd)				
M-16-00A	12/31/12	Complete All Interim RA for 100 Area Units, with Exception of 100-K Area, by Specified Due Date as Approved in a RDR/RAWP	At risk	At risk due to M-16-47, -51, 55, -145.
M-89 Milestone - 324 Bldg Non-Permitted MW Units Closure				
M-89-00	09/30/12	Complete Closure of Non-Permitted Mixed Waste Units in 324 Bldg REC B-Cell, REC D-Cell, and High Level Vault	At risk	At risk due to soil contamination encountered under 324 B-Cell. This is a differing condition and will result in cost and schedule impacts. Preparing change request to extend schedule for 324 disposition.
M-92 Milestone - 300 Area Special Case Waste				
M-92-16	09/30/15	Complete Removal and Transfer, and Initiate Storage of Phase III 300 Area Special Case Waste and Materials	On schedule	Milestone transferred to WCH in September 2010 with transfer of 340 Waste Neutralization Facility.
M-93 Milestone - Reactors Final Disposition				
M-93-20	09/30/12	Complete 105N Reactor ISS	On schedule	ISS in progress.
M-94 Milestone - 300 Area Surplus Facilities Disposition				
M-94-08	12/30/11	Complete Removal and/or RA for 11 of Following Facilities: 305B, 306E, 306W, 307 Retention Basins, 308, 309, 321, 323, 324, 324B, 327, 333, 340, 3706, and 3720	At risk	At risk due to work holds on beryllium-contaminated facilities and unexpected contamination encountered under 324. Change request has been drafted to add 340B to list of priority facilities.

**Significant Accomplishments – For Last 3 Months:**

**M-16 – Remedial Action / Risk Assessment:**

- Awarded 100-C-7 remediation contract.
- Began 100-D Area backfill campaign.
- Initiated 6-month bioremediation operational testing at 100-N Area.
- Completed rail radiation surveys in all areas (30 miles); continued rail removal.
- Continued development of River Corridor Baseline Risk Assessment report.
- Issued orphan sites evaluation reports for 100-F/IU-2/IU-6-Segment 2 and 300 Area.
- Received approval of 7 waste site closure documents during this reporting period.
- American Recovery and Reinvestment Act (ARRA) – Received approval of 6 waste site closure documents during this reporting period.
- ARRA – Completed field work for the Segment 1 waste sites.
- ARRA - Completed confirmatory sampling field activities at 100-IU-2/6 (9 of 13 sites), 100-K Area (6 sites), and 100-D Area (4 sites).
- ARRA – Finalized 618-10 non-intrusive characterization (NIC) report; conducted workshop with RL/EPA to evaluate NIC results.
- ARRA – Received NRC approval for Columbia Generating Station License Amendment in support of 618-11 NIC.

**M-89 – 324 Bldg Non-Permitted MW Units Closure:**

- Continued hazardous waste removal and deactivation activities.
- Obtained dose profiles under B-Cell

**M-93 – Reactors Final Disposition:**

- Continued installation of 109N safe storage enclosure (SSE) roof panels.
- Completed 105N above/below-grade demolition; continued SSE design.

**M-94 – 300 Area Surplus Facilities Disposition:**

- Completed above-grade demolition/loadout of 327; completed hot cell shipments to ERDF for disposal.
- Completed explosive demolition of 309 stack and 337/337B buildings.



100-N Area -- 105N/109N Interim Safe Storage



Explosive Demolition of 337/337B Buildings

**Significant Accomplishments – For Last 3 Months (cont’d):**

**ERDF:**

- For period of September through November 2010, disposed more than 517,000 tons of waste in ERDF.
- ARRA – Construction of Super Cell 9 is ~ 96% complete; Super Cell 10 is ~ 93% complete.
- ARRA – Received batch plant and started installation.
- ARRA – Completed paving upgrades to Hanford Routes 1, 2, and 4; completed paving for east entrance additional lanes.
- ARRA – Started structural steel erection on container maintenance facility.
- ARRA – Poured footings for operations center and equipment maintenance facility.
- ARRA – Started expansion of Phase 5 container transfer area.



Super Cells 9/10 Construction Nearing Completion

**Significant Actions Planned – For Next 3 Months:**

**M-16 – Remedial Action / Risk Assessment:**

- Begin 100-C-7 remediation.
- Initiate 118-K-1 Trench I silo remediation.
- Start abandoned utility pole removal.
- Begin closure process for 314 and related sites (300 Area).
- ARRA – Begin development of 100-F closeout sampling work instructions.
- ARRA – Initiate Draft A review of 100-D, -K, -IU-2/6 closure documents.
- Transmit Draft B of the RCBRA report ecological and human health volumes to RL/regulators for review.
- Complete Ecology comment resolution on Draft B 100-N Work Plan addendum and SAP, and issue Rev. 0 documents.

**M-89 – 324 Bldg Non-Permitted Mixed Waste Units Closure:**

- Complete initial characterization under B-Cell and start mitigation planning for the new waste site, 300-296, pending receipt of an NTP/NTE.
- Continue hazardous waste and asbestos removal.

**M-93 – Reactors Final Disposition:**

- Begin 105N Fuel Storage Basin above-grade demolition.
- Complete 109N SSE roofing and siding installation.

**M-94 – 300 Area Surplus Facilities Disposition:**

- Continue 327 below-grade demolition.
- Complete 308 glovebox shipments to Perma-Fix.
- Complete below-grade demolition of 338, 3718P, 335, and 336.

**ERDF:**

- ARRA – Perform Super Cells 9 and 10 acceptance testing.
- ARRA – Open Super Cell 9 for operation.
- ARRA – Complete installation of leachate tanks #3/4; demolish #2.
- ARRA – Complete batch plant installation.
- ARRA – Start structural steel erection for equipment maintenance facility.

**PERFORMANCE SUMMARY** (includes ARRA)  
**Contract Inception (8/25/05) through November 2010**  
 (\$K)

	IPB		CUMULATIVE			Previous Quarter Comparison			
	BAC	EAC	BCWS	BCWP	ACWP	SCHEDULE VAR (\$)		COST VAR (\$)	
						Aug	Nov	Aug	Nov
D4	667,675	589,850	343,594	384,620	275,684	47,293	41,026	113,180	108,936
Reactor ISS	120,767	131,998	82,511	61,281	57,829	-21,887	-21,230	1,431	3,452
Field Remediation	635,712	643,002	358,684	363,046	316,594	-17,645	4,362	41,304	46,452
Waste Operations	427,884	382,005	236,838	305,560	258,804	62,941	68,722	42,548	46,756
ESFC	64,325	65,309	45,924	45,978	39,662	759	54	3,087	6,316
Mission/General Support	325,985	417,716	208,985	208,985	205,233	0	0	1,063	3,752
Transition	3,979	3,747	3,979	3,979	3,747	0	0	232	232
Contingency	112,353	112,353							
<b>TARGET COST TOTAL</b>	<b>2,358,679</b>	<b>2,345,980</b>	<b>1,280,515</b>	<b>1,373,450</b>	<b>1,157,553</b>	<b>71,462</b>	<b>92,935</b>	<b>202,847</b>	<b>215,897</b>

**Schedule Variance (PMB): \$92,935K**

- Acceleration of 300 Area and 100-N Area building demolitions.
- Stop-work at KE/KW Reactor ISS (RL direction).
- Accelerated remediation work at 100-B/C, CLIN 4, and 100-H Areas; partially offset by negative variances associated with 100-K/300 Area descope, as well as delays of miscellaneous restoration, 118-K-1, and 100-IU-2/6 waste sites.
- ERDF Super Cells 9/10 construction ahead of schedule.
- ERDF transportation, treatment, and disposal support to accelerated work in FR and D4 Projects.

**Cost Variance (PMB): \$215,897K**

- Significant underruns experienced in 300 Area building characterization, deactivation, and demolition activities.
- 100-D/F/H/K and 100-IU-2/6 remediation underruns. Partially offset by significant project support costs at all active dig sites, particularly in the 300 Area.
- Costs have been less than planned due to Waste Operations efficiencies achieved in waste treatment, transportation, and construction. These efficiencies and increased waste volumes have more than offset cost overruns in direct project support.

**ARRA - Performance Summary**  
**April 2009 through November 2010**  
 (\$K)

	IPB		CUMULATIVE			Previous Quarter Comparison			
	BAC	EAC	BCWS	BCWP	ACWP	SCHEDULE VAR (\$)		COST VAR (\$)	
						Aug	Nov	Aug	Nov
RL0041.R1.2 - Cell 9 / ERDF	51,361	43,610	42,540	47,345	40,454	7,999	4,805	6,533	6,891
RL0041.R1.3 - Acc Rem / ERDF	55,511	39,661	32,073	31,587	23,323	-1,633	-486	8,361	8,264
RL0041.R1.4 - Cell 10	37,672	27,420	15,745	33,721	23,474	17,053	17,977	9,293	10,248
RL0041.R2 - 618-10	65,977	64,578	27,623	29,428	30,760	3,646	1,806	-3,624	-1,331
Contingency	9,050	9,050							
<b>TARGET COST TOTAL</b>	<b>219,571</b>	<b>184,318</b>	<b>117,980</b>	<b>142,082</b>	<b>118,010</b>	<b>27,064</b>	<b>24,101</b>	<b>20,563</b>	<b>24,072</b>

**Schedule Variance (PMB): \$24,101K**

- ERDF Cells 9/10 construction running ahead of schedule.
- 100-F remediation started earlier than planned
- Infrastructure design completion ahead of schedule, as well as non-intrusive characterization at 618-10. Intrusive characterization work was replanned to better reflect the start due to final hazard categorization and beryllium delays.
- ERDF waste transportation and disposal less than planned; design and construction of new maintenance facilities, operations center, and container transfer area Phase 5 upgrade behind schedule.

**Cost Variance (PMB): \$24,072K**

- ERDF Cells 9/10 construction is realizing efficiencies.
- ERDF equipment and facility upgrade costs less than budgeted.
- Fewer comments received and streamlining the confirmatory sampling process (e.g., use of fewer sub-sites than originally planned) have resulted in significantly lower analytical costs and positive cost variances in several accounts.
- 618-10 water line design has expended additional costs evaluating alternatives, and costs for safety documentation were significantly greater than planned due to complexity of the data. The extended duration of non-intrusive characterization has resulted in more hotel costs than planned. Safety documentation approval delays have resulted in change notices from subcontractor for schedule extensions.

## ***RCC Issues***

- Determining impact of radiological contamination encountered under the 324 facility. This will affect schedule for demolition of the 324 Complex.