

**ATTACHMENT J.15  
 AMERICAN RECOVERY AND REINVESTMENT ACT (ARRA) SCOPE AND END-STATE  
 MILESTONES**

Analytical Building Block	Contract Line Item Number	Scope	Date*	Completion End Point(s)
RA-1 Tank Farm Infrastructure Upgrades	Sub-CLIN 7.1	AP/SY Ventilation Design and Fabrication	Sep – 11	Fabrication complete.
RA-1 Tank Farm Infrastructure Upgrades	Sub-CLIN 7.1	SY Electrical Upgrades	Sep – 11	Upgrades complete.
RA-1 Tank Farm Infrastructure Upgrades	Sub-CLIN 7.1	Valve Funnel Replacement	Sep – 11	Installation complete.
RA-1 Tank Farm Infrastructure Upgrades	Sub-CLIN 7.1	AP Valve Pit Jumpers	Sep – 11	Installation complete.
RA-1 Tank Farm Infrastructure Upgrades	Sub-CLIN 7.1	AP Level Rise Construction Modifications	Oct – 10	Construction Modifications complete.
RA-1 Tank Farm Infrastructure Upgrades	Sub-CLIN 7.1	AZ Farm Control System Upgrade	July – 11	Installation complete.
RA-1 Tank Farm Infrastructure Upgrades	Sub-CLIN 7.1	<b>Other Tank/Farm Upgrades (multiple subprojects)</b> 1. ENRAF® upgrades. 2. Ventilation system reliability study. 3. Obsolete tank farm equipment removal. 4. Decon trailer procurement.	Sep – 11 Sep – 09 Sep – 11 Sep – 10	Upgrades complete. Vent system reliability study complete. Equipment removed. System received.
RA-1 Tank Farm Infrastructure Upgrades	Sub-CLIN 7.1	<b>DST Upgrades/Life Extension (multiple subprojects)</b> 1. Issue DSTIP lab report. 2. Fabricate and install AN-107 corrosion probe. 3. Cathodic protection modifications/adjustments.	Dec – 10 Oct – 10 Sep – 11	Issue report. Installation complete. Adjustments complete.
RA-1 Tank Farm Infrastructure Upgrades	Sub-CLIN 7.1	<b>SST Life Extension</b> 1. Replace radial filters. 2. Remove obsolete SST equipment. 3. Complete SST electrical system upgrades.	Aug – 11 Aug – 11 Sep – 11	Radial filters replaced. Equipment removed. Upgrades complete.

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RA-1 Tank Farm Infrastructure Upgrades	Sub-CLIN 7.1	<b>Removal of Tank Farm Equipment and Facilities that are out of Service</b> 1. SY-271 Auxiliary Building. 2. SY-271 Standby Diesel Generator. 3. 242-T Evaporator HEPA Filters. 4. P-28 Exhauster.	Sep – 09 Sep – 09 Sep – 09 Sep – 09	Building removed. Generator removed. Filters removed. Exhauster removed
RA-1 Tank Farm Infrastructure Upgrades	Sub-CLIN 7.1	<b>NEC Resolution and Electrical Modifications</b>	Nov – 09	Construction complete
RA-1 Tank Farm Infrastructure Upgrades	Sub-CLIN 7.1	<b>Replace 10 Drains Seals in DST valve/pump boxes</b>	Nov – 09	Construction complete
RA-1 Tank Farm Infrastructure Upgrades	Sub-CLIN 7.1	<b>Statements of Work</b> 1. Valve Funnel Replacement.	Dec – 09	Statement of work complete.
RA-2 Other Infrastructure Upgrades	Sub-CLIN 7.3	<b>Wiped Film Evaporator</b> 1. Small-scale demonstration. 2. Full-scale demonstration.	Sep – 10 Sep – 11	Small-scale demonstration complete. Full-scale demonstration complete.
RA-2 Other Infrastructure Upgrades	Sub-CLIN 7.1	<b>Core Sampling System</b>	Sep – 11	System received.
RA-3 Facilities Upgrades	Sub-CLIN 7.1	<b>242-A Upgrades/Operation</b> 1. Refurbish pump PB-1. 2. Electrical panel replacement/repair. 3. Decontaminate condenser room. 4. Evaporator Compressors. 5. Raw water service building upgrade.	June– 11 Sep – 11 Dec – 09 Sep – 09 Feb – 10	Pump refurbished. Panel replaced/repared. Decontamination complete. Compressor installation complete. Upgrade complete.
RA-3 Facilities Upgrades	Sub-CLIN 7.1	<b>242-A Upgrades/Life Extension (multiple subprojects)</b> 1. Install exhaust skid. 2. Replace instruments.	Sep – 11 Feb - 11	Exhauster replaced. Instruments installed.

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		3. Process condensate leak detection upgrades.	Sep – 10	Condensate leak detection system upgraded / Construction Complete
		4. Asbestos abatement.	Jan – 11	Abatement complete.
<b>RA-3 Facilities Upgrades</b>	<b>Sub-CLIN 7.2</b>	<b>222-S Instrument Upgrades</b> 1. Statements of Work for Priority Instruments (alpha energy analyzer, gamma energy analyzer, liquid chromatograph/mass spectrometer, ion chromatograph).	<b>Sep – 11</b> Sep – 09	Instruments upgraded. Statements of work complete.
<b>RA-3 Facilities Upgrades</b>	<b>Sub-CLIN 7.2</b>	<b>222-S Life Extensions (multiple subprojects)</b> 1. Roof replacement. 2. Conditioned storage addition. 3. Replace HPT support facilities. 4. Replace mobile office. 5. Replace HVAC control system. 6. Renovate rooms. 7. Upgrade stairway access.	Nov – 10 Oct – 10 Sep – 10 Sep – 11 Sep – 11 Sep – 11 Sep – 09	222-S roof replaced. Conditioned storage facility constructed. Facility constructed. Office constructed. Control system installed. 222-S rooms upgraded. Stairway access meets current building code.
<b>RA-3 Facilities Upgrades</b>	<b>Sub-CLIN 7.2</b>	<b>222-S Upgrades (multiple subprojects)</b> 1. Upgrade HVAC system to electric. 2. Increase HLAN speed. 3. Room HVAC upgrades. 4. Back-up compressed air system. 5. As-built electrical drawings. 6. Update PAX system.	Sep – 11 Sep – 09 Sep – 11 Jul – 10 Jul – 11 Jun – 11	Conversion to electric heat complete. HLAN upgraded. HVAC for rooms upgraded. Air system installed. Drawings updated. PAX system upgraded.
		7. Lighting upgrades. 8. Access to fan deck upgrade. 9. Demolish MO-924.	Sep – 11 Sep – 09 Sep – 09	Light systems replaced. New access provided. MO-924 demolished.
<b>RA-3 Facilities Upgrades</b>	<b>Sub-CLIN 7.5</b>	<b>Effluent Treatment Facility (Grout and Waste Form Testing)</b>		

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		1. Test glass formulations for technetium retention.	Sep – 11	Issue final report.
		2. Short-term leaching tests of grout formulations to solidify ETF waste streams.	Sep – 11	Issue final report.
<b>RA-4 Waste Feed Infrastructure Upgrades</b>	<b>Sub-CLIN 7.1</b>	<b>DST Control Systems Update</b>	<b>Sep – 11</b>	Control systems installed.
<b>RA-4 Waste Feed Infrastructure Upgrades</b>	<b>Sub-CLIN 7.1</b>	<b>Exhauster D&amp;D (AW/AN)</b>	<b>Sep – 11</b>	Exhausters removed.
<b>RA-4 Waste Feed Infrastructure Upgrades</b>	<b>Sub-CLIN 7.3</b>	<b>AZ Condensate Line Upgrade</b>	<b>April – 11</b>	Upgrades complete.
<b>RA-4 Waste Feed Infrastructure Upgrades</b>	<b>Sub-CLIN 7.3</b>	<b>AW COB Isolation and Removal</b>	<b>May – 11</b>	Construction complete.
<b>RA-4 Waste Feed Infrastructure Upgrades</b>	<b>Sub-CLIN 7.3</b>	<b>Mixer Pump Design</b>	<b>May – 11</b>	Mixer pump design complete.
<b>RA-4 Waste Feed Infrastructure Upgrades</b>	<b>Sub-CLIN 7.3</b>	<b>Tank Waste Mixing Demonstrations</b>		
		1. Complete small-scale mixing demonstration and submit draft report to DOE-ORP.	Sep – 10	Draft small-scale mixing demo report.
		2. Complete test loop demonstration and submit draft report to DOE-ORP.	Jan – 11	Draft test loop demonstration report.
		3. Complete small-scale sampling demonstration and submit draft report to DOE-ORP.	Jun – 11	Draft small-scale sampling demonstration report.
<b>RA-4 Waste Feed Infrastructure Upgrades</b>	<b>Sub-CLIN 7.3</b>	<b>AW D&amp;D (SHMS-GCS Removal)</b>	<b>May – 11</b>	Equipment Removal complete.
<b>RA-4 Waste Feed Infrastructure Upgrades</b>	<b>Sub-CLIN 7.3</b>	<b>SY-102 D&amp;D (SHMS-GCS Removal)</b>	<b>Dec – 10</b>	Equipment Removal complete.
<b>RA-4 Waste Feed Infrastructure Upgrades</b>	<b>Sub-CLIN 7.3</b>	<b>Strategic Planning – Process Control Flow Sheets Complete for First 3 WTP Feed Tanks</b>	<b>Sep – 11</b>	Flow sheet complete.
<b>RA-4 Waste Feed Infrastructure Upgrades</b>	<b>Sub-CLIN 7.3</b>	<b>Waste Feed Delivery – Pre-Design/Design Activities for Waste Feed Delivery</b>	<b>Sep – 11</b>	Design review complete.
<b>RA-4 Waste Feed Infrastructure Upgrades</b>	<b>Sub-CLIN 7.3</b>	<b>Statements of Work and Procurement Specifications</b>		
		<b>1.</b> Prepare SOW for Exhauster D&D.	Dec – 09	Statement of work prepared.

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		<b>2.</b> Complete Mixer Pump Procurement Specification.	Dec – 09	Procurement Specification prepared.
<b>RA-5 Waste Feed Transfer Line Upgrades</b>	<b>Sub-CLIN 7.3</b>	<b>Transfer Line Upgrades – SL-177/SN-277 and SL-180/SN-280</b>	<b>Sep – 11</b>	Construction complete.
<b>RA-5 Waste Feed Transfer Line Upgrades</b>	<b>Sub-CLIN 7.3</b>	<b>Transfer Line Upgrades – SN-278/SN-279 and SN-285/SN-286</b>	<b>Sep – 11</b>	Construction complete.
<b>RA-5 Waste Feed Transfer Line Upgrades</b>	<b>Sub-CLIN 7.3</b>	<b>Design</b>		
		1. Complete 90 % design for Transfer Line Upgrades – SL-177/SN-277 and SL-180/SN-280.	Dec – 09	90% Design complete.
		2. Complete 90% design for Transfer Line Upgrades – SN-278/SN-279 and SN-285/SN-286.	Mar – 10	90% Design complete.

\* Dates represent completion by the end of the month indicated.

® ENRAF is a registered trademark of Enraf B.V. Corporation, Delft, Netherlands.

COB = cleanout box

D&D = deactivation and decommissioning

DST = double-shell tank

DSTIP = double-shell tank integrity program

FY = fiscal year

GCS = Gas Characterization System

HLAN = Hanford Local Area Network

HPT = health physics technician

HVAC = heating, ventilation, and air conditioning

MO = mobile office

SHMS = Standard Hydrogen Monitoring System

SST = single-shell tank

WTP = Waste Treatment and Immobilization Plant