

Exhibit C.8-13 – RH-TRU Hot Cell Equipment Upgrades

NOTE: The projects in this exhibit are currently not included in the base scope but may be ordered pursuant to Section I.81, Changes Clause.

	Facility	System	Description	Justification
PBS-0013				
1	CPP-666	FDP Cell Master Slave Manipulators	Procure 6 master slave manipulators (FY13) and install air manifolds to support new manipulators. Manipulators are critical spares used for replacement of existing manipulators in cell main operating area. Partial Incorporated by Modification 250	End of Service Life and Obsolete – Manipulator failures will directly impact waste processing operations schedule in CPP-666.
2	CPP-666	Waste Load Out Master Slave Manipulators	Procure 3 master slave manipulators (FY13) and install air manifolds to support new manipulators. Manipulators are critical spares used for replacement of existing manipulators in waste load-out area. Partial Incorporated by Modification 250	End of Service Life and Obsolete – Manipulator failures will directly impact waste processing operations schedule in CPP-666.
3	CPP-666	FDP Cell Crane Replacement Motors and Control Upgrades	Procure and install new electrical control system, motor controllers, and drive components for FDP cell crane. DOE has directed the Contractor to evaluate several different options to extend the crane service life. The Contractor is required to deliver an evaluation to DOE by September 30, 2013. This upgrade is on hold pending the delivery of this evaluation.	End of Service Life – Existing motors and controls are obsolete. Crane failure will directly impact waste processing operations schedule in CPP-666.
4	CPP-666	FDP Cell Master Slave Manipulators Spare Parts	Procure critical spare parts for existing manipulators such as Boots, retrofitted controllers, hands, grips etc. Incorporated with Modification 241 for FY13 Incorporated with Modification 250 for FY14-15	Critical spare parts for existing installed equipment. Lack of spare parts could directly impact waste processing operations schedule in CPP-666.
5	CPP-666	FDP Cell	Install new portable power distribution board supporting electrical service to in-cell equipment. Incorporated with Modification 250	End of Service Life. Equipment failure would directly impact waste processing operations schedule in CPP-666.
6	CPP-666	FDP Cell	Remove the old abandoned crane system electrical control wiring.	Equipment Obsolete. The old radio control system wiring was abandon in place. The zone and anti-collision systems have been disabled due to intermittent failures. This causes many

			Incorporated with Modification 250	hours of trouble shooting to find problems as the as-built drawings are non-existent. This activity would remove the old wiring and clean up the control cabinets.
7	CPP-666	FDP Cell	Procure and install remote camera/video system upgrade in FDP Cell.	Existing equipment is at end of service life due to deterioration from radiation exposure. Camera system failure will directly impact process operations schedule in CPP-666.
8	CPP-666	FDP Cell Master Slave Manipulators	Procure 11 master slave manipulators (FY14) and install air manifolds to support new manipulators. Manipulators are critical spares used for replacement of existing manipulators in cell main operating area.	End of Service Life and Obsolete – Manipulator failures will directly impact waste processing operations schedule in CPP-666.
9	CPP-666	Waste Load Out Master Slave Manipulators	Procure 3 master slave manipulators (FY14) and install air manifolds to support new manipulators. Manipulators are critical spares used for replacement of existing manipulators in waste load-out area.	End of Service Life and Obsolete – Manipulator failures will directly impact waste processing operations schedule in CPP-666.
10	CPP-666	FDP Cell PaR	Procure and install PaR master slave M3000. This scope removes the existing PaR Manipulator and installs a new one (M3000) with trolley onto the existing bridge and run ways.	End of Service Life. Obsolete – No spare parts available. PaR failure will directly impact waste processing operations schedule in CPP-666.
11	CPP-659	Argon Repackaging System	Fabricate and install an argon repackaging and immersion testing system in the Decontamination Hot Cell at CPP-659 to allow repackaging of reactive waste. This modification may also include Permit and Authorization Basis modifications. Incorporated with Modification 250	This will allow repackaging of Lot 2 waste in CPP-659 if the facility is deemed appropriate for that work.
12	CPP-666	FDPA Ventilation	Upgrade to the CPP-666 FDPA ventilation, which includes replacing damper D-FV-982-52, Exhaust Air from Pool Area; installation of new damper D-FV-982-50, Supply Air to Pool Area; replacement and upgrade of 14 control loops with 7 new controllers. New Item with Mod 250 Incorporated with Modification 250	Building CPP-6666 consists of both Fuel Storage (FSA) and processing areas (FDPA) which share a common HVAC system. Because of this shared HVAC system, the FSA ventilation subsystems directly affect the operation, availability, and reliability of the FDPA ventilation system.
13	CPP-666	Upgrade	Upgrade of Hoist FA-901 variable speed	Both hoist and trolley

		Hoist	controls. <i>New Item with Mod 250 Incorporated with Modification 250</i>	controls need upgrades to provide variable speed controls. Currently they are fast and slow which results in irregular movements.
14	CPP-666	Refurbish Crane (CRN-FC-905)	Procure Critical Spare Boards and Refurbish for Crane (CRN-FC-905). <i>New Item with Mod 250 Incorporated with Modification 250</i>	Critical Spare to support the crane CRN 905.
15	CPP-666	Crane (CRN-FC-905) Upgrade	Engineering Evaluation of Potential Crane (CRN-FC-905) Upgrade Option: To be definitized at a later date once CWI provides the required evaluation. <i>New Item with Mod 250</i>	Need to determine if Item 3 is required to support operation