

EA Operational Awareness Record		Report Number: EA-HANFORD-2015-09-09	
Site: Hanford Site		Subject: Assessment of Construction at the Hanford Site K-West Annex Facility	
Dates of Activity:	09/15/15 Onsite 11/30/15 Records Review	Report Preparer:	Joseph J. Lenahan
Activity Description/Purpose:			
<p>The purpose of this activity was to perform a quarterly assessment of the construction activities at the Hanford K-West Annex Facility. The office of Enterprise Assessments (EA) performed the following activities during this review.</p> <ol style="list-style-type: none"> 1. Reviewed the status of construction at the K-West Annex Facility. 2. Reviewed a sample of construction acceptance test (construction turnover) records (received on November 30, 2015) for two systems. 3. Reviewed a sample of nonconformance reports (NCRs) initiated to disposition welding and concrete anchor installation deficiencies. 			
Result:			
<ol style="list-style-type: none"> 1. The prime contractor for this work is CH2MHill Plateau Remediation. Federal Engineers and Constructors (FE&C) is the general contractor for the K-West Annex Facility. EA performed a walkdown of the K-West Annex Facility. FE&C has completed concrete and structural steel construction work for the building structure. The mechanical and electrical systems were complete except for resolution of some open items identified during final inspections and construction turnover walkdowns. As required, several openings in facility equipment were capped to prevent internal contamination and the equipment was covered with plastic covers and/or tarpaulins. During the EA walkdown, a few craftsmen were in the process of correcting open items identified during construction turnover on the fire protection system. An acceptance test on the processing equipment that will separate the solids (sludge, plutonium particles, and other debris) from the liquid waste in the K-West fuel pool will be performed at a Hanford full-scale mockup test facility. During the next phase of construction and startup testing of the facility, the truck scale in the loading bay and some processing equipment are expected to be installed in the K-west Annex Facility. This work will be performed under a separate contract. 2. EA reviewed records documenting construction acceptance testing of the ion exchange module (IXM) water system and the compressed air system. The scope of these tests included visual inspection (walkdowns) of the completed systems to verify that piping, supports, instrumentation, electrical wiring, and equipment labels were installed in accordance with the construction drawings and specifications. The acceptance tests also included a review of quality assurance records to verify that they are complete and include all required inspection and test results. Deficiencies identified during the acceptance test walkdowns were adequately recorded in a test deficiency log. Examples of the deficiencies in the log included missing equipment labels, a list of instruments that had been removed and placed in storage to prevent damage, and a list of components that require testing during startup. The deficiencies are further documented in the construction punchlist items to be resolved during startup testing and/or prior to facility operation. 3. EA examined the contractor's NCR report log and reviewed seven closed NCRs in detail. Two were initiated by a subcontractor, Intermech, to modify or repair instrument lines. The other five were initiated by FE&C, four to disposition post installed concrete anchor deficiencies, and one to address concrete that was placed in a non-safety building entrance slab. The corrective actions appropriately dispositioned the problems identified in these NCRs. Overall, the NCR process and implementation were adequate to address and resolve construction deficiencies. 4. EA concluded that construction quality at the K-West Annex Facility was adequate in the areas reviewed and identified no deficiencies in those areas. 			

EA Participants	References (Key Documents, Interviews, and Observations)
1. Robert E. Farrell (lead)	1. Document KW-CAT-48873-03, KW Annex Building IXM Water System Construction Acceptance Test Plan
2. Joseph J. Lenahan	2. Document KW-CAT-48873-04, KW Annex Building Air System Construction Acceptance Test Plan
	3. FE&C Nonconformance Report NCR-2014-0065, R2, Anchor Holes Drilled Through Concrete
	4. FE&C Nonconformance Report NCR-2015-0001, Holes Drilled through Concrete Causing a Vertical Unistrut to be Out of Plumb
	5. FE&C Nonconformance Report NCR-2015-0005, Anchor Failed to Secure at Required Depth
	6. FE&C Nonconformance Report NCR-15-0021, Drum Revolutions (340) Exceeded the Maximum of 300 for Placement Slab (2500 psi)
	7. Intermech NCR 15-02, IXM Weld Repair
	8. FE&C Nonconformance Report NCR-15-0036, R1, Field Quality Requirements for Load Testing
	9. Intermech NCR 15-07, Instrument Air Line
Were there any items for EA follow up? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
EA Follow Up Items	
None.	