

Change Number M-16-08-09	Federal Facility Agreement and Consent Order Change Control Form Do not use blue ink. Type or print using black ink.	Date August 4, 2009
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Class of Change I - Signatories II - Executive Manager III - Project Manager**Change Title**Modification of Hanford Federal Facility Agreement and Consent Order (Agreement) 100 K Area M-016 Major and Interim Milestones**Description/Justification of Change**

Approval of this change package modifies the *Hanford Federal Facility Agreement and Consent Order* (HFFACO) M-16-00A major milestone, two interim milestones, and deletes one interim milestone. This change package establishes a new M-016-00C major milestone and six new M-16 interim milestones. The M-34 series milestones for remediation of the K Basins are deleted as the remaining work scope is being moved to the M-16 series per this change package to promote integration with 100 K Area closure activities. The M-034-30 interim milestone is being deleted per change package M-34-08-03 and is being re-established as M-016-140. The delay in treating the sludge and removing the K West Basin is now impacting soil remediation efforts in the surrounding area and the Parties have agreed that the two activities should be more closely aligned in the M-16 milestone series.

Continued on page 2

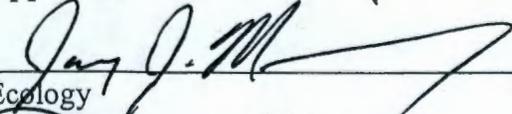
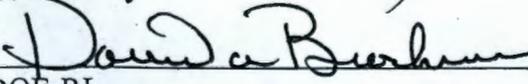
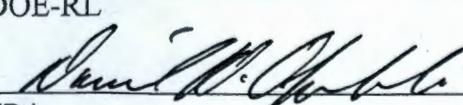
Impact of Change

Impacts occur to milestones identified in associated change packages M-93-08-01 and M-34-08-03.

Affected Documents

The Hanford Federal Facility Agreement and Consent Order, as amended and Hanford Site internal planning management, and budget documents (e. g., USDOE and USDOE contractor Baseline Change Control documents; Multi-Year Work Plan; Site Wide Systems Engineering Control Documents; Project Management Plans, and, if appropriate, Land Disposal Restrictions Report requirements).

Approvals

 Ecology	8/11/09 Date	<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Disapproved
 DOE-RL	8/10/09 Date	<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Disapproved
 EPA	8/11/09 Date	<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Disapproved

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Description/Justification of Change

Hexavalent chromium

Hexavalent chromium vadose contamination and groundwater plumes are at levels that pose a risk to human health and/or the environment in the 100 Area. Two of the new interim milestones (M-016-150 and M-016-155) are for a chromium response action for the 100 Area.

DOE plans to evaluate remediation alternatives for chromium in the vadose zone and groundwater in the 100 Area and to document the results of the evaluation in a focused feasibility study (FS). Those plans include preparing a focused feasibility study that will: contain an evaluation of the 100 Area hexavalent chromium contamination areas, including a detailed examination of the 100 D area. The FS will contain an evaluation of remedial alternatives that address hexavalent chromium contamination areas identified within the 100 Area (including 100-BC-5), including biological and/or chemical in-situ reduction. DOE will prepare a Proposed Plan to amend existing source and groundwater 100 Area RODs to include remedial action for hexavalent chromium contamination and place supporting documents in the administrative record. The Proposed Plan will include biological and/or chemical in-situ reduction as a remedial action alternative. Upon amendment of the RODs, DOE will submit revisions of Remedial Design/Remedial Action (RD/RA) Work Plan(s) to implement the selected remedy for hexavalent chromium in the amended RODs.

100 K Area Cleanup to be Completed in Phases

A 100-K Area perimeter boundary has been identified to segregate waste sites and structures that require coordination and detailed integration with the Sludge Treatment Project to safely and effectively complete remediation. In many cases, these waste sites and structures are in proximity to the still active KW Fuel Storage Basin or to facilities needed to keep the KW Basin operational. The perimeter boundary (with some exceptions on the east-side) generally coincides with the outer-most perimeter fences around the 100-K Area (encompassing the reactors and facilities) and the area between the northern perimeter fence and the Columbia River. The perimeter boundary was chosen to exclude the waste sites (118-K-1, 100-K-2, 100-K-78, 126-K-1, 128-K-2, and 600-29) that do not require integration with the Sludge Treatment Project for completion.

100 K Phases and Scope

The remediation of the 100 K Area will be accomplished in 3 distinct phases. The work is being phased to safely and efficiently sequence the activities to insure that work crews are not impacting active operations that will be performed in the K Area throughout the on going sludge activities.

The waste sites and facilities that are included in each of the phases are specified in the RD/RA Work Plans.

Phase 1 will encompass facilities (approx. 21), waste sites (approx. 59), and hexavalent chromium response actions.

Phase 2 will encompass facilities (approx. 29), and waste sites (approx. 52) that are sequenced to safely follow phase 1, are not impacted by sludge activities, and are located around and south of the two reactors.

Phase 3 will encompass the remaining facilities (approx. 29) and waste sites (approx. 13) that will follow after the sludge is removed from the K West Basin. Milestones will be set for this work following the M-016-140 deliverable.

Modifications to existing Tri-Party Agreement milestones are denoted with ~~strikeout~~; new milestone/text are denoted with shading.

Milestone/Target	Description	Date
M-016-00A	<p>COMPLETE ALL INTERIM RESPONSE ACTIONS FOR THE 100 AREAS WITH THE EXCEPTION OF THE 100 K AREA, BY THE SPECIFIED DUE DATE AS APPROVED IN A REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN.</p> <p>COMPLETION OF INTERIM RESPONSE ACTIONS IS DEFINED AS THE COMPLETION OF THE INTERIM ROD OR ACTION MEMORANDUM REQUIREMENTS IN ACCORDANCE WITH AN APPROVED RD/RA WORK PLAN OR REMOVAL ACTION WORK PLAN AND OBTAIN EPA AND/OR ECOLOGY APPROVAL OF THE APPROPRIATE PROJECT CLOSEOUT DOCUMENTS.</p>	12/31/2012
M-016-00C	<p>COMPLETE ALL INTERIM RESPONSE ACTIONS FOR THE 100 K AREA.</p> <p>COMPLETION OF INTERIM RESPONSE ACTIONS IS DEFINED AS THE COMPLETION OF THE INTERIM ROD OR ACTION MEMORANDUM REQUIREMENTS IN ACCORDANCE WITH AN APPROVED RD/RA WORK PLAN OR REMOVAL ACTION WORK PLAN AND OBTAIN EPA APPROVAL OF THE APPROPRIATE PROJECT CLOSEOUT DOCUMENTS.</p>	TBD
M-016-53	<p>COMPLETE THE INTERIM RESPONSE ACTIONS FOR THE 100 K AREA WITHIN THE PERIMETER BOUNDARY AND TO THE RIVER FOR PHASE 1 ACTIONS.</p> <p>PHASE 1 IS DEFINED IN THE 100K AREA RD/RA WORK PLANS.</p>	12/31/2012
M-016-57	<p>INITIATE SOIL REMEDIATION AT K EAST BASIN. INITIATE FULL SCALE REMEDIAL ACTION OF THE 105-KE FUEL STORAGE BASIN SITE WITHIN ONE MONTH OF COMPLETING MILESTONE M-016-160 M-34-32.</p>	10/31/2009
M-016-58	<p>INITIATE SOIL REMEDIATION AT K WEST BASIN.</p>	04/30/2009

	INITIATE FULL SCALE REMEDIAL ACTION OF THE 105-KW FUEL STORAGE BASIN WASTE SITE WITHIN ONE MONTH OF COMPLETING MILESTONE M-34-00A.	
M-016-160	COMPLETE REMOVAL OF THE K EAST BASIN STRUCTURE.	09/30/2009
M-016-140	<p>SUBMIT REVISED RD/RA WORK PLANS FOR 100 K AREA RODS AS PRIMARY DOCUMENT(S) PER HFFACO 11.6 WITH NEW PROPOSED MILESTONES INCLUDING FOR THE FOLLOWING:</p> <ul style="list-style-type: none"> • COMPLETE REMOVAL OF THE K WEST BASIN • COMPLETE REMOVAL OF ALL SLUDGE (INCLUDES CONTAINER, SETTLER TANK SLUDGE) FROM K WEST BASIN EXCEPT KNOCK OUT POT CONTENTS. • COMPLETE REMOVAL OF KNOCK OUT POT CONTENTS • COMPLETE TREATMENT AND PACKAGING OF FIRST CONTAINER OF TRU SLUDGE WASTE CERTIFIABLE FOR DISPOSAL AT WIPP • COMPLETE TREATMENT AND PACKAGING OF SLUDGE FOR DISPOSAL AT WIPP • BEGIN 105-KW REACTOR INTERIM SAFE STORAGE • COMPLETE 105-KW REACTOR INTERIM SAFE STORAGE • INITIATE SOIL REMEDIATION UNDER K WEST BASIN • COMPLETE ALL INTERIM RESPONSE ACTIONS AT THE 100 K AREA 	3/31/2011
M-016-143	<p>COMPLETE THE INTERIM RESPONSE ACTIONS FOR THE 100 K AREA WITHIN THE PERIMETER BOUNDARY AND TO THE RIVER FOR PHASE 2 ACTIONS.</p> <p>PHASE 2 IS DEFINED IN THE 100 K AREA RD/RA WORK PLANS.</p>	12/31/2015
M-016-145	<p>COMPLETE THE INTERIM RESPONSE ACTIONS FOR 100 K AREA FACILITIES AND WASTE SITES NOT INCLUDED AS PHASE 1, PHASE 2, OR PHASE 3 WORK.</p> <p>THESE ARE THE FACILITIES AND WASTE SITES WHICH ARE OUTSIDE THE 100-K PERIMETER BOUNDARY. PHASE 1, PHASE 2, AND PHASE 3 FACILITIES AND WASTE SITES ARE DEFINED IN THE 100 K AREA RD/RA WORK PLANS.</p>	12/31/2012
M-016-150	DOE WILL SUBMIT A PROPOSED PLAN TO EPA AND ECOLOGY TO AMEND EXISTING 100 AREA INTERIM ACTION RODS FOR REMEDIATION OF HEXAVALENT	06/30/2009

	CHROMIUM IN THE VADOSE ZONE AND GROUNDWATER THE PROPOSED PLAN WILL INCLUDE BIOLOGICAL AND OR CHEMICAL IN-SITU REDUCTION AS AN ALTERNATIVE	
M-016-155	DOE WILL SUBMIT REVISED RD/RA WORK PLANS FOR 100 AREA INTERIM REMEDIAL ACTIONS IN ACCORDANCE WITH THE ROD RESULTING FROM MILESTONE M-016-150 IT IS ASSUMED THAT THE RECORD OF DECISION WILL BE SIGNED 6 MONTHS AFTER THE PROPOSED REMEDY IS SUBMITTED. A DAY-FOR-DAY SLIP IN THE RD/RAWP DUE DATE WILL BE GIVEN FOR EACH DAY THE REMEDY DECISION IS NOT ISSUED PAST THE 6 MONTH DATE	06/30/2010