

Change Number	Federal Facility Agreement and Consent Order			Date:
M-24-02-02	Change Control Form			August 20, 2003
Do not use blue ink. Type or print using black ink.				
Originator: Mike Thompson/Ellen Mattlin, RL		Phone: 373-0750/376-2385		
Class of Change:				
<input checked="" type="checkbox"/> I - Signatories		<input type="checkbox"/> II - Executive Manager		<input type="checkbox"/> III - Project Manager
Change Title:				
Overall Strategy and Approach for Groundwater Protection, Monitoring and Remediation under Tri-Party Agreement Milestone Series M-024				
Description/Justification of Change:				
<p>The existing Tri-Party Agreement Milestone Series M-024 addresses RCRA needs only and does not address an overall well integrated strategy and approach for groundwater protection, monitoring and remediation. The current M-024 milestone series commits DOE to drill up to 50 RCRA wells per year but does not address drilling of wells to determine the nature and extent of existing groundwater contamination; to conduct and assess the effectiveness of groundwater remediation; or, to provide subsurface access for geohydrologic characterization.</p> <p>The circumstances that drive the design of the groundwater-monitoring network have changed since the M-024 milestone was emplaced. At the milestone's inception the requirement was to bring the various treatment, storage and disposal (TSD's) units on the Hanford Site into compliance as quickly as possible. Identification of well locations at that time was a relatively straightforward exercise. In mid-1990, a declining water table necessitated the replacement of some wells, and changing groundwater flow paths and distinguishing contaminant sources at the SST's WMAs complicated the decision on the number and placement of monitoring wells. Groundwater-flow direction perturbation has also resulted from the pump and treat operations. As a result, the replacement and addition of a number of wells have been necessary.</p> <p>This milestone does not preclude or foreclose the imposition of additional groundwater well installations pursuant to RCRA and/or CERCLA permits or work plans.</p> <p>Approximately 300 RCRA monitoring wells have been drilled at Hanford since 1985 for the primary purpose of detecting contaminant migration from RCRA TSD units. However, there continues to be a need for additional RCRA monitoring wells. Declining water levels and changing groundwater flow directions in the 200 Area Plateau have left wells dry and require the replacement of existing detection RCRA monitoring wells to comply with regulatory requirements for compliant number and location of wells. In addition, most of the SST RCRA WMA's have gone into RCRA groundwater quality assessment under 40 CFR 265 Subpart F, requiring additional assessment wells.</p> <p>NOTE: Description/Justification of Change is continued on pages 2 - 4.</p>				
Impact of Change:				
RCRA, CERCLA and AEA requirements incorporated into an overall strategy for groundwater protection, monitoring and remediation. This change package modifies Tri-Party Agreement Major Milestone M-024-000, adds Tri-Party Agreement Interim Milestone M-024-57, and deletes Tri-Party Agreement Major Milestones M-024-00P and beyond.				
Affected Documents:				
The Tri-Party Agreement 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; Sitewide Systems Engineering Control Documents; Project Management Plans, and, if appropriate, LDR Report requirements).				
Approvals:				
_____	_____	_____ Approved	_____ Disapproved	
K. A. Klein, RL Manager	Date			
_____	_____	_____ Approved	_____ Disapproved	
R. J. Schepens, ORP Manager	Date			
_____	_____	_____ Approved	_____ Disapproved	
L. J. Iani, EPA Region 10 Administrator	Date			
_____	_____	_____ Approved	_____ Disapproved	
T. C. Fitzsimmons, Ecology Director	Date			

Description/Justification of Change (Continued):

Between 1989 and the mid-1990's, groundwater characterization activities occurred to determine the nature and extent of existing groundwater contamination to support the CERCLA and RCRA Past Practice Tri-Party Agreement commitments. Interim response actions were initiated for carbon tetrachloride, uranium and technetium-99 in 200-West Area; remedial actions were initiated in groundwater for various fission products in 200 East Area and subsequently terminated; and, remedial actions were initiated for chromium and strontium-90 in the 100 areas along the Columbia River. The CERCLA Five Year Record of Decision Review, performed in CY 2000 identified the need for more wells to track the existing groundwater contamination plumes and the need to upgrade the existing groundwater pump-and-treat systems, requiring more wells. In addition, wells have been installed to support the In Situ Redox Manipulation remediation of hexavalent chromium in the 100-D Area. Furthermore, additional characterization is required to characterize the vertical distribution of CCl4 in 200 West Area to design replacement(s) for interim pump and treat actions, and that may require additional wells.

Modifications/deletions to existing Tri-Party Agreement milestones are denoted using redline/strikeout; new milestones/text are denoted with shading. When approved, Tri-Party Agreement Major Milestones M-024-00P and beyond will be deleted. Tri-Party Agreement Interim Milestone M-024-57 will be modified annually.

Milestone Number	Milestone Title	Due Date
<p>M-024-00O Ecology Lead</p>	<p>Install RCRA Groundwater Monitoring Wells at the Rate of 29 in CY 1989, 30 in CY 1990, and up to 50 per year thereafter as specified by agreed Interim Milestones until all land disposal units and single shell tanks are determined to have RCRA compliant monitoring systems. USDOE will install groundwater monitoring wells around RCRA Land Disposal Units and the single shell tanks (SST) at the rate described above until Ecology agrees that all such groundwater monitoring systems meet the requirements of WAC 173-303-645. Installation of groundwater wells shall mean that wells have been drilled, adequately sealed, and screened over no more than 15 feet of the aquifer unless otherwise approved by Ecology, that all pumps and associated sampling equipment have been installed, and that such wells have been developed sufficiently to provide satisfactory samples for all parameters to be analyzed. Specific units to receive groundwater wells and the number of wells to be installed at each unit will be identified in Appendix D in two-year intervals (i.e., CY 1989 and CY 1990 now, CY 1990 and CY 1991 at the next annual update, etc.). Such schedules will be enforceable as interim milestones.</p> <p>Complete required well installations in accordance with the RCRA and CERCLA groundwater requirements. The M-024 milestone series will be closed when the parties agree that sufficient RCRA and CERCLA groundwater wells are in place and operating to comply with RCRA and CERCLA requirements for groundwater monitoring, groundwater protection, and groundwater remediation.</p>	<p>12/31/2003 TBD</p>

<p>M-024-57</p>	<p>Install a minimum of 60 wells (See attached well list). DOE will initiate discussions annually in June using the data quality objective process (DQO) to reaffirm the selected wells and recommend any new well installations needed to maintain a three-year rolling prioritized drilling schedule consistent with site-wide clean-up priorities. The Parties will conclude negotiations and revise M-024-57 by August 1 of each year to maintain a four year commitment for well installations.</p> <p>Since all wells are drilled in CERCLA or RCRA Past Practice operable units, the parties agreed that the most effective and efficient method of managing wastes from all Hanford well development drilling would be to dispose of the waste in the Hanford Environmental Restoration Disposal Facility (ERDF). This workscope would be conducted under the M-024 series milestones and will need to meet ERDF disposal requirements through the timely submittal of CERCLA sampling and analysis plans (or revisions to existing CERCLA sampling and analysis plans) for the appropriate operable unit, approved by the assigned lead regulatory agency.</p> <p>The integration and coordination of well drilling under the revised Tri-Party Agreement M-024 milestone series will assure CERCLA needs are incorporated into the overall drilling campaign. In addition, the parties reaffirmed their commitment to Section 5.5 of the Tri-Party Agreement Action Plan, the need to coordinate the application of regulatory requirements, and that past-practice authority may provide the most efficient means for addressing mixed-waste groundwater contamination plumes originating from a combination of TSD and past-practice units. In order to ensure that TSD units within the operable units are brought into compliance with RCRA and State hazardous waste regulations, Ecology intends, subject to part four of the Agreement, that all response or corrective actions, excluding situations where there is an imminent threat to the public health or environment as described in Section 7.2.3, will be conducted in a manner which ensures compliance with the technical requirements of the Hazardous Waste Management Act (HWMA) Chapter 70.105 RCW and implementing regulations. Notwithstanding this operating assumption, Ecology reserves the right to exercise its authority under the HWMA and the Hanford Sitewide RCRA Permit, Condition II.Y to require groundwater response actions consistent with WAC 173-303-645 and/or 173-303-646. The management of purgewater and investigation derived wastes from existing wells and wells under the revised M-024 Tri-Party Agreement milestones will be managed as CERCLA wastes in accordance with a CERCLA decision document or sampling and analysis plan, to be disposed at ERDF as long as the wastes meet ERDF disposal acceptance criteria. DOE shall install the following minimum number of wells in accordance with the priorities identified in the yearly DQO:</p> <ul style="list-style-type: none"> • a minimum of 15 wells by 12/31/2003 • a cumulative of 30 wells by 12/31/2004 • a cumulative of 45 wells by 12/31/2005; and, • a cumulative of 60 wells by 12/31/2006. (This milestone will continue on a yearly basis until such time that the Parties agree that sufficient RCRA and CERCLA groundwater wells are in place and operating to comply with RCRA and CERCLA requirements for groundwater monitoring, groundwater protection, and groundwater remediation.) <p>Each element of this milestone is considered a distinct work requirement independently subject to the enforcement provisions of the agreement.</p>	<p>Due Dates are as indicated in the descriptive text of this milestone</p>
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<p>M-024-00P and beyond</p>	<p>Install RCRA Groundwater Monitoring Wells at the Rate of 29 in CY 1989, 30 in CY 1990, and up to 50 per year thereafter as specified by agreed Interim Milestones until all land disposal units and single shell tanks are determined to have RCRA compliant monitoring systems. USDOE will install groundwater monitoring wells around RCRA Land Disposal Units and the single shell tanks (SST) at the rate described above until Ecology agrees that all such groundwater monitoring systems meet the requirements of WAC 173-303-645. Installation of groundwater wells shall mean that wells have been drilled, adequately sealed, and screened over no more than 15 feet of the aquifer unless otherwise approved by Ecology, that all pumps and associated sampling equipment have been installed, and that such wells have been developed sufficiently to provide satisfactory samples for all parameters to be analyzed. Specific units to receive groundwater wells and the number of wells to be installed at each unit will be identified in Appendix D in two year intervals (i.e., CY 1989 and CY 1990 now, CY 1990 and CY 1991 at the next annual update, etc.). Such schedules will be enforceable as interim milestones.</p>	<p>12/31/2004 and beyond</p>
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