



0065607

Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

05-AMCP-0279

JUN 10 2005

Mr. Nicholas Ceto, Program Manager
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Hanford Project Office
U.S. Environmental Protection Agency
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Department of Ecology
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Addressees:

AGREEMENT ON THE PRIORITY AND LOCATION OF THE CALENDAR YEAR (CY) 2005 THROUGH CY 2008 GROUNDWATER MONITORING WELLS REQUIRED BY THE HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER (TRI-PARTY AGREEMENT) INTERIM MILESTONE M-024-57

This letter serves as confirmation that the U.S. Department of Energy, Richland Operations Office (RL), the State of Washington Department of Ecology (Ecology) and the U.S. Environmental Protection Agency (EPA), hereinafter referred to as the Parties, have concluded negotiation on the priority and location for the groundwater monitoring wells to be installed in CY 2005 and current priorities have been established for wells planned from CY 2007 through CY 2008. A Tri-Party Agreement change request form is enclosed for your approval. The Parties developed an integrated well drilling list that coordinates and prioritizes groundwater monitoring across the requirements of the Resource Conservation and Recovery Act, the Comprehensive Environmental Response, Compensation and Liability Act and the Atomic Energy Act. The Project Managers initiated the data quality objective (DQO) process on February 16, 2005, approximately 18 months ahead of schedule.

RL recognizes that the Parties have come to agreement on these wells with the EPA/Ecology caveat that next year's negotiations are likely to identify additional wells to be drilled between CY 2006-2009 to (1) address the deep technetium plume at the T Tank Farm, (2) address the uranium plume(s) in the north portion of 200 East, (3) meet Tri-Party Agreement Milestone M-16C, (4) complete the 300-FF-05 focused feasibility study and proposed plan, (4) upgrade pump-and-treat systems to meet remedial action objectives defined in the records of decision, and (5) maintain compliant monitoring systems in response to aquifer elevation and

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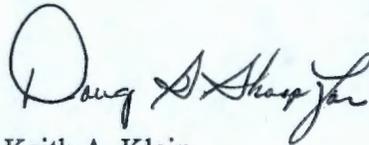
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flow-direction changes. These issues will be addressed in next year's negotiations in compliance with applicable Tri-Party Agreement provisions and Milestone M-024-57. In the interim, the Parties continue to focus the groundwater detection well network within the single-shell tank waste management areas and/or the wells required to upgrade existing pump-and-treat systems as the highest priority.

If you have any questions, please contact me, or your staff may contact Matt McCormick, Assistant Manager for the Central Plateau, on (509) 373-9971.

Sincerely,



Keith A. Klein
Manager

AMCP:KMT

Enclosures

cc w/encls:

D. Bartus, EPA
G. Bohnee, NPT
J. Borghese, FHI
L. D. Crass, FHI
L. J. Cusack, Ecology
D. Goswami, Ecology
S. Harris, CTUIR
J. E. Hedges, Ecology
J. S. Hertz, FHI
A. Huckaby, Ecology
R. Jim, YN
S. Luttrell, PNNL
T. Martin, HAB
E. J. Murphy-Fitch, FHI
K. Niles, ODOE
M. E. Todd-Robertson, FHI
R. T. Wilde, FHI
B. A. Williams, PNNL
Administrative Record (H6-08)
Environmental Portal

Groundwater Protection Monitoring and Remediation Well Installation CY 2005
(M-024-57)

Enclosure 1

Well #	OU/Other	Comments	Temporary Name	Program/Facility Name/ Locations	Justification/Purpose	Deep Borehole (1)	TPA CY05
C3426	Z9 DNAPL	299-W15-46	ZP-1	CERCLA/200-ZP-1 OU/Z-9 Crib	DNAPL investigation	X	X
C4667	RL - RCRA	299-W22-47	S-1	RCRA RL/WMA S-SX/southeast corner, south of 299-W22-46	Site in Assessment. Delineate existing plume(s)/complete assessment network	X	X
C4669	RL - RCRA	299-W11-25B	T-1	RCRA RL/WMA T/deep twin to 299-W11-39, northeast corner of WMA	Site in Assessment. Delineate existing plume(s)/deep characterization	X	X
C4668	RL - RCRA	299-W14-11	TX-1	RCRA RL/WMA TX-TY/deep twin to 299-W14-13, east of WMA perimeter	Site in Assessment. Delineate existing plume(s)/deep characterization	X	X
C4665	RCRA/ORP	299-E25-94	A-4	RCRA RL/WMA A-AX SST	Site in detection. Contaminant detection/complete downgradient POC coverage.		X
C4302	ZP-1 "E"	288-W15-50	ZP-5	CERCLA/200-ZP-1 OU	Install Well "E" identified on map in Appendix A, DOE/RL-2002-17, Rev. 0.	X	X
C4561	FH #1 KR-4	199-K-131	KR-3	CERCLA/100-KR-4 OU/River	Chromium extraction/performance monitoring		X
C4670	BHI KR-4	199-K-132		CERCLA/100-KR-4 OU/River	BHI well		X
C4647	IDF #1	299-E24-24	IDF-1	RCRA ORP/IDF/200 East Area	New RCRA facility. POC detection monitoring required		X
C4648	IDF #2	299-E17-26	IDF-2	RCRA ORP/IDF/200 East Area	New RCRA facility. POC detection monitoring required		X
C4474	HR-3 D monitoring/extraction well	199-D8-73	HR-4	CERCLA/100-HR-3 OU/River	Chromium extraction well/performance monitoring		X
C4536	HR-3 D monitoring well	199-D8-88	HR-5	CERCLA/100-HR-3 OU/River	Chromium monitoring well		X
C4583	HR-3 D monitoring well	199-D5-92	HR-6	CERCLA/100-HR-3 OU/River	Chromium monitoring well		X
C4300	UP-1 "K"	299-W19-48	UP-1	CERCLA/200-UP-1 OU/ south of U-17 Crib (K)	Install Well "K" identified on map in Appendix A, DOE/RL-2002-17, Rev. 0.	X	X2
C4301	ZP-1 "C"	299-W15-49	ZP-3	CERCLA/200-ZP-1 OU	Install Well "C" identified on map in Appendix A, DOE/RL-2002-17, Rev. 0.	X	X2

1) Deep wells are to be drilled a minimum of 120 ft below the water table, and possibly deep, to the base of the unconfined aquifer (e.g. this is the Ringold Lower Mud Unit in 200 West Area), as specified in project specific RCRA sampling and analysis plans and CERCLA characterization plans.

2) Wells C4300 and C4301 were changed to CY05 wells and wells C4639 and C4303 were changed to CY04 wells per Change Control Form CH 139 signed by the Tri-Parties on December 8, 2004

Completed as of May 6, 2005

**Proposed Integrated Well Drilling List
CY 2006 through CY 2008
(M-024-57 Milestone)**

TPA ID	Well #	OU/Other	Comments	Temporary Name	Program/Facility Name/ Locations	Justification/Purpose	Deep Bore-hole 2	TPA Proposed CY05	TPA Proposed CY06	TPA Proposed CY07/CY08
19	C3426	Z9 DNAPL	299-W15-46	ZP-1	CERCLA/200-ZP-1 OU/Z-9 Crib	DNAPL investigation	X	X		
20	C4667	RL - RCRA	299-W22-47	S-1	RCRA RL/WMA S-SX/southeast corner, south of 299-W22-46	Site in Assessment. Delineate existing plume(s)/complete assessment network	X	X		
21	C4669	RL - RCRA	299-W11-25B	T-1	RCRA RL/WMA T/deep twin to 299-W11-39, northeast corner of WMA	Site in Assessment. Delineate existing plume(s)/deep characterization	X	X		
22	C4668	RL - RCRA	299-W14-11	TX-1	RCRA RL/WMA TX-TY/deep twin to 299-W14-13, east of WMA perimeter	Site in Assessment. Delineate existing plume(s)/deep characterization	X	X		
28	C4665	RCRA/ORP	299-E25-94	A-4	RCRA RL/WMA A-AX SST	Site in detection. Contaminant detection/complete downgradient POC coverage.		X		
36	C4302	ZP-1 "E"	288-W15-50	ZP-5	CERCLA/200-ZP-1 OU	Install Well "E" identified on map in Appendix A, DOE/RL-2002-17, Rev. 0.	X	X		
38	C4561	FH #1 KR-4	199-K-131	KR-3	CERCLA/100-KR-4 OU/River	Chromium extraction/performance monitoring		X		
39	C4670	BHI KR-4	199-K-132		CERCLA/100-KR-4 OU/River	BHI well		X		
40	C4647	IDF #1	299-E24-24	IDF-1	RCRA ORP/IDF/200 East Area	New RCRA facility. POC detection monitoring required		X		
41	C4648	IDF #2	299-E17-26	IDF-2	RCRA ORP/IDF/200 East Area	New RCRA facility. POC detection monitoring required		X		
65	C4474	HR-3 D monitoring/extraction well	199-D8-73	HR-4	CERCLA/100-HR-3 OU/River	Chromium extraction well/performance monitoring		X		
66	C4536	HR-3 D monitoring well	199-D8-88	HR-5	CERCLA/100-HR-3 OU/River	Chromium monitoring well		X		
67	C4583	HR-3 D monitoring well	199-D5-92	HR-6	CERCLA/100-HR-3 OU/River	Chromium monitoring well		X		
18	C4300	UP-1 "K"	299-W19-48	UP-1	CERCLA/200-UP-1 OU/ south of U-17 Crib (K)	Install Well "K" identified on map in Appendix A, DOE/RL-2002-17, Rev. 0.	X	X3		
31	C4301	ZP-1 "C"	299-W15-49	ZP-3	CERCLA/200-ZP-1 OU	Install Well "C" identified on map in Appendix A, DOE/RL-2002-17, Rev. 0.	X	X3		
45	C4685	LLBG	299-W15-152	LLBG-1	RCRA/LLWMA 4, perimeter well approximately 300' south of well 299-W15-16	RCRA IS/FS detection at point of compliance	X		X	
46	C4683	LLBG	299-W15-83	LLBG-2	RCRA/LLWMA 4, perimeter well approximately 450' from NE corner and north of well 299-W15-16	RCRA IS/FS detection at point of compliance			X	
47	C4684	LLBG	299-W15-94	LLBG-3	RCRA/LLWMA 4, Replacement or deepening of dry well 299-W15-18	RCRA IS/FS detection at point of compliance/ replacement well for dry well			X	
50		LLBG		LLBG 20	RCRA/LLWMA 3, downgradient well ~200m NNE of well 299-10-13	RCRA detection monitoring downgradient			X	
51		LLBG		LLBG-7	RCRA/LLWMA 3, perimeter well approximately 300' north of well 299-W10-20	RCRA IS/FS detection at point of compliance			X	

**Proposed Integrated Well Drilling List
CY 2006 through CY 2008
(M-024-57 Milestone)**

TPA ID	Well #	OU/Other	Comments	Temporary Name	Program/Facility Name/ Locations	Justification/Purpose	Deep Bore-hole 2	TPA Proposed CY05	TPA Proposed CY06	TPA Proposed CY07/CY08
52		LLBG		LLBG 21	RCRA/LLWMA 3, downgradient well ~100m NNE of well 299-10-13	RCRA detection monitoring downgradient			X	
53		LLBG		LLBG 4	RCRA/LLWMA 4, perimeter well approximately 150' from NE corner and north of well 299-	RCRA IS/FS detection at point of compliance			X	
54		BP-5	BW BP-5	BP-1	CERCLA/ BP-5 OU/Gable Gap	Defined in 200-BP-5 SAP (DOE/RL-2001-49) (EPA 1 in 2/22/05 mtg)	X		X	
56		RCRA	BW T-2	T-2	RCRA RL/WMA T/East far-field, at postulated leading edge of Tc-99 plume	Site in Assessment. Downgradient plume characterization per DQO HNF 12236, Assist in determination of Tc-99 distribution to Basalt	X		X	
57	C4694	UP/ZP well	299-W11-43	ZP-# UP-#	CERCLA/200-ZP-1 or 200-UP-1/ location TBD	Well to be identified in DOE/RL-2002-17?	X		X	
58	C4695	UP/ZP well	299-W19-49	ZP-# UP-#	CERCLA/200-ZP-1 or 200-UP-1/ location TBD	Well to be identified in DOE/RL-2002-17?	X		X	
59	C4696	UP/ZP well	299-W19-50	ZP-# UP-#	CERCLA/200-ZP-1 or 200-UP-1/ location TBD	Well to be identified in DOE/RL-2002-17?	X		X	
60	C4697	1 UP/ZP wells	699-50-74	UP-#/ZP-#	CERCLA /200-UP/ZP OU		X		X	
74		BP-5		BP-2	CERCLA/ BP-5 OU well centered between B-BX-BY and the BY cribs	To be defined in 200-BP-5 SAP (DOE/RL-2001-49) EPA #2 in 2/22/05 mtg	X		X	
75		T-ZP-1		TBD	near the SE Corner of T Tank Farm near Well W-11-41(contingency location) actual location to be defined by SGE	Assist in the determination of Tc-99 distribution to Basalt	X		X	
43	C4732	PO-1	299-E13-22	PO-1	CERCLA/ 200-PO-1 OU/ BC-Cribs monitoring wells	Defined in 200-PO-1 SAP (DOE/RL-2003-04)	X			X
44	C4733	PO-1	299-E13-23	PO-2	CERCLA/ 200-PO-1 OU/ BC-Cribs monitoring wells	Defined in 200-PO-1 SAP (DOE/RL-2003-04)				X
48	-	LLBG		LLBG 18	RCRA/LLWMA 3, upgradient well ~135 m SE of 299-W9-1	RCRA detection monitoring upgradient				X
49		LLBG		LLBG 19	RCRA/LLWMA 3, upgradient well ~280 m N of 299-W9-1	RCRA detection monitoring upgradient				X
55				A-5	RCRA ORP/WMA A-AX SST/south-east of WMA perimeter	Site in detection. Contaminant detection/complete downgradient POC coverage.				X
61		LLBG		LLBG-6	RCRA/LLWMA 4, replacement or deepening of dry well 299-W18-24	RCRA IS/FS detection at point of compliance/ replacement well for dry well				X
62		LLBG		LLBG-8	RCRA/LLWMA 3, perimeter well near well 299-W10-19	RCRA IS/FS detection at point of compliance/ near a dry well				X
63		LLBG		LLBG-9	RCRA/LLWMA 3, perimeter well approximately 300 ft NE of well 299-W10-19	RCRA IS/FS detection at point of compliance				X
64		LLBG		LLBG-10	RCRA/LLWMA 3, replacement or deepening of dry well 299-W7-10	RCRA IS/FS detection at point of compliance/ replacement well for dry well				X

Change Number	Federal Facility Agreement and Consent Order		Date:	
M-24-05-01	Change Control Form		May 27, 2005	
Do not use blue ink. Type or print using black ink.				
Originator: Mike Thompson/Dale Jackson		Phone: 373-0750/376-8086		
Class of Change:				
<input type="checkbox"/> I - Signatories		<input checked="" type="checkbox"/> II - Executive Manager		<input type="checkbox"/> III - Project Manager
Change Title:				
Groundwater Protection, Monitoring and Remediation Well Installation Priority List for CY 2005 – CY 2008 and Modify Tri-Party Agreement Interim Milestone M-024-57				
<p>The M-024 milestone was one of the original Tri-Party Agreement milestones which defined the yearly drilling schedule for groundwater monitoring wells to obtain a compliant monitoring system as mandated by the Resource Conservation and Recover Act (RCRA), the Washington State Hazardous Waste Management Act (HWMA), and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). 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>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.</p> <p>This Tri-Party Agreement Change Request formalizes the Parties efforts to have a better integrated, more effective, and more cost efficient way for well installation to meet cleanup and regulatory objectives for Hanford groundwater protection activities. As agreed to during the CY 2003 groundwater negotiations, a data quality objective process was used by the project managers to reaffirm the wells to be drilled and recommend any new wells to maintain a four-year commitment (execution year and three outyears) for well installations.</p>				
Description/Justification Continued on Pages 2 – 3				
Impact of Change:				
RCRA, CERCLA and AEA requirements incorporated into an overall strategy for groundwater protection, monitoring and remediation. This change package modifies the priority list for well installation for FY 2005 through FY 2008 and Tri-Party Agreement Interim Milestone M-024-57.				
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:				
 M. S. McCormick, RL IAMIT Representative		6/7/05 Date	<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Disapproved
J. E. Rasmussen, ORP IAMIT Representative <i>N/A</i>		Date	<input type="checkbox"/> Approved	<input type="checkbox"/> Disapproved
N. Ceto, EPA IAMIT Representative		Date	<input type="checkbox"/> Approved	<input type="checkbox"/> Disapproved
M. A. Wilson, Ecology IAMIT Representative		Date	<input type="checkbox"/> Approved	<input type="checkbox"/> Disapproved

Description/Justification of Change (Continued):

Modifications/deletions to existing Tri-Party Agreement milestones are denoted using ~~redline/strikeout~~; new milestones/text are denoted with shading. Tri-Party Agreement Interim Milestone M-024-57 will be modified annually.

<p>M-024-57 (Ecology Lead)</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. The list for CY 2005 is included as Attachment 1 to this TPA change package. Attachment 2 to this TPA change package contains the list of wells to be installed CY 2006 – CY 2008.</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</p>	<p>Due Dates are as indicated in the descriptive text of this milestone</p>
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<p>M-024-57 (Continued)</p>	<p>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• a cumulative of 75 wells by 12/31/2007 and,• a cumulative of 90 wells by 12/31/2008 <p>Modification to the priority list will be approved at the Project Manager's level. (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> <p>Each element of this milestone is considered a distinct work requirement independently subject to the enforcement provisions of the agreement.</p>	
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