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Department of Energy

Richland Field Office

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AUG 02 1993

93-ERB-199

Mr. Douglas R. Sherwood
Acting Hanford Project Manager
U.S. Environmental Protection Agency
712 Swift Boulevard, Suite 5
Richland, Washington 99352

Mr. Roger F. Stanley, Director
Tri-Party Agreement Implementation
State of Washington
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600



Dear Messrs. Sherwood and Stanley:

DRAFT HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER (TRI-PARTY AGREEMENT) CHANGE CONTROL FORM C-93-06 REDEFINITION OF THE 200-BP-5 AND 200-PO-1 GROUNDWATER OPERABLE UNIT (OU) AND REASSIGNMENT OF ASSOCIATED GROUNDWATER INVESTIGATIONS, WASTE MANAGEMENT UNITS (WMUs), AND UNPLANNED RELEASES (URs)

Attached for your review is the subject draft Class II Change Control Form. This Change Control Form was prepared as a follow-up to the May 17, 1993, meeting, which was held to discuss alternative ways to meet the Tri-Party Agreement Interim Milestone M-13-06 of submitting the 200-BP-5 OU Work Plan. At the meeting, the U.S. Environmental Protection Agency (EPA) and the State of Washington Department of Ecology (Ecology) proposed that the 200-BP-5 OU be changed to a Groundwater only OU. This OU would include groundwater investigations associated with the entirety of the 200-BP-1, 200-BP-3, 200-BP-4, 200-BP-6, 200-BP-7, 200-BP-8, 200-BP-9, 200-BP-10, 200-BP-11 (north part), 200-NO-1, 200-PO-2 (north part), 200-PO-3 (north part), 200-PO-5, 200-SO-1, and 200-IU-6 OUs. WMUs and URs in the 200-BP-5 OU would be reassigned to the 200-BP-6 OU or any other appropriate source OU in the 200-BP aggregate areas. During the meeting, the U.S. Department of Energy, Richland Operations Office (RL) agreed to evaluate the proposal and provide its response at a later date. This letter informs EPA and Ecology of RL's decision to accept the proposal. All WMUs and URs in the 200-BP-5 OU will be reassigned to the 200-BP-6 OU, due to the similarity in age and nature of operations of most soil column disposal facilities in both OUs. Likewise, RL would like to request your approval to redefine the southern portion of the 200 East Area groundwater as the 200-PO-1 OU which will include the groundwater investigations associated with the entirety of the 200-BP-2, 200-BP-11 (south part), 200-PO-2 (south part), 200-PO-3 (south part), 200-PO-4, 200-PO-5 (south part), and 200-SS-1 OUs. Consequently, all WMUs and URs in the 200-PO-1 OU will be reassigned to the 200-PO-2 OU, due to the similarity in age and nature of operations of most soil column waste disposal facilities in both OUs. The 200-PO-1 OU will be redesignated as a groundwater only OU from a combination source and groundwater OU.

Messrs. Hofer and Stanley
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RL believes that implementation of this change will allow groundwater remediation to proceed more efficiently. If you have any questions regarding this change, please contact Mr. P. M. Pak on (509) 376-4798.

Sincerely,


Steven H. Wisness
Hanford Project Manager

ERD:PMP

Attachment

cc w/attach:

~~B. A. Austin, WHC~~
P. R. Beaver, EPA
C. S. Cline, Ecology
M. K. Harmon, EM-442
D. R. Sherwood, EPA
D. D. Teel, Ecology
EDMC, H6-08

cc w/o attach:

R. A. Carlson, WHC
H. D. Downey, WHC
R. E. Lerch, WHC
J. L. Monhart, EM-442
R. D. Wojtasek, WHC

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Change Number C-93-06	Federal Facility Agreement and Consent Order Change Control Form <small>Do not use blue ink. Type or print using black ink.</small>	Date June, 1993		
<table style="width: 100%;"><tr><td style="width: 70%;">Originator P. M. Pak</td><td style="width: 30%; text-align: right;">Phone 376-4798</td></tr></table>			Originator P. M. Pak	Phone 376-4798
Originator P. M. Pak	Phone 376-4798			
Class of Change <input type="checkbox"/> I - Signatories <input checked="" type="checkbox"/> II - Project Manager <input type="checkbox"/> III - Unit Manager				
Change Title REDESIGNATION OF THE 200-BP-5 AND 200-PO-1 GROUNDWATER OPERABLE UNITS AND REASSIGNMENT OF ASSOCIATED GROUNDWATER INVESTIGATIONS, WASTE MANAGEMENT UNITS, AND UNPLANNED RELEASES				
Description/Justification of Change <p>The Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Change Request Package M-12-90-4 provides for assessment on an aggregate area basis and recognizes the need for redefining operable unit (OU) boundaries. As a result, 10 Aggregate Area Management Study Reports (AAMSR) were prepared, including those for the B Plant, PUREX, Semi-Works, and 200 North source units and 200 East Groundwater units. In order to implement recommendations from the AAMSR, it is necessary to redefine 200-BP-5 AND 200-PO-1 OUs from combination source and groundwater Operable Units (OU) to groundwater-only OUs. Submittal of a work plan for 200-BP-5 as a groundwater only OU would fulfill Tri-Party Agreement M-13-06 interim milestone "Submit 200-BP-5 Operable Unit Work Plan to U.S. Environmental Protection Agency (EPA) and the State of Washington Department of Ecology (Ecology) by December 31, 1993." Submittal of a work plan for 200-PO-1 as a groundwater-only unit has not yet been scheduled in the decision-making process.</p> <p>The AAMSRs support the <u>Hanford Site Past-Practice Strategy</u> (DOE/RL-91-04, March, 1992) decision-making process.</p> <p style="text-align: center;">Continued on Page 2</p>				
Impact of Change This change will allow groundwater cleanup to proceed more efficiently.				
Affected Documents: Hanford Federal Facility Agreement and Consent Order Action Plan, Appendix C (Prioritized Listing of Operable Units).				
Approvals ___ Approved ___ Disapproved				
DOE _____	Date _____			
EPA _____	Date _____			
Ecology _____	Date _____			

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Description/Justification of Change (Continued)

By this process, each waste management unit (WMU), unplanned release or contaminant of concern was assessed to determine the most expeditious path for remediation within the statutory requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and Resource Conservation Recovery Act (RCRA). A review of relevant data for the WMUs and unplanned releases have been summarized in Revision 0 of the PUREX, B Plant, Semi-Works and 200 North AAMSRs transmitted to EPA and Ecology between March and June, 1993. Likewise, the relevant data for the groundwater contaminants of concern has been summarized in the 200 East Groundwater AAMSR, Revision 0, and was transmitted to EPA and Ecology in May, 1993.

200 East Source and 200 East Groundwater AAMSRs Conclusions

Redesignation of the 200-PO-1 OU, originally defined as a combination source and groundwater OU, to a groundwater only OU is proposed in this Tri-Party Agreement Change Request, C-93-06. Likewise, redesignation of the 200-BP-5 OU, originally defined as a source and groundwater only OU, a groundwater only OU is also proposed in this Tri-Party Agreement change request. These proposals are based on data evaluations in the B Plant and PUREX AAMSRs, in which it was recommended that the groundwater components of the B Plant and PUREX OUs be separated from the source OUs and combined into a 200 East Groundwater Aggregate Area. The 200 East Groundwater AAMSR further refined this idea by recommending that two OUs, GW-OU-03 and GW-OU-04, be defined for southern and northern groundwater OUs in the 200 East Area, based on the presence of two hydrologic flow systems originating along an east-west groundwater divide in the center of 200 East Area. Per this change request, the 200-PO-1 and 200-BP-5 operable units are the redesignations for the GW-OU-03 and GW-OU-04, respectively.

The strategy for separating the source and groundwater OUs was based on two factors:

- 1) the definition of plume geometries is based on hydrogeologic regimes and not geographic boundaries, and
- 2) the remedial actions are tied directly to specific contaminant plumes.

Redefinition of groundwater OUs in the 200 East Area was suggested based on the data evaluation in the 200 East Groundwater AAMSR. To maximize the efficiency of the investigation of groundwater flow and contamination, it was recommended that two separate groundwater OUs be defined for the 200 East Area and vicinity on the basis of flow patterns and plume distribution. The southern groundwater OU was identified primarily to address the plumes (See attached figure) associated with the PUREX Plant, such as arsenic, nitrate, Sr-90, and tritium plumes originating in that area. The northern groundwater OU includes Sr-90 Expedited Response Action Plume, the Pu-239/240 and Cs-137 Interim Remedial Measure (IRM) plumes, the Tc-99, Co-60, U-234/238, cyanide and nitrate IRM plumes associated with the B Plant/Semi-Works/200 North Source Aggregate Areas.

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The two groundwater OUs would be divided on the basis of the hydrologic flow system present under the 200 East Area. Both emanate from an east-west line connecting the center of the groundwater mound found beneath the B-Pond system and across a groundwater piezometric plateau extending west-southwest toward the B Plant and south of the B Plant. Groundwater flow from the northern half of the divide flows generally to the north toward Gable Gap or northeast toward the Columbia River. Groundwater from the southern half flows in a southeasterly direction toward the Columbia River. The distributions of the contaminant plumes in the 200-East Groundwater Aggregate Area reflect these flow conditions. Contaminant plumes within the two regimes generally do not mix and are therefore the basis for the two groundwater OUs. The divide lies such that it runs roughly along the northern boundary of the 200-SS-1, then trends to the east-northeast across the 200-PO-2, 200-PO-3, and 200-PO-5 OUs and to the center of the B-Pond system in the 200-BP-11 OU.

Because of the interrelations of the contaminant plumes in the 200 East Area, it is considered best to have a relatively small number of groundwater OUs. It is also important, however, to keep the size and complexity of groundwater OUs small enough so that each can handle all groundwater issues in that portion of the 200 East Area. It is believed that these considerations can best be addressed by redefining OUs to create two groundwater OUs.

Approval of this Tri-Party Agreement change request will redefine the northern groundwater OU as the 200-BP-5 OU which will include the groundwater investigations associated with the entirety of the 200-BP-1, 200-BP-3, 200-BP-4, 200-BP-6, 200-BP-7, 200-BP-8, 200-BP-9, 200-BP-10, 200-BP-11 (north part), 200-NO-1, 200-PO-2 (north part), 200-PO-3 (north part), 200-PO-5 (north part), 200-SO-1, and 200-IU-6 OUs.

Likewise, this change request will redefine the southern groundwater OU as the 200-PO-1 OU which will include the groundwater investigations associated with the entirety of the 200-BP-2, 200-BP-11 (south part), and 200-PO-2 (south part), 200-PO-3 (south part) 200-PO-4, 200-PO-5, and 200-SS-1 OUs.

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Tri-Party Agreement Changes Resulting From 200-BP-5 Redesignation

Specific changes to the Tri-Party Agreement are as follows:

1. Appendix C. Pages C-10 & 13 Remove the following WMUs and unplanned releases from the 200-PO-1 OU and add them to the 200-PO-2 OU. The 200-PO-2 OU has been selected to receive the 200-PO-1 WMUs due to the similarity in age and nature of operations of most soil column waste disposal facilities in both OUs. Additionally, the 200-PO-1 OU shares boundaries most closely with the 200-PO-2 OU.

* 216-A-11	French Drain	* UN-200-E-10	Unplanned Release
* 216-A-12	French Drain	* UN-200-E-11	Unplanned Release
* 216-A-13	French Drain	* UN-200-E-12	Unplanned Release
* 216-A-14	French Drain	* UN-200-E-15	Unplanned Release
* 216-A-22	French Drain	* UN-200-E-19	Unplanned Release
* 216-A-26	French Drain	* UN-200-E-20	Unplanned Release
* 216-A-26A	French Drain	* UN-200-E-26	Unplanned Release
* 216-A-28	French Drain	* UN-200-E-28	Unplanned Release
* 216-A-3	Crib	* UN-200-E-31	Unplanned Release
* 216-A-32	Crib	* UN-200-E-33	Unplanned Release
* 216-A-33	French Drain	* UN-200-E-35	Unplanned Release
* 216-A-35	French Drain	* UN-200-E-42	Unplanned Release
* 216-A-40	Trench	* UN-200-E-49	Unplanned Release
* 216-A-41	Crib	* UN-200-E-58	Unplanned Release
* 216-A-9	Crib	* UN-200-E-60	Unplanned Release
* 218-E-1	Burial Ground	* UN-200-E-65	Unplanned Release
* 218-E-13	Burial Ground	* UN-200-E-88	Unplanned Release
* 241-A-151	Diversion Box	* UN-200-E-96	Unplanned Release
* 241-A-302A	Catch Tank	* UN-200-E-114	Unplanned Release
* 2607-E6	Septic Tank	* UN-200-E-142	Unplanned Release
* 2607-EA	Septic Tank		

Note that the lead agency for these units will be Ecology and they will be designated as RPP units.

2. Appendix C. Page C-8 & 20. Remove the following WMUs and unplanned releases from the 200-BP-5 OU and add them to the 200-BP-6 OU. The 200-BP-6 OU has been selected to receive the 200-BP-5 WMUs due to the similarity in age and nature of operations of most soil column waste disposal facilities in both OUs. Both units also share common boundaries.

- * 216-B-5 Reverse Well,
- * 216-B-56 Crib,
- * 216-B-59 Trench,
- * 216-B-59B Retention Basin,
- * 216-B-9 Crib,
- * 241-B-154 Diversion Box
- * 241-B-302-B Catch Tank
- * 241-B-361 Settling Tank
- * UN-200-E-7 Unplanned Release
- * UN-200-E-45 Unplanned Release

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Note that the lead regulatory agency for these units will be EPA and that all units within 200-BP-6, including the above, are categorized as CERCLA Past Practice (CPP), with the exception of 3 diversion boxes which are Treatment, Storage and Disposal units within S-2-4.

3. Appendix C. Page C-13. Delete all source units and add the following under 200-PO-1 so as to read:

<u>Operable Unit</u>	<u>Title of Units</u>	<u>Unit Type</u>	<u>Unit Category</u>
200-PO-1 (GW OU)	200-BP-2	Source OU	CPP
	200-BP-11 (south part)	Source OU	CPP
	200-PO-2 (south part)	Source OU	CPP
	200-PO-3 (south part)	Source OU	CPP
	200-PO-4	Source OU	CPP
	200-PO-5 (south part)	Source OU	CPP
	200-SS-1	Source OU	CPP

Note that the Lead Regulatory Agency for the redesignated 200-PO-1 groundwater OU will be Ecology and that groundwater will be addressed as a CPP unit.

4. Appendix C. Page C-8. Delete all source units and add the following under 200-BP-5 so as to read:

<u>Operable Unit</u>	<u>Title of Units</u>	<u>Unit Type</u>	<u>Unit Category</u>
200-BP-5 (GW OU)	200-BP-1	Source OU	CPP
	200-BP-3	Source OU	CPP
	200-BP-4	Source OU	CPP
	200-BP-6	Source OU	CPP
	200-BP-7	Source OU	CPP
	200-BP-8	Source OU	CPP
	200-BP-9	Source OU	CPP
	200-BP-10	Source OU	CPP
	200-BP-11 (north part)	Source OU	CPP
	200-NO-1	Source OU	CPP
	200-PO-2 (north part)	Source OU	CPP
	200-PO-3 (north part)	Source OU	CPP
	200-PO-5 (north part)	Source OU	CPP
	200-SO-1	Source OU	CPP
200-IU-6	Source OU	CPP	

Note that the Lead Regulatory Agency for the redesignated 200-BP-5 groundwater OU will be EPA and that groundwater will be addressed as a CERCLA CPP Unit.

5. Appendix C. Various Pages. Redefine the title of units 200-BP-1, 200-BP-2, 200-BP-3, 200-BP-4, 200-BP-11, 200-NO-1, 200-PO-2, 200-PO-4, 200-PO-5, 200-SO-1, 200-IU-6 with designation that these are source only OUs.

CORRESPONDENCE DISTRIBUTION COVERSHEET

Author	Addressee	Correspondence No.
S. H. Wisness, RL (D. B. Erb, WHC)	D. R. Sherwood, EPA R. F. Stanley, Ecology	Incoming: 9306604 Xref:9354888D

Subject: HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER (TRI-PARTY AGREEMENT) CHANGE CONTROL FORM C-93-06 REDESIGNATION OF THE 200-BP-5 AND 200-PO-1 GROUNDWATER OPERABLE UNITS (OU) AND REASSIGNMENT OF ASSOCIATED GROUNDWATER INVESTIGATIONS, WASTE MANAGEMENT UNITS (WMUs), AND UNPLANNED RELEASES (URs)

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Attachments are the same as outgoing letter #9354888D, tmp 6-5813.