

**Meeting Minutes Transmittal/Approval
Unit Managers' Meeting
200 Area Groundwater and Source Operable Units
1200 Jadwin Avenue, Richland, Washington
August 18, 2005**

APPROVAL: *Larry Rcmine* Date: 9-15-05
Larry Rcmine, 200 Area Unit Manager, DOE/RL

APPROVAL: *Arlene C. Tortoso* Date: 9/15/05
Arlene Tortoso, 200 Area Assistant Manager, DOE/RL

APPROVAL: *Craig Cameron* Date: 9/15/05
Craig Cameron, 200 Area Unit Manager, EPA

APPROVAL: *John B. Price* Date: 9/15/05
John Price, 200 Area Unit Manager, Ecology

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Meeting Minutes are attached. Minutes are comprised of the following:

Attachment 1	Attendance Record
Attachment 2	Agenda
Attachment 3	Groundwater Operable Units Status
Attachment 4	Groundwater Operable Units Status Figures
Attachment 5	Source Operable Units and Facilities Status
Attachment 6	Source Operable Units and Facilities Status Figures
Attachment 7	Agreements and Issue Resolution Meeting
Attachment 8	Agreements and Issue Resolution Figures
Attachment 9	Action Item List

200 Area Unit Managers Status Meeting
August 18, 2005

Please print clearly and use black ink

PRINTED NAME	ORGANIZATION	O.U. ROLE	TELEPHONE
Lansing Dusek	FH	DTD	438-1756
John Price	Ecology	TPA Proj. Mgr	372-7921
Stuart Luttrell	PNNL	GW Mon.	376-6023
Bruce Ford	FH	GRP	373-3809
John Morso	DOO-RC		376-0057
Craig Carneon	EPA		376-8665
DENNIS Falk	CRSD		
Rod Lobos	EPA		
Jenne Skuss	Ecology		372-7956
Linda Winterholder	FH		372-8144
Mark Byrnes	FH	Task Lead UP-1/EP-1	373-3996
Mary Todd Robertson	FH	200 Area Waste Site Remediation	373-3920
Arlene Tortosa	DOE	200 Area Unit	373-9631
FRED A RUCK III	FH	EP	376-9876
Larry Rouine	RL	CP 200A	376-4747
Ray Foy	DOE	CP 200A	376-7087
John Danni	ECY		372-7930
Ed Mungold	RH PAI	TPAI	376-8868
FM Ruddy	DOE		
Kevin Leary	DOE		

200 AREA UNIT MANAGERS' MEETING AGENDA

1200 Jadwin/Rm 1-C1

August 18, 2005

GROUNDWATER OPERABLE UNITS STATUS (8:30-9:15)

SOURCE OPERABLE UNITS AND FACILITIES STATUS (9:15-9:45)

WELL DECOMMISSIONING (John Winterhalder)

ISSUE RESOLUTION MEETING (10:00-11:30)

- (See Issues List)

General

- Outstanding Action Items
- Open for Regulatory Topics or Action Items
- Risk Assessment Configuration Management Board Update

200 AREA UNIT MANAGERS' MEETING GROUNDWATER OPERABLE UNITS STATUS

1200 Jadwin/Rm 1-C1

August 18, 2005

GROUNDWATER OPERABLE UNITS STATUS

200-UP-1 OU

- Update on Rebound Study:
 - Study started January 26.
- Remediation Treatment Status:
 - The first eight rounds of groundwater sampling were successfully implemented February 2, 9, 23, March 30, April 27, May 25, June 29 and July 27. (Attachment 4, Figures 1 and 2).
- RI/FS Work Plan has been completed and is in the DOE concurrence system awaiting management approval for transmittal to Ecology.
- RI Report will begin October 1, 2005.
- Dropping water levels are impacting our groundwater monitoring well network.
- John Price asked that FH provide Tina Masterson-Heggen a copy of the 200-UP-1 RI/FS Work Plan.

200-ZP-1 OU

- Remediation Treatment Status:
 - Average Pumping Rate for October 1 through August 14, 2005: 189 gpm (Attachment 4, Figure 3)
 - Eight of nine extraction wells are currently on line. We are currently pumping at ~275 gpm. The ninth well will be back on line next week when transducer is replaced.
- Update on Contained-In Determination:
 - John Winterhalder provided status.
- Investigation Status:
 - Vista Engineering's DNAPL investigation is close to on schedule. Sonic push work is complete. Tomorrow is last day of CPT work. Soil-gas is just about done (still need to get in to TX Tank Farm). Geophysical surveys and cross-well surveys are done. Deviation surveys are ongoing. Still need to install instrumentation and sampling points within the Z-9 Trench.

- New Well Status
 - All new wells proposed in the RI/FS Work Plan have been installed at this time.
 - Dropping water levels are impacting our groundwater monitoring well network.
 - Six additional deep monitoring wells are being budgeted into the 200 Area Baseline Change Request to bound the deep CCL4 contamination detected in the vicinity of the Old Laundry Facility and T Plant.
 - Dennis Faulk (EPA) requested that all six of these additional deep wells be completed so that they can be converted to extraction wells if needed.
- RI/FS Status:
 - RI Report preparation is scheduled to begin October 1, 2005
 - Dennis Faulk (EPA) noted that he did have a chance to review the risk modeling report that Marcel Bergeron provided in our August 3, 2005 meeting. Mr. Faulk noted that he reviewed the document distribution list and saw that EPA was not on this list. Mr. Faulk asked Stuart Luttrell (PNNL) to see EPA is on distribution of all future documents of this nature. Mr. Faulk noted that this historical modeling work presented in the historical PNNL report is adequate for a “rough start” for the baseline risk assessment to support the 200-ZP-1 RI Report. Mr. Faulk noted to John Price (Ecology) that EPA plans to narrow the contaminant-of-concern (COC) list identified in Table A1-2 of the 200-ZP-1 RI/FS Work Plan (DOE/RL-2003-55, Rev. 0) from 54 COCs to 5 or so primary risk drivers. Mr. Price noted that he agrees that this approach makes sense and he will evaluate doing the same for 200-UP-1. Mr. Price clarified that Ecology’s earlier request to expand the COC list in the 200-UP-1 RI/FS Work Plan was to be sure that no COCs were going un-detected, but he agrees that only a small number of the COCs will be driving the large majority of the risk. Mr. Price noted that having all analytes detected by a specific analytical method reported has addressed his earlier concerns.
 - Dennis Faulk (EPA) and Arlene Tortoso (DOE-RL) requested that FH be prepared to provide a tour of the 200-ZP-1 pump-and-treat system to visiting staff.
 - Feasibility Study/Proposed Plan is scheduled to begin October 1, 2006

200-PO-1 OU

- Sampling and Analysis Plan comments received from Ecology; the SAP will be finalized in late August.
- Two wells, 699-20-E12S and 699-24-1P, were not sampled in FY-04 according to the current SAP schedule; they are "air-lift" wells, and there was no procedure last year for air-lift sampling. The procedure was developed and they are now scheduled for sample collection this year.
- Ecology approved discharge of purgewater to the ground from well 699-20-E12O via email (from John Price to Stuart Luttrell) on 6/24/05.
- A task-level schedule for the RI/FS process for 200-PO-1 was provided to Ecology on 8/02/05. The regulatory path forward and schedule will be finalized during the DQO process.
- A DQO Kickoff meeting was held August 17, 2005 with EPA, DOE-RL, Ecology, and stakeholders.

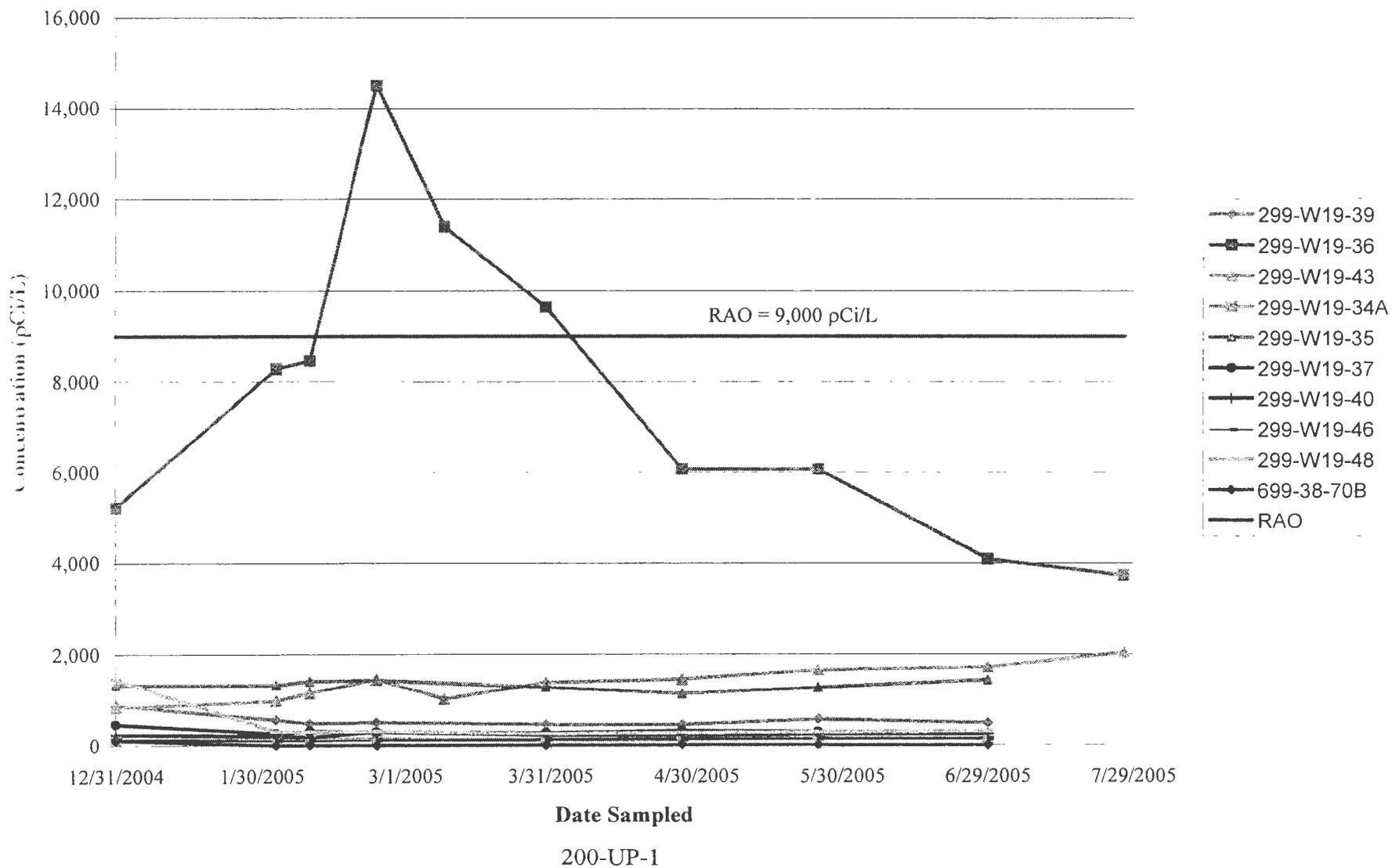
200-BP-5 OU

- Comments from EPA and Ecology on the Sampling and Analysis Plan for drilling a new well were incorporated. The SAP was transmitted formally to EPA for approval. Drilling will begin in September.
- A revised table for the Waste Control Plan is provided to include the new well. This revision was approved via an email (From Rod Lobos to Stuart Luttrell) on 7/22/05.
- The DQO process for 200 BP-5 began with a kick-off workshop on 6/14/05. Interviews have been completed, and a global issues meeting was held on 8/03/05.
- PNNL is working on a draft of the DQO due out for review by 9/01/05. Final DQO is due by 9/30/05. This work will identify the final list of COCs for the 200-BP-5 OU. It will also identify data gaps. Based on stake holder interviews, the main items of concern are the increasing uranium concentrations in the groundwater in the B/BX/BY Tank Farm, modeling of thin layer low permeability zones, identifying compliance boundary lines, migrating technetium plum, treatment options for uranium and technetium.
- Began the Work Plan week of 8/10/05. The Work Plan and SAP are scheduled to be completed by 9/30/06.
- 200-BP-5 BCR and BOE were submitted for FY 2006 week of 8/8/05 to accounting. Proposed work includes installation of ten total wells, five of which will be used to characterize vadose zone plumes from leaks identified in the B/BX/BY Tank Farms. Drilling scheduled to start in January to meet the TPA milestone M-015-00C by 12/30/08.

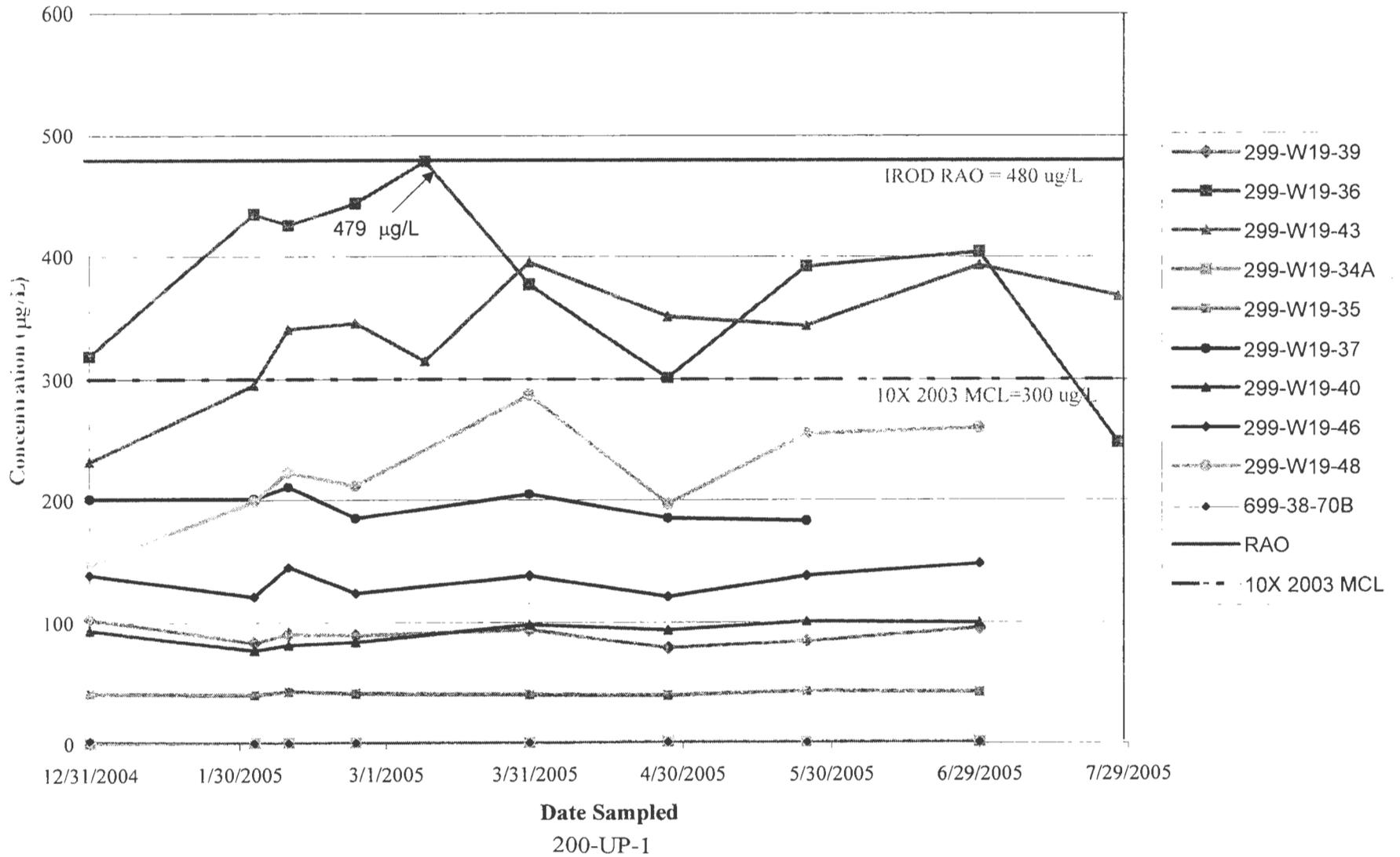
200-PW-1 (200-ZP-2) OU

- Soil Vapor Extraction System (SVE) Status:
 - The system is currently pumping at a rate of approximately 319 cfm. We have been having problems with B+K analyzer calibration and as a result we are only operating the soil vapor extraction system during work hours. We have received 3 replacement units, but calibration has been off. A properly calibrated analyzer arrived this morning and will be installed early next week.
- The passive system remains operational.
- Virginia Rohay will provide details on the performance of the SVE system performance next month as she is on vacation.

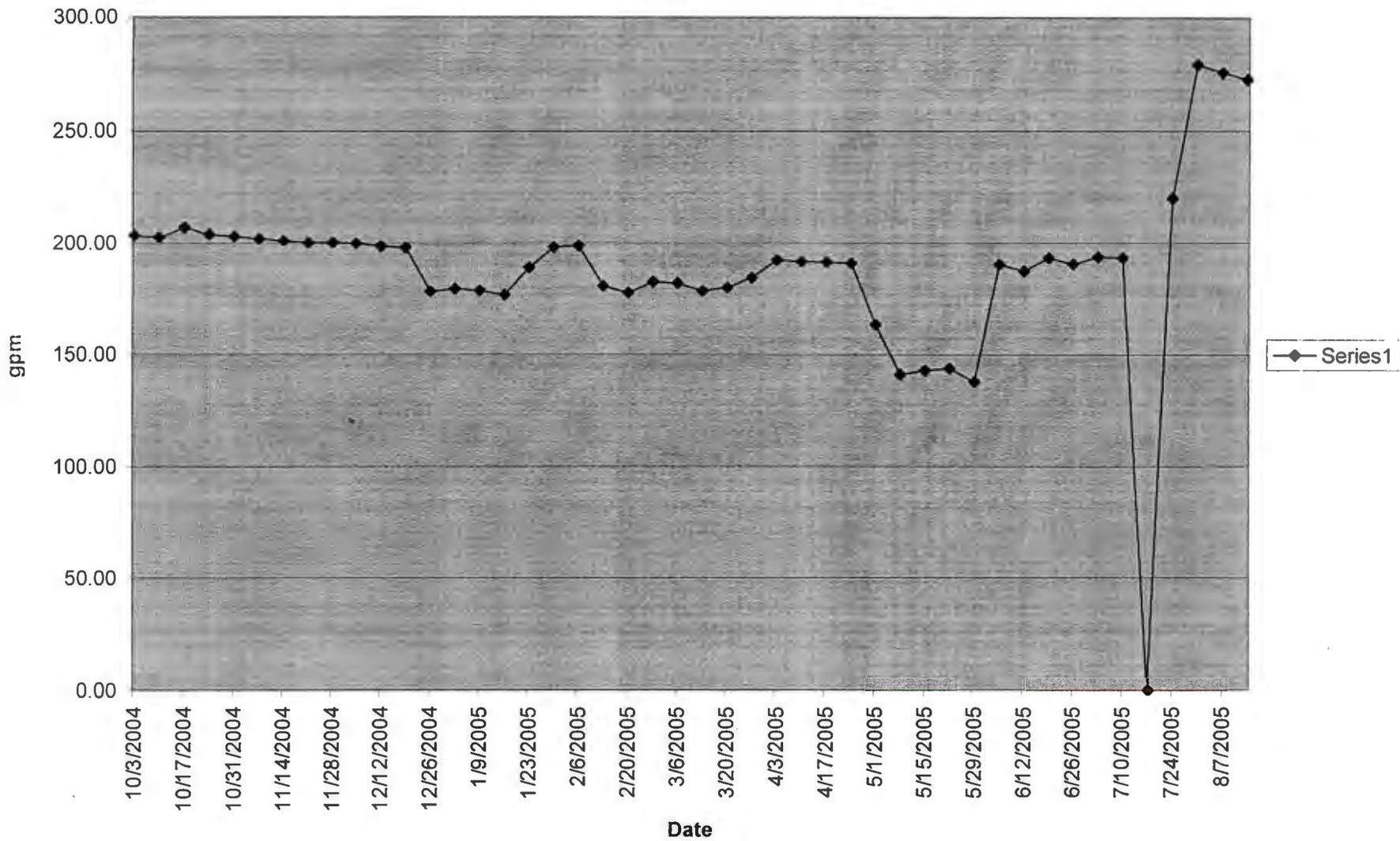
Technetium-99 (pCi/L)



Uranium Concentrations



200-ZP-1 Pumping Rates for FY2005



200 AREA UNIT MANAGERS' MEETING SOURCE OPERABLE UNITS AND FACILITIES STATUS

1200 Jadwin/Rm 1-C1

August 18, 2005

SOURCE OPERABLE UNITS STATUS

General

Lanny Dusek presented a proposed tool that graphically depicts review schedules for remediation documents (Attachment 6, Figure 1), proposing that it eventually replace the Float Table by incorporating that information. Comments included the following:

- Change "200 Area Eco Eval" to "Eco Risk Assessment" on this chart and in the Source OU and Facilities Status for the UMM as well. Also change the EPA Lead depicted from Gadbois to Cameron.
- CW-1/3 should be shown without a background color since the regulatory lead agency responsibility includes both EPA and Ecology.
- Add detail to capture TPA-required review times for documents.
- Clarify the basis for "float". Ecology expressed that the float should be relative to meeting TPA milestones. RL/FH maintained that float needs to reflect upon near term project milestones or the baseline rather than (or in addition to) endpoint TPA milestones that may be well off in the future. More discussion is needed on this issue of defining to what float is relative.

200-PW-1, 200-PW-3, & 200-PW-6

- Drilling (C4545) at 216-A-8 Crib (200-PW-3 OU) was completed on 6/30/05 and the hole was decommissioned on 7/21/05.
- Passive soil vapor surveys were conducted east of the 216-Z-9 Trench, at T Plant, and at the 218-W-3A Burial Ground as part of Step II of the dispersed carbon tetrachloride vadose zone plume investigation (200-PW-1 OU). Laboratory analysis of the samples has been completed.
- The Step II investigation of the deep vadose zone using the EAPS (Enhanced Access Penetration System) technology was initiated on 6/27/05. Sampling continues to move through Cribs (5 of 9 initial sites have been sampled).
- Sampling for carbon tetrachloride in existing wells was initiated on 6/22. Three of the approximately 30 planned wells have been sampled for soil vapor and groundwater. The remaining wells have been evaluated and a schedule is being developed.
- Vista Engineering Technologies (VET) initiated soil vapor sampling using a cone penetrometer in the vicinity of the 216-Z-1A site on 7/18.

200-TW-2 & 200-PW-5 (no change)

200-CW-1 & 200-CW-3 (no change)

200-PW-2 & 200-PW-4 (no change)

200-CS-1 (no change)

200-CW-5, CW-2, CW-4, & SC-1

- EPA responded to DOE's Response to Comments on the FS/PP on 7/22/05.

Ecological Risk Assessment

- Phase I SAP approved 7/08/05. Phase II SAP approved 7/21/05.
- Phase I soil sampling scheduled to complete week of 8/15/05. Phase II soil sampling scheduled to begin 9/05/05.

200-IS-1 & 200-ST-1

- DQO Alignment Meeting was held 8/11/05.

200-LW-1/200-LW-2

- The Data Quality Assessment Report (D&D-26666) was distributed on 8/15/05.

200-MW-1 (no change)

200-UR-1 (no change)

200-SW-1/2

- DQO sessions 8/01/05.
- Contract for non-intrusive geophysics characterization services for multiple burial grounds was awarded 8/08/05. Geophysical investigation scheduled to begin 8/17/05.
- In support of RCRA/CERCLA integration, the 200-SW-1/2 OU participated in the Low Level Burial Ground (LLBG) Project Manager Meeting on 7/26/05. In the future, the 200-SW-1/2 OU will be dealt with in the LLBG PMM, and the 200 Area UMM Status will just have a pointer out to there.

- Project Manager participated in a cold demonstration of technology proposed for overcoring and retrieval of intact vertical pipe units at the Hanford burial grounds (e.g., 618-10, 6-18-11 and possibly 218-W4A).

BC Cribs and Trenches

- FFS and PP, Draft A, formal comments were transmitted by EPA on 8/04/05.
- SAP preparation is underway to provide for ground truthing of HRR results.
- Expert panel review of deep vadose zone treatment technologies was completed April 26 – 28. The panel preliminarily eliminated all options but barriers and soil desiccation and in early June provided a draft report for local review and comment. Comments are being resolved prior to issuing the final report.

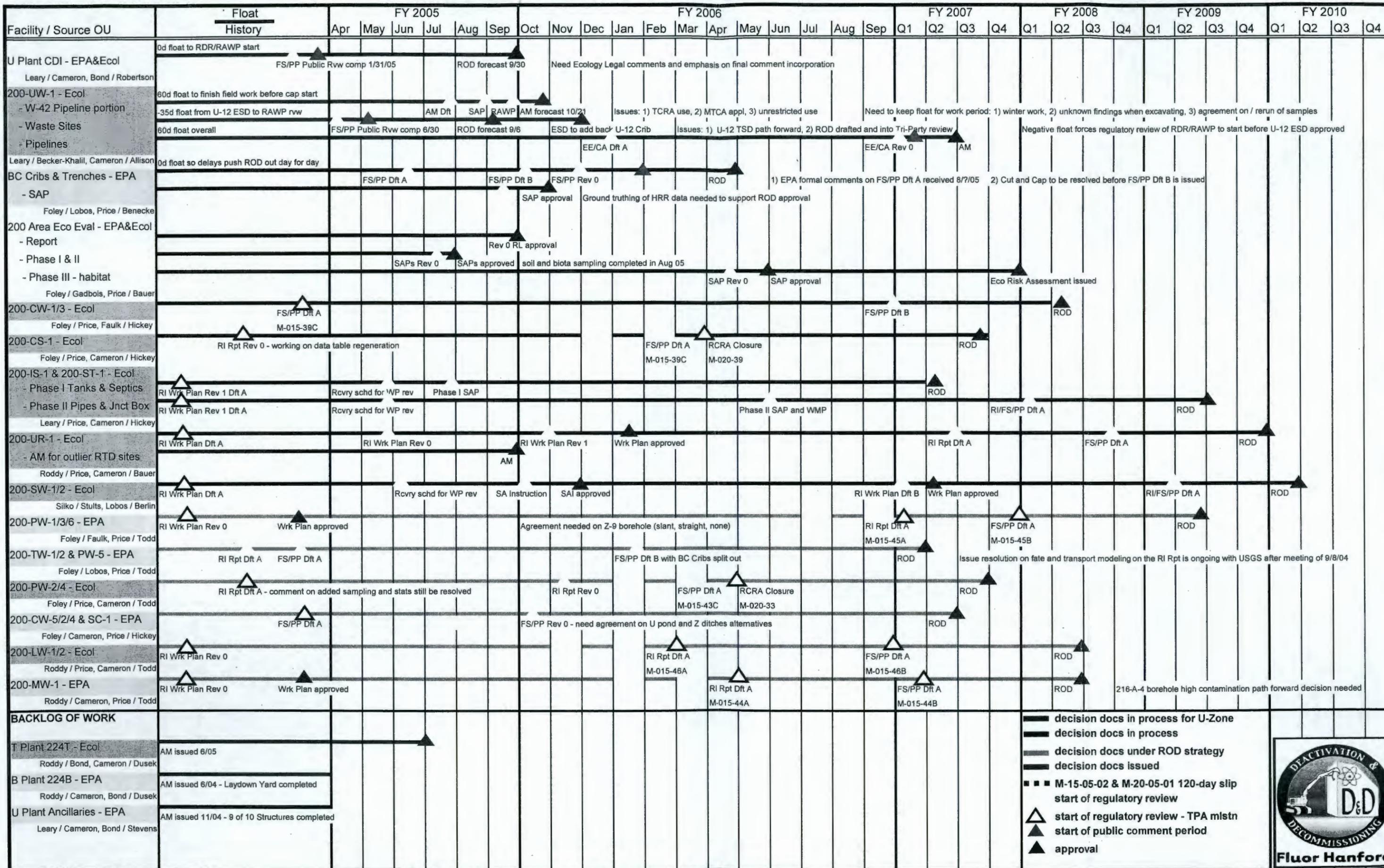
200-UW-1

- Timed-Critical-Response Action (TCRA) documentation to accelerate removal of piping and interferences associated with installing the proposed barriers for 216-U-8 and 216-U-12 is with Ecology for review. Ecology provided review comments to RL/FH on 8/16/05. EPA is not convinced that a TCRA is the appropriate path to pursue a decision on this work. Following discussion, Dennis Faulk said they would be willing to review and comment on the public notification and not hold up SAP approval. Ecology expressed intent to continue with the TCRA.
- A workshop with Ecology and EPA was conducted 8/15/05 to discuss path forward for 216-U-12 TPA change request. John Price reported he will carry the resolution through Laura Cusack (Ecology Management), Andy Fitz (Ecology Legal) and then to the EPA, but declined to specify a schedule at this point.
- Ken Allison, 200-UW-1 FH Project Manager, reviewed a critical path schedule (Attachment 6, Figure 2) for placing barriers on the 216-U-8 and 216-U-12 cribs in FY06. In summary:
 - The Record of Decision on the UW waste sites needs to be issued by 10/19/05 to support the critical path schedule.
 - Lack of resolution on the decision path for the U-12 TSD (and anticipation of adding U-12 to the ROD later via the Explanation of Significant Difference (ESD) process) is already forcing barrier design to proceed at risk.
 - The TCRA on the interference work needs to be issued by 10/24/05 to prevent impinging on schedule contingency held in reserve for performing first-of-a-kind work in winter.
- John Price agreed to allow RL/FH review of the draft ROD in parallel with EPA and Ecology. He expects the draft ROD to be submitted to him next week for his review prior to submitting to other agencies.

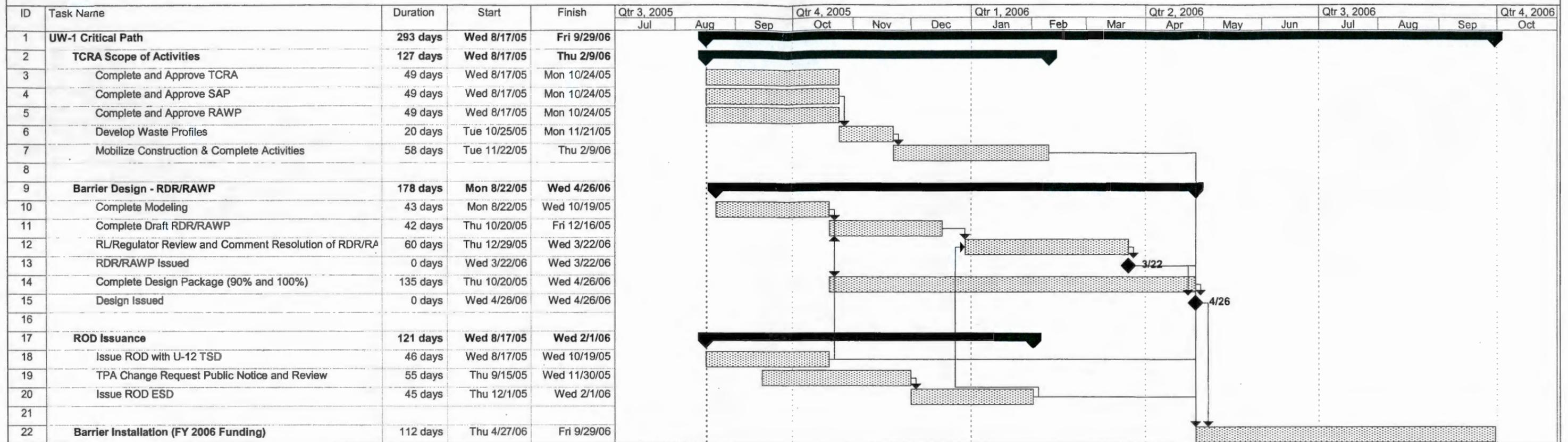
FACILITIES STATUS

- **U Plant CDI** – A draft ROD went into EPA and RL internal review 6/14/05. Ecology legal comments are still outstanding. The responsiveness summary is complete with respect to resolution of all comments to date. John Price reported that Ecology Legal comments were in and indicated Rick Bond should be contacted to obtain them.
- **U Ancillaries** – Have completed D&D of 7 of 10 structures to date. Demolition of 203U (uranium storage tank enclosure) and 222U is in progress. Project completion is planned for August.
- **200E Miscellaneous Structures** – Continuing demolition preparation of structures as fill work around U Ancillaries.
- **Facility Binning** - The Central Plateau Facility Binning Report (DOE/RL-2005054) was prepared and is under continuing review by Ecology.
- **B-Plant Stack** – Downgrade of this stack to a minor emission unit was approved by EPA and WDOH, and lastly requires a significant modification to the Air Operating Permit (AOP) prior to full implementation. The request will be transmitted to Ecology in September.
- **PUREX Stack** – Downgrade of this stack to a minor emission unit is under review by EPA and WDOH. A deep bed filter/aerosol test will be performed the week of 8/29/05 to provide a current basis for the request.
- **209E, B-Plant, U-Plant, PUREX and REDOX Ventilation** – Transition from continuous ventilation to intermittent ventilation discussed with WDOH on 5/19/05 and 6/7/09. An NOC for 209E is being prepared for submittal to WDOH and EPA in September.

Central Plateau D&D Facility and Waste Site Cleanup Decisions - updated 8/17/05



UW-1 Critical Path Summary (8-17-05) DRAFT



Project: DRAFT UW-1 Critical Path St
Date: Wed 8/17/05

Task		Progress		Summary		External Tasks		Deadline	
Split		Milestone		Project Summary		External Milestone			

**Issue Resolution Meeting
Agreements and Issues List
August 18, 2005
200 Area Unit Managers' Meeting**

Agreement: Continue Historical Records Search for 200-SW-1/200-SW-2

RL and Ecology agreed to a records search as part of the collaborative process conducted for the 200-SW-1/200-SW-2 Operable Unit Work Plan. A decision point was identified for the July UMM to evaluate the effectiveness and value added of continuing the records search based on a 30-day effort. DOE and Ecology agreed on July 21, 2005, to continue a records search for the next 30 days. A follow-on review will be held at the August 2005 UMM to determine the need for further records searches. At the August 18, 2005, UMM, DOE and Ecology agreed to continue the records search and to discontinue carrying this item on future Agreements and Issues lists.

Agreement: Approval of Well Updates to the 200-PO-1 Waste Control Plan - (Ecology)

Ecology approved changes to the well list for 200-PO-1 and updates to the 200-PO-1 Sampling Analysis Plan and Waste Control Plan on May 9, 2005.

Agreement: Approval of Well Updates to the 200-TW-2 Waste Control Plan – (EPA)

EPA approved the addition of 18 wells to the well decommissioning list for the 200-TW-2 Waste Control Plan (Supplement to D&D-25140) on August 18, 2005 (Attachment 8, Figure 1).

Agreement: Approval of Well Updates to the 200-PW-1 Waste Control Plan – (EPA)

EPA approved the addition of 11 wells to the vapor sampling list for the 200-PW-1 Waste Control Plan (WMP-20501, Rev. 1) on August 18, 2005 (Attachment 8, Figure 2).

Agreement: Approval of Well Updates to the 200-BP-5 Waste Control Plan – (EPA)

EPA approved the addition of a new well to the well list for the 200-BP-5 Waste Control Plan (Supplement to DOE/RL-2003-30, Rev. 2) on July 22, 2005 (e-mail from Rod Lobos to Stuart Luttrell), and the agreement is hereby recorded for the UMM (Attachment 8, Figure 3).

**Issue Resolution Meeting
Agreements and Issues List
August 18, 2005
200 Area Unit Managers' Meeting**

**Agreement: Approval of 200-PO-1 Well Purgewater Discharge –
(Ecology)**

Ecology approved the discharge of purgewater to the ground from Well 699-20-E120 on June 24, 2005 (e-mail from John Price to Stuart Luttrell), and the agreement is hereby recorded for the UMM.

Agreement: Approval of Change to Sample Strategy for Well 299-W11-45 – (EPA and Ecology)

In the August 18, 2005, UMM, EPA approved a proposal for deleting water grab samples every 5 feet through the drilled part of the aquifer (purge and pump samples will continue to be collected at 10-foot intervals) during installation of Well 299-W11-45 (Attachment 8, Figure 4). Ecology also gave their approval contingent on gaining specific approval from Jeff Lyon or other appropriate person. Stuart Luttrell is to contact Dib Goswami to follow up and is to keep Dennis Faulk in the information loop via e-mail.

Agreement: Suspend Work on 200-CW-5 OU FS (EPA)

In the August 18, 2005, UMM, EPA agreed with a proposal by RL/FH to suspend work on the 200-CW-5 OU (except U-Pond) feasibility study, recognizing a better use of resources in completing the waste binning strategy and then reengaging on 200-CW-5 with the results of that strategy included.

Issue: Assigning New WIDS Entries (e.g., Pipelines) to OUs – (Ecology)

Issue Statement: Ecology noted that ORP/CH2M Hill are having pipelines added to WIDS; Ecology feels a strategy is needed for pipelines that are not assigned to soil site OUs.

Issue Actions: Ecology will also discuss the concern with Tank Farms. Parties need to work on a strategy. Specific actions were captured in the Action Item List to support reaching resolution at or shortly following the next UMM.

Issue Status: Issue initially raised at the June 16, 2005 UMM Source OU Status Meeting. DOE, Ecology, and EPA need to discuss actions and responsibilities. Specific preliminary actions were assigned during the August 18, 2005 UMM.

Issue Resolution: TBD

**Issue Resolution Meeting
Agreements and Issues List
August 18, 2005
200 Area Unit Managers' Meeting**

Issue: Substantial and Continuous Remediation

Issue Statement: CERCLA requirement to commence remedial action within 15 months of decision could require DOE to implement actions on each document that would not align with TPA priorities, including holding off on completing Records of Decision.

Issue Actions: RL/FH will provide a white paper to EPA and Ecology for their consideration in formulating a policy. Tri-parties reach agreement and document in appropriate location.

Issue Status: Added to issues list in August 18, 2005 UMM. White paper (Attachment 8, Figure 5) drafted by FH and in RL review was distributed by Lanny Dusek and discussed briefly in the August 18 UMM with the intention that it be reviewed and then discussed at the next meeting.

Issue Resolution: TBD

Issue: Land Use, Exposure Scenarios, and Institutional Controls

Issue Statement: Lack of agreement on uniform application of these interrelated issues to the Central Plateau, results in multiple clean up levels specific to Source OUs rather than generically across Plateau.

Issue Actions: Tri-Parties reach agreement and document in appropriate location. Institutional Controls could be viewed from near term as OUs are cleaned up and long term, once personnel may not routinely work on the Plateau.

Issue Status: Added to issues list in August 18, 2005 UMM. Craig Cameron discussed the general approach to this subject, and the regulatory agencies requested this item be removed since it lacked specificity as written, suggesting that this was more appropriate for the Configuration Management Board to address.

Issue Resolution: Closed pending expression of a specific need to be addressed.

Supplement to: D&D-25140, Waste Control Plan for the 200-TW-2 Operable Unit

Table 3. List of 200-TW-2 Wells to be Decommissioned in FY 2005

(This list will be updated as wells are identified for decommissioning, and will be provided at the 200 Area Unit Manager's Meeting and included in the UMM minutes)

- Shading indicates wells added for this change.

Area	Operable Unit	Waste Site Code	Site Type	Hanford Well Name	Hanford Well ID
200 E	200-TW-2	216-B-8	Crib	299-E33-71	A6879
200 E	200-TW-2	216-T-22	Trench	299-W15-81	A7382
200 W	200-TW-2	216-T-6	Crib	299-W11-54	A7296
200 W	200-TW-2	216-T-6	Crib	299-W11-55	A7297
200 W	200-TW-2	216-T-6	Crib	299-W11-56	A7298
200 W	200-TW-2	216-T-6	Crib	299-W11-57	A7299
200 W	200-TW-2	216-T-6	Crib	299-W11-58	A7300
200 W	200-TW-2	216-T-6	Crib	299-W11-59	A7301
200 W	200-TW-2	216-T-6	Crib	299-W11-60	A7302
200 W	200-TW-2	216-T-6	Crib	299-W11-61	A7303
200 W	200-TW-2	216-T-6	Crib	299-W11-62	A7304
200 W	200-TW-2	216-T-6	Crib	299-W11-63	A7305
200 W	200-TW-2	216-T-6	Crib	299-W11-64	A7306
200 W	200-TW-2	216-T-6	Crib	299-W11-65	A7307
200 W	200-TW-2	216-T-6	Crib	299-W11-66	A7308
200 W	200-TW-2	216-T-6	Crib	299-W11-67	A7309
200 W	200-TW-2	216-T-15	Trench	299-W11-68	A7310
200 W	200-TW-2	216-T-14	Trench	299-W11-69	A7311
200 W	200-TW-2	216-T-16	Trench	299-W11-80	A7322
200 W	200-TW-2	216-T-17	Trench	288-W11-81	A7323

WMP-20501, Rev. 1

Table 3. List of Wells to be Characterized Using Soil Vapor Sampling and/or Groundwater Sampling for the 200-PW-1 Dispersed Carbon Tetrachloride Vadose Zone Investigation - Step II

AREA	HANFORD WELL NAME	HANFORD WELL ID
200W	299-W10-19	A5438
200W	299-W10-20	A5439
200W	299-W10-21	A5440
200W	299-W7-4	A5010
200W	299-W10-1	A7136
200W	299-W10-8	A4899
200W	299-W10-22	A9890
200W	299-W10-23	B8545
200W	299-W10-24	B8546
200W	299-W11-28	A4908
200W	299-W11-39	C3117
200W	299-W11-40	C3118
200W	299-W11-41	C3119
200W	299-W11-42	C3242
200W	299-W11-7	A4910
200W	299-W11-14	A4903
200W	299-W11-37	A9889
200W	299-W11-10	A4901
200W	299-W11-3	A5473
200W	299-W10-4	A7277
200W	299-W10-5	A7278
200W	299-W15-40	B8550
200W	299-W15-43	C3955
200W	299-W15-765	C3397
200W	299-W15-15	A4919
200W	299-W15-14	A7350
200W	299-W15-16	A4920
200W	299-W15-17	A4921
200W	299-W15-30	B2410
200W	299-W15-31A	B2471
200W	299-W18-15	A4932
200W	299-W22-48	B8812
200W	299-W22-84	C3398
200W	299-W23-10	A7884
200W	299-W23-15	A4984
200W	299-W23-20	C3112
200W	299-W23-4	A4987
200W	299-W23-9	A7883

Shading indicates wells added for this change.

ATTACHMENT 3

200-BP-5 OPERABLE UNIT GROUNDWATER WELL LIST

(from Revised Monitoring Network – SAP)

216-B-5 Reverse Well and B-Plant	216-BY Cribs (cont.)	WMA C
299-E28-23	699-49-55A	299-E27-14
299-E28-24	699-53-55C	299-E27-15
299-E28-25	699-55-60A	299-E27-7
299-E28-5	699-49-57A	
299-E28-6	699-49-57B	216-B-3 Pond
299-E28-2	699-50-53A	699-43-40
299-E28-17	699-55-57	699-45-42
299-E28-27	699-53-55A	
299-E28-8	699-53-55B	Gable Mountain Pond
	699-65-50	699-53-47A
216-BY Cribs and WMA B-BX-BY	699-47-60	699-53-47B
299-E28-26	699-57-59	699-53-48A
299-E33-46	699-59-58	699-53-48B
299-E33-7	699-60-60	699-54-45A
299-E33-38	699-61-66	699-54-45B
299-E33-26	699-64-62	699-54-48
299-E32-10	699-72-73	699-54-49
299-E33-13	699-61-62	699-55-50C
299-E33-34	699-66-58	
299-E33-16	699-66-64	
299-E32-9	699-70-68	
299-E33-35	699-65-72	
299-E33-12	699-73-61	
299-E33-41	699-50-59	
299-E33-338		
299-E32-4	216-B-62 Crib	
299-E33-39	299-E28-18	
299-E32-6	299-E28-21	
299-E33-15		
299-E33-28		
299-E33-30		
299-E33-18		
299-E33-42		
299-E33-43		
299-E33-44		

Shading indicates well added for this change.

Changes to the Document:
Sampling and Analysis Plan for Two New Deep Wells in the 200-ZP-1 Operable Unit
at Single-Shell Tanks, Waste Management Area T, Calendar Year 2005

Well 299-W11-45 is scheduled to begin drilling this week or next using cable tool. The Sampling and Analysis Plan (DOE/RL-2005-72, Rev.0) states that grab samples of groundwater will be collected every 5 feet throughout the drilled part of the aquifer, and that purge and pump samples will be collected at 10, 20, 30, 40, 50, 60, 80, 100, 120, 140, 160, 180, 200, etc. feet below water table to total depth, where the last pumped sample will be collected.

The SAP states that the 5-ft grab samples will be air lifted if drilling is by dual-wall percussion, or bailed if drilling is by cable tool. The air lifted samples are representative of discrete depths within the aquifer because the circulating air essentially cleans the borehole of all formation water as drilling progresses. When a sample is collected by air lifting, the water entered the drill pipe at the discrete depth of the bottom of the drill pipe and thus represents groundwater from that depth.

Cable tool drilling does not clean the drill pipe of formation water as drilling progresses. Therefore, the water in the drill pipe is some average of the entire drilled part of the aquifer and does not represent groundwater from any discrete depth. Thus, any sample bailed during cable tool drilling is not a depth discrete sample unless the borehole is first bailed "dry". If the borehole is not bailed dry prior to sampling, the samples are not useful for their intended purpose. Further, the success of bailing a well "dry" that is drilled deep into the aquifer is questionable. The alternative option of purge-and-pump sampling at 5-foot interval is cost prohibitive.

Therefore, it is recommended to not collect the 5-ft interval grab samples because the resulting analytical data will be questionable.

**Analysis of Requirements for
Substantial Continuous Physical Onsite Remedial Action**

Introduction

Multiple CERCLA RODs are anticipated for the Hanford Site 200 Area in the near future. In some cases, Tri-Party Project Managers may want to sequence or prioritize remedy initiation/performance. CERCLA 120(e)(2) and the TPA establishes time-frame requirements for remedy initiation/performance.

This white paper, prepared by Fluor Hanford (FH) Environmental Protection, analyzes the applicability of the subject requirements at Hanford to foster Tri-Party discussion in pursuing agreement on this subject.

Analysis

CERCLA Section 120(e)(2) specifies:

*The Administrator shall review the results of each investigation and study conducted as provided in paragraph (1). Within 180 days thereafter, the head of the department, agency, or instrumentality concerned shall **enter into an interagency agreement** with the Administrator for the expeditious completion by such department, agency, or instrumentality of all necessary remedial action at such facility. **Substantial continuous physical onsite remedial action shall be commenced at each facility not later than 15 months after completion of the investigation and study.** All such interagency agreements, including review of alternative remedial action plans and selection of remedial action, shall comply with the public participation requirements of section 9617 of this title.*

In accordance with the above provisions, DOE entered into an interagency agreement May 15, 1989 (i.e., TPA). The TPA addresses the **substantial continuous physical onsite remedial action** requirement:

DOE shall commence remedial action within fifteen (15) months after completion of the RI/FS (including EPA selection of the remedy) for the first priority operable unit, in accordance with Section 120(e)(2) of CERCLA and the schedule in the Action Plan. DOE shall complete the remedial action as expeditiously as possible, as required by CERCLA Section 120(e)(3). In accordance with the schedule(s) in the Action Plan, subsequent remedial action at other operable units shall follow and be completed as expeditiously as possible as subsequent RI/FSs are completed and approved. The Parties agree that this phased schedule satisfies Section 120(e)(2) and (3) of CERCLA."

The TPA requirement, shown above [i.e., commence remedial action within fifteen (15) months after completion of the RI/FS (including EPA selection of the remedy) for the

first priority operable unit....]¹ has been met. Specifically, remedial action was initiated within 15 months of 1100 Area ROD issuance.

Pursuant to CERCLA 120(e)(2), the 15-month remedy initiation requirement applies to each facility/site that is scored and listed on the NPL. Since the Hanford Site sub-areas (i.e., 100, 200, 300, and 1100 Areas) were independently scored and listed on the NPL, the 15-month remedy initiation requirement applies independently to each Hanford Site sub-area.

Because the 15-month remedy initiation requirement applies independently to each Hanford Site sub-area, the Tri-Party project managers, in some instances, cited the 15-month remedy initiation requirement in the initial sub-area RODs. The table below lists the Hanford Site RODs that have been issued to date and indicates if the 15-month remedy initiation requirement was specifically cited in the ROD.

Unlike the initial 100 and 300 sub-area RODs, the initial 200 sub-area ROD (200-ZP-1 groundwater pump-and-treat) did not cite the 15-month remedy initiation requirement. Nevertheless, the remedy was initiated within 15 months of ROD issuance.

ROD	Does the ROD cite the 15-month remedy initiation requirement?	Type of OU? (groundwater or waste site)	NPL Area
1100 Area EPA/ROD/R10-93/063 1993	No	Waste Site	1100
100 Area OU 01 EPA/ROD/R10-95/126 09/28/1995	Yes	Waste Site	100
100 Area OU 21 EPA/ROD/R10-96/151 02/02/1996	No	Waste Site	100
100 Area OU 02 EPA/ROD/R10-96/134 03/26/1996	No	Groundwater	100
100 Area OU 15 & 27 EPA/ROD/R10-99/039 07/15/1999	No	Waste Site	100/200
100 Area OU 29 EPA/ROD/R10-99/059 09/17/1999	No	Waste Site	100
100 Area OU 08 & 09 EPA/ROD/R10-99/112 09/29/1999	No	Waste Site and Groundwater	100
100 Area OU 30 EPA/ROD/R10-00/120 01/18/2000	No	Waste Site	100
100 Area OU 28 EPA/ROD/R10-00/121	No	Waste Site	100

¹ The first priority OU identified in the TPA Action Plan, Appendix C, *Prioritized Listing Operable Units* (Fourth Amendment, January 1994), was 1100-EM-1. The 1100 Area ROD (EPA/ROD/R10-93/063 -- issued 9/24/93) specified the remedy for the 1100-EM-1 OU. Remedial action was initiated within 15 months of ROD issuance.

ROD	Does the ROD cite the 15-month remedy initiation requirement?	Type of OU? (groundwater or waste site)	NPL Area
09/25/2000			
200 Area OU 14 EPA/ROD/R10-95/100 01/20/1995	No	Waste Site	200
200 Area OU 13 EPA/ROD/R10-95/114 05/24/1995	No	Groundwater	200
200 Area EPA/541/R-97/048 02/11/1997	No	Groundwater	200
200 Area OU 15 and 27 EPA/541/R-99/039 07/15/1999	No	Waste Site	100/200
300 Area OU 01 and 02 EPA/ROD/R10-96/143 07/17/1996	Yes	Waste Site and Groundwater	300
300 Area OU 03 EPA/ROD/R10-01/119 04/04/2001	Yes	Waste Site	300

U-Plant is a Key Facility and is subject to TPA Section 8 provisions. Accordingly, the 15-month remedy initiation requirement should not be cited in the forthcoming U-Plant ROD. Note, since there is overlap between the remedial actions for the 200-UW-1 OU and U-Plant/CDI, TPA Section 8.7.6 provisions need to be considered.

In situations where multiple RI/FSs are performed for an NPL site (i.e., Hanford Site sub-area), the 15-month remedy initiation requirement applies to the initial ROD. Initiation of the subsequent remedies may be delayed beyond 15 months, per project manager's discretion, so long as remedies are completed expeditiously and in accordance with TPA schedule commitments.

CERCLA 120(e)(2) requires commencement of *substantial, continuous, and physical* activities within 15 months of remedy selection. The terms *substantial, continuous, and physical* are undefined in CERCLA regulations. Hence, determining compliance with the *substantial, continuous, and physical* criteria involves perspective/discretion. The following factors may influence compliance determinations.

- For some remedies, it may be inappropriate to perform remedial actions 24 hours a day, 7 days a week. Hence, the literal definition of *continuous* may not be appropriate in some instances.
- Remedial activities may vary as dictated by site hazards and the associated remedy. For example, an institutional controls remedy is different than a remove/treat/dispose remedy. For this reason, compliance determinations regarding the *substantial, continuous, and physical* criteria are remedy dependent and need to be made on a case-by-case basis.

- There are multiple OUs and RODs associated with the Hanford Site sub-areas. Also, the 100 Area Remaining Sites ROD includes OUs from the 100 and 200 sub-areas. Hence, determining compliance with the *substantial*, *continuous*, and *physical* criteria may involve examining multiple remedial activities.

Sections 7.3.9 and 7.3.10 of the TPA include provisions that allow TPA project managers to exercise discretion and interagency coordination regarding remedy initiation, prioritization, and performance. Additionally, these TPA provisions provide a mechanism for establishing *substantial*, *continuous*, and *physical* criteria. The subject TPA sections specify:

(7.3.9) Following issuance of the ROD, The remedial design (RD) phase will be initiated in accordance with a schedule agreed to by the project managers. Milestone change requests will be processed in accordance with Section 12.0.

(7.3.10) The remedial action (RA) phase will be initiated in accordance with a schedule agreed to by the project managers. Milestone change requests will be processed in accordance with Section 12.0.

Conclusions

- The TPA requirement to commence remedial action within 15 months of remedy selection for the first priority operable unit (i.e., 1100-EM-1 OU) has been met.
- The 15-month remedy initiation requirement applies independently to each Hanford Site sub-area.
- The 15-month remedy initiation requirement should not be cited in the U-Plant/CDI ROD.
- Remedies have been initiated for the each of the Hanford Site sub-areas. Therefore, initiation of forthcoming remedies may be delayed beyond 15 months, per project manager's discretion, so long as remedies are completed expeditiously and in accordance with TPA schedule commitments.
- Determining compliance with the *substantial*, *continuous*, and *physical* criteria necessitates discretion, case-by-case determinations, and coordination/communication between the Lead Agency and Lead Regulatory Agencies.
- TPA sections 7.3.9 and 7.3.10 allow/enable TPA project managers to establish schedules and criteria for remedy initiation and on-going performance.

Recommendations

For the forthcoming 200 sub-area RODs, FH recommends that the sequencing or prioritization of remedy initiation/performance be addressed through TPA 7.3.9/7.3.10 provisions. These TPA provisions require remedy initiation in accordance with schedule(s) agreed to by the TPA project managers (i.e., milestones). Note, since remedial activities for the 200 sub-area have already been initiated, initiation of subsequent 200 sub-area remedies may be delayed beyond 15 months, per project manager's discretion, so long as remedies are completed expeditiously and in accordance with TPA schedule commitments.

Determining if remedial activities are *substantial*, *continuous*, and *physical* involves discretion and coordination between the Lead Agency and Lead Regulatory Agencies. Since discretion varies from person to person, communication is important to normalize expectations. Moreover, determining compliance may involve multiple OUs, prime contractors, remedies, and regulatory agencies. FH recommends routine communication and planning between the Lead Agency and Lead Regulatory Agencies to ensure continued compliance. With regard to the 200 sub-area, the 200 Area Unit Manager Meetings may be an appropriate communications forum. These meetings typically address remedial activities for the various OUs in the 200 sub-area. Also, FH notes that TPA Sections 7.3.9 and 7.3.10 provisions may be used to document *substantial*, *continuous*, *physical* onsite remedial action.

**200 Area Unit Managers' Meeting
OPEN ACTION ITEMS & TRACKING**

Action #	Action/Subject	Assigned To	Owed To	Assigned Date	Original Due Date	Adjusted Due Date	Date Complete	Status
41	Reconstruct Agreements for ZP-1 Expansion.	FH - Byrnes	DOE-RL	01/20/05	02/17/05	09/30/05		Revise RDRA Document
48a	Provide a 200-BP-5 schedule to regulatory agencies.	RL/PNNL - Luttrell	EPA/Ecology	02/17/05	03/17/05	05/19/05	08/03/05	Closed - DQO kick off 6/14/05, interviews complete, and global issues mtg held 8/3/05.
53	Review original TPA and early change packages for better understanding on requirements for 2008 M-015 milestone; mock up change package to provide clarification of requirements to meet 2008 milestone to be included in next modification to M-015-00C.	All - Borghese	All	02/17/05	TBD	10/31/05		Clarification waiting for next M-015 change pkg. Hold for 120 day evaluation of characterization needs
53a	Provide clarification wording for M-015 completion criteria at next meeting. Discuss TPA Milestone wording for M-15-00C Draft A of RI/FS.	All - Borghese	All	04/21/05	07/30/05			FH - Borghese will set up meeting to discuss.
56	Discuss Region 10 comments on 200-UW-1 Proposed Plan to resolve path forward on RCRA/CERCLA integration.	EPA/Ecology - Faulk	RL/FH	02/17/05	03/17/05	08/30/05		Ecology EPA Workshop was held August 15, 2005
56a	Prepare white paper explaining TPA RCRA/CERCLA integration process for UMM.	Ecology - Price	All	04/21/05	6/16/05	08/30/05		Ecology EPA Workshop was held August 15, 2005
56b	Provide path and schedule for remediation decision for U Waste Sites Crib 216-U-12 crib, a RCRA TSD unit.	Ecology - Price	RL/FH	08/18/05	09/15/05			
58	To provide a response to Ecology's comment requesting revision of 200-CS-1 data tables to be in line with 200-PW-2/4, review costs, methods, and impacts to the RI Report.	RL/FH - Todd	Ecology	02/17/05	ASAP	09/30/05		FH is revising the tables and will meet with RL and Ecology when complete..
60	Finalize Central Plateau Binning Report, DOE/RL-2005-54	RL/FH - Dusek	EPA/Ecology	04/21/05	05/19/05	08/30/05		Awaiting Ecology review and comment.
61	Decide on specific decision documents for surveillance and maintenance coverage of all facilities under Central Plateau.	RL/FH-Dusek	EPA/Ecology	04/21/05	TBD		08/18/05	Closed - Facility binning strategy now does not include S&M coverage of facilities.
62	Request extension on BP-5/PO-1 waste storage area.	RL/FH - Luttrell	EPA/Ecology	04/21/05	05/19/05	09/30/05		DQO meeting scheduled for August 17, 2005
64	Determine solution to adding pipelines not associated with an OU into WIDS with only a TBD in the OU field versus needing to link them to Waste Management Areas (WMAs).	All - Stults	All	08/18/05	09/15/05			
64a	Discuss with ORP (Janet Badden of CH2M) drafting necessary TPA changes.	Ecology - Stults	All	08/18/05	09/15/05			
64b	Provide briefing (from Jeff Shearer) at next UMM on considerations/recommendation for updating WIDS to recognize WMA links for pipelines.	RL/FH - Dusek	All	08/18/05	09/15/05			
64c	Review TPA-MP-14, "Maintenance of the Waste Information Data System," prior to the next UMM to be familiar with background for discussion.	All - Dusek	All	08/18/05	09/15/05			

**DISTRIBUTION
UNIT MANAGERS' MEETING,
200 AREA GROUNDWATER SOURCE OPERABLE UNITS**

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EPA

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Ecology

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Jean Vanni	H0-57

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