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Final

Meeting Minutes Transmittal/Approval
Unit Manager's Meeting: General Topics
450 Hills St., Room 47, Richland, Washington
June 24, 1992

FROM/APPROVAL: Robert K. Stewart Date 7/29/92
Robert K. Stewart, R.I. Coordinator, RL (A6-95)

APPROVAL: for Pamela A. Innis Date 7/29/92
Douglas R. Sherwood, Representative, EPA (B5-01)

APPROVAL: Darci Teel for Chuck Cline Date 7/29/92
Charles S. Cline, CERCLA Unit Supervisor, Washington Dept. of Ecology

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The purpose of this meeting was to discuss general topics which are common to all past practices operable units.

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

- Attachment #1 - Summary of Meeting and Commitments and Agreements
- Attachment #2 - Agenda for the Meeting
- Attachment #3 - Attendance List
- Attachment #4 - Action Item Status List
- Attachment #5 - Proposal to Revise EII 4.2 and 4.3 (Overhead)
- Attachment #6 - Proposal to Revise EII 4.2 and 4.3
- Attachment #7 - HRA-EIS Status
- Attachment #8 - Analytical Services Status

AUG 1992 RECEIVED EDMC

Prepared by: Suzanne Clarke Date: 7/29/92
Suzanne Clarke, Kay Kimmel, GSSC (A4-35)

Concurrence by: Date: 7/29/92
Hal Downey, WHC Coordinator (L4-92)

Attachment #1

Summary of Meeting and Commitments and Agreements

Unit Manager's Meeting: General Topics
June 24, 1992

1. **SIGNING OF THE MAY GENERAL TOPICS UNIT MANAGER'S MEETING MINUTES** - Minutes were reviewed and approved with no changes.

2. **ACTION ITEM UPDATE:** (Attachment 4 [normal text] shows the status of the action items before the June 24 meeting; the updates to Attachment 4 are listed below and highlighted in bold text on Attachment 4.)

GT.38	**No change at HQ.**
GT.114	**At DOE-HQ.**
GT.128 Eric Goller	**Pending formal transmittal.**
GT.129 Nancy Werdel	**Nancy Werdel will update survey task at the July UMM.**
GT.132	**Pending (5/27/92). This item was closed 4/22/92 then reopened and inadvertently dropped from the AI list.**
GT.136 Daryl Koch	**Action to Daryl Koch (WHC).**
GT.137	Closed (6/24/92). Presentation at UMM.
GT.138	**Update at July UMM.**

3. **NEW ACTION ITEMS:**

GT.134A Joan Kessner	**Provide all performance evaluation results from contractor labs during the time of their contract.**
GT.140 Pam Innis, Darci Teel.	**Read the IDW (Groundwater Slurry) proposal and determine the need for further meetings or information.**
GT.141 Julie Erickson	**RL to define how the status of sample analysis prioritization will be communicated to the regulators at the July UMM.**
GT.142 Billie Mauss Dennis Faulk	**Specify number and type of SW-846 data packages and SOWs requested from OSM to aide evaluation of <u>Proposal for Hanford Analytical Services.</u>**

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GT.143 Joan Kessner	**Present at the September UMM the average turnaround times specific to samples taken after June 1, 1992.**

4. INFORMATION ITEMS:

- Daryl Koch presented a proposal to revise WHC EIIs 4.2 and 4.3 with respect to designations of investigation derived wastes from monitoring well installation in order to reduce the volume of drummed waste. See Attachments #5 and #6.

- Update on labs presented in Attachment #8.

- The UMM schedule for the rest of 1992:

  July 29 and 30
  Aug. 26 and 27
  Sep. 23 and 24
  Oct. 21 and 22
  Nov. 18 and 19
  Dec. 16 and 17

5. QUICK STATUS ITEMS:

- Lab Analysis Priorities - Mel Adams reported that the sample scheduling is determined on a first come first served basis. During the last fiscal year first priority was given to samples from 200-BP-1 and second priority was given to 300-FF-1 & 5 in order to meet TPA milestones. This change impacted any sample requiring rad analysis.
- Update on NEPA (HRA-EIS) was provided by Bob Stewart (Attachment #7).
- Site Background Study was presented by Hal Downey. Received comments on the soil and groundwater background from EPA; Ecology to have comments in by the end of June. New milestones are under development for negotiation for final issuance of the reports. There are no changes to the radiological background status.
- Site Surveying Task was presented by John Jacobson - Prepared for overflight to map 1100 and 300 areas. Revised survey procedure to be submitted to RL for review next week, and to the regulators afterward. New monuments being established and locating old ones.
- Risk Assessment Methodology was presented by Eric Goller - Risk Assessment Working Group met on June 9, 1992. Ninety percent of the comments have been resolved. Lonie Swenson and Audree DeAngeles to meet to discuss technical issues. A scoping meeting is set for July 7, 1992 with the regulators to discuss questions on the qualitative RA. The qualitative RA is used to determine if an IRM is needed. The HSBRAM is being implemented at 1100-EM-1 and 300-FF-1; soon it will be used at 300-FF-5 and 200-BP-1.
- Macroengineering, presented by Allan Harris, is moving forward.
- CLP vs. SW-846 - Eric Goller reported that draft copies of <u>A Proposed Sample Analysis and Data Validation Strategy for Hanford Site Environmental Investigations</u> were sent to the regulators. RL is asking regulators to provide informal comments.

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Attachment #2

Agenda

June 24, 1992

Approval of May General Topics Meeting Minutes

Approval of April General Topics Meeting Minutes

Update on Laboratory Status

Investigation Derived Waste, Groundwater Slurry Disposal - Daryl Koch

Quick Status Items:
- **Lab Analytical Priorities** - Mel Adams
- **Update on NEPA**
- **Site Background Study**
  - **Soil Background**
  - **Groundwater Background**
  - **Radiological Background**
- **Site Surveying Task** - John Jacobson
- **Risk Assessment Methodology** - Eric Goller
- **Macroengineering** - Allan Harris
- **CLP versus SW-846** - Bob Henckel

Action Item Status - Suzanne Clarke

General Topics Meeting Recap - Suzanne Clarke

Agenda Items for July General Topics Unit Managers Meeting

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Attachment #3

General Topics Unit Manager's Meeting
Official Attendance Record
June 24, 1992

Please print clearly and use black ink

PRINTED NAME	SIGNATURE	ORGANIZATION	O.U. ROLE	TELEPHONE
Suzanne Clarke	Suzanne Clarke	SWEC	GSSC	(509) 372-0630
Bob Henckel	[illegible]	WHC	100 Area	(509)376-2091
Harold Parker	[illegible]	WHC	Escort	
John H. Jacobson	[illegible]	USACE	Surveys	509-376-1250
Kay Kimmel	Kay Kimmel	SWEC	GSSC	509 372-0610
Rich Mullen	Rich Mullen	Parametrix	Ecology Support	206-455-2550
Rich Carlson	Richard Carlson	WHC	200/300 Area	(509) 376-9027
Billie Mauss	B.M. Mauss	Ecology	CERCLA Support	(509) 546-2993
Dennis Faulk	[illegible]	EPA	Unit Manager	6-8631
Dib Goswami	[illegible]	Ecology	Unit Mgr.	546-4301
Bob Stewart	Robert K. Stewart	DOE-RL/ERD	GT Chair	509-376-6692
H.I. Nonney	H.I. Nonney	WHC	ER Program Office	509-376-5539
Brian Drost	Brian Drost	USGS	EPA Support	206-593-6570
Chuck Cline	Charles J. Cline	Ecology	Unit Mgr. + Support	(206) 438-7552
Pamela Innis	Pamela Innis	EPA	Unit Manager	509/376-4919
Nancy Uziembło	Nancy H. Uziembło	Ecology	CERCLA Unit Manager	509 546-2999
Darci Teel	Darci Teel	Ecology	CERCLA	509 546 2993
Jon Spreckles	Jon Spreckles	Brown and Caldwell	Ecology Support	503 244-7005
Andrea DeAngeles	Andrea DeAngeles	PRC	EPA Support	206 624-2692
Larry Gadbois	LE Gadbois	EPA	Unit Manager	509 376-9884
Ralph [illegible]	[illegible]	Oregon Water Resources Dept	Observer	503-[illegible]
Lisa Chetnik Treichel	Lisa Chetnik Treichel	DOE-HQ/EM-442	Program Manager	301-903-8177
A.D. Krug	Allan D. Krug	WHC	Team Leader	509 376 5634
Paul Beaver	Paul Beaver	EPA	Unit Mgr.	509-376-8665
P.D. Mix	P.D. Mix	WHC	Program	509 376 1543
Allan C. Harris	Allan C. Harris	DOE-RL	Unit Manager	509-376-4339

Attachment #3

General Topics Unit Manager's Meeting
Official Attendance Record
June 24, 1992

Please print clearly and use black ink

PRINTED NAME	SIGNATURE	ORGANIZATION	O.U. ROLE	TELEPHONE
M.A. Amons	M A Amons	WHC	MGR: ENV. ENG.	6-8361
J K Patterson	J.K. Patterson	WHC	ER PROGRAM	6-0568
E D Goller	Eric Goller	RL	100 Area UM	6-7326
R G McLeod	R G M	ORE-RL	300 Area RIM	Z-0196
William J Mallio	William J Mallio	SWEC	GSSC	6-6975

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Attachment #4

Action Items Status List
Unit Manager's Meeting: General Topics
June 24, 1992

ITEM NO.	ACTION/SOURCE OF ACTION	STATUS
GT.38	If possible, at the May Unit Manager's Meeting a presentation on the approved, preferred alternative method for disposal of the reactors will be given. Action: Jim Goodenough (4/18/90, GT-UMM)	Open. The EIS will be reviewed by Admiral Watkins' office and Nuclear Safety (4/16/91). The RL program at DOE/HQ has written a letter to EH urging EH to quickly approve the final EIS and allow it to be published (6/19/91). Waiting for action from HQ (8/8/91). Waiting for status (11/20/91). Jim Goodenough to update status at February 1992 UMM (2/25/92). Waiting on HQ approval 3/25/92). The distribution package for the final EIS is in preparation (4-17-92). Notice of Availability - June. Going through final EIS process. **No change at HQ.**
GT.114	Determine where the macro engineering study is in the approval process of DOE. A presentation will be contingent on DOE management approval. Action: Allan Harris (9/18/91)	Open. WHC gave a presentation to DOE at the unit manager level, then to upper management (Mr. Bixby and Mr. Little) on 10/10/91. A presentation to DOE-HQ will be scheduled before it is given to EPA and Ecology. The document is currently under RL review (10/16/91). Need to present to project managers, possible December or January (11/20/91). (2/26/92) (3/25/92). Has not yet been approved (4-17-92). **At DOE-HQ (6/24/92).**

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ITEM NO.	ACTION/SOURCE OF ACTION	STATUS
GT.128	Provide information on the date when CLP versus SW 846 information will be provided to Ecology and EPA. Action: Eric Goller. (2/26/92)	Open. To remain open pending outcome of meeting on 3/26/92. Eric Goller will give status of item at May UMM (4/22/92). SW-846 vs. CLP approach paper is currently in RL review. The paper will be provided to EPA and Ecology upon satisfactory resolution of all RL comments. **Pending formal transmittal (6/24/92)**
GT.129	Provide information regarding DOE plans for development of site base maps. Action: Bob Stewart. (2/26/92)	Open. This activity has been reassigned to Mike Thompson and Bob Henckel (3/25/92). This action item to be assigned to Nancy Werdel and Dick Fox (4-21-92). USGS will contact Nancy Werdel to determine DOE position and describe scope of low cost solutions (4/22/92). Nancy Werdel will update survey task at the July UMM.
GT.132	**RL will take the lead in setting up a meeting to develop priorities for new operable units for work plan preparation. Participants are: Doug Sherwood, Chuck Cline, Darci Teel, Tom Wintczak, and Rich Carlson. Action: Bob Stewart.**	**Pending (5/27/92).** Closed 4/22/92.
GT.134A	**Provide all performance evaluation results from contractor labs during the time of their contract. Action: Joan Kessner (6/24/92).**	Open.
GT.136	Present a progress report in a few months on how the IDW work is going. Action: Laura Russell (WHC) (4/22/92). **Action: Daryl Koch (6/24/92)**	Open. **Action given to Daryl Koch (WHC).**

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ITEM NO.	ACTION/SOURCE OF ACTION	STATUS
GT.137	Report how the prioritization of samples is determined. What is the basis for this determination. Which projects were most impacted. Action: WHC Environmental Engineering (5/27/92).	Closed 6/24/92.
GT.138	Contact Jim Erickson (WA Dept. of Health) to determine if a representative from the health dept. needs to be a committee member on the Radiological Background Study Group. Action: Chuck Cline (Ecology) (5/27/92).	Open. Update at July UMM (6/24/92).
GT.139	Bring a proposal from the regulators to change the format of the OU meetings, separating the technical and management aspects. Action: Chuck Cline (Ecology) (5/27/92).	Open. Update at July UMM (6/24/92).
GT.140	Read the IDW (Groundwater Slurry) proposal and determine the need for further meetings or information. Action: Pam Innis, Darci Teel	Open (6/24/92).
GT.141	RL to define how the status of sample analysis prioritization will be communicated with the regulators at the July UMM. Action: Julie Erickson.	Open (6/24/92).
GT.142	Specify the number and type of SW-846 data packages and SOWs requested from OSM to aid evaluation of Proposal for Hanford Analytical Services. Action: Billie Mauss, Dennis Faulk.	Open (6/24/92).
GT.143	Present at the September UMM the average turnaround times specific to samples taken after June 1, 1992. Action: Joan Kessner.	Open (6/24/92).

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PROPOSAL TO REVISE EII 4.2 AND 4.3 TO DESIGNATE GROUNDWATER SLURRIES GENERATED FROM RCRA AND CERCLA GROUNDWATER MONITORING WELL INSTALLATION IN ACCORDANCE WITH PURGEWATER DESIGNATION PROCEDURES

D. F. KOCH
WHC ENVIRONMENTAL FIELD SERVICES

UNIT MANAGERS MEETING
JUNE 24, 1992

ISSUE

- GROUNDWATER SLURRIES GENERATED FROM THE INSTALLATION (DRILLING) OF RCRA AND CERCLA GROUNDWATER MONITORING WELLS ARE CURRENTLY MANAGED UNDER A SYSTEM NOT SEEN AS CONDUCIVE TO COST-EFFECTIVE ENVIRONMENTAL MANAGEMENT

MONITORING WELL WASTE STREAMS AND CURRENT DISPOSITION

VADOSE ZONE SOILS

- "DRY" DRILL CUTTINGS. "DRUMMED" IF FIELD PARAMETERS FOR pH, ORGANIC VAPOR OR RADIOACTIVITY ARE EXCEEDED. LIMITED GENERATION. DISPOSITIONED UNDER EII 4.2 AND 4.3. MINOR RAD-RELEASE PROBLEMS.

- "WET" CUTTINGS FROM "HARD-TOOLING" AND PERCHED WATER TABLE SLURRIES. "DRUMMED" DUE TO POTENTIAL OF MOISTURE TO "MASK" RADIATION FIELD DETECTION READINGS. MODERATE GENERATION. DISPOSITIONED FROM ON-SITE RAD-RELEASE DATA UNDER EII 4.2 AND 4.3. MINOR PROBLEMS.

MONITORING WELL WASTE STREAMS AND CURRENT DISPOSITION CONTINUED

PURGEWATER

- GROUNDWATER WHICH IS BAILED OR PUMPED FROM WELL DEVELOPMENT, COMPLETION, SAMPLING, REMEDIATION AND AQUIFER TESTING. GENERATION VARIABLE, DRUM AND TANKER COLLECTION. DISPOSITIONED PER ESTABLISHED PURGEWATER COLLECTION CRITERIA (PWCC) AND SOON TO BE IMPLEMENTED "PURGEWATER DETERMINATION" PROCEDURE IN WHC-CM-7-8.

GROUNDWATER SLURRIES

- DRILL CUTTINGS GENERATED AS DRILLING ENTERS THE WATER TABLE. "DRUMMED" DUE TO RAD MASKING POTENTIAL AND INVOCATION OF GROUNDWATER SAMPLING, ANALYSIS AND DESIGNATION PROCESS. ADDRESSED AS "UNKNOWN" WASTE UNDER EII 4.2 AND 4.3

GWS FACTS, IMPACTS AND PROBLEMS

- COMPOSED OF GROUNDWATER AND SOIL OF VARYING MIXTURE (TYPICALLY 40 TO 80 PERCENT SOLIDS)

- "TYPICAL" GENERATION RATE PER WELL IS 4 TO 7 DRUMS (200-350 GALS) (INFREQUENTLY, DRILLING TO CHARACTERIZE DEEP FORMATION MAY GENERATE 10 X THIS AMOUNT).

- GWS COMPRISE 25% AND 90%, RESPECTIVELY, OF MONTHLY DRUM INVENTORY FOR CERCLA AND RCRA DRILLING WASTES (CURRENTLY 326 AND 720 GWS DRUMS).

GWS FACTS, IMPACTS AND PROBLEMS, CONTINUED

- DISPOSITION PROCESS REQUIRES LENGTHY TIME PERIOD TO ACCOMPLISH WELL SAMPLING, LABORATORY ANALYSIS, DATA REVIEW AND FORMAL DESIGNATION.

  * AVERAGE DELAY FOR INITIAL WELL SAMPLING IS 6 MONTHS AFTER DRILLING IS COMPLETED.

  * FINAL DESIGNATION FOR GWS GENERATED IN FEBRUARY 1991 WAS OBTAINED IN MAY 1992.

GWS FACTS, IMPACTS AND PROBLEMS, CONTINUED

- PURGEWATER GENERATED FROM WELL INSTALLATION IN THE 200 WEST CARBON TETRACHLORIDE PLUME AREA HAS BEEN MANDATED FOR COLLECTION SINCE INCEPTION OF THE ORIGINAL HANFORD PURGEWATER STRATEGY IN 1990.

  * TO DATE, ONLY 1% OF THE GWS MANAGED BY EFS WOULD HAVE EVEN REQUIRED COLLECTION USING THE PWCC AS THE DESIGNATION PROCEDURE. THIS <u>INCLUDES</u> ALL OF THE GWS GENERATED FROM WELLS IN THE CARBON TETRACHLORIDE PLUME 200 WEST AREA.

- "NON-REGULATED" PURGEWATER ASSOCIATED WITH CERCLA AND RCRA MONITORING WELLS IS CURRENTLY MANDATED FOR DISPOSAL AT B-POND OR OTHER AREAS OF THE HANFORD SITE. THIS REQUIREMENT IS SEEN AS UNNECESSARY FOR THE SMALL AMOUNT OF "DRUMMED" PURGEWATER AND GWS WHICH IS TYPICALLY GENERATED DURING WELL INSTALLATION.

PROPOSED GWS DESIGNATION PROCESS USING WHC-CM-7-8, SECTION 6.1 "PURGEWATER DETERMINATION" PROCEDURE

- COLLECT/CONTAIN DESIGNATION. (TRANSPORT TO 200 EAST AREA STORAGE FACILITY)
  - CATEGORY I: 200 WEST AREA WELLS
  - CATEGORY II: ONE OR MORE CONSTITUENTS > CONTAINMENT CRITERIA.
  - CATEGORY III: INSUFFICIENT DATA BUT WITHIN "CONTAIN" PLUME

- COLLECT/DISPOSE ELSEWHERE. (B-POND OR OTHER AREAS)
  - "BENIGN" PURGEWATER BUT RESTRICTED IF FROM RCRA/CERCLA MONITORING WELLS.

- DISPOSE TO GROUND. (IN VICINITY OF WELLHEAD)
  - "BENIGN" PURGEWATER FROM WELLS NOT IN COLLECT/DISPOSE ELSEWHERE CATEGORY.

PROPOSAL RATIONALE

RESIDUAL SOLIDS (SOILS), ASSOCIATED WITH "REGULATED" PURGEWATER ARE VIABLE FOR AT/NEAR WELLHEAD DISPOSITION BECAUSE:

- SOLUBLE INORGANIC CONSTITUENTS ARE PRIMARILY CONTAINED IN THE DECANTED WATER PHASE WHICH IS COLLECTED AND TRANSPORTED TO THE PURGEWATER STORAGE FACILITY.

- ORGANIC CONSTITUENTS TYPICALLY FOUND IN HANFORD GROUNDWATER ARE VOLATILE IN NATURE, IE;, CARBON TETRACHLORIDE AND DEGRADATION PRODUCTS, AND ARE QUICKLY DISSIPATED AT LOW CONCENTRATIONS FROM BOTH WATER AND SOILS UPON EXPOSURE TO HANFORD CLIMATOLOGICAL CONDITIONS (WINDY AND ARID).

PROPOSAL RATIONALE, CONTINUED

- "NON-REGULATED" GWS ARE VIABLE FOR AT/NEAR WELLHEAD DISPOSAL BECAUSE PWCC CONSTITUENTS ARE LESS THAN REGULATED LEVELS OF CONCERN AND THE VOLUME OF FREE LIQUID AVAILABLE IS NOT SEEN AS SUFFICIENT TO DISSOLVE AND FORCE WELL AREA CONTAMINANTS TOWARDS SITE AQUIFERS.

PROPOSAL BENEFITS

- ALLOWS PWCC "NON-REGULATED" GWS TO BE DISPOSED AT/NEAR WELLHEAD UPON GENERATION, THUS REDUCING AND/OR ELIMINATING DRUMMING AND SUBSEQUENT HANDLING ACTIVITIES.
- ALLOWS AT/NEAR WELLHEAD DISPOSAL OF PWCC "REGULATED" GWS SOLIDS "AFTER" THE WATER PHASE HAS BEEN DECANTED AND ADDRESSED AS REQUIRED, "OR" ALTERNATIVELY, ALLOWS DIRECT DRUM SAMPLING/ANALYSIS OF PWCC EXCEEDING CONSTITUENTS TO DETERMINE DISPOSITION OF THE WATER PHASE.
- ALLOWS DIRECT DRUM SAMPLING OF GWS FROM THE 200 WEST CARBON TETRACHLORIDE PLUME AREA TO DETERMINE THE PRESENCE OF THIS CONTAMINANT AND/OR DEGRADATION PRODUCTS TO ESTABLISH DISPOSITION OF GWS COMPONENTS.
- REDUCES FIELD INSPECTION MANHOURS.
- REDUCES AND/OR ELIMINATES CURRENT TIME CONSUMING PROCEDURE FOR GWS SAMPLING, ANALYSIS AND DESIGNATION PROCESS.

PROPOSAL TO REVISE EII 4.2 AND 4.3 TO DESIGNATE GROUNDWATER SLURRIES GENERATED FROM RCRA AND CERCLA GROUNDWATER MONITORING WELL INSTALLATION IN ACCORDANCE WITH PURGEWATER DESIGNATION PROCEDURES

D. F. Koch
WHC Environmental Field Services

With the recent acceptance of EII 4.3, "Control of CERCLA and other Past-Practice Investigation Derived Waste", by U.S. EPA and the Wash. State Dept. of Ecology, DOE can now initiate long-term storage and management of containerized IDW which will become part of the Operable Unit Record of Decision (ROD). Implementation of EII 4.3 will allow a substantial decrease in manhour and operational costs for waste management with no increase in the threat to public health or to the environment.

Due to the implementation of EII 4.3, EII 4.2 will remain as the specific waste management guidance for drilling derived waste investigations at RCRA Treatment, Storage and Disposal Facilities (TSDFs), which will receive state RCRA, operational or closure permits. Currently, this EII 4.2 activity is limited to the installation of RCRA groundwater monitoring wells. Wastes generated and "drummed" from this activity consist of "hard tooling" slurries, a mixture of soil and river water which has been added to facilitate drilling; vadose zone dry drill cuttings, which have indications of chemical or radiological contamination from field screening; and, groundwater "slurries", a mixture of groundwater and soil of varying solids content, generated from drilling within the water table. Wastes generated from CERCLA groundwater monitoring wells are identical in nature and are included as part of this proposal. The collection, storage and disposal of hard tooling and vadose zone drill cuttings is accomplished within a reasonable time-frame with little, if any, problem. Groundwater slurries, however, which may be contaminated from contact with a groundwater plume that has carried contaminants from a RCRA TSD or CERCLA site, are drummed and stored at the wellhead pending designation and final disposal from results of groundwater analyses for constituents of concern and other more general contamination parameters. Thus, these slurries are addressed as "unknown" waste, and managed under the current methodology for Investigation Derived Waste specified in EIIs 4.2 and 4.3.

These slurries typically constitute 25 % and 90 % of the monthly total of CERCLA and RCRA IDW waste streams respectively (326 and 815 drums currently stored). Review of groundwater analyses demonstrates that only 1 % of these slurries generated since January of 1991 should have been collected when compared against the current purgewater collection criteria. Thus, prevailing slurry management procedures have led to costly manhour and monetary expenditures associated with continuing drum proliferation, long-term storage and inspection, waste analysis and waste designation procedures without additional environmental benefit. Attachment B. includes the specific proposal, rationale, and necessary document revisions to implement a revised groundwater slurry management system which will reduce drill site operating costs yet still retain a sufficient degree of environmental protection.

ATTACHMENT A.

PROPOSAL TO TO FACILITATE THE COLLECTION AND DISPOSAL OF GROUNDWATER SLURRIES GENERATED FROM THE INSTALLATION OF RCRA AND CERCLA GROUNDWATER MONITORING WELLS BY DESIGNATING THESE SLURRIES VIA THE PURGEWATER DESIGNATION PROCEDURES IN WHC-MR-0039, "STRATEGY FOR HANDLING AND DISPOSING OF PURGEWATER AT THE HANFORD SITE, WASHINGTON", WHC-CM-7-7 REV 2, EII 10.3, "PURGEWATER MANAGEMENT", AND WHC-CM-7-8, VOL 4, SECTION 6.1, REV 0, "PURGEWATER DETERMINATION".

Address the designation (characterization, collection, and disposition), of groundwater slurries (GWS) as "purgewater", thus making them subject to the basic requirements of the "Strategy For Management and Handling of Purgewater at the Hanford Site", EII 10.3, and Section 6.1 of WHC-CM-7-8, and not the "unknown" waste criteria specified in EIIs 4.2 and 4.3. These changes would allow "non-regulated" GWS to be discharged to the ground upon generation, significantly reducing the amount of drilling waste drummed per well.

Purgewater is currently assigned to either a "collect" or "not collect" category based on review of historical proximal well groundwater analyses data and a comparison with the purgewater collection criteria list for chemical and radiological constituents found in Table 3, Part E of WHC-CM-7-5. GWS, simarily designated as purgewater, would either be classified for discharge to the soil surface near the wellhead, (non-regulated), or collected in drums for subsequent settling of the solids, decanting and transportation of the water phase to the "regulated" purgewater storage facility, and discharge of the remaining solids to the soil at or in the immediate vicinity of the wellhead. Discharge to the ground of wet soils associated with "regulated" purgewater is not seen as detrimental because: a) the majority of inorganic contaminants are dissolved and carried within the decanted water phase of the GWS, b) levels of contaminants are typically in the parts per billion range and, c) volatile organics, such as carbon tetrachloride seen in the 200 West area groundwater plume, are quickly evaporated from the soils upon their discharge to the ground surface.

The "Purgewater Strategy" currently mandates that "non-regulated" purgewater withdrawn from wells which monitor burial grounds, RCRA solid waste management units, active/inactive disposal sites and, surface or subsurface soil contamination areas, shall be "disposed to the B-Pond or other areas of the site" and not at or in the immediate vicinity of the wellhead. As well development activities after drilling is completed may indeed require the pumping and disposal of several thousand gallons of purgewater, this requirement has merit. However, due to: 1) the small amount of non-regulated GWS which may be generated (average 200 gals.) per well), 2) process knowledge that a monitoring well is "not" drilled in a known or suspected contamination area, and 3) the arrid and windy, high evaporation rate, Hanford climate, the impact of non-regulated GWS as a substantial hydraulic force to solubilize and force contaminants towards groundwater systems appears negligible. Under specific circumstances where increased generation of GWS is anticipated, such as deep characterization wells, provisions can be made to provide the same degree of water dispersal by discharging the GWS over a larger surface area.

cont. page 2.

As stipulated in the "Hanford Purgewater Strategy", purgewater demonstrating the prescence of WDOE Dangerous Waste constituents at regulated concentrations is required to be designated and regulated as a dangerous waste. However, as well sampling takes place on the average of six (6) months after the drilling phase is completed, from a "purged" well column essentially free of solids associated with the previously collected GWS, a direct correlation that the GWS would also have regulated RCRA constituent levels cannot be made. Under this condition, therefore, it is proposed that representative sampling of the drummed GWS be initiated to determine the relevent concentration and waste designation.

Samples for on-site radioactive analyses are routinely obtained from drill cuttings at intervals of every five (5) feet from the start of drilling to total depth. Although the purgewater collection criteria does not specify upper limit values for radionuclides which, if exceeded, cannot be addressed by the regulated Purgewater Storage Facility, current field detection methods for radioactivity will indeed identify GWS which requires designation as radioactive waste and storage until a full radionuclide analysis is performed. Use of the "Purgewater Determination" procedure for GWS will therefore not decrease radiation detection or waste management systems currently in place.

Under current guidance, all purgewater generated from the 200 West area is required to be collected due to the assumed prescence of carbon tetrachloride. Although only a few wells from this area have shown values high enough to qualify as regulated purgewater, all of the groundwater from this area has nevertheless been collected as a conservative measure since the inception of the Hanford Purgewater Strategy. Due to the high volatility of this compound as exhibited by it's rapid dissipation from wet and dry drill cuttings, it is proposed that the following options be excercised for disposal of GWS recovered from the carbon tetrachloride plume area to provide for a cost-effective, environmentally protective and scientifically sound method of waste disposal. 1) Decant the water phase and transport to the regulated Purgewater Storage Facility with subsequent discharge of the remaining solids to the ground, or 2) Perform representative waste drum sampling for carbon tetrachloride and expected breakdown products only, and based on these data, discharge the entire drum contents to ground, or select option 1. This latter option is based on the assumption that carbon tetrachloride is the main constituent of concern in the 200 West area, as other plume contaminants, such as low picocurie radionuclides and nitrate, are not readily treatable and/or will naturally decay to non-regulated levels.

cont. page 3.

SPECIFIC DOCUMENT REVISIONS.

1. In order to reduce the administrative and procedural burden necessary to address these proposed changes, it is recommended that the current purgewater management documents not be changed, but rather that EII 4.2 and 4.3 be revised as follows to reference the applicable purgewater guidance to control the solids (slurries), that are the chief concern of this proposal.

EII 4.2

Section 6.3.1 Reword first sentence to say: "Drill cuttings, soils and hard-tool slurries generated from within the vadose zone, and associated decontamination fluid".....

6.3.1.b Reword to say "When encountering naturally occurring saturated soil or perched water which may mask accurate readings".....

6.4.1 Reword to say: "Drill cuttings, soils and hard-tooling slurries generated from within the vadose zone shall be".....

6.5.1 Reword to say: "Drill cuttings, soils and hard-tooling slurries generated from within the vadose zone, and associated decontamination fluid".....

Renumber and add a new section as follows:

6.6 "GROUNDWATER SLURRY MANAGEMENT"

1. "Waste which consists of groundwater and soils generated from within the water table during drilling operations (groundwater slurries or GWS), shall be simarily designated and dispositioned in conformance with section 3.6 of WHC-MR-0039, "Strategy For Handling and Disposing of Purgewater at the Hanford Site, Washington.", WHC-CM-7-8 Vol. 4., Section 6.1, "Purgewater Detemination", and the following requirements:"

a. "GWS assigned to either the "Collect/dispose elsewhere" or "Dispose to ground" category as described in WHC-CM-7-8, Section 6.1, may, upon generation, be discharged to the ground at or in the immediate vicinity of the wellhead, or drummed for subsequent disposal as directed by the Field Team Leader."

b. "Non 200 West Area GWS assigned to the II or III, "Collect/contain" categorgies, as described in WHC-CM-7-8 Section 6.1, shall be drummed upon generation. After the slurry phase has settled, the water phase shall be decanted and disposed at the regulated Purgewater Storage Facility with the settled soils disposed to the ground at or near the wellhead".

c. "200 West area GWS assigned to the specific carbon tetrachloride "Collect/Contain", Category I, as described in WHC-CM-7-8 Section 6.1, shall be drummed upon generation. These GWS shall be managed as prescribed in 6.6.1.b., or alternatively, dispositioned as in 6.6.1.a. if representative drum sampling demonstrates carbon tetrachloride and breakdown products are below the Purgewater Collection Criteria.

ATTACHMENT B.

WESTINGHOUSE HANFORD COMPANY	Manual	WHC-CM-7-8, Volume 4
	Section	6.1, REV 0
	Page	1 of 7
ENVIRONMENTAL ENGINEERING AND GEOTECHNOLOGY FUNCTION PROCEDURES	Effective Date	DRAFT 05/15/92
	Organization	RR/Environmental Division
TITLE:	Approved by	
PURGEWATER DETERMINATION	K. R. Fecht, Manager Geosciences	

1.0 PURPOSE

This procedure establishes the general requirements applicable to determining purgewater collection and containment.

2.0 SCOPE

This procedure applies to the determination of collection requirements for purgewater produced during well drilling, groundwater sampling, or aquifer testing performed by Westinghouse Hanford Company (WHC), Geosciences Group, or its subcontractors performing work as specified by contract documents. This procedure is provided in support of EII 10.3, "Purgewater Management".

3.0 DEFINITIONS

Collect/contain. A purgewater designation which is applied to wells which require collection of purgewater in a tank truck and transport of the purgewater to an above-ground storage unit. Three categories of collect/contain requirements are identified in the "Purgewater Strategy Document":

> Category I. A well which is located within the 200 West boundary (except for the expansion area).
> Category II. A well which has at least one constituent which exceeds a containment criterion listed in Table I of the "Purgewater Strategy Document".
> Category III. A well for which there is insufficient analytical information to make a purgewater determination but is located within a purgewater containment plume.

Collect/dispose elsewhere. A purgewater designation which is applied to wells which do not require Category I, II, or III containment but are located in a restricted disposal area. Purgewater from these wells must be collected and transported elsewhere on the Hanford Site for disposal.

Dispose to ground. A purgewater designation which is applied to wells which may have the purgewater disposed to the ground in the immediate vicinity of the well head.

Restricted disposal area. A location designated in Section 3.2.2 of the "Purgewater Strategy Document" and categorized as "Collect/dispose elsewhere" per this procedure. Restricted disposal areas are:

-designated RCRA Solid Waste Management Units (SWMUs).
-burial grounds,
-active/inactive liquid effluent disposal sites, or
-known surface or subsurface soil contamination areas.

4.0 RESPONSIBILITIES

4.1 GEOSCIENCES GROUNDWATER SAMPLING COORDINATOR

The Geosciences Groundwater Sampling Coordinator is responsible for:

1. Notifying the Geosciences Purgewater Coordinator of scheduled sampling activities which require purgewater collection determinations.

2. Complying with the collection requirements specified in each purgewater determination.

4.2 GEOSCIENCES PURGEWATER COORDINATOR

The Geosciences Purgewater Coordinator (purgewater coordinator) is responsible for:

1. Ensuring that Table 4 of the Purgewater Strategy Document is updated quarterly.

2. Reviewing the most recent analytical data for individual sampling and drilling projects for modifications to Table 4 collection requirements.

3. Identifying wells containing constituents lower than the collection criteria identified in Table 1 of the Purgewater Strategy Document which monitor:

   a. Designated RCRA Solid Waste Management Units (SWMU),
   b. Burial grounds,
   c. Active/inactive liquid effluent disposal sites, and/or
   d. Known contaminated surface area and subsurface vadose zone,

   for direct disposal to the soil column at an alternate location on the Hanford Site.

4.3 GEOSCIENCES DATA MANAGEMENT COORDINATOR

The Geosciences Data Management Coordinator (data management coordinator) is responsible for:

1. Assisting the purgewater coordinator in the preparation of quaterly updates to the Purgewater Table 4 of the Purgewater Strategy Document.

2. Assisting the purgewater coordinator in the collection of analytical data for individual project review on an as-needed basis.

5.0 REQUIREMENTS

None.

6.0 PROCEDURE

The decision flow diagram for the various purgewater designations is illustrated in Figure 6.1-1. Reference to this figure will be made throughout Section 6.1, "Step-by-Step Review of Data". Discussion of this figure is keyed to the numbers located next to each decision/action box. Responsibilities are identified as well as the method of analysis at each step in the process.

6.1 STEP-BY-STEP REVIEW OF DATA

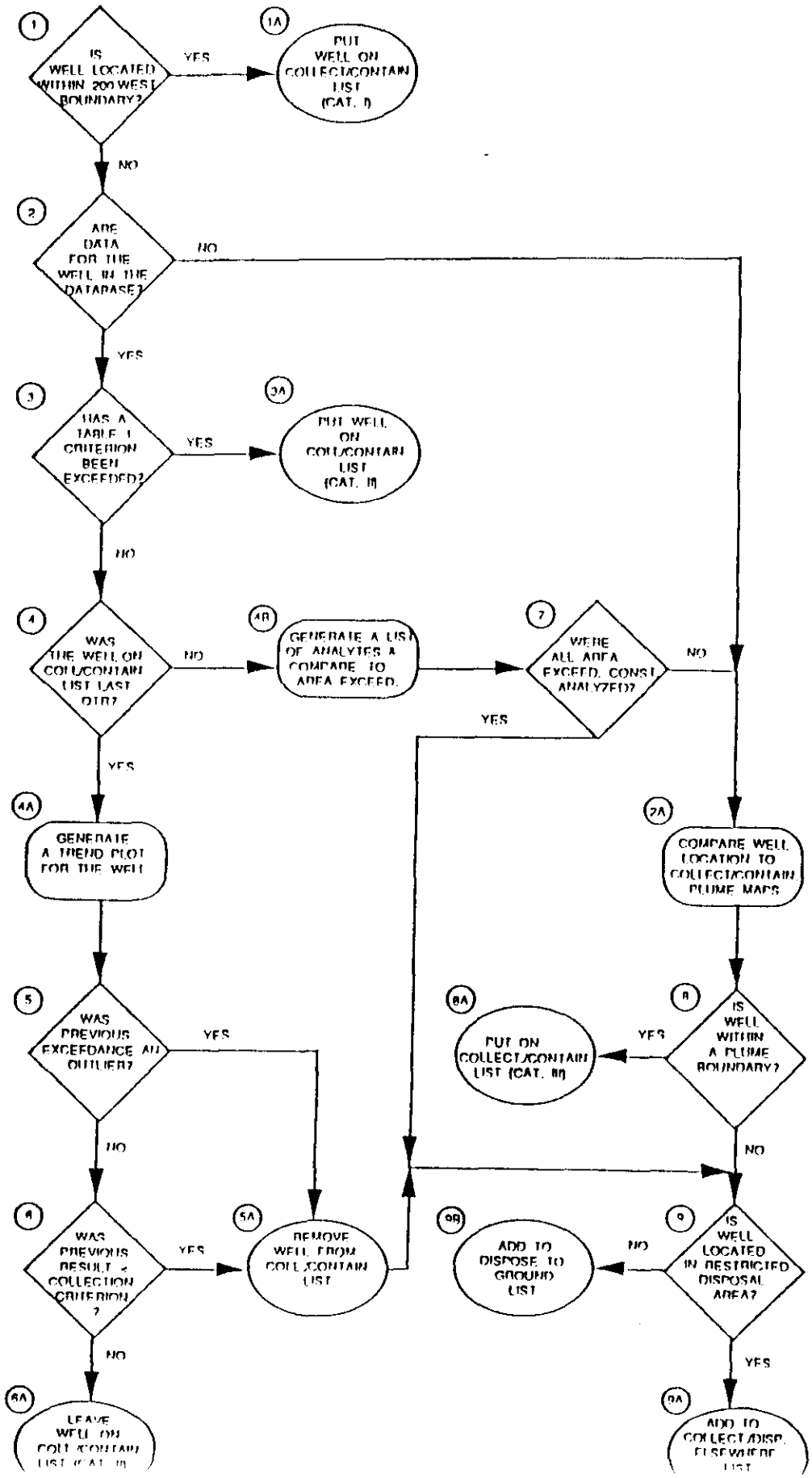
On an as-needed basis, or at a minimum of quarterly, the purgewater coordinator will request the assistance of the Geosciences Data Management Coordinator in the evaluation of well information and groundwater analytical data that has been entered into the groundwater database. The initial evaluation will consider all data since 1/1/90. Subsequent updates will consider only new data since the previous quarterly update. Steps to be taken in the data analysis are as follows:

1. <u>Decision</u>: Decide if the well is located in the 200 West Area (excluding the expansion area).
   <u>How accomplished</u>: Database comparison to area boundary coordinates.
   <u>Responsibility assigned to</u>: Data management coordinator.
   <u>Resulting decision/action</u>: YES response leads to action box 1A. NO response leads to decision box 2.

1A. <u>Action</u>: Well is added to the Collect/Contain List as a Category I well in compliance with Section 3.1.12 of the Purgewater Strategy Document.
   <u>How accomplished</u>: Database summary.
   <u>Responsibility assigned to</u>: Data management coordinator.
   <u>Resulting decision/action</u>: None

Figure 6.1-1

PURGEWATER DETERMINATION



2. Decision: Decide if any data (at all) are available in the database for the well.
How accomplished: Database query.
Responsibility assigned to: Data management coordinator.
Resulting decision/action: **YES** response leads to decision box 3. **NO** response leads to action box 2A.

2A. Action: Compare the well location to plumes developed based on the collection criteria contained in Table 1. of the Purgewater Strategy Document.
How accomplished: Database comparison (when implemented) or direct comparison (interim).
Responsibility assigned to: Data management coordinator (upon implementation) or purgewater coordinator (interim).
Resulting decision/action: The result of the comparison leads to decision box 8.

3. Decision: Decide if a Table 1. criterion (or criteria) from the Purgewater Strategy Document has been exceeded.
How accomplished: Database query.
Responsibility assigned to: Data management coordinator.
Resulting decision/action: **YES** response leads to action box 3A. **NO** response leads to decision box 4.

3A. Action: Well is added to the Collect/Contain List-Category II to comply with section 3.1.4 of the Purgewater Strategy Document.
How accomplished: Database summary.
Responsibility assigned to: Data management coordinator.
Resulting decision/action: None.

4. Decision: Decide if the well was on the Collect/Contain List for the previous quarter.
How accomplished: Database query.
Responsibility assigned to: Data management coordinator.
Resulting decision/action: **YES** response leads to action box 4A. **NO** response leads to action box 4B.

4A. Action: Generate a trend plot of all the collection criteria which had been exceeded the previous quarter.
How accomplished: Database operation.
Responsibility assigned to: Data management coordinator.
Resulting decision/action: The resulting trend plots are delivered to the purgewater coordinator for review as directed in decision box 5.

4B. Action: Generate a list of all the most recent analytes for the well and compare the list of the constituent criteria exceedances in the area of the well.
How accomplished: Database operation.
Responsibility assigned to: Data management coordinator.

Resulting decision/action: The result of the comparison leads to decision box 7.

5. Decision: Based on trend information the decision is made as to whether the previous exceedance(s) was an outlier.
How accomplished: Database operation (when implemented) with trend plot review/verification by the purgewater coordinator.
Responsibility assigned to: Purgewater coordinator.
Resulting decision/action: **YES** response leads to action box 5A. **NO** response leads to decision box 6.

5A. Action: Well is removed from the Collect/Contain List.
How accomplished: Purgewater coordinator notifies data management coordinator via a DSI to remove the well.
Responsibility assigned to: Purgewater coordinator.
Resulting decision/action: The result of this action is to resolve decision box 9.

6. Decision: Decide whether the two most recent results for a well previously on the Collect/Contain List are below the applicable Table 1. collection criterion.
How accomplished: Database operation and purgewater coordinator review.
Responsibility assigned to: Data management coordinator and purgewater coordinator.
Resulting decision/action: **YES** response leads to action box 5A. **NO** response leads to action box 6A.

6A. Action: Well is left on the Collect/Contain List.
How accomplished: Purgewater coordinator notifies the data management coordinator via a DSI that the well is to remain on the Collect/Contain List.
Responsibility assigned to: Purgewater coordinator and data management coordinator.
Resulting decision/action: None.

7. Decision: Decide whether there are results in the database for all constituents in the vicinity of the well which exceed Table 1 criteria.
How accomplished: Database operation.
Responsibility assigned to: Data management coordinator.
Resulting decision/action: **YES** response leads to decision box 9. **NO** response leads to action box 2A.

8. Decision: Decide whether the well is located within the boundaries of any groundwater plume whose boundary is equivalent to a purgewater containment criterion.
How accomplished: Database operation (when implemented) and purgewater coordinator review.
Responsibility assigned to: Data management coordinator and purgewater coordinator.

Resulting decision/action: **YES** response leads to action box 8A. **NO** response leads to decision box 9.

8A. Action: The well is added to the Collect/Contain elsewhere list.
How accomplished: Purgewater coordinator notifies data management coordinator via DSI.
Responsibility assigned to: Purgewater coordinator and data management coordinator.

9. Decision: Decide whether the well is located in a restricted disposal area.
How accomplished: Site visit.
Responsibility assigned to: Purgewater coordinator or his delegate.
Resulting decision/action: **YES** response leads to action box 9A. **NO** response leads to action box 9B.

9A. Action: The well is added to the collect/dispose elsewhere list.
How accomplished: Purgewater coordinator notifies data management coordinator via DSI.
Responsibility assigned to: Purgewater coordinator and data management coordinator.
Resulting decision/action: None.

9B. Action: The well is added to the dispose to ground list.
How accomplished: Purgewater coordinator notifies the data management coordinator via DSI.
Responsibility assigned to: Purgewater coordinator and data management coordinator.
Resulting decision/action: None.

7.0 REFERENCES

WHC-CM-7-7, Environmental Investigations and Site Characterization Manual.
ASTM Manual D 1193, Standard Specifications for Reagent Water, (Federal Test Method Standard No. 7916).
EII 1.6, "Records Management."
EII 5.1, "Chain of Custody."
EII 5.8, "Groundwater Sampling"

HRA-EIS Status - June 23, 1992

- EM-40 staff are continuing to process the NOI through the Headquarters for approval. Publication in the Federal Register is still at least two to four weeks away. (Supposedly P. Whitfield has signed and forwarded NOI to L. Duffy for transmittal to P. Ziemer.

- Scoping meetings are now expected to be conducted in late September/early October in four locations (Tri-Cities, Spokane, Seattle, and Portland).

- A briefing on the HRA-EIS to the Future Site Uses Working Group is planned for June 26, 1992. The purpose of the briefing is to describe the HRA-EIS preparation process and relay our thoughts on how the Future Site Uses Working Group product will be used to formulate HRA-EIS alternatives.

ANALYTICAL SERVICES STATUS

Jeff Lerch

June 24, 1992

ON-SITE LABORATORIES

- Pacific Northwest Laboratory/325 Laboratory projected to transmit all 200-BP-1 data packages by close of Fiscal Year 1992.
- The 222-S Laboratory assessment draft report was issued June 11, 1992.
  - Team has been assembled to initiate response and corrective actions.
  - Finalized report to be issued by June 29, 1992.

RFP STATUS

- Best and Final Offer responses received June 1, 1992.
- Best and Final Offer initial review completed June 5, 1992.
- Revised Best and Final Offer issued June 9, 1992.
  - Responses received June 11, 1992.
- Letter of Responsiveness issued to Procurement June 12, 1992.
  - Five Offerors Responsive.
- One primary and three secondary awards expected August 1992.

COMMERCIAL CONTRACTS

- DataChem Laboratories and Maxwell Laboratories, Incorporated, S-Cubed Division continue to have small workloads/no backlog.

- Assessment of Thermo Analytical, Incorporated/Skinner & Sherman performed June 9, 1992.

  - Organic capabilities.

  - Assessment Report due July 9, 1992.

- Commercial Laboratories Sample Tracking Information was submitted to the U.S. Department of Energy, Richland Field Office on June 15, 1992.

MAY 1992
LABORATORY TURNAROUND TIME AVERAGE

LABORATORY	SAMPLES SHIPPED	SAMPLE DATA RECEIVED	AVERAGE TURNAROUND TIME
A	2	0*	N/A
B	79	0**	N/A
C	76	149	135
D	287	132	193***

* Laboratory A had no data due during this reporting period.

** Laboratory B had no data due during this reporting period.

*** The increase in Laboratory D turnaround time is due to the reporting of 100 Area Biota samples shipped in August of 1991. The root cause of the delay in reporting the 100 Area Biota samples was a prioritization of 300-FF-1, 100 Area Springs, and 300 Area Process Trench Expedited Response Action sample analyses and reporting.

PLEASE NOTE: **Performance indicators are based on data generated from the 26th of the previous month through the 25th of the month being reported.**

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Unit Manager's Meeting: General Topics
June 24, 1992

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