START

0029355

MEETING MINUTES

Subject: Expedited Response Action Weekly Interface

TO: Distribution BUILDING: 740 Stevens Center

FROM: W. L. Johnson CHAIRMAN: G. C. Henckel

Dept-Operation-Component	Area	Shift	Meeting Dates	Number Attending
Environmental Engineering	RCHN	Day	July 12, 1993	15

Distribution

State of Washington Department of Ecology
J. Donnelly
G. Freedman*
L. Goldstein
D. Goswami*
R. L. Hibbard
D. Holland*
J. Phillips
D. D. Teel*
N. Uziemblo
J. Yokel
T. Wooley*

U.S. Army Corps of Engineers
Walter Perro* A3-61

U.S. Department of Energy
H. L. Chapman A5-19
J. K. Erickson A5-19
B. L. Foley* A5-19
E. D. Goller A5-19
R. G. McLeod A5-19
D. E. Olson* A5-19
P. M. Pak* A5-19
R. K. Stewart A5-19

U.S. Environmental Protection Agency
P. R. Beaver B5-01
D. R. Einan
D. A. Faulk*
L. E. Gadbois*
P. S. Innis*
D. R. Sherwood

Westinghouse Hanford Company
L. D. Arnold B2-35
M. V. Berriochoa B3-30
H. D. Downey H6-27
W. F. Heine B3-63
G. C. Henckel H6-04
W. L. Johnson* H6-04
G. W. McLellan* N3-05
J. K. Patterson H6-27
V. J. Rohay* H6-06
T. M. Wintczak H6-27
EDMC H6-08
ERAG Route H6-04
GCH File

*Attendees

The weekly interface meetings on the expedited response actions (ERAs) was held to status the ERAs for the U.S. Department of Energy, Richland Operations Office, the U.S. Environmental Protection Agency, and the State of Washington Department of Ecology. The meeting was conducted in accordance with the attached agenda. The VOC-Arid Integrated Demonstration Sonic Drilling Activity was discussed. A meeting is scheduled for Friday, July 16, 1993, to go over specific regulator questions on the North Slope cost estimates.

NOTE: THE WEEKLY INTERFACE MEETINGS ARE NOW BEING HELD IN CONFERENCE ROOM 1600 EFFECTIVE JULY 19, 1993.

Attachments:
1. Agenda
2. Decisions, Agreements & Commitments
3. Expedited Response Action Weekly Reports, week ending 07/09/93

WEEKLY ERA INTERFACE AGENDA

SUBJECT: STATUS OF THE EXPEDITED RESPONSE ACTIONS

DATE: July 12, 1993

- GENERAL ISSUES
  - ERA Interface Action Item Review
- INDIVIDUAL PROJECT STATUS
  - Riverland
    o Status of Field Activities
  - Sodium Dichromate
    o Waste Disposal, results are back, disposal is scheduled
  - Pickling Acid Crib
    o ERA Proposal out for Public Review
  - N-Springs
    o Draft Proposal Status
  - North Slope
    o Proposal to RL
  - 200-W Carbon Tetrachloride
    o Operational Readiness Issues
  - 618-11
    o Draft EE/CA is ongoing
- OTHER ISSUES
- SUMMARY OF ACTION ITEMS
- SIGN-OFF ON ANY DECISIONS, AGREEMENTS, OR COMMITMENTS

EXPEDITED RESPONSE ACTION INTERFACE MEETING

-DECISIONS, AGREEMENTS, & COMMITMENTS-
July 12, 1993

DECISIONS:

No significant items.

AGREEMENTS:

COMMITMENTS:

RL Representative

EPA Representative

Ecology Representative

WHC Representative

Weekly Report, Period Ending July 9, 1993
EXPEDITED RESPONSE ACTIONS
Technical and Management Contact - Wayne L. Johnson, 376-1721
Environmental Division

North Slope Expedited Response Action - Awaiting comments from DOE, EPA and Ecology on draft ERA Proposal.

N-Springs Expedited Response Action - Incorporating accepted comments received from DOE on ERA Proposal. Comments not accepted will be dispositioned as necessary during the regulator comment incorporation cycle.

618-11 Burial Ground Expedited Response Action - Comments were received from peers on EE/CA working draft. Further development of alternatives needs wider participation. Discussions held this week with Solid Waste, Field Services, NEPA, Remote Systems Engineering and CERCLA Geohydrology personnel. Planning to pursue use of contractors to complete EE/CA.

White Bluffs Pickling Acid Crib Expedited Response Action - The White Bluffs Pickling Acid Crib ERA Proposal has been issued for concurrent DOE/EPA/Public review. The document recommends no further action for the vadose zone at the site.

Riverland Expedited Response Action - Cleanup is still in progress at the Riverland ERA Pesticide site. A foot of soil has been removed and has filled fifteen, 55-gallon drums. Field tests continue to indicate the presence of pesticides. We are nearly out of field test kits. Additional kits are being placed on emergency order. Pesticide cleanup must stop until the new test kits are available.

Ten horses were discovered at the Riverland shop area. Mr. C. R. Pasternak, RL, has been contacted to get the horses removed.

General cleanup at the Riverland ERA area has been initiated. All known military batteries have been removed. Zinc was found in the soil samples. The second empty container site (believed to be oil cans) tested positive for pesticides (Aldrin) from interior container samples. These particular field screening soil samples were negative.

Sodium Dichromate Expedited Response Action - The paper work for the Sodium Dichromate waste barrels is complete. The barrels should be shipped the week of July 19, 1993. Three barrels are regulated and two barrels are non-regulated.

CCl_4 ERA

A. Vapor Extraction System (VES) Operations

Status of Operations: All three vapor extraction systems at the 200 West Area carbon tetrachloride ERA have been shut down as a result of the overheating of the primary granular activated carbon (GAC) canister at the 1500 cfm unit that occurred on June 3, 1993. The systems have been locked and tagged to prevent extraction operations until the approval to proceed is received through the restart process. During the restart

process the VES systems will be temporarily operated on ambient air to perform limited testing of the units and facilitate waste handling of the impacted GAC canister. During this time there will be no extraction of carbon tetrachloride from the wellfield.

Anticipated Restart: Anticipated restart for the 1000 cfm unit at 216-Z-1A Tile Field is July 27, 1993; anticipated restart for the units at the 216-Z-9 Trench is August 9, 1993.

Restart Actions Completed: The complete restart strategy, with status as of July 7, 1993, is attached. Major actions completed since June 3, 1993, include:

- 24-hour initial Off Normal Occurrence Report submitted	6/4/93
- occurrence entered into Quality, Environmental, Safety Tracking (QUEST) database	6/15/93
- 10-day Off Normal Occurrence Report submitted	6/17/93
- Initial Background Summary Report completed includes Occurrence Report, Hanford Fire Dept. Report, General Specifications and Properties of GAC, Notes of Discussions with GAC vendors, Notes of discussions with Savannah River personnel	6/14/93
- Priority Planning Grid (PPG) risk value determined	6/12/93
- Root cause analysis interviews completed	6/28/93
- Unreviewed Safety Question evaluation completed	6/16/93
- Hazards evaluation completed	6/24/93
- Accident credibility determination completed	6/24/93
- Heat Balance Scenario, Rev. 0, completed	6/18/93
- Heat Balance Scenario, Rev. 1, completed	6/30/93
- Phosgene analysis, Rev. 0, completed	7/7/93
- GAC sampling completed	6/27/93
- GAC water sampling completed	6/27/93
- Summary Analysis Report, Rev. 0, completed	6/18/93
- Summary Analysis Report, Rev. 0 update, completed	6/24/93

Potential Corrective Actions: A thermocouple tree was fabricated to measure temperatures within a GAC. An unused GAC was delivered to the 306 building on June 16, 1993, for testing. Testing using heated clean air in the shop was conducted June 28, 1993. The testing indicated that the thermal front is a sharply defined boundary and that the outlet

temperature remained constant as the thermal front moved through the GAC. Use of thermocouples to monitor the GAC temperatures is still being considered as a corrective action, but in conjunction with other types of monitors.

An off-the-shelf condenser is being selected to reduce the concentration of carbon tetrachloride loaded onto GACs connected to the 1500 cfm unit.

Justification for Continued Operation: A basis has been developed for justifying continued operation of the 1000 cfm VES at the 216-Z-1A site. It is dependent, however, upon an analysis for phosgene production that could occur in another GAC overheating incident. Safety expects to have results on the phosgene analysis by July 9, 1993. A draft justification letter for restart is being prepared that will incorporate these findings before going to Westinghouse management for approval.

Overheated GAC: The 1500 cfm vapor extraction unit was operated June 25-26, 1993 using ambient air to blow air through the overheated/water-cooled GAC, which must be dried before sampling. Three additional GACs were on line to capture any vapors. Samples were collected June 28, 1993, for physical and chemical analyses. Representative samples of the GAC and the overheated GAC are being collected to determine whether this GAC can be regenerated under the existing contract with Envirotrol.

GAC Strategy: On June 7, 1993, the ERA project team decided to ship all the GACs that are currently available in the "one-time" shipment to Envirotrol.

1500 cfm VES Jack Installation: An engineer from Fleet Management was at the site July 7, 1993, to make a template for the mounting plates that will have to be installed onto the trailer to allow for the installation of the jacks. Installation of the jacks is expected to start by the beginning of next week (July 12, 1993).

Heat Exchangers for 1000 cfm VES at 216-Z-1A: Work is continuing on the installation of eight air-to-air heat exchangers used that will be used to cool the process airstream from each train of 500 cfm blowers on the 1000 cfm VES.

Permanent Power Installation at 216-Z-9: The latest Davis-Bacon Act review for the installation of power at the 216-Z-9 VES site was completed July 6, 1993, and the determination is expected by July 9, 1993. Once the determination is made, a work order will be sent to the crafts to begin construction. All necessary construction materials have arrived at the site.

B. Well Field Design

Baseline monitoring continues with seven VOC detections at wellheads on June 25, 1993. The maximum detection was 387 ppm. On June 29, 1993, seven wells had VOC detections with the maximum being 798 ppm. Well 299-W15-85 had the highest detection on both days. This well is a former 216-Z-9 vapor extraction well, currently sealed.

Baseline monitoring continues during a period of moderate barometric pressure (29.1 in. of Hg). On July 1, 1993, four wells in the Z-9 area had VOC detections (maximum 217 ppm at 299-W15-95). Three soil-gas probes had VOC detections with the highest 38 ppm. On July 6, 1993, seven wells had VOC detections (maximum 1229 ppm).

On July 6, 1993, all soil-gas probes and cone penetrometer points had detectable VOCs. It is interesting to note that this period of 100% detections in soil-gas probes falls within a period of maximum volatile emissions as predicted by Quadrel Services for upcoming Emflux sampling.

Drilling of vapor extraction well 299-W15-219, northwest of 216-Z-9, began April 26, 1993, and reached total depth May 25, 1993. This well is currently being completed with two screened intervals. In addition, three stainless steel tubes were installed on the outside of the casing to allow subsurface pressures to be monitored at the surface using differential pressure transducers. Efforts to break up the cement inside the temporary casing were successful, and completion is continuing.

Drilling of vapor extraction well 299-W15-220 east of 216-Z-9 began June 2, 1993. As of June 29, 1993, the depth was 143 ft. Analysis of SEAMIST samples collected at four depths indicated carbon tetrachloride concentrations as follows: 854 ppm at 50 ft; 199 ppm at 90 ft; 633 ppm at 115 ft (bottom of caliche); 160 ppm at 142 ft.

Drilling of vapor extraction well 299-W18-252, midway between 216-Z-1A and 216-Z-12, began May 3, 1993. As of June 11, 1993, total depth (228 ft) had been reached and groundwater sampling had been completed. This well will be completed after well 299-W15-219 is completed.

The sonic drilling rig is expected to be at the carbon tetrachloride site by mid August. It will be used to drill two vertical vapor extraction wells near the 216-Z-9 trench and one angled vapor extraction well under the parking lot north of the 216-Z-9 trench. Data sheets have been prepared for these three wells.

Cone penetrometer (CPT) well installation began May 3, 1993, in the vicinity of the three disposal sites by Applied Research Associates (ARA). The ARA field crew was gone June 3, 1993, to June 7, 1993. Additional extraction wells will be installed during July.

A soil gas pressure monitoring station has been installed on the buried tubing well installed using the cone penetrometer north of 216-Z-9 (location CPT-9). Downhole pressure is continuously monitored at depths of 60, 70, and 91 ft.

Eight differential pressure gages have been installed on several soil pressure tubes in the CPT-4 field. Pressure data are recorded at five minute intervals at depths of 25, 59, 75, and 91 ft in CPT-4a, and 25, 50, 75, and 109 ft in CPT-4f. CPT-4a and CPT-4f are approximately 60 ft apart. The data are nearly identical at the two locations for similar depths. Based on this, one set of pressure gauges have been moved from CPT-4f to well 299-W18-247 in a sealed well test configuration.

Differential pressure gauges are being installed on wells in the 216-Z-1A tile field to measure barometric pressure effects while the active vapor extraction system is not operating.

Data collection continues at the wellhead monitoring systems installed on wells 299-W18-6, W18-7, W18-248, W18-249, W15-218 (combined contribution from both screened intervals), and W18-246 (one system on each of two screened intervals). The wells are instrumented to measure temperatures, windspeed, pressure, humidity, and air flow, and to record these measurements on a data logger. In addition, a chemical sensor (B&K 1301) is used to collect carbon tetrachloride concentration data at well 299-W18-6 full time while the vapor extraction systems are shut down.

The two 400 pound GACs have arrived on site for use with the HEPA Vac Characterization Unit. Testing of the flows and vacuums using ambient air are scheduled to begin July 14, 1993.

The backlog of GAC sampling from all passive wellhead monitoring systems has been completed. All samples taken were submitted to Cary Martin and all bags of GAC were combined into drums. To date, this project has produced five 55 gal. drums of GAC which have been filled, sealed, labeled and moved to the CCl_4 central storage area. Only one temporary storage location will be maintained at 299-18-249. All other temporary storage locations have been removed.

Outreach - A reporter and photographer from CNN visited the 200 West Area Carbon Tetrachloride site July 1, 1993.

200 WEST AREA CCL4 VAPOR EXTRACTION ERA
RESTART STRATEGY
Rev. 6/18/93

STATUS OF OPERATIONS

All three vapor extraction systems have been locked and tagged to prevent operations until the approval to proceed is received through the restart process.

During the restart process the VES systems will be temporarily operated on ambient air to perform limited testing of the units and facilitate waste handling of the impacted GAC canister. During this time there will be no extraction of carbon tetrachloride from the wellfield.

ACTION	TARGET DATE	ASSIGNEE	STATUS
1. OFF NORMAL OCCURRENCE REPORTING		Hagood	
o 24-hour initial occurrence	6/4/93	Hagood	Complete
o QUEST database entry	6/15/93	Hagood	Complete
o 10-day report	6/17/93	Hagood	Complete
o Final occurrence reporting	7/15/93	Hagood	
2. INCIDENT ANALYSIS		Rohay/Cameron	
o gather background information			
- interview lead engineer			
initial	6/8/93	Johnson/Dippre	Complete
followup	6/23/93	Dippre	
- review procurement files	6/8/93	Dippre	Complete
- discussions with vendors/consultants	6/25/93	Dippre	Ongoing
- SRS event			
collect/analyze data	6/11/93	Dippre	Complete
followup with SRS	6/23/93	Dippre	
- review INEL safety analysis	TBD	Driggers/Lehrschall	
- hydrocarbon/ketone char. - wells	6/21/93	Swett/Bartley	
sampling	6/14/93	Swett	Complete
inorganic/methane analysis at PNL	6/16/93	Bartley	Complete
organic analysis at HEHF	6/18/93	Bartley	Complete
- hydrocarbon/ketone char. - GACs (primary overheated GAC secondary GAC behind overheated GAC uninvolved saturated GAC)	6/25/93	Gale/Bartley	
Sampling Analysis Form with HASM	6/18/93	Havenor	
Air dry GAC/Job Hazard Analysis	6/21/93	Gale	
Sampling	TBD	Gale	
inorganic/methane analysis at PNL	TBD	Bartley	
organic analysis at HEHF	TBD	Bartley	

- obtain fireman's report	6/8/93	Gale	Complete
- provide background summary report			
Rev. 0	6/14/93	Dippre	Complete
Rev. 1	6/25/93	Dippre	
o occurrence cause analysis			
- heat balance scenarios			
Rev. 0	6/18/93	Jeff Dengler	
Rev. 1	6/25/93	Dengler	
Rev. 2	TBD	Dengler	
- consequence/accident scenario	6/25/93	Lehrschall	
[note: needs heat balance scenario]			
- shutdown analysis	TBD	Gale/Tuttle	
- phosgene analysis	6/23/93	Dave Prinzing	
[note: needs heat balance scenario]			
- GAC physical and chemical props.	6/23/93	Havenor/Envirotrol	
primary GAC center and margin samples			
Sampling Analysis Form with HASM	6/18/93	Havenor	
Air dry GAC/Job Hazard Analysis	6/21/93	Gale	
Sampling	TBD	Gale	
- GAC water analysis		Havenor	
Sampling Analysis Form with HASM	6/18/93	Havenor	
Sampling	TBD		
Analysis	TBD		
- GAC drummed water waste disposal		Havenor	
- coupon testing for GAC canister corros.	TBD	Cameron	
- provide occurrence cause analysis summary report			
[note: includes background summary report]			
Rev. 0	6/18/93	Dippre	
Rev. 1	TBD	Dippre	
o Priority Planning Grid (PPG) and "Root Cause" analysis		Driggers	
- determine PPG risk value	6/12/93	Galgoul	Complete
- "Root Cause" Analysis	TBD	Dieffenbacher	
[note: incorporates occurrence cause analysis report]			
o Unreviewed Safety Question (USQ) process		Driggers	
- USQ initial screening	6/11/93	Lehrschall	
- USQ evaluation	6/16/93	Lehrschall	

3. INTERIM CORRECTIVE ACTION EVALUATION AND VES OPERATIONS Rohay/Cameron

o Determine interim corrective actions	6/21/93	Driggers	
[note: based on occurrence cause analysis report]			
o Evaluate potential system design/ engineering controls	6/24/93*	Driggers	
- provide airflow through GAC canisters at shutdown to remove heat			
- prewet GAC before adsorption operations			
- install thermocouple trees with shutdown interlocks			
deliver clean GAC to 306 building	6/16/93	Gale	Complete
develop and fabricate			
testing			
- install carbon monoxide monitors downstream of GACs to detect combustion			

- limit total carbon tetrachloride mass flux to reduce heat buildup
- provide extra moisture-laden ambient air through GACs during operations to remove more heat
- utilize parallel treatment trains to split total carbon tetrachloride loading in canisters to mitigate heat buildup

o impact on existing GAC contract			
o Procurement/delivery of equipment	6/25/93*	Gale	
o Equipment installation	6/26/93*	Gale	
o Provide Justification for Continued Operations (JCO)			
- determine basis for JCO	6/21/93	Driggers	
- draft JCO	6/22/93	Driggers	
- JCO approval	6/23/93	Driggers	
o Rev. to controlling documents			
- TI-010	6/24/93*	Driggers	
- Pre-fire plan	6/17/93	Tuttle	Complete
- HWOP	6/24/93*	Tuttle	
o Safety Meeting	6/28/93*	Tuttle	
o Systems Startup			
1000 cfm at Z-1A	6/23/93*	Gale	
500 cfm at Z-9	6/28/93*	Gale	
1500 cfm at Z-9	6/28/93*	Gale	

4. LONG TERM CORRECTIVE ACTION EVALUATION AND VES OPERATIONS Rohay/Cameron

o Determine long term corrective actions [note: based on "root cause" and analyses]	6/30/93	Dieffenbacher, Lehrschall, ERA team
o Evaluate potential system design/ engineering controls	7/5/93	Driggers
- install off-the-shelf condenser prior to GAC polisher to reduce mass of carbon tetrachloride loading GACs		
recycle condensed carbon tet		Driggers/Cameron
convert condensate to TCA and recycle		Driggers/Cameron
load condensate into GAC/ship offsite		Rohay
- internal GAC water shower		
o Determine regulatory constraints on system	7/5/93	Cameron
o impact on existing GAC contract		
o Procurement/delivery of equipment	TBD	Gale
o Equipment Installation	TBD	Gale
o Revision of controlling documents	7/5/93	
- TI-10		Driggers
- Safety Analysis		Lehrschall
- HWOP		Tuttle
o Safety Meeting	TBD	Tuttle
o Systems Startup	TBD	Gale

* Schedule assumes acceptance by management and other parties to proceed with certain engineering changes and procurement of VES equipment in parallel with the "incident analysis". Schedule may be impacted due to Safety Analysis results or management direction.