

START

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MEETING MINUTES

Subject: Expedited Response Action Weekly Interface

TO: Distribution

BUILDING: 740 Stevens Center

FROM: W. L. Johnson

CHAIRMAN: G. C. Henckel *GCH*

Dept-Operation-Component	Area	Shift	Meeting Dates	Number Attending
Environmental Engineering	RCHN	Day	August 2, 1993	8

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
 Mike Mahoney* 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. Einar
 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
 S. L. Bradley G1-20
 H. D. Downey H6-27
 W. F. Heine B3-63
 G. C. Henckel H6-04
 W. L. Johnson H6-04
 J. K. Patterson H6-27
 V. J. Rohay* H6-06
 T. M. Wintczak H6-27
 EPIC H6-08
 ERAG Route H6-04
 GCH File

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*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.

Distribution
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August 2, 1993

Attachments:

1. Agenda
2. Action Item List
3. Decisions, Agreements & Commitments
4. Expedited Response Action Weekly Reports, week ending 07/30/93

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WEEKLY ERA INTERFACE AGENDA

SUBJECT: STATUS OF THE EXPEDITED RESPONSE ACTIONS

DATE: August 2, 1993

- GENERAL ISSUES
 - ERA Interface Action Item Review
- INDIVIDUAL PROJECT STATUS
 - Riverland
 - o Status of Field Activities
 - Sodium Dichromate
 - o Waste Disposal
 - Pickling Acid Crib
 - o ERA Proposal out for Public Review
 - N-Springs
 - o Draft Proposal Status
 - North Slope
 - o Revising Proposal
 - 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

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EXPEDITED RESPONSE ACTION INTERFACE MEETING

-ACTION ITEMS-
August 2, 1993

ORGANIZATION

ACTION ITEM

WHC

Supply information on Riverland for EPA to provide to Washington Department of Health. (closed)

WHC

Provide copy summary analysis report and ten-day report. (open)

WHC

Provide five-day notification for environmental sampling at 618-11 and provide a figure showing sample locations. (closed)

RL

Provide a briefing on N-Springs. (open)

RL

Clarify North Slope document distribution. Ecology is receiving telephone calls and written comments prior to public review. (open)

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EXPEDITED RESPONSE ACTION INTERFACE MEETING

-DECISIONS, AGREEMENTS, & COMMITMENTS-
August 2, 1993

DECISIONS:

No significant items

AGREEMENTS:

COMMITMENTS:

9
3
1
3
0
2
4
1
8
6
2

RL Representative

EPA Representative

Ecology Representative

[Signature]

WHC Representative

Weekly Report, Period Ending July 30, 1993
EXPEDITED RESPONSE ACTIONS
Technical and Management Contact - Wayne L. Johnson, 376-1721
Environmental Division

North Slope Expedited Response Action - Continued dispositioning and incorporating DOE, EPA, Ecology, and the U.S. Fish and Wildlife comments on the draft ERA Proposal. The flora and fauna field survey of potential remediation sites was completed.

N-Springs Expedited Response Action - The revised draft of the ERA Proposal is in the release process for transmittal to EPA and Ecology.

White Bluffs Pickling Acid Crib Expedited Response Action - Document is undergoing public review.

618-11 Burial Ground Expedited Response Action - The proposal has been revised for DOE review beginning August 2, 1993.

Riverland Expedited Response Action - Twelve dump truck loads of debris were removed from the fish farm area. Analytical results necessary to determine waste designation for the concrete at the Riverland Wash Pit will be received August 10, 1993, at the earliest.

200 West Area Carbon Tetrachloride Expedited Response Action

CCl₄ ERA

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.

Anticipated Restart: Contingent upon approval of the Justification for Continued Operation letter for 216-Z-1A/Z-18, and completion of activities identified in the readiness checklist, restart of the 1,000 cfm VES at the Z-1A/Z-18 ERA site is scheduled to begin by August 31, 1993. Restart of operations at Z-9 is anticipated by the end of September.

Restart Actions Completed: The complete restart strategy, with status as of July 29, 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
- 10-day Off Normal Occurrence Report Update submitted 7/17/93

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- Initial Background Summary Report completed 6/14/93
- Revised Background Summary Report completed 7/2/93
includes Occurrence Report; Hanford Fire Dept.
Report; General Specifications and Properties
of GAC; VES Operational Data; Notes of Discussions
with GAC vendors and experts, with Savannah River
personnel, and with EPA contact.
- Initial References Report completed 7/12/93
- Initial Heat Balance Scenario completed 6/18/93
- Revised Heat Balance Scenario completed 6/30/93
- Initial Phosgene Analysis completed 7/7/93
- GAC sampling completed 6/27/93
- GAC water sampling completed 6/27/93
- GAC water analysis completed 7/21/93
- GAC analysis by Envirotrol completed 7/2/93
- GAC inorganic analysis completed 7/22/93
- Initial Summary Analysis Report completed 6/18/93
- Updated Initial Summary Analysis Report completed 6/24/93
- Revised Summary Analysis Report completed 7/22/93
includes the heat transfer calculations,
consequence and accident scenarios, shutdown
analysis, phosgene analysis, and GAC canister
and well analyses.
- Priority Planning Grid (PPG) risk value determined 6/12/93
- Root cause analysis interviews completed 6/28/93
- Root Cause analysis final report completed 7/20/93
- Unreviewed Safety Question evaluation completed 6/16/93
- Hazards evaluation completed 6/24/93
- Basis for Justification for Continued Operation at
Z-1A/Z-18 determined 7/6/93
- Presentation to WHC Level 2 Management completed 7/16/93
- Initial GAC thermocouple testing completed 6/28/93
- Followup GAC thermocouple testing completed 7/23/93

Activities Planned for Next Week: A test to measure GAC ignition temperature, ignition by-products, and heat of adsorption will be conducted by the Plutonium Process Support Laboratory. The test involves thermogravimetric/calorimetric testing of virgin GAC and GAC loaded with carbon tetrachloride and is expected to be completed July 30, 1993.

A site visit by a leading GAC expert, Dr. Hari Murty, President of Superior Adsorbents, Inc., is taking place July 26, 1993, through July 30, 1993. On July 30, 1993, Dr. Murty will present a debrief of his visit, followed immediately by a training session for the project team.

1500 cfm VES Procurement - Extensive recalibration and performance tests of the Sierra flowmeters were conducted on the 1500 cfm unit on July 21, 1993, and July 22, 1993. Final resolution of any outstanding procurement issues is expected within a week.

Power Installation at Z-9 - Installation of permanent power at 216-Z-9 should be completed by July 30, 1993.

Baseline Monitoring

Monitoring on July 23, 1993, during a period of moderate pressure (29.1 in of Hg) produced few VOC detections. Monitoring in the main soil-gas network (excluding new Z-1A CPT field) revealed four detections (maximum 16 ppm at SG 15-6). There was one wellhead detection of 12 ppm at 299-W15-95.

Instrument failure on July 27, 1993, prevented monitoring activities. On July 28, 1993, during a period of low barometric pressure (28.8 in Hg) there were two VOC detections at soil-gas probes (maximum 150 ppm at SG 15-6). There were 29 wellhead detections with the maximum being 91 ppm at 299-W15-218.

Wellfield Design

Drilling of vapor extraction well 299-W15-220 east of 216-Z-9 began June 2, 1993, and reached total depth July 21, 1993. This well will be completed after 299-W18-252.

Drilling of vapor extraction well 299-W18-252, midway between 216-Z-1A and 216-Z-12, began May 3, 1993. Completion began on July 20, 1993, and is expected to be finished August 6, 1993. The completed well will have two screened intervals.

The tentative schedule for sonic drilling at the carbon tetrachloride site is: August 16, 1993, through September 7, 1993, drill one angled vapor extraction well under the parking lot north of the 216-Z-9 trench; September 20, 1993 through October 5, 1993 and October 6, 1993 through October 20, 1993, drill two vertical vapor extraction wells near the 216-Z-9 trench.

Cone penetrometer (CPT) well installation began May 3, 1993, in the vicinity of the three carbon tetrachloride disposal sites by Applied Research Associates (ARA). Field work was completed July 28, 1993. A summary of work accomplished and a map of well locations, is being compiled.

The contract with Washington State University was placed July 27, 1993, to conduct tracer gas tests in both the active and passive vapor extraction wellfields. The tests will use an inert, nontoxic gas, sulfur hexafluoride (SF₆), to investigate subsurface air flow pathways and soil gas diffusion rates, to provide carbon tetrachloride transport and atmospheric emission data, and to determine the radius of influence of extraction wells. Data such as these are critical to the success of vapor extraction operations. The work will be conducted under the supervision of Dr. Hal Westberg and Dr. Brian Lamb of the Department of Civil and Environmental Engineering.

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A draft of the Wellfield Evaluation Report is expected to be completed August 2, 1993.

Soil Gas Surveys

Passive soil gas sampling using Quadrel Service's EMFLUX technology began July 21, 1993. Sample collectors for the initial period of predicted minimal soil gas emissions (July 21-24, 1993) were emplaced and retrieved on schedule with no difficulties. These samples were shipped to Quadrel on July 26, 1993. Emplacement of the second group during a period of predicted maximum soil-gas emissions was completed on July 28, 1993. Retrieval is scheduled for July 31, 1993.

Groundwater Sampling

Vertical profiling of the unconfined aquifer in well 299-W15-6 by the 216-Z-9 Trench is scheduled for September 10, 1993. This well has a 170-ft-long perforated interval below the water table.

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200 WEST AREA CCL4 VAPOR EXTRACTION ERA
RESTART STRATEGY
Rev. 7/29/93

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.

<u>ACTION</u>	<u>TARGET DATE</u>	<u>ASSIGNEE</u>	<u>STATUS</u>
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 10-day update	7/17/93	Hagood	Complete
o Final occurrence reporting	7/30/93	Hagood	

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2. INCIDENT ANALYSIS

Rohay

o gather background information

- interview lead engineer 6/8/93 Johnson/Dippre Complete
- review procurement files 6/8/93 Dippre Complete
- discussions with vendors/consultants 7/2/93 Dippre Complete
- SRS event
 - collect/analyze data 6/11/93 Dippre Complete
 - followup with SRS 7/2/93 Dippre Complete
- review INEL safety analysis 7/30/93 Rohay
- confer with EPA contact 7/2/93 Cameron Complete
- hydrocarbon/ketone char. - wells
 - 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)
 - Sampling Analysis Form to HASM 6/18/93 Havenor Complete
 - Sampling Analysis Form Finalized 6/22/93 Havenor Complete
 - Job Hazard Analysis for airdry 6/21/93 Gale Complete
 - Air dry GAC 6/26/93 Gale Complete
 - Sampling 6/27/93 Gale Complete
 - inorganic/methane analysis at PNL 7/22/93 Swett Complete
 - organic analysis at HEHF 8/6/93 Cameron
- obtain fireman's report 6/8/93 Gale Complete
- provide references report 7/12/93 Dippre Complete
- provide background summary report
 - Rev. 0 6/14/93 Dippre Complete
 - Rev. 1 7/9/93 Dippre Complete

o analyze cause of occurrence

- heat balance scenarios
 - Rev. 0 6/18/93 Dengler Complete
 - Rev. 0 update 6/25/93 Dengler Complete
 - Rev. 1 6/30/93 Dengler Complete
 - Rev. 2 8/6/93 Dengler
- phosgene analysis
 - Rev. 0 7/7/93 Prinzing Complete
 - Rev. 1 TBD Prinzing
- thermogravimetric/calorimetric analysis 7/30/93 Peters
- GAC ignition tests (WSU) 8/6/93 Cameron
- Consult with GAC expert Dr. Hari Murty
 - onsite visit by Dr. Murty 7/26-30/93 Cameron
 - presentation by Dr. Murty 7/30/93 Cameron
- GAC physical and chemical props.
 - primary GAC center and margin samples
 - Sampling Analysis Form to HASM 6/18/93 Havenor Complete
 - Sampling Analysis Form Finalized 6/22/93 Havenor Complete
 - Job Hazard Analysis for airdry 6/21/93 Gale Complete
 - Air dry GAC 6/26/93 Gale Complete
 - Sampling 6/27/93 Gale Complete
 - inorganic/methane analysis at PNL 7/22/93 Swett Complete

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- organic analysis at HEHF 8/6/93 Cameron
- GAC analysis at Envirotrol 6/29/93 Gale Complete
- sample received at Envirotrol 7/2/93 Dippre Complete
- GAC water analysis
- Sampling Analysis Form to HASM 6/18/93 Havenor Complete
- Sampling Analysis Form Finalized 6/22/93 Havenor Complete
- Sampling 6/27/93 Havenor Complete
- Analysis 7/21/93 Havenor Complete
- GAC drummed water
- Treatment Plan to Indep. Safety 6/22/93 Havenor Complete
- Treatment 7/30/93 Gale
- coupon testing for GAC canister corros.
- coupons received 7/8/93 Cameron Complete
- testing completed 8/6/93 Cameron
- Gas Membrane Separations System
- Sample condensate 7/20/93 King Complete
- Analyze condensate 7/29/93 Rohay Complete
- provide summary analysis report
- Rev. 0 6/18/93 Dippre Complete
- Rev. 0 update 6/24/93 Dippre Complete
- Rev. 1 7/22/93 Dippre Complete
- o Priority Planning Grid (PPG) and "Root Cause" analysis Driggers
- determine PPG risk value 6/12/93 Galgoul Complete
- "Root Cause" Analysis
- kickoff meeting 6/14/93 Dieffenbacher Complete
- interviews 6/28/93 Dieffenbacher Complete
- final report 7/20/93 Dieffenbacher Complete
- o Unreviewed Safety Question (USQ) process Driggers
- USQ initial screening 6/11/93 Lehrscha1 Complete
- USQ evaluation 6/16/93 Lehrscha1 Complete
- hazards evaluation 6/24/93 Lehrscha1 Complete
- accident credibility determination 7/30/93 Lehrscha1
- accident scenario consequence analysis
- phosgene creation 7/30/93 Lehrscha1
- HCl production 7/30/93 Lehrscha1
- CO production 7/30/93 Lehrscha1
- controls/corrective actions determin. 7/30/93 Lehrscha1
- o Distribute incident information TBD Rohay
- Hanford
- VES operations at other DOE sites

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3. INTERIM RESTART STRATEGY FOR Z-1A/Z-18 Rohay
- o Determine interim corrective actions 7/15/93 Driggers Complete
 - o Provide Justification for Continued Operations (JCO)
 - determine basis for JCO 7/6/93 Driggers Complete
 - draft JCO 7/12/93 Driggers Complete
 - JCO review 7/13/93 Driggers Complete
 - presentation to WHC level 2 management 7/16/93 Johnson Complete
 - JCO approval 7/30/93* Hagood
 - o Develop Readiness Checklist 7/30/93 Driggers
 - o Revise controlling documents
 - Pre-fire plan 6/17/93 Tuttle Complete
 - field operating procedures 8/13/93 Driggers
 - HWOP 8/13/93 Tuttle
 - SAD 8/13/93 Lehrschall
 - o Brief DOE-RL on restart operations 8/26/93* Rohay
 - o Brief regulators on restart operations 8/30/93* Rohay
 - o Pre-job Safety Meeting 8/30/93 Tuttle
 - o Z-1A/Z-18 VES Startup (1000 cfm) 8/31/93* Gale

4. INTERIM RESTART STRATEGY FOR Z-9 Rohay
- o Determine interim corrective actions Driggers
 - o Provide Justification for Continued Operations (JCO)
 - determine basis for JCO Driggers
 - JCO review Driggers
 - presentation to WHC level 2 management Johnson
 - JCO approval Driggers
 - o Develop Readiness Checklist Driggers
 - o Revise controlling documents
 - TI-010 Driggers
 - operating procedures Driggers
 - HWOP Tuttle
 - SAD Lehrschall
 - o Brief DOE-RL on restart operations Rohay
 - o Brief regulators on restart operations Rohay
 - o Pre-job Safety Meeting Tuttle
 - o Z-9 VES Startup (1500 cfm, 500 cfm) Gale

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5. UPGRADED VES OPERATIONS

Rohay

o Evaluate potential system design/
engineering controls

Driggers/ERA team

- provide airflow through GAC canisters at shutdown to remove heat
- prewet GAC before adsorption operations
- install thermocouple trees
 - deliver clean GAC to 306 building 6/16/93 Gale Complete
 - site visit by 306 bldg. staff 6/22/93 Gale Complete
 - develop and fabricate 6/25/93 Gale Complete
 - initial testing 6/28/93 Gale Complete
 - followup testing 7/23/93 Peters Complete
- install carbon monoxide monitors downstream of GACs to detect combustion Fisler
- install HCl monitors Fisler
- limit total carbon tetrachloride loading to reduce heat buildup
- internal GAC water shower
- 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 Evaluate Alternative Treatments

- install off-the-shelf condenser to reduce carbon tetrachloride loading on GAC
 - determine cost/technical feasibility of off-the-shelf condenser 7/30/93 Cameron
 - check WHC excess list 8/6/93 Smearman
 - procure and install condenser Gale/Driggers
 - recycle condensed carbon tet Driggers/Cameron
 - convert condensate to TCA and recycle Driggers/Cameron
 - load condensate into GAC/ship offsite Rohay
- install catalytic oxidation unit
- use different GAC material
- establish onsite treatment

o Impact on existing GAC contract

o Procurement/delivery of equipment

TBD

Gale

o Equipment installation

TBD

Gale

o Determine regulatory constraints on system

TBD

Cameron

o Revision of controlling documents

TBD

- TI-010
- Safety Analysis
- HWOP
- operating procedures

Driggers
Lehrschall
Tuttle
Driggers

o Safety Meeting

TBD

Tuttle

o Brief DOE-RL

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.

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