

# START

## MEETING MINUTES

Subject: Expedited Response Action Weekly Interface

TO: Distribution

BUILDING: 740 Stevens Center

FROM: W. L. Johnson

CHAIRMAN: F. W. Gustafson *[Signature]*

Dept-Operation-Component	Area	Shift	Meeting Dates	Number Attending
Environmental Engineering	RCHN	Day	June 7, 1993	15

### Distribution

State of Washington Department of Ecology

- J. Donnelly
- L. Goldstein
- D. Goswami\*
- R. L. Hibbard
- J. Phillips\*
- D. D. Teel
- N. Uziemblo\*
- J. Yokel
- T. Wooley\*

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
- S. L. Bradley\* B3-64
- H. D. Downey H6-27
- S. A. Driggers\* H6-04
- F. W. Gustafson\* H6-04
- M. C. Hagood\* H6-04
- W. F. Heine B3-63
- G. C. Henckel H6-04
- W. L. Johnson H6-04
- C. L. Manley\* H6-04
- J. K. Patterson H6-27
- V. J. Rohay\* H6-06
- R. C. Roos\* H6-04
- D. L. Sickle H6-27
- T. M. Wintczak H6-27
- EDMC H6-08
- ERAG Route H6-04
- GCH File

U.S. Army Corps of Engineers

- Walter Perro\* A3-61

U.S. Department of Energy, Richland Field Office

- 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
- David Olson\*
- P. M. Pak A5-19
- C. R. Pasternak\* A7-27
- R. K. Stewart A5-19

Ebaeco

- R. Cameron\*



### \*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. In addition, Mr. Charles Pasternak (RL) discussed real estate land transfer issues associated with the North Slope and Arid Land Ecology Reserve.

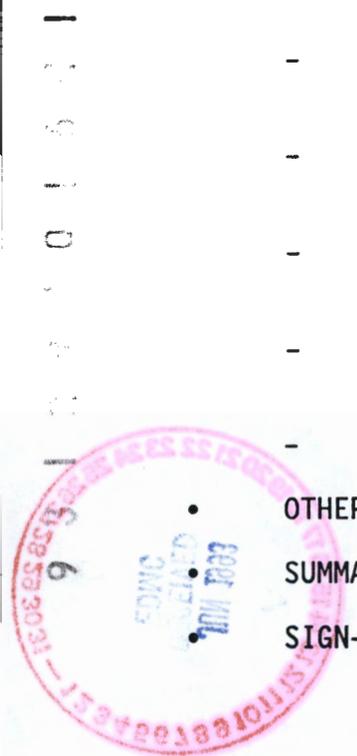
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WEEKLY ERA INTERFACE AGENDA

SUBJECT: STATUS OF THE EXPEDITED RESPONSE ACTIONS

DATE: June 7, 1993

- GENERAL ISSUES
  - ERA Interface Action Item review
- INDIVIDUAL PROJECT STATUS
  - Riverland
    - o Proposal Status
  - Sodium Dichromate
    - o Waste Disposal
  - Pickling Acid Crib
    - o Developing ERA Proposal
  - N-Springs
    - o Draft Proposal Comments
  - North Slope
    - o Developing ERA Proposal
  - 200-W Carbon Tetrachloride
    - o Vapor Extraction Operations
  - 618-11
- OTHER ISSUES
  - SUMMARY OF ACTION ITEMS
  - SIGN-OFF ON ANY DECISIONS, AGREEMENTS, OR COMMITMENTS



Distribution  
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June 7, 1993

Attachments:

1. Agenda
2. Action Item List
3. Decisions, Agreements & Commitments
4. Expedited Response Action Weekly Reports, week ending 05/28/93 & 06/04/93
5. 200 West Area Carbon Tetrachloride Off-Normal Event Report
6. Map of Public Domain/U.S. Bureau of Reclamation

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EXPEDITED RESPONSE ACTION INTERFACE MEETING

-ACTION ITEMS-  
June 7, 1993

ORGANIZATION

ACTION ITEM

WHC

618-11 schedule for application of herbicides.  
(closed)

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EXPEDITED RESPONSE ACTION INTERFACE MEETING

-DECISIONS, AGREEMENTS, & COMMITMENTS-  
June 7, 1993

DECISIONS:

*None*

AGREEMENTS:

*None*

COMMITMENTS:

*None*

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RL Representative

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EPA Representative

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Ecology Representative

*[Signature]*  
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WHC Representative

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Weekly Report, Period Ending May 28, 1993  
EXPEDITED RESPONSE ACTIONS  
Technical and Management Contact - Wayne L. Johnson, 376-1721  
Environmental Division

North Slope Expedited Response Action - A draft of the ERA Proposal has been prepared. The proposal is being processed for a concurrent DOE, WHC review. The Cultural Resource Review is three months behind schedule and will be completed by September 30, 1993.

N-Springs Expedited Response Action - The ERA Proposal has been provided to RL for review. Preliminary comments from RL and HQ were received on May 21, 1993. These comments are being evaluated. Awaiting transmittal of formal comments prior to making any dispositions.

618-11 Burial Ground Expedited Response Action - The U.S. Army Corps of Engineers presented information about movable airform structures. These may have a potential use in some operations requiring large containment structures. Work on the rough draft for the 618-11 ERA Proposal is continuing. Attended Monday's demonstration of robotic vehicles at the 300 Area High Bay.

White Bluffs Pickling Acid Crib Expedited Response Action - The draft ERA proposal will be issued four weeks early for preliminary review. The final validated data report will be added before the document is sent for public review. Current schedule to receive draft validated data report is May 28, 1993. Public review is scheduled for early July.

Riverland Expedited Response Action - The Riverland ERA Proposal is being commented on by the public until June 9, 1993.

Sodium Dichromate Expedited Response Action - The final assessment report is being drafted. Grass is coming up at the Sodium Dichromate ERA site. Solid Waste Engineering is designating the waste for final disposal which should take about a month.

200 West Area Carbon Tetrachloride Expedited Response Action

1. CCL<sub>4</sub> ERA

A. Vapor Extraction System (VES) Operations

**500 cfm VES Operations at 216-Z-9** - The vendor sent a new sheave to correct flow problems. The new sheave was installed on May 26, 1993. The VES is expected to be fully operational and extracting from well W15-216 by Thursday, May 27, 1993.

**1500 cfm VES Operations** - The 1500 cfm VES was down this week for the vendor to correct outstanding acceptance items. One of the 500 cfm blowers is being repaired under warranty. The unit will temporarily have 1000 cfm extracting capacity. The system is expected to restart extraction operations by May 28, 1993.

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**216-Z-1A VES Upgrade to 1000 cfm** - The upgraded unit continues to operate 24 hours/day for five days/week. Thermocouples were installed May 25, 1993, for monitoring air temperatures to determine the cooling efficiency of the heat exchangers. This VES continues to extract from 10 wells.

WEEKLY CCL <sub>4</sub> EXTRACTION TABLE					
Operational Date	Extraction System	Amount of CCl <sub>4</sub> Removed	Conc. Range (high-low) (ppm)	Total Operational Time (hrs)	Flowrate Range (high-low) (scfm)
Week of 5/19 - 5/25	500 cfm	0	-	0	-
	1000 cfm	326 lb (148 kg)	218 - 261	76.5	721 - 745
	1500 cfm	0	-	0	-
Total 1993		7160 lb (3248 kg)			
Total 1992		2111 lb (958 kg)			
TOTAL		9271 lb (4205 kg)			

**Granular Activated Carbon (GAC) canisters** - An inventory of the 41 GAC canisters in use at the 200 West Area CCl<sub>4</sub> ERA has been completed and the results indicate the following: 19 canisters are ready for shipment, 15 canisters remain on-line, and 7 canisters remain un-used. Five of the un-used canisters are available for future use on the active vapor extraction systems; one is damaged and one is being used for passive vapor extraction work.

**B. Well Field Design**

**Wellfield Design** - Drilling of vapor extraction well 299-W15-219, northwest of 216-Z-9, has reached a depth of 211 ft. and groundwater sampling and gamma logging had been completed.

Drilling of vapor extraction well 299-W15-220 east of 216-Z-9 is expected to begin June 1, 1993.

Vapor extraction well 299-W18-252, is to a depth of 148 ft.

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Cone penetrometer (CPT) well installation began May 3, 1993. Vapor extraction well (CPT-12) was installed southeast of the 216-Z-9 Trench. The screened interval, constructed of holes drilled in the CPT rod, will be compared to the extraction well CPT-8 which has a screened interval of sintered polyethylene. The field crew are off the week of May 24, 1993, but will resume activities June 1, 1993.

Data collection continues at the wellhead monitoring systems installed on wells 299-W18-6, W18-7, W18-248, 299-W18-249, W15-218, and W18-246. The wells are instrumented to measure temperatures, wind speed, pressure, humidity, and air flow, and to record these measurements on a data logger. In addition, a chemical sensor is used to collect carbon tetrachloride concentration data at well 299-W15-218 over the weekends.

Modifications have begun on a HEPA vacuum to be utilized in wellfield characterization. The critical item now appears to be procurement of two 400 lb. GACs.

**Baseline Monitoring** - Farfield monitoring was performed on May 12, 1993, May 13, 1993, and May 19, 1993. A total of 110 wells north and east of the ERA site have been sampled. The only well that had detectable Volatile Organic Compound (VOCs) (11 ppm) was an unnumbered well (possibly 299-W15-204) near the 216-Z-17 crib. Farfield monitoring will continue as time and established criteria (barometric pressure below 29.0 in Hg) allow.

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EXPEDITED RESPONSE ACTIONS  
Technical and Management Contact - Wayne L. Johnson, 376-1721  
Environmental Division

North Slope Expedited Response Action - A draft of the ERA Proposal has been prepared. The proposal is being processed for a concurrent DOE, WHC review.

N-Springs Expedited Response Action - The ERA Proposal has been provided to RL for review. Preliminary comments from RL and HQ were received on May 21, 1993. These comments are being evaluated. Awaiting transmittal of formal comments prior to making any dispositions.

618-11 Burial Ground Expedited Response Action - The U.S. Army Corps of Engineers presented information about movable airform structures. These may have a potential use in some operations requiring large containment structures. Work on the rough draft for the 618-11 ERA Proposal is continuing. Attended Monday's demonstration of robotic vehicles at the 300 Area High Bay.

A field survey of threatened and endangered species was completed June 1, 1993. Results will be documented and distributed.

White Bluffs Pickling Acid Crib Expedited Response Action - The draft ERA proposal was issued four weeks early for preliminary review. The final validated data report will be added before the document is sent for public review. Current schedule to receive draft validated data report is May 28, 1993. Public review is scheduled for early July.

Riverland Expedited Response Action - The public comments on the proposal are tentatively due to the EPA on June 9, 1993.

Sodium Dichromate Expedited Response Action - The final assessment report is being drafted. Solid Waste Engineering is designating the waste for final disposal which should take about a month.

200 West Area Carbon Tetrachloride Expedited Response Action

CCL<sub>4</sub> ERA

A. Vapor Extraction System (VES) Operations

**500 cfm VES Operations at 216-Z-9** - The 500 cfm VES unit began characterization of well 299-W15-216 on Thursday, May 27, 1993. The initial flows and concentrations from this well were 420 cfm and 1100 ppm CCl<sub>4</sub>, respectively. On June 1, 1993, extractions included incorporating cone penetrometer test (CPT) well number 12, along with both intervals of well W15-216.

**1500 cfm VES Operations** - Overheating of a primary granular activated carbon (GAC) canister at the 1500 cfm vapor extraction system (VES) unit occurred on June 3, 1993, resulting in the immediate shut down of the 1500 cfm VES. The other VES units have been shutdown until the issue can be

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resolved. Furthermore, an "off-normal" occurrence report is being completed at this time. At the time of the shutdown, the 1500 cfm unit had been extracting for two hours at 28,000 - 30,000 ppm and 250 cfm. At 12:20 pm, a discoloration was observed on the painted exterior surface of the primary GAC by the staff operating the system. Emergency procedures were implemented. The fire department sprayed water on the canister to cool it down and later returned to fill the canister with water as heat generation continued. It is suspected that the high heat was a result of the heat of absorption created by the high flux of carbon tetrachloride (CCl<sub>4</sub>) and the canister's inability to dissipate that heat.

1000 cfm VES Operations (216-Z-1A) - The 1000 cfm unit at 216-Z-1A experienced shut downs due to high airstream temperature on the second blower train. A plugged filter was determined to be the cause. The filter was removed, and the system resumed routine operations. On June 1, 1993, characterization tests were conducted of all of the wells equipped for vapor extraction in the 216-Z-1A area.

On-line Continuous CCl<sub>4</sub> Monitor - Significant progress is being made to incorporate the new on-line continuous CCl<sub>4</sub> monitors for the VES units. This will eliminate manual sampling of the vapor streams for CCl<sub>4</sub> emissions compliance.

WEEKLY CCL <sub>4</sub> EXTRACTION TABLE					
Operational Date	Extraction System	Amount of CCl <sub>4</sub> Removed	Conc. Range (high-low) (ppm)	Total Operational Time (hrs)	Flowrate Range (high-low) (scfm)
Week of 5/26 - 6/1	500 cfm	118 lb (54 kg)	1000-50	18.0	420 avg.
	1000 cfm	115 lb (52 kg)	222-259	28.0	740-657
	1500 cfm	0	81	1.0	55 avg.
Total 1993		7393 lb (3353 kg)			
Total 1992		2111 lb (958 kg)			
TOTAL		9504 lb (4311 kg)			

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## 200 West Area Carbon Tetrachloride Off-Normal Event

On June 3, 1993, at approximately 12:20 p.m., the staff at the 200 West Area Carbon Tetrachloride ( $\text{CCl}_4$ ) site noticed the outside of a granulated activated carbon (GAC) canister was overheating and implemented emergency procedures. This is a summary of the conditions at the site.

- All three vapor extraction (VES) units were operating at the site.
- The large 1500 cfm unit had been operating for two hours at about 250 cfm and 28,000 to 30,000 ppm of  $\text{CCl}_4$ . The GAC canister which overheated was associated with the large 1500 cfm VES unit, located at the 216-Z-9 site. The canister contained about 330 lbs. of  $\text{CCl}_4$ .
- There are three GAC canister hooked up in series for this unit. The primary or first canister takes the bulk of the  $\text{CCl}_4$  loading and the remaining two canisters act to polish the air stream before it's discharged. At 12:20 p.m., discoloration was observed on the painted exterior surface of the primary canister by Environmental Division personnel operating the system. Emergency procedures were implemented. The 1500 cfm unit was shut down. The fire department was called and personnel at PFP were alerted. There was no smoke, no fire, no releases, and no injuries. Stack discharges were within allowable limits during operation of the system. Operations were within the Operational Safety Limits.
- All other VES units were shut down.
- The fire department responded with the HAZMAT team and sprayed water on the canister to cool it down and later returned (at 5 p.m.) to fill the canister with water as heat generation continued after the fire department left. During the fire department's actions to fill the GAC with water, they utilized necessary personnel protective equipment, including self-contained breathing air. The site Safety Officer monitored the breathing zone for  $\text{CCl}_4$  and no detectable readings were observed. Emergency response actions appeared to go very well by all participants.
- The 1500 cfm unit was pulling the highest flux (mass per unit time) of  $\text{CCl}_4$  that had ever been attempted at the  $\text{CCl}_4$  site. The operating conditions were within the manufacturer's specifications. This VES unit was being used to conduct characterization tests of the well field. This was part of the planned tests. Up until this time, the highest flux of  $\text{CCl}_4$  was 24,000 ppm  $\text{CCl}_4$  @ 150 cfm for a seven-hour period with no adverse effects to the canisters.
- Our current theory is that the high heat was a result of the heat of absorption created by the high flux of  $\text{CCl}_4$  and the canisters inability to dissipate the heat.

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- The U.S. Environmental Protection Agency and State of Washington Department of Ecology (Ecology) were notified by 3 p.m. Ecology is satisfied at this point, given this information is accurate, that no releases occurred during the event.
- This is considered an off-normal event. Paperwork will be submitted within the required 24 hours.

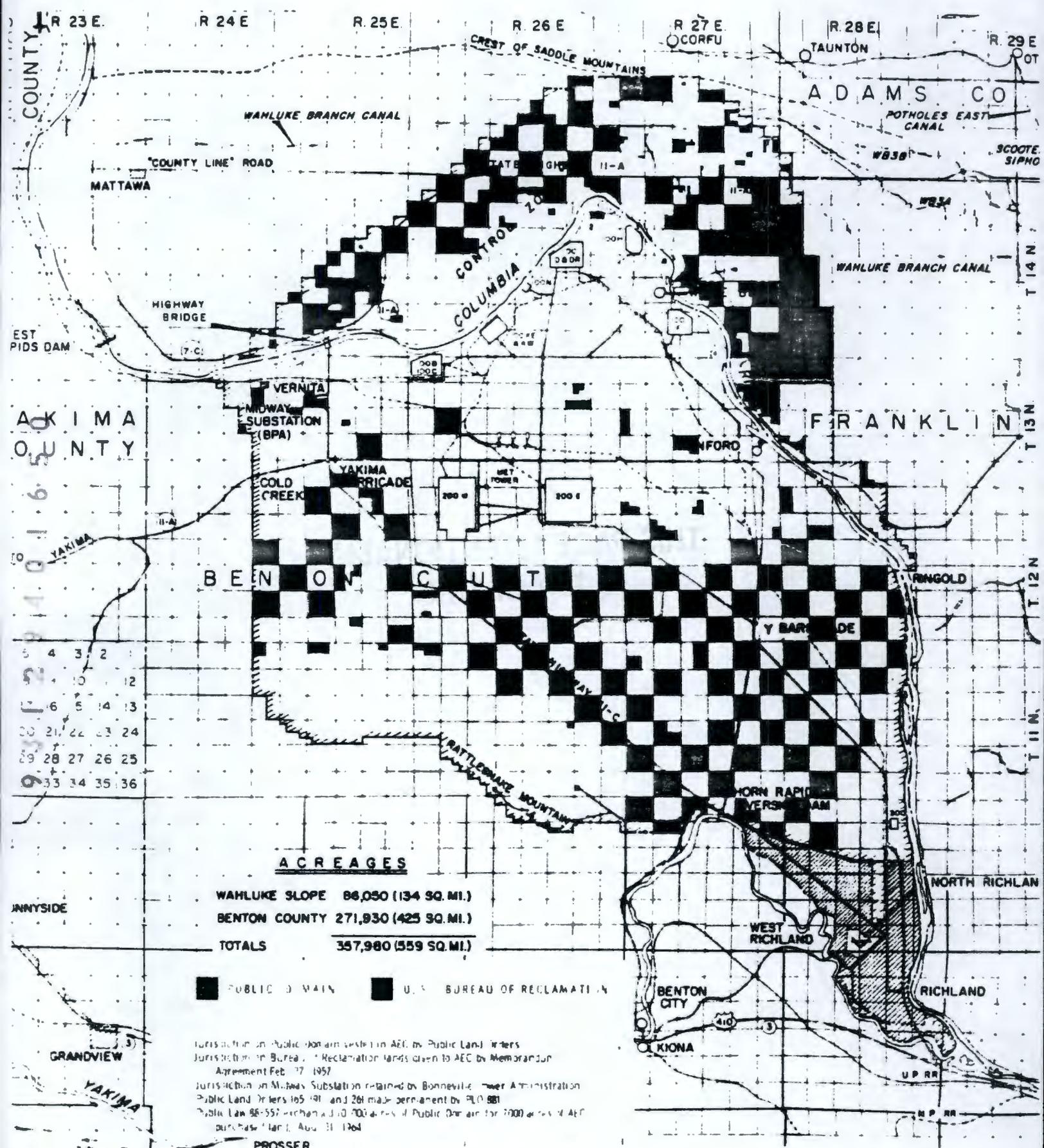
All three units remain shut down. Operations will remain suspended until an analysis of the cause is completed.

A plan for restart is being developed.

#####

Rick Wojtasek  
6/4/93

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